Electronic Filing: Received, Clerk's Office 04/19/2023 C000001

September 16, 2022

VIA PERSONAL DELIVERY

Ruben Pineda, City Mayor
City of West Chicago
c/o Clerk of City of West Chicago
475 Main Street
West Chicago, Illinois 60185

Dear City Clerk, Mayor Ruben Pineda and the City Council:

Lakeshore Recycling Systems, LLC, with this letter of transfer, files an Application for Site Location for the West DuPage Recycling and Transfer Station (Application) located at 1655 Powis Road in West Chicago. The Application is being filed in accordance with Section 39.2 of the Illinois Environmental Protection Act, which establishes procedures for pollution control facility siting, and Article VII of the City of West Chicago's Code of Ordinances (Ordinance), which provides procedures for pollution control facility siting within West Chicago's jurisdiction. In accordance with the Ordinance, four hard copies (one original and three copies) and thirty electronic copies (USB flash drive) of the Application are being submitted.

With this Application, we also enclose a cashier's check payable to the City of West Chicago in the amount of $100,000 in payment of the required filing fee for this Application. We look forward to working with the City of West Chicago as we proceed to hearing and decision in this matter.

Very truly yours,

LAKESHORE RECYCLING SYSTEMS, LLC

Richard Golf
Managing Partner

CHASE

Terms and Conditions (Remitter and Payee):

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* The laws of a specific state will consider these funds to be "abandoned" if the Cashier's Check is not cashed by a certain time
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9411045990

09/07/2022

Void after 7 years

Remitter: LRS HOLDINGS, LLC

$** 100,000.00 **

Pay To The Order Of: CITY OF WEST CHICAGO

Drawer: **JPMORGAN CHASE BANK, N.A.**

NON NEGOTIABLE

Memo:----------

Note: For information only. Comment has no effect on bank's payment.

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HOLD DOCUMENT AT ANGLE TO VIEW ARTIFICIAL WATERMARK ON BACK

CASHIER'S CHECK

HOLD DOCUMENT AT ANGLE TO VIEW ARTIFICIAL WATERMARK ON BACK

9411045990 25-3 440

CHASE

Date 09/07/2022 Void after 7 years

Remitter: LRS HOLDINGS, LLC

Pay To The Order Of: CITY OF WEST CHICAGO

VOID

Pay: ONE HUNDRED THOUSAND DOLLARS AND 00 CENTS

$** 100,000.00 **

Do not write outside this box

Memo:----------

Note: For information only. Comment has no effect on bank's payment.

Drawer: **JPMORGAN CHASE BANK, N.A.**

Rebecca Griffin

Rebecca Griffin, Chief Administrative Officer
JPMorgan Chase Bank, N.A.
Columbus, OH

Security Features Details on Back

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APPLICATION FOR LOCAL SITING APPROVAL

WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS
DUPAGE COUNTY

Prepared For:
LAKESHORE RECYCLING SYSTEMS, LLC

Prepared By:
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
NAPERVILLE, ILLINOIS

CEC Project 163-899

AUGUST 2022

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EXECUTIVE SUMMARY

This Application for Local Siting Approval (Application) for the West DuPage Recycling and Transfer Station (West DuPage RTS) is being filed in accordance with the provisions of state law, specifically Section 39.2 of the Illinois Environmental Protection Act, 415 ILCS 5/39.2 (Act). The information presented in this Application will be the subject of testimony at public hearing before the City of West Chicago City Council (City Council). The purpose of the public hearing is to provide an opportunity for the public to comment on the application, and for the applicant to demonstrate to the City Council that the factors set forth in Section 39.2 of the Act are met.

The Applicant

This Application is filed by Lakeshore Recycling Systems, LLC (LRS). For approximately twenty years, LRS has provided recycling and 100% waste diversion programs, affordable roll-off container service, on-site storage, portable restrooms, street sweepers, and comprehensive waste removal to businesses and homeowners. LRS is the leading independent provider of recycling, diversion and non-hazardous, solid waste management services, as well as other community services (sweeping and portable restrooms) across the Chicagoland area. LRS differentiates itself through aggressive and innovative diversion and recycling programs, technology advances, exceptional customer service and strong awareness for the environment with the goal of diverting as much waste as possible. LRS operates approximately ten strategically located MSW transfer stations and/or construction or demolition (C&D) recycling and transfer facilities in Illinois and Wisconsin, and operates a single-stream sorting facility with state-of-the-art technology in Forest View.

West DuPage Recycling and Transfer Station

The West DuPage RTS is located on approximately 27.66-acre parcel located at 1655 Powis Road, West Chicago, DuPage County, Illinois. LRS currently operates a permitted C&D recycling facility and performs other operations that support its overall business at the site. Most of the infrastructure, personnel, and systems required to appropriately operate the West DuPage RTS are already present at the site. As proposed, West DuPage RTS will also perform the following operations:

- Receipt and transfer of non-hazardous municipal solid wastes (referred to as "MSW" or more generally as "solid waste");
- Receipt, solidification, and transfer of hydro excavation wastes;
- Receipt and transfer of single-stream recyclables (referred to as "SSR" or more generally as "recyclables");

- Drop-off area for West Chicago residents' electrical/electronic devices; and
- Drop-off area for recyclables generated by residents and small businesses.

If siting and permitting are achieved, the West DuPage RTS is expected to be operational in 2024 and have an operational life of a minimum of twenty years. West DuPage RTS is anticipated to accept up to 1,950 tons per day of which up to 650 tons per day may be MSW, up to 300 tons per day may be hydro excavation wastes, up to 750 tons per day may be C&D and up to 250 tons per day may be SSR. Only wastes allowed by the Illinois Environmental Protection Agency (IEPA) will be accepted. No disposal of waste will occur at the site.

Regulatory Approval for Illinois MSW Transfer Stations: A Two-Step Process

The Act provides a two-step approval process for the development of MSW transfer stations in Illinois: local siting and IEPA permitting.

Local Siting

This Application initiates the first step, which is local siting approval. In promulgating the local siting provisions of the Act, the legislature created a local approval process for pollution control facility siting, including MSW transfer stations such as West DuPage RTS. The process takes the place of local zoning, and requires the local governing authority (here the City of West Chicago City Council) to apply certain statutory criteria to its decision, which must be made in writing and which can only be made after a fair public hearing where the applicant and other persons are afforded the right to participate. Those who participate, including the applicant, are also afforded the right to appeal the local government decision to the Illinois Pollution Control Board.

IEPA Permitting

The second step is the IEPA permitting process. IEPA permitting is required prior to operation of West DuPage RTS, and LRS cannot apply for IEPA permitting until the local siting discussed above is granted. Upon local authorization, LRS will immediately file an application for an IEPA permit and that application will undergo a rigorous technical review by qualified IEPA engineers, for the purpose of ensuring protection of the environment and compliance with all applicable laws and regulations.

The Application

This Application presents the information necessary for the City of West Chicago City Council (City Council) to evaluate the nine statutory criteria, as those criteria relate to West DuPage RTS. At the hearing, the applicants will present this information through testimony of environmental

experts and other professionals who will be prepared to answer questions posed by the City Council, City of West Chicago staff, or the public. The applicants have presented the information contained in this Application for Local Siting Approval in a way that is responsive to Article VII of the City of West Chicago's Code of Ordinances, which establishes procedures for pollution control facility siting, and the Act.

The application addresses all criteria required for local consideration under the Illinois Environmental Protection Act. A criteria- by-criteria synopsis follows. (As West DuPage RTS is not a hazardous waste landfill, Criterion 7 is not applicable.)

Criterion 1: West DuPage RTS is necessary to accommodate the waste needs of the area it is intended to serve.

The Act requires that the City Council evaluate whether West DuPage RTS is necessary to accommodate the waste needs of the service area, as defined by the applicants. The applicants have identified a service area that includes the majority of DuPage County and adjacent townships in Kane and Will Counties.

Information provided demonstrates that:

- The West DuPage RTS will increase competition and available transfer capacity in the service area, which has been clearly recognized to help control price increases and maintain a high quality of service in both the residential and commercial sectors.
- The West DuPage RTS will provide a conveniently located facility to manage hydro excavation wastes, which will result in significant transportation efficiencies.
- The West DuPage RTS will provide additional operational flexibility for the service area through extended operating hours.
- The West DuPage RTS will provide direct benefits to the City of West Chicago as detailed in the Host Community Benefit Agreement with West Chicago.
- The West DuPage RTS will provide direct benefits to DuPage County as detailed in the Secondary Host Community Benefit Agreement with DuPage County.
- The West DuPage RTS will facilitate recycling in the service area by expanding it service offerings and allowing additional investments in site infrastructure and operational improvements.
- The West DuPage RTS will reduce environmental impacts to the City of West Chicago and the area by decreasing the travel distance of its collection vehicle fleet.
- Waste quantities in the service area are projected to increase in the future as a result of the continued population and employment growth.

For the reasons cited above, West DuPage RTS meets the requirements of Criterion 1, as it is "necessary to accommodate the waste needs of the area it is intended to serve".

Criterion 2: West DuPage RTS will be so designed, located, and proposed to be operated that the public health, safety, and welfare will be protected.

The Act requires that the City Council evaluate whether West DuPage RTS is designed, located, and proposed to be operated so that the public health, safety, and welfare will be protected. The development of the West DuPage includes the following:

- Conversion of the expanded C&D expansion building to an MSW and SSR transfer building;
- Integration of the C&D recycling and transfer operations with the MSW transfer operations;
- Construction of mixing pits and a building for solidification of hydro excavation wastes (hydro excavation waste building);
- Installation of a second scale;
- Use of northern driveway for the exiting of vehicles; and
- Establishment of drop off area for electronic wastes and recyclables.

Information provided demonstrates the West DuPage RTS meets all required location standards, and is designed and will be operated to meet all IEPA requirements.

Criterion 3: West DuPage RTS is located as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property.

The Act requires that the City Council evaluate whether West DuPage RTS will be located as to minimize incompatibility with the character of the surrounding area and as to minimize the effect on the value of surrounding properties. To demonstrate compliance with this criterion, the applicants retained Associated Property Counselors, Ltd. (APC) to complete a study of the proposed West DuPage RTS. APC is an experienced firm qualified to evaluate these land use and property-related issues.

APC determined that the West DuPage RTS is located in an historic industrial area that is well buffered from surrounding areas through man-made boundaries. These man-made boundaries effectively minimize any influences the West DuPage RTS have on properties located outside of the area. These factors clearly demonstrate that the West DuPage RTS minimizes incompatibility with the character of the surrounding area.

APC also determined that the West DuPage RTS is the highest and best use of the subject property, as improved. APC concludes that, because the proposed use is very consistent with the current and planned uses in the subject area and meets the criteria for highest and best use, the impact the West DuPage RTS will have on adjacent and nearby property values is minimized.

Criterion 4: West DuPage RTS is located outside the boundary of the 100-year floodplain or is flood-proofed.

The Illinois Environmental Protection Act requires that MSW transfer stations, like West DuPage RTS, be located outside the boundary of the 100-year floodplain or be flood-proofed. The 100-year floodplain can be determined from Federal Emergency Management Area maps and related information. The proposed buildings and associated operations are located well above and distant from a small area (approximately 0.05 acres) of the site that was determined to be within the floodplain. As such, the West DuPage RTS is not located within the 100-year floodplain or is flood-proofed.

Criterion 5: The plan of operation for West DuPage RTS is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents.

The Act requires that the City Council evaluate whether West DuPage RTS will operate pursuant to an operational plan that is designed to minimize the dangers related to potential fires, spills, or other operational accidents. West DuPage RTS will operate pursuant to an incident prevention and response plan that covers all of those elements and more.

Criterion 6: The traffic patterns to or from West DuPage RTS are designed to minimize the impact on existing traffic flows.

The Act requires that the City Council evaluate whether traffic patterns to and from West DuPage RTS have been designed as to minimize any impact on existing traffic flows. Currently, the southern driveway at the site is used for both incoming and outgoing vehicles, and the northern driveway is unused. The southern access drive is proposed to be used only for incoming vehicles, and the northern driveway is proposed to be used for outgoing vehicles. In addition, improvements are proposed to Powis Road and the both access driveways.

To demonstrate compliance with this criterion, the applicants retained Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA). KLOA determined that, as proposed, the site will have adequate access drives, and the surrounding roadways and intersections have more than adequate capacity to accommodate the traffic generated by West DuPage RTS. Hence, KLOA concluded that traffic patterns to and from West DuPage RTS have been designed to minimize any impact on existing traffic flow.

Criterion 8: West DuPage RTS is consistent with the DuPage County Solid Waste Management Plan.

The Act requires that where a county solid waste plan (County Plan) is in effect in a county (as it is in DuPage County), any proposed MSW transfer station must be consistent with the County Plan. To demonstrate compliance with this criterion, a report is provided which summarizes the relevant information in the most recent DuPage County Solid Waste Management Plan and concludes that West DuPage RTS is consistent with the County Plan.

Criterion 9: If West DuPage RTS will be located within a regulated recharge area, any applicable Illinois Pollution Control Board requirements will be followed.

Only one regulated recharge area has been established in Illinois as of the date of this report, which is the Pleasant Valley Public Water District located in Peoria County. West DuPage RTS is not located within a regulated recharge area, as defined by the Act.

Closing

The applicants are confident that this Application, and the testimony provided at the siting hearing, will demonstrate to the City Council that West DuPage RTS meets the statutory criteria and that siting approval should be granted.

CRITERION 1:

“the facility is necessary to accommodate the waste needs of the area it is intended to serve”
415 ILCS 5/39.2(a)(i)

CRITERION 1:
THE FACILITY IS NECESSARY TO ACCOMMODATE THE WASTE NEEDS OF THE SERVICE AREA

The Illinois Environmental Protection Act, at 415 ILCS 5/39.2 (a)(i), requires that an applicant for a transfer station siting demonstrate that the proposed facility is necessary to accommodate the waste needs of the area it is intended to serve. This report demonstrates that the proposed Lakeshore Recycling Systems, LLC West DuPage Recycling and Transfer Station is necessary to accommodate the waste needs of the area it is intended to serve.

Prepared for:

LAKESHORE RECYCLING SYSTEMS, LLC
WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS
DUPAGE COUNTY

Prepared by:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
NAPERVILLE, ILLINOIS

CEC Project 163-899

AUGUST 2022

1.0 INTRODUCTION

The Illinois Environmental Protection Act requires that a pollution control facility (in this case a transfer station) be necessary to accommodate the waste needs of the area it is intended to serve. This report defines the area that the proposed Lakeshore Recycling Systems, LLC (LRS) West DuPage Recycling and Transfer Station (West DuPage RTS) is intended to serve, and demonstrates that the proposed West DuPage RTS is necessary to accommodate the waste needs of its service area.

1.1 WEST DUPAGE RTS

The West DuPage RTS is located on an approximately 27.66-acre parcel located at 1655 Powis Road, West Chicago, DuPage County, Illinois (site). LRS currently operates a permitted solid waste management facility [Permit No. 2015-124-OP] that receives, sorts/separates, transfers, and recycles construction or demolition debris (C&D) on approximately 6.11 acres of the site (C&D Recycling Facility). The C&D Recycling Facility is shown on Drawing C100 and includes the site entrance, the scale, the C&D transfer/screening building, the C&D sorting line building, and storage bunkers.

The site also includes an office, maintenance building, parking areas, additional hard surfaced areas, access controls, utilities, outdoor lighting, and a stormwater control system. As such, LRS currently performs other operations at the site, which support its overall business. In addition, most of the infrastructure, personnel, and systems required to appropriately operate the West DuPage RTS are already present at the site. In summary, LRS currently conducts the following operations at the site:

- Receipt, sorting/separation, recycling and transfer of up to an annualized average of 1,250 tons per day of C&D;
- Staging and removal of recyclable materials;
- Mulch production and sales from recycled wood;
- Parking and maintenance of waste collection vehicles;
- Parking and maintenance of street sweepers;
- Parking and maintenance of portable restroom transportation vehicles;
- Staging and maintenance of containers, totes and portable restrooms; and
- Dispatch and customer service (call center).

As proposed, West DuPage RTS will also perform the following operations:

- Receipt and transfer of up to 650 tons per day of non-hazardous municipal solid wastes (referred to as municipal solid waste or “MSW” or more generally as solid waste);
- Receipt, solidification and transfer of up to 300 tons per day of hydro excavation wastes;
- Receipt and transfer of up to 250 tons per day of single-stream recyclables (referred to as “SSR” or more generally as “recyclables”);
- Drop-off area for West Chicago residents of electrical/electronic devices; and
- Drop-off area for recyclables generated by residents and small businesses.

Incoming materials will be delivered to the proposed transfer station by LRS and other haulers. Based on historical acceptance volumes, the West DuPage RTS proposes to lower the maximum

acceptance amount of C&D from 1,250 tons per day to 750 tons per day. The maximum material acceptance amounts for MSW, hydro excavation wastes and SSR are based on the internalization of the materials currently hauled by LRS, potential diversion of materials from other haulers, reasonable growth projections and a contingency to account for peak days.

As demonstrated in this report, the proposed transfer station is necessary to accommodate the waste needs of its intended service area. This conclusion is supported by the following:

- The West DuPage RTS will increase competition and available transfer capacity in the service area, which has been clearly recognized to help control price increases and maintain a high quality of service in both the residential and commercial sectors.
- The West DuPage RTS will provide a conveniently located facility to manage hydro excavation wastes, which will result in significant transportation efficiencies.
- The West DuPage RTS will provide additional operational flexibility for the service area through extended operating hours.
- The West DuPage RTS will provide direct benefits to the City of West Chicago as detailed in the Host Community Benefit Agreement with West Chicago.
- The West DuPage RTS will provide direct benefits to DuPage County as detailed in the Secondary Host Community Benefit Agreement with DuPage County.
- The West DuPage RTS will facilitate recycling in the service area by expanding its service offerings and allowing additional investments in site infrastructure and operational improvements.
- The West DuPage RTS will reduce environmental impacts to the City of West Chicago and the area by decreasing the travel distance of MSW and hydro excavation collection vehicles.
- Waste quantities in the service area are projected to increase in the future as a result of the continued population and employment growth.

1.2 WEST DUPAGE SERVICE AREA

The intended service area for the West DuPage RTS (Service Area) is shown in Figure 1-1 and includes the majority of DuPage County, a portion of Kane County, and the northwest portion of Will County. The Service Area includes the townships listed in Table 1-1, and is generally based on the current service area of the LRS hauling operations proximate to the site, an approximately five to twenty mile travel distance from the site, and the location of other LRS transfer stations.

Table 1-1: West DuPage Recycling and Transfer Station Service Area Townships

DuPage County Townships	Kane County Townships	Will County Townships
Bloomingdale	Aurora	DuPage
Lisle	St. Charles	Wheatland
Milton	Elgin	
Naperville	Geneva	
Wayne	Batavia	
Winfield		

As indicated above, LRS operates an existing MSW waste hauling operation from the site. LRS currently provides routine collection of residential waste and recycling material, and other related services to the Service Area including the following communities [https://www.lrsrecycles.com/residential/]:

- City of Geneva;
- Village of Lisle;
- Unincorporated Lisle Township;
- City of St. Charles;
- City of Wheaton; and
- Village of Montgomery.

LRS began providing MSW collection services to communities and businesses in the Service Area in 2016. LRS acquired the West DuPage RTS from the K. Hoving Companies in 2017 to facilitate the expansion of its services. LRS has steadily grown its services to include the above listed communities, and also services commercial and industrial customers throughout the Service Area. As discussed in this report, LRS currently provides collection services to more municipalities than any other privately owned waste collection company in the Service Area.

1.3 WEST DUPAGE RTS SERVICE AREA WASTE GENERATION AND DISPOSAL VOLUMES

The Illinois Solid Waste Planning and Recycling Act was approved on August 23, 1988 and required that each county in the state adopt a twenty-year plan for managing the MSW generated within its boundaries [415 ILCS 15/1 et seq.]. Each county waste management plan is required to be updated and reviewed every five years, and any necessary or appropriate revisions are required to be submitted to the Environmental Protection Agency for review and comment. Each waste management plan is required to include a description of the origin, content, and weight or volume of MSW currently generated within the county's boundaries, and the origin, content, and weight or volume of MSW that will be generated within the county's boundaries during the next twenty years, including an assessment of the primary variables affecting this estimate and the extent to which they can reasonably be expected to occur.

DuPage, Kane, and Will counties have each developed a solid waste management plan (SWMP). These plans provide information and insights regarding waste generation and disposal trends in the Service Area including per capita waste generation rates and waste disposal diversion (i.e., recycling) rates. The methodology employed to evaluate waste generation and disposal trends in the Service Area are based on information from the SWMPs, information from independent studies, and population/employment trends primarily obtained from the Chicago Metropolitan Agency for Planning (CMAP).

1.3.1 PER CAPITA WASTE GENERATION RATE

<u>DuPage County</u>

The DuPage County Board approved its first SWMP in February 1991 (Adopted SWMP). Updates to the SWMP were approved by the DuPage County Board in 1996, 2001, 2007, 2012, and 2017 (DuPage County Updates). The DuPage County 2017 Update evaluates the waste disposal capacity of DuPage County. The following are relevant excerpts:

- Waste is estimated to be generated at a rate of 8.7 pounds per capita per day based on the rate identified in the 2015 Illinois Commodity/Waste Generation and Characterization Study Update [Appendix 8-H, page 8].
- The estimated MSW generation rate for DuPage County is 4,042 tons per day or 1,475,604 tons per year [Appendix 8-H, page 8]. Based on waste generation and recycling rates, DuPage County is estimated to need to dispose of approximately 929,431 tons of waste annually [Appendix 8-H, page 16].

Kane County

Kane County adopted its first solid waste plan in 1992 and has since adopted the required updates in 1997, 2004, 2009, 2015, and 2020 (Kane County Updates). The Kane County 2020 Update indicates the following:

- Total waste generation has been calculated by using population and per capita generation data. The 2020 Update estimates a per capita municipal solid waste generation rate based on the 2015 Illinois Commodity/Waste Generation and Characterization Study Update (Illinois DCEO Update) and Kane County hauler reports. The Illinois DCEO Update, which excludes C&D material, estimated Kane County's waste generation rate to be 7.68 pounds per capita per day. Based on 2019 hauler reports, C&D material contributes 0.53 pounds per capita per day of generation in Kane County. Combining these values results in an estimated waste generation rate for Kane County of 8.21 pounds per capita per day [Section 3.2.1, pages 23–24].
- Review of historical and current generation rates indicate generation rates have declined since the 1990s and have been fairly consistent from 2001 through the current period [Section 3.2.1, page 25].

Will County

The Will County Board approved its first SWMP in January 1991. Updates to the plan were approved in 1996, 2001, 2007, and 2017 (Will County Updates). The Will County 2017 Update indicates the following:

- The per capita municipal solid waste generation rate is estimated based on information in the Illinois DCEO Update.
- Given the economics of the service area, the MSW generation rate is most likely 7.56 pounds per capita per day.

Illinois Department of Commerce and Economic Opportunity Study

The Illinois Department of Commerce and Economic Opportunity (DCEO) commissioned a waste characterization study to be performed across Illinois. One of the purposes of the study was to develop the quantity of MSW generated within the state by pounds per capita per day, differentiating urban and rural values. Intensive waste sampling was performed at nineteen solid waste facilities located throughout Illinois, consisting of seventeen landfills and two transfer stations. The results of the study are contained in a report entitled Illinois Commodity/Waste Generation Study, dated 2009 (Illinois DCEO Report).

The Illinois DCEO Report estimated the following:

- DuPage County generates 9.19 pounds per capita per day of MSW;
- Kane County generates 8.10 pounds per capita per day of MSW; and
- Will County generates 7.99 pounds per capita per day of MSW.

The generation estimates were calculated by applying factors based on Illinois-specific economic indicators to the 2007 national per capita generation rates derived in the United States Environmental Protection Agency report titled Municipal Solid Waste in the United States: 2007 Facts and Figures. The study was limited to the Illinois statutory definition of MSW defined as "garbage, general household, institutional and commercial waste, landscape waste and construction or demolition debris". The waste generation rate was defined as "the quantity of products considered municipal waste entering the waste management system from residential, commercial, industrial, institutional and construction and demolition debris sources before material recovery or disposal takes place".

The DCEO commissioned the Illinois Recycling Association to develop an update to the Illinois DCEO Report. The results are contained in the Illinois Commodity/Waste Generation and Characterization Study Update, dated March 30, 2015 (Illinois DCEO Update). The tasks and objectives of the Illinois DCEO Update included developing the composition and quantification of the MSW originating and disposed within the state, and developing the quantity of MSW generated within the state. Overall, twenty-eight sampling events were conducted at twenty-seven solid waste facilities located throughout Illinois, consisting of fifteen landfills and twelve transfer stations, over thirty-one days between September 10, 2014 and December 2, 2014. The Illinois DCEO Update estimated that the Chicago metropolitan area generated 8.72 pounds per capita per day of MSW [Table 3-7 of Illinois DCEO Update].

1.3.2 POPULATION PROJECTIONS

United States Census data and published information of population, households, and employment for communities in the Service Area during the period 2020–2040 are presented in Table 1-2A. The year 2020 is used because it was the most recent base year (i.e., a year when a census was performed). The data is provided by township for the applicable portion of each county within the Service Area. Demographic projections were primarily obtained from the CMAP (formerly the Northeastern Illinois Planning Commission). The communities are projected to experience modest growth between 2020 and 2040.

The total population within the Service Area is estimated to be approximately 1,087,505 million as of 2020. The total population within the Service Area is projected to increase to approximately 1,303,450 in 2040. The increase is approximately 20% over the twenty-year time period.

The number of households in the Service Area is projected to increase from 385,224 in 2020 to 482,488 in 2040, which is a 25% increase in households. The employment is projected to remain approximately the same from 2020 to 2040. Table 1-2A includes the services areas and corresponding data.

1.3.3 RECYCLING RATE

The following are relevant excerpts from the most recent updates to the county solid waste management plans:

- The DuPage County 2017 Update indicates that the residential recycling rate was calculated to be 41% in 2011, with commercial recycling much lower. The estimated combined recycling rate is 30% [Appendix 8-H, page 8]. The recycling rate for DuPage County has remained relatively constant over the last fifteen+ years based on the DuPage County Updates from 2001 to 2017.
- The Kane County 2020 Update indicates that approximately 37% of the waste generated was diverted through recycling and composting [Executive Summary, page 3]. The recycling rate has remained nearly level over the last twenty years [Section 4.3, page 35].
- The Will County 2017 Update indicates that the recycling, C&D and composting diversion rate is approximately 43% as of 2014 [Table 3-10, page 25].

The Illinois DCEO Update estimated that the overall Illinois diversion rate is 37.3% by weight, assuming the difference between the generation quantities (estimated to be 19.3 million tons), and disposal quantities (estimated to be 12.1 million tons) is the quantity of materials recovered (approximately 7.2 million tons).

1.3.4 WASTE DISPOSAL VOLUME

To estimate the waste disposal volume for the Service Area, the per capita generation rate is multiplied by the population and then the estimated recycled amount is subtracted. The SWMPs indicate that the per capita generation rates and recycling amounts have stayed relatively the same over the past ten+ years. Thus, the trends in waste disposal volumes will be primarily dictated by the population trends.

Daily MSW waste disposal amounts (generation amount minus the recycling amount) are estimated in Tables 1-2B and 1-2C using information from both the SWMPs and the Illinois DCEO study.

The tables indicate that the 2020 volume of MSW requiring disposal in the Service Area is 2,997 tons per day based on the data from the SWMPs and 2,973 tons per day based on the data from the

Illinois DCEO Update. These volumes are estimated to increase to 3,574, to 3,564 tons per day by 2040 depending on the data used. If the population increases are less than the 2040 projections, the waste volumes would still increase but at a proportionately lower rate.

Table 1-2B: Summary of Waste Disposal Volume

Data Source	2020 Estimated Volume (tons per day)	2040 Estimated Volume (tons per day)
Solid Waste Management Plan	2,997	3,574
DCEO Update	2,973	3,564
Average	2,985	3,569

1.4 WASTE DISPOSAL SYSTEM

The Service Area currently has no operational landfills and two operational MSW transfer stations. One of the MSW transfer stations, the Batavia Transfer Station, is owned and operated by Waste Management, Inc. (WMI or Waste Management). The other, the DuKane Transfer Station, is owned and operated by Waste Connections, Inc. (Waste Connections). Figure 1-1 shows the locations of the existing MSW transfer stations in the Service Area.

Transfer stations also exist proximate to the Service Area, which may receive MSW from the Service Area. Figure 1-1 shows the locations of the existing MSW transfer stations within an approximately 15-mile distance from the Service Area. In addition, the Service Area has numerous hauling companies, including LRS, which pick up and deliver waste to the transfer stations located within and proximate to the Service Area. The MSW transfer stations within the Service Area, the MSW transfer stations proximate to the Service Area, and hauling companies in the Service Area are discussed below.

1.4.1 TRANSFER STATIONS IN SERVICE AREA

As indicated above, the following is the list of MSW transfer station facilities in the Service Area:

- DuKane Transfer Station, DuPage County, operated by Waste Connections; and
- Batavia Transfer Station, Kane County, owned and operated by WMI.

Additional information regarding each is provided below.

DuKane Transfer Station

The DuKane Transfer Station is located on an approximately 6.3-acre property in West Chicago on Powis Road approximately 0.5 miles north from the West DuPage RTS. The DuKane Transfer Station began operation in 1999 [Nonhazardous Solid Waste Management and Landfill Capacity in Illinois - 2009 or generally as Illinois Environmental Protection Agency (IEPA) solid waste capacity reports] by Groot Industries, Inc. (Groot) as owner and Crown Recycling and Waste Services, Inc. as operator. The DuKane Transfer Station is now owned and operated by Waste Connections.

Based on information provided by DuPage County, the DuKane Transfer Station accepted approximately 1020 tons per day in 2021. Based on information provided by West Chicago, the DuKane Transfer Station accepted approximately 963 tons per day in 2020; 1,030 tons per day in 2019; 893 tons per day in 2018; 995 tons per day in 2017; and 1,158 tons per day in 2016. In

addition, the 2016 acceptance volume was the largest since 2010 and the 2018 acceptance volume was the lowest since 2010 [April 1, 2019 West Chicago City Council Memorandum].

The DuKane Transfer Station is subject to a pre-annexation agreement that was entered into on September 17, 1997 between the City of West Chicago, Omni Holding, Inc., and Browning-Ferris Industries (1997 Agreement). Groot purchased the facility from BFI Waste Systems of North America, Inc. in 2000 [April 1, 2019 West Chicago City Council Memorandum] and Waste Connections purchased the facility from Groot in 2017. Pursuant to the 1997 Agreement, West Chicago receives a host fee from the facility, which is adjusted annually by the consumer price index each March 1st. DuPage County receives 25% of the host fee. The fire district also receives $0.10 per ton, and West Chicago receives an additional $0.10 per ton if Groot has the city's residential waste and recycling contract [April 1, 2019 West Chicago City Council Memorandum]. As of December 2021, the host fee was $2.40 per ton (including the $0.10 to the fire district and $0.10 service fee) based on information provided by DuPage County.

The siting approval initially limited the DuKane Transfer Station to 1,500 tons per day of MSW, landscape waste and recyclables. The pre-annexation agreement was modified in October 2001 to increase the limit to 2,500 tons per day, with no more than 3,000 tons during a single day. The pre-annexation agreement was modified again in July 2003 to increase the limit to 3,000 tons per day and eliminate the daily maximum [April 1, 2019 City Council Memorandum].

The Illinois Environmental Protection Agency (IEPA) permit for the DuKane Transfer Station [Log No. 2005-343] indicates that the site shall only accept municipal solid waste, residential landscape waste and segregated recyclables all of which shall not exceed 3,000 tons per day. The permit also indicates that the site may receive waste from 4:00 a.m. on Monday through 12:00 p.m. (noon) on Saturday, but that the operating hours on Saturday may be extended to 12:00 a.m. (midnight) on Sunday during weeks with one of the six major holidays.

Batavia Transfer Station

The Batavia Transfer Station is located on an approximately 5-acre property in Batavia, Kane County (766 Hunter Drive) approximately 6 miles southwest from the proposed West DuPage RTS. The Batavia Transfer Station began operation in 2005 by Veolia ES Solid Waste Midwest, LLC (Veolia) [2009 IEPA Solid Waste Capacity Report]. The 2009 annual IEPA solid waste capacity report indicates that the site has a maximum accepted amount of 1,250 tons per day. The Batavia Transfer Station is currently owned and operated by Veolia, which was previously a subsidiary of Advanced Disposal Services Inc. (Advanced Disposal). Veolia is now a subsidiary of WMI. Waste receipt data for the facility is not available from the annual IEPA solid waste capacity reports.

The IEPA permit for the Batavia Transfer Station [Log No. 2017-225] indicates that the site is allowed to receive and transfer MSW including separated landscape waste, C&D debris for recycling and recyclable materials. The permit also indicates that the site may receive waste from 5:00 a.m. to 6:00 p.m., Monday through Friday, and from 6:00 a.m. to 2:00 p.m. on Saturdays, except during a holiday week or instances of inclement weather, then the facility may remain open until 6:00 p.m. on Saturday. The permit does not include any waste amount acceptance limits.

Information obtained from the City of Batavia [June 24, 2020 and April 12, 2022 phone calls with City Administrator] indicates the following:

- The amount of host fees obtained from the Batavia Transfer Station in 2019 was approximately $535,000 and the 2019 host fee was $2.71 per ton;
- The amount of host fees obtained from the Batavia Transfer Station in 2020 and 2021 was $555,782.93 and $532,408.35, respectively;
- The host fee as of the beginning of 2022 is $2.81 per ton; and
- The host fee adjusts each year based on the consumer price index.

Based on the above information, the Batavia Transfer Station received an average of approximately 690, 709, and 672 tons per day in 2019, 2020, and 2021, respectively tons per day (total host fees/year divided by host fees/ton divided by 286 operating days/year).

Comparison to Waste Disposal Volume from Service Area

The following are observations regarding the transfer stations in the Service Area:

- The above information indicates that the combined amount of waste being accepted at the two current transfer stations has been relatively consistent over time (1,692 tons per day in 2021, 1,672 tons per day in 2020, and 1,720 in 2019).
- The information provided in Section 1.3 indicates that the 2020 volume of waste requiring disposal in the Service Area is approximately 2,985 tons per day. These volumes are estimated to increase to approximately 3,569 tons per day by 2040.
- The rationale for the increases to the permitted maximum daily acceptance volumes at the DuKane Transfer Station to 3,000 tons per day is not apparent since the site seems to have consistently accepted substantially lower volumes (in the range of 900 to 1,000 tons per day of MSW).
- The permitted capacity of the transfer station(s) may not be fully available. The capacity of a transfer station typically considers the anticipated market conditions (e.g., the amount of waste reasonably anticipated to be received), and can vary based on a variety of factors including available manpower, equipment and operating hours.

- A comparison with the disposal amounts from Section 1.3 indicates that the MSW amount being managed by the transfer stations in the Service Area is approximately 1,313 tons per day less than the MSW amount needing to be disposed from the Service Area (see Table 1-3A below) and, based on population and employment projections, this difference may increase over time. This reflects an approximately 1,313-ton-per-day shortfall/need for transfer stations in the Service Area, which can be met by the West DuPage RTS.

Table 1-3A Summary of Shortfall/Need in Service Area

MSW Estimate for Service Area	2020 Volumes (tons per day)
Volume (Ave.) Requiring Disposal	2,985
Volume Accepted at Transfer Stations in Service Area	1,672
Shortfall/ Need	1,313

1.4.2 TRANSFER STATIONS PROXIMATE TO THE SERVICE AREA

Additional transfer stations are located outside of the Service Area. Transfer stations located within approximately fifteen miles of the Service Area are listed below and shown on Figure 1-1. The following is information regarding each that was obtained from the annual Illinois solid waste capacity reports:

- Elburn Transfer Station, Kane County, owned and operated by LRS - began operation in 1992 and was previously owned by New Horizons Ltd. and operated by Speedway Disposal and Recycling, Inc., was acquired by WMI and was then acquired by GFL Environmental, Inc. (GFL);
- Bluff City Transfer Station, Cook County - began operation in 2007 and is owned and operated by WMI;
- Waste Connections transfer station in Plano - opened in 2016 with local siting received by Plano Transfer Station, LLC, who was acquired by Groot, who was then acquired by Waste Connections in 2017;
- WMI Virginia Road Transfer Station in Crystal Lake - opened in 2009 by WMI;
- GFL transfer station in Rolling Meadows - opened in 1991 and previously operated by Veolia/Advanced Disposal;
- Republic Services, Inc. (Republic Services) transfer station in Mount Prospect - opened in 1984 and previously owned/operated by ARC Disposal and Recycling;
- Waste Connections' Elk Grove Transfer Station - opened in 1983 and previously operated by Groot;

- WMI transfer station in Wheeling - opened in 1984 and owned/operated by WMI since at least 1996;
- LRS transfer station in Northbrook - opened in 1983 and previous owners/operators include BFI, Onyx, Advanced Disposal, and GFL;
- The Glenview Transfer Station in Des Plaines - opened in 1994, owned by the Solid Waste Agency of Northern Cook County (SWANCC), was operated by Groot from at least 1996 and is currently operated by Waste Connections;
- Republic Services transfer station in Northlake - opened in 2008 and originally owned/operated by Northlake Transfer, Inc.;
- WMI transfer station in Melrose Park - opened in 1998 and previously owned/operated by Veolia/Advanced Disposal;
- Republic Services transfer station in McCook - opened in 1997 and previously owned/operated by Liberty Waste Services and then Allied Waste Industries;
- Waste Connections transfer station in McCook - opened in 1998 and previously owned/operated by Groot;
- WMI Joliet Transfer Station in Joliet - opened in 1996 and previously owned/operated by CDT Transfer Material Recovery Facility; and
- Moen Transfer Station in Rockdale - opened in late 2020 and owned/operated by Environmental Recycling and Disposal Services (ERDS).
- LRS West Cook Transfer Station in Forest View - opened in 1996 and previously owned/ operated by Foster-Wheeler Midwest, Inc. and then Town & Country Transfer, LLC (as owner) and Heartland Recycling, LLC (as operator).
- LRS Greenwood Transfer Facility in Maywood - opened in 2004 and previously owned by Roy Strom Building Corporation, Inc. and operated by Greenwood Transfer, LLC.
- WMI South Transfer Station - opened in 1982 and owned/operated by WMI since at least 1996.
- Republic Services Crestwood Transfer Station - opened in 1981 and previous owners/ operators included Groen Waste Services, Allied Waste Transportation, Inc., USA Waste Services, and Illinois Recycling Services.
- WMI Prairie Lake Recycling and Transfer - opened in 2006 and previously operated by Land and Lakes Company.

Dekalb County Landfill is located approximately 25 miles west of the Service Area and is also shown on Figure 1-1. The landfill has been owned/operated by WMI since at least 1995. The amount of waste accepted at the landfill has increased from 2010 to 2020 from approximately 340 tons per day to approximately 2,300 tons per day.

The following are observations regarding the active transfer stations proximate to the Service Area:

- Three transfer stations are located south or southwest of the Service Area (Plano Transfer Station, which was acquired by Waste Connections, the Moen Transfer Station, and WMI Joliet Transfer Station). The Plano Transfer Station is located on an approximately 2.8-acre property and began operation in 2016. This transfer station is believed to accept waste from the Service Area because (1) no other transfer stations are located proximate to the Service Area in this relative direction, (2) waste collection companies generally deliver waste to its most economical vertically integrated facility, and (3) portions of the Service Area are closer to the Plano Transfer Station than Waste Connections' DuKane Transfer Station. The WMI Joliet Transfer Station is believed to have previously accepted waste from Naperville when WMI had the MSW hauling contract with Naperville. The Moen Transfer Station opened in late 2020 and may be accepting waste from the Service Area.
- One transfer station is located west of the Service Area (Elburn Transfer Station). This transfer station is operated by LRS, is located very close to the Service Area, and is known to accept waste from the Service Area.
- Two transfer stations are located directly north of the Service Area (WMI Bluff City and WMI Virginia Road Transfer Stations). The most recent IEPA permit for the Bluff City Transfer Station [Log No. 2014-474] indicates that the site is allowed to receive and transfer municipal waste from household, commercial, industrial and construction/ demolition sources, non-special waste, source separated landscape waste and SSR materials. The permit also indicates that approximately 2,000 tons per day of waste may be received. Information obtained from the Cook County MSW transfer station reports for the Bluff City Transfer Station indicates the following: approximately 671 tons per day were transferred for disposal during 2017; approximately 700 tons per day were transferred for disposal during 2018; and approximately 645 tons per day were transferred for disposal from January 1 through June 30, 2019. Based on the acceptance volumes, the Bluff City Transfer Station is believed to accept waste from the Service Area. Conversely, the Virginia Road Transfer Station likely accepts very little, if any, waste from the Service Area as it is located a relative far distance from the Service Area, and WMI has another transfer station located significantly closer the Service Area (Bluff City).

- The Glenview Transfer Station (owned by SWANCC) is located northeast of the Service Area. This transfer station likely accepts only small amounts of the waste from the Service Area because the transfer station primarily accepts residential waste from its member communities, which have only a small overlap with the Service Area. The annual financial report for SWANCC for the year ending April 30, 2018 indicates that approximately 72% of the waste received in fiscal year 2018 was from its member communities, and that the remainder was generally delivered by small commercial customers and Groot/Waste Connections (due to a contract stipulation to deliver at least 100 tons per day of outside waste). Because multiple other transfer stations are operational in the northern portion of Cook County, the non-member waste was very likely local to the Glenview Transfer Station (and thus outside the Service Area).
- All of the other active proximate transfer stations are located east/southeast/northeast of the Service Area, were previously owned/operated by a variety of other companies and are now all owned and/or operated by WMI, LRS, Waste Connections, or Republic Services. WMI and Waste Connections also own/operate one transfer station in the Service Area. The transfer stations located closer to the Service Area are more likely to accept waste from the Service Area than those that are farther away. For example, the LRS Northbrook Transfer Station is known to not accept any waste from the Service Area. Also, the WMI Wheeling and WMI Prairie Lake Recycling and Disposal likely do not accept any waste from the Service Area because WMI operates other transfer stations that are closer to the Service Area.

The above observations are consistent with the population demographics of the Service Area. Specifically, the population density is generally greatest at the eastern portion of the Service Area (nearest Chicago), generally decreases in an east to west direction, and is lowest at the western portion of the Service Area (farthest from Chicago).

Given the number of transfer stations proximate to the Service Area and tendency of waste companies to vertically integrate, it is reasonable that the approximately 1,313-ton-per-day difference is currently being managed by transfer stations located outside of the Service Area.

1.4.3 WASTE COLLECTION COMPANIES IN SERVICE AREA

Waste from customers is picked up in a variety of types of trucks by waste collection companies. The services provided vary by the type of customer (residential, commercial, and industrial).

Commercial and industrial hauling services are generally bid on a client or company basis. This is demonstrated by the variety of company names easily observed on waste containers outside commercial and industrial businesses. Rates are negotiated based on client specific needs such as

the size of requested container and the pick-up frequency. LRS picks up waste from a wide variety of commercial customers over the Service Area as discussed in Section 1.3 of this report.

Contracts for residential service in the Service Area are generally bid out by the municipality and are typically very competitive. Waste Connections' 2021 Form 10-K indicates that the solid waste industry "is highly competitive and requires substantial labor and capital resources". In addition, "we compete for collection, transfer and disposal volume based primarily on the price and, to a lesser extent, quality of our services". Republic Services' 2021 Form 10-K indicates that "we operate in a competitive industry", and "we compete for collection accounts primarily based on our product offering, quality of service and price".

Table 1-4 provides a summary of which hauling companies provide services to listed municipalities in DuPage County, Will County and Kane County, respectively (based on various county and municipality websites as of approximately April 2022).

The Service Area includes all of the townships in DuPage County and two townships in Will County west of I-355. Table 1-4 indicates the hauling companies that serve the DuPage and Will County municipalities that are predominantly in the Service Area and west of I-355 include the following:

- Waste Connections/Groot (eight communities - Aurora, Bartlett, Glen Ellyn, Hanover Park, Naperville, Warrenville, West Chicago, Woodridge);
- Republic Services (one community - Glendale Heights);
- LRS (two communities - Lisle, Wheaton);
- SBC Waste Solutions, Inc. (SBC Waste Solutions) (two communities - Winfield, Bloomingdale)
- WMI (two communities - Plainfield, Romeoville); and
- Flood Brothers Disposal (three communities - Carol Stream, Roselle, Bolingbrook).

The Service Area does not includes the townships in DuPage County east of I-355. Table 1-4 indicates the hauling companies which serve the DuPage County municipalities east of I-355 include the following:

- Republic Service (six communities - Addison, Bensenville, Downers Grove, Elmhurst, Hinsdale, Itasca);
- WMI (three communities - Lemont, Westmont, Lombard);
- Flood Brothers Disposal (three communities - Oak Brook Terrace, Oak Brook and Wood Dale);

- Groot/Waste Connections (three communities - Burr Ridge, Elk Grove Village, Willowbrook); and
- LRS (three communities - Villa Park, Darien, Clarendon Hills).

Table 1-4 indicates the hauling companies which serve the Kane County municipalities in the Service Area include the following:

- Waste Connections/Groot/MDC Environmental Services (three communities - Aurora, North Aurora, South Elgin);
- WMI (two communities - Batavia, Elgin); and
- LRS/DC Recycling Systems (three communities - Geneva, St. Charles, Montgomery).

Table 1-3B summarizes the population of the communities predominantly within the Service Area served by the various hauling companies. As shown, the population of communities served by Waste Connections is larger than all of the other companies combined. The population of communities served by Waste Management is the second largest followed by LRS.

Table 1-3B: Population of Municipalities Served by Hauling Company

Hauling Company	Population of Municipalities Served
Waste Connections	552,954
Waste Management	215,022
LRS	151,906
Flood Brothers	136,673
Republic Services	33,176
SBC Waste Solutions	32,217

The municipalities generally do not direct the hauler where to dispose of the waste. Thus, the hauler has the discretion to dispose of the waste at a transfer station or directly to a landfill. Economics (e.g., driving distance, tipping fee) are the main criteria that dictate the disposal location and a variety of other factors are considered and potentially impact the economics (contract terms, payment terms, "turnaround time" at the facility, operating hours, ability to "stage" loads, location where collection vehicles are parked, location of vertically integrated landfill relative to locations of transfer station options). Hauling companies that are part of a company that owns and/or operates transfer stations and/or landfills also have financial incentives to "vertically integrate" their services and bring waste that they pick up to their own transfer or disposal facility (see discussion in Section 1.5.5). Figure 1-2 shows which municipalities are hauled by which companies; the transfer stations in the Service Area and their respective operators; and the transfer stations proximate to the Service Area and their respective operators.

The following are observations regarding waste collection companies in the Service Area:

- The population of communities served by Waste Connections/Groot serves is by far the largest in the Service Area. They have one transfer station within the Service Area and other transfer stations proximate to the Service Area. They also own and/or operate landfills west of the Service Area in Ogle County (Rochelle Landfill) and Winnebago County (Winnebago Landfill). The Kane County 2015 Update suggests that a significant portion of the Kane County's waste is shipped through the DuKane Transfer Station located in West Chicago [Section 3.5, page 34].
- The population of communities served by WMI is the second largest in the Service Area. They have one transfer station within the Service Area and serve the community in which the transfer station resides (Batavia). The Batavia Transfer Station was owned/operated by Advanced Disposal until October 2020, and Advanced Disposal had not previously served any communities in the Service Area other than Batavia. WMI owns other transfer stations proximate to the Service Area, and own and/or operate a landfill in DeKalb County (DeKalb County Landfill), a landfill in Lake County (Countryside Landfill), a landfill in Whiteside County (Prairie Hill Recycling and Disposal Facility), a landfill in Ogle County (Orchard Hills Landfill, which had the largest waste acceptance volume of any landfill in Illinois during 2020), and two landfills in Will County (Laraway Recycling and Disposal Facility, Prairie View Recycling and Disposal Facility). Elgin, Plainfield, and Romeoville are located at the outskirts of the Service Area near their transfer stations proximate to the Service Area.
- The community that Republic Services serves within the Service Area is located at the eastern outskirts of the Service Area in the general direction of their transfer stations proximate to the Service Area. Conversely, Republic Services serves the most DuPage County communities east of I-355 (outside the Service Area), which is twice the communities of any other hauler.
- The population of communities served by LRS is the third largest in the Service Area. LRS currently services five communities in the Service Area. As of April 2022, LRS hauls the residential waste from:
    - The communities they serve in the Kane County portion of the Service Area (St. Charles, Geneva, and Montgomery) to the Elburn Transfer Station.
    - The communities they serve in the DuPage County portion of the Service Area as follows:
        - Wheaton to WMI's Batavia Transfer Station.
        - Lisle to both LRS's Greenwood Transfer Facility (first round) and WMI's Batavia Transfer Station (second round as the collection vehicles park overnight at the LRS West DuPage RTS).

LRS's current operations in DuPage County are heavily reliant upon transfer stations owned and operated by others (because LRS does not have any transfer stations in the Service Area), or must haul the waste a farther distance than their competitors to one of their transfer stations east or west of the Service Area. The population density of the Service Area is larger towards the east. LRS anticipates hauling MSW from the Service Area to the West DuPage RTS while using the Elburn Transfer Station as a secondary facility, as needed, for MSW from the western extent of the Service Area (e.g., Kane County west of the Fox River).

- Flood Brothers Disposal and SBC Waste Solutions are privately owned companies that do not own any MSW transfer station in or proximate to the Service Area. Flood Brothers Disposal and SBC Waste Solutions do not own any MSW landfills, so they are reliant upon transfer stations owned and operated by others.

1.5 TRENDS IN THE WASTE DISPOSAL SYSTEM

1.5.1 DECREASING NUMBER OF AVAILABLE PROXIMATE LANDFILLS

The number of operational landfills in Illinois has been decreasing for many years. Table 1-5 summarizes the number of operational landfills in Illinois over time. As shown, the number of operational landfills in Illinois has decreased from fifty-eight to thirty-six from 1995 through 2020.

Table 1-5: Illinois Active Landfills

Year	Active Landfills in Illinois
1995	58
2000	53
2005	51
2010	43
2015	38
2020	36

Note: Data taken from IEPA Solid Waste Capacity Reports.

This trend has been most dramatic in northeast Illinois, which includes the Service Area. The IEPA annually provides a summary of various landfill information by seven regions (see Figure 1-3). Region Two - Chicago Metropolitan includes Cook, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, and Will counties. Figure 1-4A shows all of the active landfills in northern Illinois in 1995. Figure 1-4B shows all active landfills in northern Illinois and northwest Indiana and the operator of each landfill. The active landfills in Regions Two from 1995 through 2020 are listed on Table 1-6. As shown, the number of active landfills in Region Two has dramatically decreased from eighteen to four over this period. Figure 1-4B also shows the landfills in northern Illinois that have closed since 1995. The Service Area contains five landfills, which have been closed since 1995.

The remaining active landfills in Region Two are located in Lake County (Countryside Landfill and Zion Landfill) or Will County (Prairie View Recycling and Disposal Facility and Laraway Recycling and Disposal Facility). Three of these landfills provide limited MSW disposal capacity for the Service Area based on the following:

- Laraway Recycling and Disposal Facility is not permitted to accept MSW.
- Zion Landfill is estimated to have approximately eight years of remaining capacity (as of January 1, 2020 at the five-year average disposal volume).
- Countryside Landfill is estimated to have approximately five years of remaining capacity (as of January 1, 2020 at the five-year average disposal volume).

1.5.2 INCREASING DISTANCE AND CONSOLIDATION OF AVAILABLE LANDFILLS FROM SERVICE AREA

As indicated above, the IEPA annually provides a summary of various landfill information by seven regions. One of the items provided is the amount of waste disposed within each region. Table 1-6 summarizes the amount of waste disposed within each region from 1995 through 2020. Consistent with the above trend, the amount of waste disposed in Region Two decreased dramatically over time from approximately 26.12 million gate cubic yards per year (or approximately 27,700 tons per day) in 1995 to approximately 8.4 million gate cubic yards per year (or approximately 9,300 tons per day) in 2020. The amounts disposed in Region Two during 1995 and 2020 are shown on Figures 1-4A and 1-4B, respectively.

Conversely, the amount of waste disposed in Region One has increased dramatically over the same time period from approximately 1.89 million gate cubic yards per year in 1995 (or 2,000 tons per day) to approximately 17.2 million gate cubic yards per year in 2020 (or 18,000 tons per day). The amounts disposed in Region One during 1995 and 2020 are shown on Figures 1-4A and 1-4B, respectively. Region One - Northwest Illinois includes Boone, Bureau, Carroll, DeKalb, Jo Daviess, LaSalle, Lee, Ogle, Putnam, Stephenson, Whiteside, and Winnebago counties. The volumes accepted by Region One have been relatively consistent for approximately the last decade. The landfill with consistently the largest acceptance volume (in the range of 7,000 tons per day) is WMI's Orchard Hills Landfill located near Rockford (see Figure 1-4B). This landfill has consistently been ranked highest in the entire state. The other landfill that is also consistently ranked in the top three in the State in waste acceptance (in the range of 5,000 tons per day) is Waste Connections' Winnebago Landfill, which is also located near Rockford (see Figure 1-4B). Consistent with the data and industry common knowledge, these landfills accept substantial volumes of MSW from the Chicago metropolitan area.

The amount of waste disposed in Regions Three and Four have been consistent from 1995 to 2020. The amounts disposed in Regions Three and Four during 1995 and 2020 are shown on Figures 1-4A and 1-4B, respectively. Region Three - Peoria/Quad Cities includes Fulton, Hancock, Henderson, Henry, Knox, Marshall, McDonough, Mercer, Peoria, Rock Island, Stark, Tazewell, Warren, and Woodford counties. The landfills most accessible via truck from the Chicago metropolitan area are the Atkinson Landfill/Eco Hill, the Quad Cities Landfill, and the Upper Rock County Landfill (see Figure 1-4B). The waste acceptance volumes at the Quad Cities Landfill and the Upper Rock County Landfill have also been consistent over time (see Table 1-6), which indicates that waste acceptance from the Chicago metropolitan area is not occurring. The Atkinson Landfill was acquired by Ecology Solutions LLC (a subsidiary of LRS) in June 2019, re-opened in late 2019, is currently accepting waste volumes from the Chicago metropolitan area, and significantly increased its waste acceptance volume in 2020 (see Table 1-6).

The above information clearly demonstrates that waste disposal from the Service Area has shifted over time from landfills proximate to the Chicago metropolitan area, to landfills at substantially farther distances. Given the difficulty of siting new landfills and expanding existing landfills near populated areas, the required travel distance from waste origination locations to the disposal facility will likely continue to increase in the future. Increased transportation distances result in increased challenges of managing transportation costs.

As shown on Figure 1-4B, with the recent acquisition of Advanced Disposal by Waste Management, the landfills in northern Illinois are all operated by one of three publicly traded companies (Waste Management, Republic Services, Inc., and Waste Connections) except for three (Zion Landfill in Zion, Eco Hill in Atkinson, and Knox County). Based on the information in Table 1-6, the three publicly traded companies control approximately 97% of the capacity in Regions One and Two (i.e., all except for the capacity at Zion Landfill). The consolidation of landfill ownership by the three publicly traded companies will have a negative impact on competition.

1.5.3 CONSOLIDATION OF TRANSFER STATION OPERATORS

While the landfills were decreasing in number and consolidating, the transfer stations were increasing in number but also consolidating. As discussed in Sections 1.4.1 and 1.4.2, the following privately-owned or regional companies owned and/or operated transfer stations and provided hauling services in or proximate to the Service Area:

- Groot Industries, Inc.;
- Crown Recycling and Waste Services, Inc.;
- Plano Transfer Station, LLC;
- Veolia ES Solid Waste Midwest, LLC;
- New Horizons Ltd.;
- Speedway Disposal and Recycling, Inc.;
- ARC Disposal and Recycling;
- Northlake Transfer, Inc.;
- Liberty Waste Services;
- CDT Transfer Material Recovery Facility;
- Town & Country Transfer, LLC; and
- Roy Strom Building Corporation, LLC.

In 1995, DuPage County had no transfer stations. The only transfer stations proximate to the Service Area were one in Kane County (Elburn Transfer Station) and eight in Cook County (most of which were northeast of the Service Area). At least eight of these transfer stations were owned

by different companies, most of which no longer exist. The approximate location of the transfer stations proximate to the Service Area in 1995 is shown in Figure 1-2A.

Since 1995, the following transfer stations were permitted in or proximate to the Service Area:

- One in DuPage County (DuKane Transfer Station);
- One in Kane County(Batavia Transfer Station);
- One in Kendall County (Plano Transfer Station);
- Two in Will County (Moen, Transfer Station, Joliet Transfer Station);
- One in McHenry County (Virginia Road Transfer Station);
- One in Cook County north of the Service Area (Bluff City Transfer Station); and
- Seven in Cook County east/southeast of the Service Area.

Each of the proximate transfer stations are shown on Figure 1-2B, and most have been acquired over time. For example, in January 2017, Waste Connections acquired Groot Industries, Inc., an Illinois-based firm with total annual revenue of approximately $200 million. The deal occurred nearly a year after Waste Connections' merger with Progressive Waste Solutions Ltd. At the time, Groot was the largest privately owned solid waste services company in Illinois serving approximately 300,000 customers primarily in northern Illinois. Waste Connections acquired a network of six collection operations, six transfer stations, and two recycling facilities [https://www.waste360.com/haulers/waste-connections-acquire-groot-industries].

The result is that, at this time, seventeen of the twenty-three listed transfer stations in or proximate to the Service Area discussed in Sections 1.4.1 and 1.4.2 are operated by one of the three national waste companies (eight by WMI, five by Waste Connections, and four by Republic Services). The remaining six transfer stations are operated by LRS (five) or ERDS (one). This trend has reduced competition.

1.5.4 ONGOING WASTE INDUSTRY CONSOLIDATION

Republic Services and Groot Asset Swap

In late 2017, Groot/Waste Connections acquired various assets from Republic Services in the western suburbs including the municipal contracts with the City of Aurora, Bartlett, and Glen Ellyn. We understand that Republic Services generally received Groot assets closer to Chicago, and the general intent of the swap was for both companies to increase their customer densities in their respective markets (which should result in positive financial benefits to both companies) [https://kanecountyconnects.com/2017/10/groot-acquires-city-of-aurora-refuse-contract/; https://www.publicnow.com/view/DDCA344B8B8980C540E806501E707A39278FFB06; and https://

myemail.constantcontact.com/VGE-eNews;Groot-Acquires-Refuse-Contract.html?soid=1102224453228&aid=jb3fwSsYV84].

The asset swap is evident by the observations discussed above (i.e., Waste Connections serves the most DuPage County municipalities west of I-355 and Republic Services serves the most DuPage County municipalities east of I-355).

WMI Acquisition of Advanced Disposal

In April 2019, WMI (the largest residential garbage and recycling company in North America) announced it entered an agreement to acquire Advanced Disposal Services, Inc. for $4.9 billion. Advanced Disposal is the fourth largest garbage and recycling company in North America. The Wall Street Journal described the deal as Waste Management's largest acquisition ever. [https://resource-recycling.com/recycling/2019/04/16/waste-management-unveils-majormerger/].

Advanced Disposal shareholders on June 28, 2019 voted to adopt the merger agreement proposed by WMI, and the acquisition was approved by WMI's shareholders in July 2019 [https://resource-recycling.com/recycling/2019/07/09/ stockholders-give-nod-to-advanced-wm-merger/].

The acquisition of Advanced Disposal was completed on October 30, 2020. The acquisition expanded WMI's collection and disposal business in a number of markets in the Eastern half of the country and allows WMI to provided services to approximately three million new commercial, industrial, and residential customers [WMI 2020 Annual Report].

Divestiture of WMI/Advanced Disposal Assets to GFL

In June 2020, GFL announced that it signed an agreement to purchase $835 million worth of waste collection assets from WMI and Advanced Disposal. The acquisition was subject to closing of the WMI and Advanced Disposal transaction and approval by the United States Department of Justice. The Wisconsin asset package represents the majority of the acquired assets. The remaining assets are located in Michigan, Illinois, Indiana, Georgia, Alabama, Maryland, Minnesota, Pennsylvania, and Florida [GFL Environmental, Investor Update, June 25, 2020].

GFL and WMI/Advanced Disposal agreed to enter into a transition services agreement to support a successful integration of the assets and operations, including disposal arrangements and other operating considerations intended to minimize disruptions to operations during the transition. To improve operating margin, WMI and GFL agreed to enter into a reciprocal five-year disposal arrangement that will provide GFL with competitive, stable, and predictable pricing and disposal terms [GFL Environmental, Investor Update, June 25, 2020].

On October 23, 2020, the United States Department of Justice announced that WMI would be required to divest fifteen landfills, thirty-seven transfer stations, twenty-nine hauling locations, over 200 waste collection routes, and other assets in order to proceed with its $4.6 billion acquisition of Advanced Disposal. The department said that without the divestiture, the proposed acquisition would substantially lessen competition for small container commercial waste collection or municipal solid waste disposal services in over 50 local markets. Under the terms of the proposed settlement, WMI and Advanced Disposal must divest assets covering over fifty local markets including landfills, transfer stations, hauling locations, and waste collection routes to GFL, or to an alternate acquirer approved by the United States. GFL, based in Ontario, Canada, is a provider of small container commercial waste collection and MSW disposal in local markets in Canada and the Unites States. [https://www. justice.gov/opa/pr/justice-department-requires-waste-management-divest-assets-order-proceed-a dvanced-disposal].

Immediately following the completion of the Advanced Disposal acquisition on October 30, 2020, WMI and Advanced Disposal completed the sale to GFL of all of the assets required by the United States Department of Justice to be divested in connection with the Advanced Disposal acquisition [https://investors.wm.com/news-releases]. The Illinois facilities sold to GFL consisted of Advanced Disposal's Zion Landfill, Rolling Meadows Transfer Station, and Northbrook Transfer Station; and WMI's Elburn Transfer Station [Proposed Final Judgment, filed October 23, 2020].

The Complaint, proposed Final Judgement, and Competitive Impact Statement were published in the Federal Register on November 3, 2020. Comments were received from two entities: the Solid Waste Agency of Lake County (SWALCO) and the SWANCC. SWALCO and SWANCC are both intergovernmental organizations that advise and assist member communities with solid waste management issues and provide a variety of resources. In their comments, both SWALCO and SWANCC asserted that the proposed Final Judgment be revised to include the sale of collection routes and assets in the Chicagoland area. Alternatively, SWALCO proposes that WMI be required to commit to take waste to the divested disposal assets or to sell those disposal assets to LRS instead of GFL. Both SWALCO and SWANCC asserted such modifications were necessary to make the divested assets "economically viable" and to create a "strong fourth vertically integrated competitor". Finally, both SWALCO and SWANCC asserted that (1) GFL has not shown a commitment to the Chicago area since the close of the divestiture transaction, and (2) GFL will not be able to attract sufficient independent collection providers to the divested MSW assets, and thus, will eventually sell the assets to a larger market participant. SWALCO indicated that they believe that LRS is the only independent hauler in the Chicago market with the size and market share necessary to compete with the three publicly traded and vertically integrated companies operating in the Lake County and Chicagoland markets [Federal Register 2021-06147].

1.5.5 IMPORTANCE OF VERTICAL INTEGRATION

The above-discussed consolidation has resulted in the vertical integration of the waste management operations (i.e., hauling, transfer, and disposal) of the national waste companies. Vertical integration has a number of advantages in the waste industry, including control of disposal pricing. Hauling contracts predominantly include disposal in the pricing so, if a company is unable to establish their own disposal pricing, they are at a significant competitive disadvantage. Each of the national waste companies acknowledge the critical importance of vertical integration in their annual reports and Form 10-K reports as discussed below.

Advanced Disposal's Form 10-K (for the fiscal year ending December 31, 2019) indicates that vertical integration of its transfer stations enable them to:

- Increase the operational reach of their landfill operations;
- Increase the volume of disposal revenue at their landfills;
- Achieve greater leverage in negotiating more favorable disposal rates at landfills that they do not operate;
- Improve efficiency of collection, personnel and equipment; and
- Build relationships with municipalities and other operators that deliver waste to their transfer stations, leading to additional growth and acquisition opportunities.

Republic Services' 2021 summary annual report (and Form 10-K) indicates that one of their three foundational elements includes a goal "to develop the best vertically integrated infrastructure to build density and improve returns". Their "goal is to create market-specific, vertically integrated operations typically consisting of one or more collection operations, transfer stations, landfills and recycling processing centers".

Waste Connections' 2021 annual report (and Form 10-K) indicates that providing vertically integrated services is one of their operating strategies. The annual report states that, in markets where they believe that owning landfills is a strategic advantage to a collection operation because of competitive or regulatory factors, they "generally focus on providing integrated services, from collection through disposal of solid waste in landfills that we own and operate". The annual report also states that "generally, the most profitable operators within the solid waste industry are those companies that are vertically integrated or enter into long-term collection contracts. A vertically integrated operator will benefit from (1) the internalization of waste, which is bringing waste to a company-owned landfill; (2) the ability to charge third-party haulers tipping fees either at landfills or at transfer stations; and (3) the efficiencies gained by being able to aggregate and process waste at a transfer station prior to landfilling".

Waste Management's 2021 annual report (and Form 10-K) indicate that:

- Access to transfer stations in critical to haulers who collect waste in areas not in close proximity to disposal facilities;
- The utilization of Waste Management's transfer stations by their own collection operations improves internalization by allowing them to retain fees that they would otherwise pay to third parties for the disposal of the waste they collect.
- The transfer stations enable them to manage costs associated with waste disposal because (1) transfer trucks have larger capacities than collection trucks, allowing them to deliver more waste to the disposal facility in each trip; (2) the transfer stations are strategically located to increase the efficiency of their network of operations; and (3) they can retain the volume by managing the transfer of the waste to one of their own disposal sites.

The operating revenues of the largest national waste management companies are almost entirely derived from the collection, transfer, and disposal of wastes from their customers with the majority derived from collection [Waste Connections' 2019 Form 10-K, page 50; Republic Services' 2019 Form 10-K, page 40; Advanced Disposal's 2019 Form 10-K, page 8; Waste Management's 2019 Form 10-K, page 35]. Waste Connections' 2019, 2020, and 2021 Form 10-K indicates that over 71% of their revenues were attributed to collection (residential, commercial and industrial and construction roll-off). Republic Services' 2019, 2020 and 2021 Form 10-K indicates that over 75% of their revenues were attributed to collection (residential, small-container, large-container and other), and they internalized approximately 68% of the waste collected into their own landfills. Advanced Disposal's 2019 Form 10-K indicates that over 66% of their revenues were attributed to collection, and they internalized 62% of the waste collected into their own landfills. Waste Management's 2019, 2020 and 2021 Form 10-K indicates that over 65% of their revenues were attributed to collection (residential, commercial, industrial, and other). The percentage of collection revenues and internal disposal is summarized in Table 1-7.

Table 1-7: Percentages of Collection Revenues and Internal Disposal

	Percentage of Revenues Attributed to Collection	Percentage of Waste Which is Internally Disposed
Waste Management	>65%	Not Available
Republic Services	>74%	68%
Waste Connections	>71%	Not Available
Advanced Disposal	>66%	62%

As discussed above, LRS currently performs hauling and now owns/operates an MSW landfill (in Atkinson). However, LRS does not currently own or operate a MSW transfer station in the Service Area so is not vertically integrated in the Service Area. From June 2018 to the end of 2020, LRS

had been delivering nearly all of the MSW waste it collects in the Service Area to Advanced Disposal's Batavia Transfer Station. The MSW waste was then transported to Advanced Disposal's Orchard Hills Landfill for disposal.

LRS's lack of full vertical integration in the Service Area puts LRS at a significant competitive disadvantage compared to the national waste companies that are vertically integrated in the Service Area for the reasons discussed above and including the following:

- LRS must pay fees to other companies (which are competitors), which reduces LRS's margins and improved the competitor's margins.
- LRS does not have control of long-term pricing, which creates a significant unknown cost factor when bidding on municipal hauling contracts (which are typically five years).
- The lack of known long-term pricing creates hurdles for LRS to make capital investments.
- The use of a competitor's facility causes operational efficiencies for LRS (e.g., trucks must drive from the transfer station back to the LRS facility at the end of the day versus parking at the same location, LRS trucks must travel extra miles to deliver loads within the transfer station operating hours).

This disadvantage was on full display after the merger of WMI and Advanced Disposal. After the merger, WMI increased the rates at the Batavia Transfer Station by approximately $5 per ton or approximately 10% (see affidavit in Appendix 1-A). In addition, WMI raised the rates at the Orchard Hills Landfill by approximately 33% (see affidavit in Appendix 1-A). These price increases caused LRS to divert waste and recyclables it collects to the Elburn Transfer Station. In addition, the disposal has now been diverted to Eco Hill in Atkinson. These changes both add substantial hauling distance and time, which is a significant competitive disadvantage for LRS in the market.

1.5.6 OTHER TRANSFER STATIONS NOT NECESSARILY AVAILABLE AT COMPETITIVE COSTS

Since other transfer stations are present in the Service Area, LRS requested pricing from the DuKane Transfer Station in June 2018 (which is closest to LRS's waste collection company where the vehicles are parked overnight so would minimize miles driven by its collection vehicles). Waste Connections quoted LRS a price for waste acceptance that is approximately $14 per ton higher than the price that was being paid at the Batavia Transfer Station (see affidavit in Appendix 1-A), which is a dramatic financial barrier. The disposal price quoted by Waste Connections was also substantially higher than the pricing typically provided by WMI for its transfer stations in the area (see affidavit in Appendix 1-A). This pricing was a key factor in the decision for LRS to move forward with this local siting application for the West DuPage RTS. As discussed in Section 1.5.5, the pricing at the Batavia Transfer Station has also increased with the merger of WMI and

Advanced Disposal, and was further increased beginning in April 2022. The combined pricing increases over an approximately one year and three month time period at the Batavia Transfer Station are approximately $10 per ton.

To provide some perspective on the significance of this price increase/discrepancy, a macro-scale total cost of collection, transfer, and disposal of waste was estimated from the respective Form 10-K reports from the three national waste management companies. The 2021 revenues for each company are summarized in Table 1-8 provided below. Table 1-8 also includes the total amount of waste disposed at all of the company landfills during 2021 as listed in their respective Form 10-Ks. A comparison of these amounts indicates that the revenue per ton of waste disposed ranges from approximately $130 per ton to $144 per ton. It is noted that the revenue per ton seems to be directly proportional to the revenues of the national companies (i.e., the largest company generates the largest revenue per ton of waste disposed and the smallest company generates the least revenue per ton of waste disposed).

Table 1-8: Revenues per Ton of Waste Disposed - 2021

	Revenues (millions)	Waste Disposed at Company Landfills (millions of tons)	Revenue per Ton of Waste Disposed
Waste Management	$17,931	124.8	$144
Republic Services	$11,295	79.3	$142
Waste Connections	$6,151	47.2	$130
Average			**$139**

These companies are very focused on vertical integration (including collection, transfer, transportation, and disposal) and, as noted in Section 1.5.5, these companies control approximately 97% of the disposal capacity in Regions 1 and 2. These companies all also make a profit so the above listed revenues per ton must exceed the collective cost of their collection, transfer, transportation, and disposal operations. Thus, in very general terms, the total cost to collect, transfer, transport and dispose of a ton of waste is less than but in the range of $130 to $144 per ton.

This data is summarized to provide a general quantification of the competitive advantage of full vertical integration. Specifically, when a waste management company (such as LRS) is responsible for the management of waste from collection to eventual disposal in a landfill (such as with a municipal waste contract), the waste management company's overall costs are directly dependent on the pricing for waste acceptance at a transfer station. As discussed above, the transfer station costs for an independent waste management company (such as LRS) can be caused to increase by $10 (e.g., at the Batavia Transfer Station) to $14 per ton (e.g., at the DuKane Transfer

Station) at the discretion of the transfer station operator. These cost increases represent approximately 6.9% to 7.7% of the average total revenue generated ($10 to $14 price difference divided by $130 to $144 revenue per ton from Table 1-8). If the transfer station operator is a competitor (as is typically the case and is the case for LRS within the Service Area), the competitive advantage is obvious and dramatic. Stated another way, LRS's competitors currently can impact up to 7.7% of LRS's overall total waste management costs for the same service which the competitor is also seeking in a highly competitive industry. This difference does not include all of the other competitive advantages discussed above by fully vertically integrated waste management companies in the Service Area. The other competitive advantages can equate to an even greater cost advantage than the disposal pricing differential.

If the West DuPage RTS becomes operational, LRS would control its transfer station costs and recognize the other advantages of vertical integration in the Service Area. These cost controls and operational advantages would allow LRS and potentially other companies to better compete in the Service Area.

1.5.7 RECYCLING CHALLENGES

DuPage County, along with many local government and private sector partners, has successfully completed several recycling goals over the years although challenges remain. The DuPage County 2017 Update discusses the status of various initiatives and challenges. The following are relevant excerpts:

- Recycling has seen a significant amount of change over the last decade with volatile market values, contamination issues, and shrinking end users. The county recognizes the local challenges of these issues as limiting factors in expanding or increasing programs or the diversion rate [Appendix 8-H, page 17].
- Due to its volume in the waste stream, C&D debris recycling is an option to reduce landfilled waste. The county is unique in that it is currently home to three C&D debris recycling sites which are able to process thousands of tons of debris that would be disposed of as a waste otherwise. This type of landfill diversion is being encouraged [Appendix 8-H, page 9]. This sector was identified under the county's strategic plan as a priority waste reduction category and as such, the county is launching an outreach effort that supports the displacement of this waste from landfills both through recycling and reuse [Appendix 8-H, page 17].

- Certain electronics products were banned from landfills as of January 1, 2012. The program to work with electronic recyclers has struggled to remain sustainable. In 2016, the county pursued a system using a recycling fee for harder to handle items and relaunched collection sites. The Electronics Products Recycling and Reuse Act was significantly amended in 2017 and mandated a specified number of collection sites in counties based on population density. The changes are effective January 1, 2019 [Appendix 8-H, pages 10 and 11].

Kane County has routinely updated its solid waste management plan. The Kane County 2020 Update indicates the following:

- Since the Kane County 2015 Update, waste haulers nationally moved to increase costs for recycling services and modify material acceptance criteria, and across the nation programs have been disrupted and degraded [Section 1.4, page 9].
- The residential diversion rate in Kane County has been slowly declining from 2015 to 2019 [Section 4.3.3, page 37].
- Since all solid waste in Kane County is collected, recycled, transferred, and landfilled by private companies, the greatest need is to ensure sufficient competition for both waste transfer and landfilling in the private sector. Competition serves to control price increases, and also maintains a high quality of service in both the residential and commercial sectors [Section 4.5, page 58].
- C&D recycling capacity has been developed by the private sector in Illinois and recycling activity in this sector has been market-driven [Section 4.3.6, page 42].
- The continued diversion of construction and deconstruction-related materials is recommended [Section 7.5, page 67].

1.6 HYDRO EXCAVATION WASTES

As proposed, West DuPage RTS will receive, solidify, and transfer hydro excavation wastes as defined in Criterion 2.0 of this report. Hydro excavation is the process of removing or moving soil with pressurized water and suction (via a hydrovac truck). The pressurized water cuts through the soils and breaks it up. The suction then lifts the slurry from the excavation area. The debris is transferred to a debris tank. This allows for a non-destructive and more accurate way to excavate soil and locate underground utilities. Hydro excavation wastes are considered "liquids" (i.e., do not pass the paint filter tests) so must be solidified prior to disposal in a landfill.

The popularity of hydro excavation today started with oil and gas industries in Canada. The Canadian contractors were able to see the efficiency of hydro excavation as compared to other methods of daylighting.

Applications include:

- Slot trenching - The purpose of slot trenching is to dig narrow trenches. This is commonly needed for installing pipes, cables, signs, posts, and other utilities underground.
- Potholing or daylighting - Potholing or daylighting is the process of digging a test hole to expose underground facilities. This is to check those facilities for cracks, leaks or any kind of damage. Industrial, commercial, and residential communities all need to "daylight" their facilities from time to time.
- Piling holes - Installation holes are needed for poles, signs, posts, and more. The holes needed are of varying diameters and depths. These holes serve as foundations to support the structure that will be installed.
- Cold weather digging - The hydro excavation trucks are equipped with heaters. This allows the water to be able to excavate through frozen earth and ground frost [https://hydroexcavation.com/information/].

LRS's Heartland Recycling facility in Forest View, which is approximately 40 miles from the West DuPage RTS (by vehicle) and approximately 15 miles (by distance) from the Service Area, is permitted to accept hydro excavation and other low-solids wastes (i.e., wastes which do not meet the IEPA definition of a solid waste). The hydro excavation and other low-solids wastes are unloaded into concrete lined mixing pits, and mixed with absorbent materials such as wood chips. The solidified waste is then hauled to a permitted landfill for disposal. The proposed hydro excavation waste infrastructure and operations at the West DuPage RTS are very similar to those at Heartland Recycling. Heartland Recycling receives and processes 100 tons per day to 400 tons per day of hydro excavation and other low-solids wastes, with the higher acceptance volumes generally occurring during the construction season. Waste acceptance information provided for

the Heartland Recycling facility indicate that the hydro excavation and other low-solids wastes are received from locations across northern Illinois.

Publicly available information regarding the amount of hydro excavation wastes that are generated within Illinois and/or a geographic area within Illinois is not available. A publicly available list of permitted facilities in Illinois that are permitted to accept hydro excavation waste is also not available. Due to the lack of publicly available information, CEC performed a survey of various customers, generators, and known management facilities. The following sections provide a summary of our findings.

1.6.1 LIMITED NUMBER OF PERMITTED FACILITIES PROXIMATE TO SERVICE AREA

The only facility in or within 10 miles of the Service Area which is known to be currently permitted to accept hydro excavation and similar low-solids waste is the Woodridge-Greene Valley Wastewater Facility (Wastewater Facility). The location of the Wastewater Facility is shown on Figure 1-2D. The Wastewater Facility is operated by DuPage County and is rated at 12 million gallons per day of wastewater treatment capacity. Based on information provided by the Operation and Maintenance Manager at the Wastewater Facility, the Wastewater Facility accepts wastes from hydrovac trucks and processes the waste by:

- Decanting off the water in the hydrovac truck by pumping into a wastewater manhole;
- Unloading the remaining low solids material in the hydrovac truck into an approximately 2- to 3-foot tall roll off box (with a screen offset off the bottom) located in a processing building;
- Allowing the liquid to separate from the solids in the roll off box by gravity over at least a one week period;
- Treating the removed liquid at the Wastewater Facility; and
- Hauling the dried solids for disposal at a permitted landfill.

The following is additional information regarding the operations:

- The hyrodvac wastes accepted are primarily storm sewer cleanings from municipalities such as Naperville and Woodridge, which generally have less solids than hydro excavation wastes.
- The Wastewater Facility does not accept hydrovac wastes after 3:00 p.m.
- The Wastewater Facility removes approximately one roll off box (approximately 15 cubic yards) for disposal at a landfill per week, although the amount removed varies by season.

1.6.2 SUBSTANTIAL TRAVEL DISTANCES TO MANAGE WASTES

Commonwealth Edison Company (ComEd) is a unit of Chicago-based Exelon Corporation (NASDAQ: EXC), a Fortune 100 energy company with approximately 10 million electricity and natural gas customers. ComEd provides power for more than four million customers across northern Illinois, or 70% of the state's population. ComEd's service territory borders Iroquois County to the south (roughly Interstate 80), the Wisconsin border to the north, the Iowa border to the west, and the Indiana border to the east [https://www.comed.com/AboutUs/Pages/CompanyInformation.aspx]. ComEd uses contractors and/or internal resources to perform non-destructive excavation (i.e., hydro excavation) services proximate to its underground infrastructure across northern Illinois. Waste acceptance information for the Heartland Recycling facility indicate that the cities from which hydro excavation wastes were received from Commonwealth Edison during 2020 included the following: Oakbrook Terrace, Hoffman Estates, Orland Park, Waukegan, Alsip, Naperville, Chicago, Huntley, Channahon, DeKalb, Wheeling, Skokie, Monee, Marengo, Rockford, Pontiac, Fox Lake and Streator.

Nicor Gas (Nicor) is the largest natural gas distribution company in Illinois, is part of Southern Company Gas and has a nearly 34,000 mile distribution system [https://www.nicorgas.com/company/about-us.html]. Nicor also uses contractors and/or internal resources to perform non-destructive excavation (i.e., hydro excavation) services proximate to its underground infrastructure across northern Illinois. Waste acceptance information for the Heartland Recycling facility indicate that the cities from which hydro excavation wastes were received from Nicor during 2020 included the following: Hudson, Crystal Lake, Bellwood, Shorewood, Elgin, Naperville, Rockford, Elk Grove Village, Freeport, Morris, Joliet, Glenwood, and Aurora.

Badger Daylighting (Badger) builds their own custom hydrovac trucks and has the largest hydro excavation fleet in North America. Their website [https://www.badgerinc.com/what-is-hydrovac-excavation/] indicates that they have a fleet of more than 1400 hydrovac vacuum trucks that provide non-destructive excavation services throughout United States and Canada. Badger appears to be the largest company providing hydro excavation and related services in northern Illinois. Badger's fleet in northern Illinois includes approximately sixty hydrovac vehicles, and they stage/park its fleet of vehicles in multiple locations to try to minimize drive times and better serve its customers. Badger's operating locations include Rockford, Illinois; Joliet, Illinois; Elk Grove Village, Illinois; and Whiting, Indiana [https://www.badgerinc.com/locations/]. The hydrovac vehicles typically originate and return to their operating locations each day. Badger routinely uses LRS's facility in Forest View to manage its hydro excavation and related wastes generated from locations across the Chicagoland area. The limited operating hours preclude their use of the Wastewater Facility (see Appendix 1-B1).

J.A.C.K. Contractor Services, Inc. (JACK) is based out of Crete and operates hydrovac vacuum trucks [https://www.jackcsi.com/]. They provide stormwater catch basin cleanout, non-destructive excavation services, and related services across the Chicagoland area to a variety of customers including the Illinois Department of Transportation. JACK uses LRS's facility in Forest View to manage some of its stormwater catch basin, hydro excavation, and related wastes.

1.6.3 INCREASING DEMAND

The Underground Contractor's Association of Illinois provided a letter of support for the proposed hydro excavation facility at the West DuPage RTS (see Appendix 1-B1). The letter indicates that hydro excavation services have become quintessential for utility companies, excavators, horizontal directional drilling, and many other essential services. This service has grown exponentially in recent years and is anticipated to continue to increase in demand.

Badger indicated that a large portion of their work is for utility companies. Badger also indicated that the demand for hydrovac services (and thus the generation of hydro excavation wastes) has been growing and is anticipated to continue to increase over time (see Appendix 1-B1).

HydroChemPSC is a national company that provides various industrial services to a variety of customers, including utility companies [https://www.hydrochempsc.com/]. They help manage hydro excavation and related wastes for various customers in northern Illinois, including utility companies. The hydro excavation and related wastes for which HydroChemPSC provides various services are routinely managed at LRS's facility in Forest view. HydroChemPSC indicated that their utility customers now require their contractors to use hydro excavation any time trenching, potholing, piling, or digging is performed close to their utility lines. They believe the need for hydrovac services (and thus the generation of hydro excavation wastes) has been growing and is anticipated to continue to increase over time.

1.7 WEST DUPAGE RTS BENEFITS

Waste recycling and transfer stations play an important role in a community's total waste management system, serving as a link between a community's solid waste collection program and a final waste disposal facility. West DuPage RTS will provide the following benefits.

1.7.1 INCREASE COMPETITION AND TRANSFER CAPACITY IN THE SERVICE AREA

Increase Transfer Capacity to the Service Area

The Service Area is almost entirely served by transfer stations as available landfills are too distant for MSW to be direct hauled. The transfer stations in the Service Area are owned by WMI and Waste Connections, and the landfills located closest to the Service Area are predominantly owned/operated by WMI and Waste Connections. This vertical integration provides significant financial and related advantages over collection companies without a similar waste management network of facilities. For these reasons, the waste collection in the Service Area is predominantly provided by WMI and Waste Connections.

The information in Section 1.4 suggests that amount of waste being accepted at the two current transfer stations is approximately 1,672 tons per day and that this amount has been relatively consistent over the years. A comparison with the generation amounts from Section 1.3 indicates that the MSW amount being managed by the transfer stations in the Service Area is approximately 1,313 tons per day less than the MSW amount being generated in the Service Area and, based on population and employment projections, this difference may increase over time. This reflects an approximately 1,313-ton-per-day shortfall/need for transfer stations in the Service Area, which can be partially met by the West DuPage RTS. Given the number of transfer stations proximate to the Service Area and advantages of waste companies to vertically integrate, it is reasonable that the approximately 1,313-ton-per-day difference is currently being managed by transfer stations located outside of the Service Area.

Increase Competition

The number of transfer stations in the Service Area and proximate to the Service Area increased during the 1990s and 2000s due to the closure of landfills in and proximate to the Service Area (e.g., five landfills within the Service Area have closed since 1995). At that time, the transfer stations were operated by a variety of companies. Over time, these transfer stations have been acquired and consolidated primarily by the publicly traded waste management companies. The merger of WMI and Advanced Disposal eliminated one of the waste management companies that had a substantial presence in the Service Area (Advanced Disposal). By forcing WMI/Advanced

Disposal to divest the Elburn Transfer Station, LRS eventually acquired this facility. However, this transfer station is located west of the Service Area, which is also the area of least population density. As such, the competition provided by this transfer station is only helpful for the western portion of the Service Area (e.g., Kane County west of the Fox River). LRS has no optimum solution for transfer of waste hauled from communities in the other portions of the Service Area, such as Lisle and Wheaton.

As previously discussed, the Service Area is almost entirely served by transfer stations as available landfills are too distant for MSW to be direct hauled. The companies that are vertically integrated with hauling companies, transfer stations, and landfills that serve the Service Area have significant advantages over companies without a similar waste management network of facilities. Hauling companies which operate in an area without their own disposal location (transfer station or landfill) are at a competitive disadvantage because the owner and/or operator of the disposal location is also a hauling competitor. The owner and/or operator of the disposal location can readily "drive up" the disposal cost of their competition and give their own hauling company a cost advantage. The overall likely impact is higher pricing and a reduction in services. The economic factor which tends to prevent this from occurring is competition; specifically, multiple potential transfer/disposal locations that are incentivized to want and bid on the hauling volume. West DuPage RTS would provide another option to haulers in the area.

As discussed in Section 1.4.3, only three privately owned companies remain who are providing hauling services to municipalities in or proximate to the Service Area (LRS, SBC Waste Solutions, and Flood Brothers Disposal). None currently own or operate an MSW transfer station in the Service Area. Roy Strom Companies sold their company to LRS in December 2020. Appendix 1-B2 contains a letter from George Strom, explaining their rationale for selling. In summary, a key reason Roy Strom sold to LRS is the exact reason discussed above: diminishing ability to compete in the market due to rising disposal costs caused by a lack of competition.

Appendix 1-B3 contains letters from the following waste haulers, which express their support for approving the local siting of the West DuPage RTS due to concerns about the need for recycling and disposal options given the industry consolidation:

- Flood Brothers Disposal - family run business based in Oak Brook Terrace that provides MSW collection, recycling services and dumpster rentals in the Service Area [https://www.floodbrothersdisposal.com/];
- Independent Recycling Services - family owned business based in Chicago that has "provided a competitive edge against large, corporate companies by providing customized waste management programs, cost-effective pricing, and in-demand services for waste hauling and recycling" [https://independentrecycle.com/];

- E&J Disposal - family run business based in Carol Stream specializing in contractor, homeowner, and business dumpster rentals in the Service Area [https://ejdisposal.com/];
- Bosman Disposal - family-owned and operated company based in Elmhurst that has built a reputation on providing quality junk removal services for commercial and residential properties [https://www.bosmandisposal.com];
- ERDS - family run business based out of Rockdale that offers residential and commercial waste collection services in the Service Area and operates the Moen Transfer Station [https://envrd.com/];
- Tri-State Disposal - family-owned and operated waste management company based in Riverdale that specializes in providing waste and recycling collection, dumpster rentals, and waste tire recycling services in Chicago and the surrounding suburbs [https://tri-statedisposal.com/];
- DisposAll Waste Services - Woman Business Enterprise/Disadvantaged Business Enterprise-certified privately owned refuse collection company operating out of Cicero that provides services the residential, commercial, industrial and construction markets in the Service Area [http://www.disposallwaste.com/];
- SBC Waste Solutions - a family and woman-owned business based in Broadview providing recycling, garbage and trash disposal, and waste management services in the Service Area [http://sbcwastesolutions.com/];
- MBL Recycling - recycling company working in conjunction with Economy Disposal Service [www.mblrecycling.com];
- Economy Disposal Service - family run business based out of McCook that offers residential, commercial and contractor waste hauling services in the Service Area [https://economydisposal.com/]; and
- Molenhouse Enterprises, Inc. - family run business based out of Warrenville that offers dumpster rental in the Service Area for MSW or C&D [https://molenhouse.com/].

As discussed in Section 1.4.2, ERDS began operating a new transfer station (the Moen Transfer Station) in late 2020 which is approximately 10 miles from the Service Area. The local siting application for the Moen Transfer Station (which was unanimously approved by the Village of Rockdale) states that the Moen Transfer Station service area had only one transfer station (the WMI Joliet Transfer Station) that accepts and transfers MSW, and it is owned by the same company (WMI) that operates the landfill (the Prairie View RDF). The local siting application similarly recognized that:

- This situation may discourage other haulers from using the waste disposal system in Will County.
- The owner and/or operator of the disposal location can potentially “drive up” the disposal cost of their competition and give their own hauling company a price advantage.

- The economic factor which tends to prevent this from occurring is competition; specifically, multiple potential transfer/disposal locations that are incentivized to want and bid on the hauling volume.
- While the Moen Transfer Station and WMI Joliet Transfer Station are in relatively close proximity to each other, competition for disposal services in the service area will be promoted by the addition of the Moen Transfer Station.

Appendix 1-B4 contains letters from the following municipalities, which express their support for approving the local siting of the West DuPage RTS due to concerns about the need for recycling and disposal options given the industry consolidation:

- City of Wheaton;
- Village of Forest View;
- Village of Hinckley; and
- Village of Lisle.

Appendix 1-B5 contains letters from twenty-one waste contractors/demolition companies, which express their support for approving the local siting of the West DuPage RTS due to concerns about the need for recycling and disposal options given the industry consolidation.

Appendix 1-B6 contains letters from over 110 citizens, which express their support for approving the local siting of the West DuPage RTS due to concerns about the need for recycling and disposal options given the industry consolidation.

In summary, the West DuPage RTS will increase the available capacity to the Service Area up to 650 tons per day for MSW. The maximum MSW amount requested in this application is based on internalizing the current LRS MSW hauling amount while allowing reasonable room for internal growth and potential acceptance of MSW from other haulers.

Examples of Benefits of Increased Competition

The City of West Chicago has already been a beneficiary of just the initial efforts to develop the West DuPage RTS. Waste Connections held the contract with West Chicago from July 1, 2012 to December 31, 2019 to haul the contract for curbside and/or alley collection of refuse, yard waste, and recyclable materials. The City of West Chicago provided a request for proposal to LRS and Waste Connections, dated June 24, 2019, for a new hauling contract. Bids were submitted in July 2019 (which was after the Host Community Benefit Agreement for the West DuPage RTS had been executed in May 2019). Based on just the potential development of the West DuPage RTS, LRS submitted a proposal for the residential waste service program. Waste Connections offered

significant improvements to the rate structure and overall program relative to the current contract. Waste Connections was awarded the new waste hauling contract for the City of West Chicago. Tangible benefits to West Chicago and its residents of the new waste hauling contract include:

- Cost Savings - Five-year savings of approximately $1,700,000 compared to the previous contract (or approximately $300 for each of the approximately 5,700 single-family units within the City of West Chicago);
- Organics Services - The city was offered a modified organics program which allowed organic food waste to be disposed with grass clippings on a subscription basis;
- Electronics Waste - The city requested, and received an offer to provide a monthly curbside collection of e-waste from West Chicago residents (up to six items for a fee of $30);
- Gratis Roll-off Service - The city requested, and received an offer to provide at least ten free roll-off boxes to use at its discretion for city projects and festivals;
- Organics/Pumpkin Seasonal Service - The city requested, and received an offer to provide a roll-off box at a central location in the fall for the free collection and composting of pumpkins from West Chicago residents;
- Gratis Waste and Recycling Services at City Facilities - The city requested, and received an offer to provide free waste and recycling services at five additional city facilities (relative to the previous contract);
- Gratis Holiday Light Collection - The city requested, and received an offer to providing a roll-off box at a central location after the holidays for the free recycling of holiday lights from West Chicago residents; and
- Amnesty Collection Event - The city requested, and received an offer to provide an annual clean-up/amnesty day service in May, which would allow residents to put an unlimited amount of acceptable waste at the curb for removal for a modest cost of eight stickers.

The other communities in the Service Area for which LRS provides services have realized similar savings. Examples include:

- Village of Lisle - the approximately 11,000 homes/residential units serviced realized an approximately 25% cost reduction in base services, and gained additional services for electronic waste, household hazardous waste, and organic food scrap compost;
- City of Wheaton - the approximately 14,800 homes/residential units serviced realized an approximately 50% cost reduction in base services, and gained a Radio Frequency Identification Program (RFID technology) for waste and recycling, which resulted in community wide waste minimization and increased recycling participation; and
- City of St. Charles - the approximately 11,000 homes/residential units serviced realized an approximately 23% cost reduction in base services, and gained additional services for an organic food scrap compost program.

The benefits discussed above generally reflect LRS's anticipation of being able to vertically integrate in the Service Area and eventually recognizing all of the associated benefits/advantages. If LRS does not receive approval of the West DuPage RTS, LRS's ability to compete on a long-term basis will be seriously jeopardized and all of the above listed benefits may eventually disappear.

Example of Transfer Station Density to Facilitate Competition

An example of the demonstrated economic factors which cause multiple companies with competing transfer stations to serve a market area is suburban Cook County. Suburban Cook County encompasses an aggregate area of approximately 1,400 square miles, and, as of 2016, had an estimated population of 2,498,541 [2018 Cook County SWMP Update, page 12]. The movement of waste in suburban Cook County is supported by a complex network of waste and recycling haulers, transfer stations, and material recovery facilities. As of the end of 2017, suburban Cook County had twenty operational MSW transfer stations, with one additional transfer station that was under construction at that time [2018 Cook County SWMP Update, page 12]. Owners and/or operators include WMI, Republic Services, Waste Connections, LRS, Tri-State Disposal, SWANCC and Homewood Disposal.

As a comparison, the Service Area has an aggregate area of approximately 640 square miles and a population of approximately 1.087 million (so approximately 45% of the land and approximately 43% of the population of the Suburban Cook County Area). In contrast, the Service Area currently has less than 10% of the MSW transfer stations than suburban Cook County (two MSW transfer station in the Service Area divided by twenty-one MSW transfer stations in suburban Cook County). Similar to the Service Area, suburban Cook County (and the City of Chicago) have no active MSW landfills.

Table 1-9: Comparison of Transfer Station Density

	Aggregate Area (square miles)	Population (persons)	Number of MSW Transfer Stations
Service Area	640	1.087 million	2
Suburban Cook County	1,400	2.499 million	21
Percentage Difference	45%	43%	**10%**

The ongoing operation all of the transfer stations in suburban Cook County are a result of ongoing market demands for competitive disposal costs. All disposal occurs outside of Cook County, primarily northwest, southwest, and southeast of Chicago. As previously discussed, waste disposal

from Chicago, suburban Cook County and adjoining counties (including DuPage County) has shifted over time from landfills proximate to the Chicago metropolitan area to landfills at substantially farther distances. The distance of these landfills from the Chicago metropolitan area are in the range of 60–90 miles one way. The same trends have occurred in the Service Area. The same economic factors discussed above for the Service Area (i.e., multiple potential transfer/ disposal locations with multiple owners/ operators that are incentivized to want and bid on the hauling volume) result in the continued operation of a much denser number of MSW transfer stations in suburban Cook County than in the Service Area. This further demonstrates the need for additional MSW transfer stations in the Service Area.

1.7.2 PROVIDE NEEDED TRANSPORTATION EFFICIENCIES FOR HYDRO EXCAVATION WASTES

As discussed in Section 1.6, the Service Area has a limited number of permitted facilities to manage hydro excavation and related wastes. The volume of hydro excavation waste will clearly continue to increase over time. The West DuPage RTS will provided needed operational capacity and flexibility to manage these wastes. Letters and emails from various contractors and the Underground Contractors Association that support the proposed processing of hydro excavation waste at the West DuPage RTS are provided in Appendix 1-B1.

Badger indicated the following:

- The anticipated benefit to Badger if the proposed LRS facility is approved is primarily transportation logistics. Specifically, Badger provides services in many areas that are more conveniently located to West Chicago than other permitted facilities (such as the Forest View) so the use of the proposed West DuPage RTS would reduce transportation costs.
- Badger would save approximately two hours for each load that could be re-directed to the proposed West DuPage RTS in lieu of the LRS Forest View Facility.
- The typical cost to a customer for Badger's hydrovac services is approximately $250 per hour plus disposal costs.
- The decreased driving time would also increase Badger's productivity (i.e., more time to be providing services versus driving).
- Approximately 40% of the work Badger performs is located more convenient to West Chicago than Forest View.
- The extended operating hours (i.e., open past 3:00 p.m.) of the LRS Forest View facility is very helpful to Badger, and similar operating hours at the proposed West DuPage RTS would be desirable.

The above information indicates that, if the West DuPage RTS is permitted and Badger is able to recognize the above efficiencies for one-third (or twenty) of their trucks, Badger would save

approximately 11,440 hours of drive time for their hydrovac trucks per year (two hours per load x twenty loads per day x 286 days per year). This equates to approximately $2.86 million in costs (11,440 hours x $250 per hour).

JACK indicated the following:

- The anticipated benefit to JACK if the proposed LRS facility is approved is primarily transportation logistics. Specifically, JACK provides services in certain areas that are more conveniently located to West Chicago than other permitted facilities (such as the Forest View) so the use of the proposed West DuPage RTS would reduce transportation costs.
- The decreased driving time would also increase JACK's productivity (i.e., more time to be providing services vs driving).
- Approximately 25% of the work JACK performs is located more convenient to West Chicago than other available locations.

The anticipated transportation logistics benefits to JACK are very similar to the anticipated benefits to Badger. HydroChemPSC also confirmed that, if the proposed West DuPage RTS is approved, the location would be more ideally located for a significant amount of their customer's hydro excavation wastes.

If the drive time savings of other providers is similar to the savings anticipated by Badger and approximately forty loads are accepted per day at the West DuPage RTS, the savings for all providers would equate to almost 23,000 hours of drive time per year (two hours per load x 40 loads per day x 286 days per year) and approximately $5.72 million in cost savings per year (2 hours per load x 40 loads per day x $250 per hour x 286 days per year). The reduction in drive time would result in increased productivity and/or costs savings, which would presumably be passed along to their clients (such as ComEd, Nicor, and Illinois Department of Transportation) and the rate payers.

Assuming each vehicle saves an average of 60 miles per day (note that the one-way driving distance from the West DuPage RTS to Heartland Recycling is approximately 40 miles), the reduction in drive time would eliminate approximately 686,400 road miles per year (60 miles per load x 40 loads per day x 286 days per year) . These savings may increase in the future based on the anticipated growing demand of hydro excavation services.

1.7.3 PROVIDE ADDITIONAL OPERATIONAL FLEXIBILITY FOR THE SERVICE AREA

West DuPage RTS will have longer operation hours than the other transfer stations in the Service Area. LRS previously primarily used the Batavia Transfer Station. LRS trucks needed to reach

the Batavia Transfer Station by approximately 4:30 p.m. or they were not allowed to unload. The operator of the transfer station controls the operating hours. The control of operating hours is another advantage for large national waste companies who own/operate all of the transfer stations in the Service Area. CEC is familiar with other instances where a transfer station owner/operator allowed longer operating hours for internal collection vehicles but not third party haulers.

The limited operating hours at the Batavia Transfer Station caused some LRS collection vehicles to routinely need to cease pick up without a full load, and essentially cause extra trip(s) to be made. The West DuPage RTS will allow more operational flexibility and efficient hauling operations by providing extended operating hours. The operation of the West DuPage RTS would also provide an option to privately owned haulers who provide hauling in the Service Area.

The operational flexibility will facilitate West DuPage RTS providing safe and environmental protective waste removal for its residents and businesses.

1.7.4 PROVIDE DIRECT BENEFITS TO THE CITY OF WEST CHICAGO

In planning for the proposed transfer station, LRS has executed a host community agreement with the City of West Chicago. The host community agreement contains provisions for economic benefits to be provided to the City of West Chicago (if the siting request meets the statutory requirements as set forth in 415 ILCS 5/39.2 and is built and operated). These benefits include LRS providing a host benefit fee of $2.45 for each ton of MSW or hydro excavation waste received; “most favored nation” rates for waste generated within West Chicago; free disposal of up to 2,500 tons of waste generated by West Chicago; free use of up to a total of twenty 1.5-cubic yard dumpsters or sixty 90-gallon carts annually for one-time pick up each at special events and/or West Chicago use; preference to suitably skilled applicants residing in West Chicago for work at the West DuPage RTS; and establishment of a courtesy drop-off area for West Chicago residents of electrical/electronic devices. The host community agreement between the City of West Chicago and LRS is provided in Appendix 1-C.

If the West DuPage RTS accepts an average of 600 tons per day of MSW and hydro excavation waste per day, this will result in over $420,000 per year of revenues to the City of West Chicago.

1.7.5 PROVIDE DIRECT BENEFITS TO DUPAGE COUNTY

LRS has executed a secondary host community benefit agreement with DuPage County. The secondary host community benefit agreement contains provisions for economic benefits to be provided to DuPage County (should West Chicago approve the siting application and the West DuPage RTS is built and operated). These benefits include LRS providing a host benefit fee of $0.58 for each ton of MSW or hydro excavation waste received; establishment of a drop-off area

for recyclables (e.g., bottles, cans, cardboard, and paper) generated by residents and small businesses at no cost to the resident; and partnering with DuPage County on an application(s) to the IEPA for the funding of household hazardous waste collection(s) at the site at the request of DuPage County. The host community agreement between DuPage County and LRS is provided in Appendix 1-D.

As discussed in Section 1.3.1, DuPage County is estimated to need to dispose of approximately 929,431 tons of waste annually based on waste generation and recycling rates. Based on the information in Section 1.4.1, DuPage County only disposes of approximately 30% of this amount at the one transfer station within the county (the DuKane Transfer Station). Neighboring counties are managing the majority of waste that DuPage County generates. As such, DuPage County is not collecting the host fees from the waste which its residents and businesses generate. Using the above host fee of $0.58 per ton, this is lost revenue to DuPage County of almost $400,000 per year.

The West DuPage RTS will facilitate DuPage County capturing more of these revenues because LRS would be able to recognize the advantages of full vertical integration within the Service Area. If the West DuPage RTS accepts an average of 600 tons per day of MSW and hydro excavation waste per day, this will result in approximately $100,000 per year of revenues to DuPage County.

1.7.6 FACILITATE RECYCLING IN THE SERVICE AREA

The West DuPage RTS currently plays an important role in the diversion of waste from landfills through its sorting/separation and recycling of general construction or demolition debris. The site is currently responsible for recycling and/or beneficially re-using approximately 75,000 tons of waste per year, including recycling wood into a high quality mulch and/or silt control material.

The C&D recycling facilities in Illinois, including the existing operations at the West DuPage RTS, are facing increasing challenges to meet the Illinois operational requirements and maintain their C&D recycling permits. These challenges include:

- More limited options to beneficially re-use screening fines due to odor issues at landfills (caused by the conversion of the calcium sulfate in drywall to hydrogen sulfide); and
- More limited options to beneficially re-use asphalt shingles in roadways due to potential performance issues (relative to roadways with no recycled asphalt component).

The proposed West DuPage RTS will allow the site to expand and/or provide more efficient recycling operations including the following:

- Allowing additional investments in C&D recycling infrastructure (e.g., screens, conveyors) to minimize the generation of screening fines and improve recycling of C&D;
- Operation of a courtesy drop-off for electronic wastes from West Chicago citizens;
- Recycling of loads which are predominantly recyclable material but are not classified as C&D (and thus not acceptable under the current site permit); and
- Receipt and transfer of SSR.

LRS owns and operates a material recovery facility at its Heartland Recycling in Forest View. The SSR from the site will be transported to Heartland Recycling where it will be sorted/separated into its components (plastic, metal, paper, cardboard, etc.). The component material is then baled and sent to various facilities for further processing and/or recycling. The ability to transfer the SSR through its own site will allow LRS to better manage and improve the efficiencies of this operation.

DuPage County and the other communities in the Service Area have historically taken a proactive leadership role in recycling. The DuPage County 2017 Update and Kane County 2020 Update both discuss the current challenges with recycling and continuing to increase the diversion rate from landfills. The MSW waste operations will allow infrastructure and operational improvements to be made at the West DuPage RTS which will facilitate increased recycling and waste diversion amounts in the area.

1.7.7 REDUCE ENVIRONMENTAL IMPACTS TO THE CITY OF WEST CHICAGO AND THE AREA

LRS is currently performing waste hauling operations within the Service Area. LRS currently parks and maintains approximately twenty-one waste or recyclable collection vehicles at the site. The collection vehicles travel from the site to their route, unload the waste or recyclables at another transfer station (currently the Batavia Transfer Station or the Greenwood Transfer Facility), generally complete a second route/ unloading, and then return to the site to park overnight. With the West DuPage RTS, each truck will minimally save the mileage of returning from the Batavia Transfer Station to the site at the end of the day (at least 6 miles per day).

As indicated above, the Batavia Transfer Station ceases accepting waste each day at 4:30 p.m. to 4:45 p.m., depending on the number of collection vehicles waiting to unload. If an LRS collection truck is not finished with its route by the cut off time, it needs to leave its route to travel to the transfer station and unload the amount of waste collected at that time, then return to complete its route. Based on data from June 2020, this situation occurs with about six collection trucks per day. The West DuPage RTS will have extended hours and eliminate the need for an extra trip to the transfer station.

The proposed West DuPage RTS will reduce the travel distance of its hauling fleet. Eliminating the travel of all of the current collection vehicles to the Batavia Transfer Station would reduce vehicle mileage by a minimum of 36,036 miles per year (twenty-one collection vehicles x 6 miles per day x 286 days per year). Eliminating the extra trip per day for the approximately six vehicles would save an additional approximately 10,300 miles per year (six collection vehicles x 6 extra miles per day x 286 days per year). In addition, at least ten LRS collection vehicles currently hauling MSW to the other transfer stations (e.g., LRS's Greenwood Transfer Station) would be diverted to the West DuPage RTS resulting in a reduction in vehicle mileage of approximately 28,600 miles per year (ten collection vehicles x 10 extra miles per day x 286 days per year).

As evidenced by the letters of support from the multiple other haulers servicing the Service Area, the West DuPage RTS is anticipated to be used by other haulers providing services to the Service Area. These haulers would be expected to similarly realize reduced miles for their collection vehicles. If the use of the West DuPage RTS provided a mileage savings of only 10 miles per day for approximately 100 tons of waste per day (or fourteen vehicles per day), a reduction in vehicle mileage of approximately 40,000 miles per year would occur (fourteen collection vehicles x 10 miles per day x 286 days per year).

As discussed in Section 1.7.2, hydro excavation services are a growing market, and the development of a second facility in the western portion of the Chicago metropolitan area to manage hydro excavation waste will enhance transportation efficiency by at least 686,400 miles per year.

The above reductions in truck miles will save fuel and reduce wear on roads. The reduction in fuel usage will reduce the emissions and carbon footprint associated with managing this waste stream. A summary of the environmental savings is provided in Table 1-10.

Table 1-10: Summary of Reduced Environmental Impacts

	Reduced Miles (per year)	Reduced Miles (over 20 year operating period)	Reduced Fuel Usage (gallons over 20 year operating period)	Reduced Emissions (pound of CO_2 over 20 year operating period)
LRS MSW Collection Vehicles	75,000	1.5 million	425,000	9.51 million
Other Collection Vehicles	40,000	800,000	230,000	5.15 million
Hydro Excavation Vehicles	685,000	13.7 million	3.914 million	87.60 million
Total	800,000	16.0 million	4.569 million	102.26 million

Over the minimum design period, the use of the West DuPage RTS is estimated to eliminate approximately 16.0 million heavy truck miles on area roads, reduce fuel consumption by over 4.5 million gallons, and reduce the carbon footprint by over 100 million pounds of CO2 emissions. These savings would increase if the operations and/or the operating period at the West DuPage RTS increases in the future.

1.8 SUMMARY AND CONCLUSION

This report demonstrates that the West DuPage RTS is necessary to accommodate the waste needs of the area it is intended to serve. The following conclusions support this opinion:

- The West DuPage RTS will increase competition and available transfer capacity in the service area, which has been clearly recognized to help control price increases and maintain a high quality of service in both the residential and commercial sectors.
- The West DuPage RTS will provide a necessary and conveniently located facility to manage hydro excavation wastes, which will result in significant transportation efficiencies.
- The West DuPage RTS will provide additional operational flexibility for the service area through extended operating hours.
- The West DuPage RTS will provide direct benefits to the City of West Chicago as detailed in the Host Community Benefit Agreement with West Chicago.
- The West DuPage RTS will provide direct benefits to DuPage County as detailed in the Secondary Host Community Benefit Agreement with DuPage County.
- The West DuPage RTS will facilitate recycling in the service area by expanding its service offerings and allowing additional investments in site infrastructure and operational improvements.
- The West DuPage RTS will reduce environmental impacts to the City of West Chicago and the area by decreasing the travel distance of MSW and hydro excavation collection vehicles.
- Waste quantities in the service area are projected to increase in the future as a result of the continued population and employment growth.

For the reasons cited above, West DuPage RTS meets the requirements of Criterion 1 as it is "necessary to accommodate the waste needs of the area it is intended to serve".

1.9 CERTIFICATION

I hereby certify that all information contained in this Application for Local Siting Approval for Criterion 1 was prepared by me or under my direct supervision, and is true and correct to the best of my knowledge and belief.

John Hock, P.E.

9.14.2022
Date

062-047623 - IL
Professional Engineer Registration Number and State

CRITERION 1

TABLES

Civil & Environmental Consultants, Inc.

Table 1-2A
West DuPage Recycling and Transfer Station
Service Area Census Data 2010 - 2040

	Townships	2020 Census Population	2040 Projected Population	2020 Census Households	2040 Projected Households	2020 Census Employment	2040 Projected Employment
DuPage County	Bloomingdale	111,875	127,463	37,841	48,259	62,896	72,358
	Lisle	119,040	132,390	47,362	54,576	68,309	75,443
	Milton	120,237	132,716	44,063	53,553	61,642	61,722
	Naperville	104,765	118,653	36,758	47,449	61,215	83,568
	Wayne	64,427	74,665	21,796	24,847	38,297	19,490
	Winfield	45,836	54,985	15,415	19,359	26,384	27,279
	Total	**566,180**	**640,872**	**203,235**	**248,043**	**318,743**	**339,860**
Will County[1]	Du Page	87,348	105,019	28,260	35,343	48,161	57,103
	Wheatland	88,894	106,118	27,880	33,845	45,694	18,072
	Total	**176,242**	**211,137**	**56,140**	**69,188**	**93,855**	**75,175**
Kane County	Aurora	126,929	184,912	47,836	63,454	75,776	62,611
	Batavia	35,363	43,866	13,193	16,980	19,884	16,404
	Elgin	104,493	127,582	36,270	46,492	55,211	48,086
	Geneva	26,396	34,370	9,911	14,161	14,250	26,613
	St. Charles	51,902	60,711	18,639	24,170	26,995	31,158
	Total	**345,083**	**451,441**	**125,849**	**165,257**	**192,116**	**184,872**
	Grand Total	**1,087,505**	**1,303,450**	**385,224**	**482,488**	**604,714**	**599,907**
	Percentage Increase	**19.9%**		**25.2%**		**-0.8%**	

Notes:

1. Population, household and employment for years 2040 for all listed Townships were taken from the Chicago Metropolitan Agency for Planning (CMAP).
2. Population for the year 2010 based on data from https://www.citypopulation.de/en/usa/illinois/admin/ (U.S. Census Bureau (web).
3. Employment data for 2020 from U.S. Census Bureau (web). Survey/Program: American Community Survey - 2019: ACS 5-Year Estimates Data Profiles.
4. Population and household data for the year 2020 based on data from https://data.census.gov.

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Table 1-2B
West DuPage Recycling and Transfer Station
Solid Waste Projections Utilizing Census Data 2020 - 2040 and SWMP

	Townships	2020 Census Population	2040 Projected Population	2020 Census lbs. per capita/day (PCD)	2020 Census Recycling Rate	2020 Census lbs./day	2040 Census lbs. per capita/day (PCD)	2040 Census Recycling Rate	2040 Census lbs./day
DuPage County	Bloomingdale	111,875	127,463	8.70	30%	681,319	8.70	30%	776,250
	Lisle	119,040	132,390	8.70	30%	724,954	8.70	30%	806,255
	Milton	120,237	132,716	8.70	30%	732,243	8.70	30%	808,240
	Naperville	104,765	118,653	8.70	30%	638,019	8.70	30%	722,597
	Wayne	64,427	74,665	8.70	30%	392,360	8.70	30%	454,710
	Winfield	46,233	54,985	8.70	30%	281,559	8.70	30%	334,859
	Total	**566,577**	**640,872**		**lb./day**	**3,450,454**		**lb./day**	**3,902,910**
Will County	DuPage	87,348	105,019	7.56	43%	376,400	7.56	43%	452,548
	Wheatland	88,894	106,118	7.56	43%	383,062	7.56	43%	457,284
	Total	**176,242**	**211,137**		**lb./day**	**759,462**		**lb./day**	**909,832**
Kane County	Aurora	126,929	184,912	8.21	37%	656,515	8.21	37%	956,420
	Batavia	35,363	43,866	8.21	37%	182,908	8.21	37%	226,888
	Elgin	104,493	127,582	8.21	37%	540,469	8.21	37%	659,892
	Geneva	26,396	34,370	8.21	37%	136,528	8.21	37%	177,772
	St. Charles	51,902	60,711	8.21	37%	268,453	8.21	37%	314,016
	Total	**345,083**	**451,441**		**lb./day**	**1,784,873**		**lb./day**	**2,334,988**
	Grand Total	**1,087,902**	**1,303,450**		**lb./day**	**5,994,789**		**lb./day**	**7,147,730**
					tons/day[4]	**2,997**		**tons/day[4]**	**3,574**

Notes:

1. Populations totals for 2020 and 2040 were taken from Table 1-2.
2. The values for pounds per capita per day and the recycling percentages were taken from each individual County Solid Waste Management Plan; pounds per capita and recycling rates.
3. Pounds per day was calculated by taking the Population Census * pound per capita day * (100% - recycling rate %).
4. Tons per a day was calculated by dividing the total pounds per a day by 2000 pounds per a ton.

Civil & Environmental Consultants, Inc.

Table 1-2C
West DuPage Recycling and Transfer Station
Solid Waste Projections Utilizing Census Data 2020 - 2040 and DCEO

	Townships	2020 Census Population	2040 Projected Population	2020 Census lbs. per capita/day (PCD)	2020 Census Recycling Rate	2020 Census lbs./day	2040 Census lbs. per capita/day (PCD)	2040 Census Recycling Rate	2040 Census lbs./day
DuPage County	Bloomingdale	111,875	127,463	8.72	37%	611,670	8.72	37%	696,896
	Lisle	119,040	132,390	8.72	37%	650,844	8.72	37%	723,834
	Milton	120,237	132,716	8.72	37%	657,389	8.72	37%	725,617
	Naperville	104,765	118,653	8.72	37%	572,796	8.72	37%	648,728
	Wayne	64,427	74,665	8.72	37%	352,251	8.72	37%	408,226
	Winfield	45,836	54,985	8.72	37%	250,606	8.72	37%	300,627
	Total	**566,180**	**640,872**		**lb./day**	**3,095,555**	**8.70**	**lb./day**	**3,503,929**
Will County	DuPage	87,348	105,019	8.72	37%	477,570	8.72	37%	574,185
	Wheatland	88,894	106,118	8.72	37%	486,023	8.72	37%	580,194
	Total	**176,242**	**211,137**		**lb./day**	**963,593**		**lb./day**	**1,154,379**
Kane County	Aurora	126,929	184,912	8.72	37%	693,977	8.72	37%	1,010,995
	Batavia	35,363	43,866	8.72	37%	194,270	8.72	37%	240,982
	Elgin	104,493	127,582	8.72	37%	571,309	8.72	37%	697,547
	Geneva	26,396	34,370	8.72	37%	144,319	8.72	37%	187,916
	St. Charles	51,902	60,711	8.72	37%	283,771	8.72	37%	331,934
	Total	**345,083**	**451,441**		**lb./day**	**1,887,646**		**lb./day**	**2,469,374**
	Grand Total	**1,087,505**	**1,303,450**		**lb./day**	**5,946,793**		**lb./day**	**7,127,682**
					tons/day[4]	**2,973**		**tons/day[4]**	**3,564**

Notes:

1. Populations totals for 2020 and 2040 were taken from Table 1-2.
2. The values for pounds per capita per day and the recycling percentages were taken from the report titled "The Illinois Commodity/Waste Generation & Characterization Study", commissioned by Illinois Department of Commerce and Economic Opportunity (DCEO), prepared by CDM, Dated May 22, 2009.
3. Pounds per day was calculated by taking the Population Census * pound per capita day * (100% - recycling rate %).
4. Tons per a day was calculated by dividing the total pounds per a day by 2000 pounds per a ton.

Table 1-4
West DuPage Recycling and Transfer Station
Collection Company by Municipality

Municipality	Population	Proximity to I-355	Collection Company	Reference	Notes
Addison	35,702	DuPage County, East of I-355	Republic Services	http://www.addisonadvantage.org/services/trash_removal/garbage_pickup.php	Offers garbage, recycling, and landscape waste removal. Garbage pickup is on a weekly basis. Landscape waste requires a sticker.
Aurora	180,542	DuPage County, West of I-355	Waste Connections/Groot Industries	https://www.aurora-il.org/1114/Sanitation	Offers garbage, recycling, and landscape waste removal. All waste and recyclables are scheduled to be picked up on the same day. Garbage that does not fit in the refuse cart will need to properly attach a waste sticker to bag. Yard waste have a waste sticker attached. The stickers used for yard waste are the same as the stickers used for excess garbage.
Bartlett	41,105	DuPage County, West of I-355	Waste Connections/Groot Industries	https://www.village.bartlett.il.us/services/utilities-resident-services/garbage-service	Offers garbage, recycling, and landscape waste removal. Weekly collection. Yard waste must have sticker.
Batavia	15,600	DuPage County, West of I-355	Waste Management	http://www.cityofbatavia.net/288/Garbage-Refuse	Weekly refuse pickup. Recycling picked up same day as garbage. Sticker is required for both refuse and yard waste.
Bensenville	18,813	DuPage County, East of I-355	Republic Services	http://www.bensenville.il.us/241/Refuse-Recycling-and-Yard-Waste	Yard waste must be set out in either a yard waste paper bag or an unlined garbage can designated for yard waste. Collection is scheduled weekly.
Bloomingdale	22,382	DuPage County, West of I-355	SBC Waste Solutions Disposal	http://www.villageofbloomingdale.org/379/Residential-Waste-Collection	Effective March 1, 2021, SBC Waste Solutions Disposal (SBC) will be the village's exclusive hauler. Collects garbage, recycling, and landscape waste. Please call SBC with collection related questions at 312-522-1115.
Bolingbrook	73,922	DuPage County, West of I-355	Flood Brothers Disposal & Recycling Systems Co.	https://www.bolingbrook.com/refusecollection	Landscape waste must be in paper bag, did not seem to mention if it needed a sticker. Certain areas have weekly pickup for garbage/refuse, while others are biweekly.
Burr Ridge	11,192	East of I-355	Waste Connections/Groot Industries	https://www.burr-ridge.gov/community/garbage___recycling.php	Garbage pickup is weekly. Rate increase as of August 1, 2019 burr-ridge.gov/wp-content/uploads/sp-client-document-manager/3/groot-brochure-2017.pdf
Carol Stream	39,854	DuPage County, West of I-355	Flood Brothers Disposal & Recycling Systems Co.	https://www.carolstream.org/residents/residential-garbage-recycling	Collect general refuse, yard waste, and recycling. Garbage pickup is weekly, yard waste must have a sticker.
City of Aurora	180542	Kane County	Waste Connections/Groot Industries	https://www.aurora-il.org/1114/Sanitation	Refuse, yard waste and curbside recycling service is provided once a week for each residence. All waste and recyclables are scheduled to be picked up on the same day. However, depending on volume, bundled brush or yard waste may be a day late. Refuse and recycling collection is a volume-based cart program. Stickers are needed for any yard waste and garbage that does not fit into the provided cart.
City of Batavia	15,600	Kane County	Waste Management	http://www.cityofbatavia.net/288/Garbage-Refuse	Weekly refuse pickup. Each single-family household will be supplied with a 65- or 95-gallon refuse and recycling carts for collection. Recycling picked up same day as garbage. Sticker is required for yard waste except during October and November.
City of Geneva	21,539	Kane County	Lakeshore Recycling Systems	https://www.geneva.il.us/1124/Garbage-Recycling-Yard-Waste	Residents can dispose of their trash with a "pay as you throw" user base model or subscribe to a garbage cart from Lakeshore Recycling that carries a monthly charge. That option requires a sticker be placed on all trash bags or cans. Yard waste also requires a sticker. If using a cart, refuse stickers are not needed for trash.

Table 1-4
West DuPage Recycling and Transfer Station
Collection Company by Municipality

Municipality	Population	Proximity to I-355	Collection Company	Reference	Notes
City of St. Charles	32,797	Kane County	Lakeshore Recycling Systems	https://www.stcharlesil.gov/services/refuse	Sticker is required for yard waste. Weekly pickup for refuse, recycling, and yard waste. Cart is provided for yard waste that does not need a sticker.
Clarendon Hills	8,702	East of I-355	Lakeshore Recycling Systems	https://www.clarendonhills.us/226/Refuse-Recycling	Weekly pickup for garbage. Landscape sticker is required. Recycling is picked up weekly.
Darien	22,011	DuPage County, East of I-355	Lakeshore Recycling Systems	https://www.darien.il.us/City-Services/Utilities.aspx	Use a sticker program for both refuse and yard waste. Both recycling, refuse, and landscape is picked up on same day.
Downers Grove	50,247	DuPage County, East of I-355	Republic Services	http://www.downers.us/res/garbage-and-recycling	Republic collects weekly. Refuse, yard waste and recycling are collected on the same day each week. Downers Grove uses a pay-per-bag system for both refuse and yard waste. Stickers are purchased and placed on each item. Republic Services is Downers Grove's provider of solid waste services, which includes the collection of refuse, yard waste and recycling.
Elk Grove Village	32,812	DuPage County, East of I-355	Waste Connections/Groot Industries	https://www.elkgrove.org/services/refuse-recycling	Weekly garbage pickup. Yard waste collection takes place the same day as the homeowner's garbage collection date. Yard waste stickers are required
Elmhurst	45,786	DuPage County, East of I-355	Republic Services	https://elmhurst.org/473/Refuse-Recycling-Yard-Waste-Organic-Wast	City Council approved a new five-year contract with Republic Services. Pickup is weekly. Cans or bags of yard waste must have a yard waste sticker and must be clearly labeled.
Glen Ellyn	28,846	DuPage County, West of I-355	Waste Connections/Groot Industries	http://www.glenellyn.org/210/Unlimited-Refuse-Collection	Weekly refuse/recycling collections, yard waste as well. Sticker is required for yard waste and refuse.
Glendale Heights	33,176	DuPage County, West of I-355	Republic Services	https://glendaleheights.org/contactus.asp#serviceproviders	Can use a container, clearly labeled for yard waste, or you can use a yard waste paper bag, no mention of stickers needed. Weekly collection of recycling, refuse, and yard waste.
Hanover Park	37,470	DuPage County, West of I-355	Waste Connections/Groot Industries	https://www.hpil.org/360/Collection-Information	Some areas have weekly pickup, while some pickup twice a week. Yard waste stickers are required. Offers recycling, garbage, and yard waste.
Hinsdale	17,395	DuPage County, East of I-355	Republic Services (former Allied Waste)	https://www.villageofhinsdale.org/departments/public_services/garbage_waste_disposal.php	Offers recycling, yard waste, and garbage removal. Weekly removal. Yard waste sticker is required. Two stickers needed for bulk items.
Itasca	9,543	DuPage County, East of I-355	Republic Services (former Allied Waste)	http://il-itasca.civicplus.com/1297/Garbage-Pick-up-Information	Garbage, recycling, and yard waste is picked up same day and weekly. No mention of a sticker for yard waste, only that it be clearly labeled.
Lemont	17,629	DuPage County, East of I-355	Waste Management	https://www.lemont.il.us/departments/administration/garbage-recycling-services	Recycling is collected same day as garbage pickup, weekly. Yard waste is collected same way as well and you may purchase a cart for yard waste, no mention of a sticker though.
Lisle	24,223	DuPage County, West of I-355	Lakeshore Recycling Systems	https://www.villageoflisle.org/403/Refuse-Yard-Waste-Recycling	Weekly garbage/refuse, recycling and yard waste and all on same day. Stickers for garbage/refuse and yard waste are used. The offer a waste cart that does not need a sticker.
Lombard	44,476	DuPage County, East of I-355	Waste Management	http://www.villageoflombard.org/187/Refuse-Recycling-Yard-Waste	Refuse and recycling services are provided for both residential and commercial properties by Waste Management. Yard waste stickers are required and yard waste is collected same day as regular collection.

Table 1-4
West DuPage Recycling and Transfer Station
Collection Company by Municipality

Municipality	Population	Proximity to I-355	Collection Company	Reference	Notes
Naperville	149,540	DuPage County, West of I-355	Waste Connections/Groot Industries	https://www.naperville.il.us/services/garbage-and-recycling/	Yard waste must be set out in either a biodegradable paper bag or an unlined garbage can designated for yard waste. Collection is scheduled weekly.
Oak Brook	8,163	DuPage County, East of I-355	Flood Brothers Disposal & Recycling Systems Co.	http://oak-brook.org/278/Refuse-Recycling	As of January 1, 2020, the village has contracted Flood Brothers to provide refuse and recycling services. Pick-up is on Mondays for one time per week pick and on Mondays and Thursdays for two times per week pickup, depends on what you subscribe to. Yard waste sticker must be put on yard waste bag. Yard waste is collected Mondays.
Oakbrook Terrace	2,047	DuPage County, East of I-355	Flood Brothers Disposal & Recycling Systems Co.	https://www.oakbrookterrace.net/community/page/residents-frequently-asked-questions	No sticker required for yard waste. Refuse picked up weekly along with yard waste and recycling. Stickers for refuse may be used if all does not fit in provided containers.
Plainfield	44,762	Will County, West of I-355	Waste Management	https://www.plainfieldil.gov/services/waste-recycling	Refuse and recycling services are provided by Waste Management. Yard waste is collected beginning in April and continuing through the second full week in December. No mention of yard waste sticker. Collection is scheduled weekly.
Romeoville	39,863	Will County, West of I-355	Waste Management	https://www.romeoville.org/406/Refuse-Recycling-Yard-Waste	Refuse, recycling, and yard waste services provided by Waste Management. Yard waste is collected same day as regular collection and must be placed in kraft-paper bags or a 96-gallon cart. Yard waste to be placed 4 feet away from obstacles. Collection is scheduled weekly.
Roselle	22,897	DuPage County, West of I-355	Flood Brothers Disposal & Recycling Systems Co.	http://www.roselle.il.us/92/Solid-Waste-and-Recycling	Weekly refuse and recycling system. Yard waste collection is either a sticker/pay-per-bag system, or a 95-gallon cart option with an annual fee.
Schaumburg	78,723	DuPage County, West of I-355	Lakeshore Recycling Systems	https://www.villageofschaumburg.com/residents/garbage-recycling	Recently, Schaumburg officials approved a five-year contract to select Lakeshore Recycling Systems that goes into effect on May 1, 2022.
St. Charles	33,081	DuPage County, West of I-355	Lakeshore Recycling Systems	https://www.stcharlesil.gov/services/refuse	Residents are given the option of monthly rented refuse carts or refuse stickers. Weekly pickup and the day depends on the area you live in. Recycling collection is free.
Villa Park	22,263	DuPage County, East of I-355	Lakeshore Recycling Systems	http://www.invillapark.com/156/Garbage-Recycling	Dual collection system allows it to collect refuse and recycling from village residences in one pass with one truck. Yard waste must have a sticker. Refuse and recycling collected on a weekly basis.
Village of Barrington Hills	4,114	Kane County	There is no municipal pickup of household waste.	https://barringtonhills-il.gov/water-septic-waste-management/	Residents must contract individually with private waste and recycling companies. Containers, collection schedules, types of waste handled (including yard waste and manure) and recycling are established by each carrier. Groot, Prairie Land, SWALCO, and Waste Management was listed as the four options on the website.
Village of Bartlett	41105	Kane County	Waste Connections/Groot Industries	https://www.village.bartlett.il.us/services/utilities-resident-services/garbage-service	Offers garbage, recycling, and landscape waste removal. Weekly collection. Yard waste must have sticker.

Table 1-4
West DuPage Recycling and Transfer Station
Collection Company by Municipality

Municipality	Population	Proximity to I-355	Collection Company	Reference	Notes
Village of Elgin	114,797	Kane County	Waste Management	http://www.cityofelgin.org/619/Garbage	Sticker required for all refuse that does not fit inside provided container. Sticker required for yard waste and recycling, yard waste, and refuse are picked up on a weekly basis.
Village of Montgomery	19,377	Kane County	Lakeshore Recycling Systems	https://ci.montgomery.il.us/177/Garbage-Recycling	Weekly pickup for yard waste, recycling, and refuse; all on the same day. Yard waste is in either certain container or brown Kraft bags. There is no mention of needing a sticker for yard waste.
Village of North Aurora	18261	Kane County	Waste Connections/Groot Industries	https://northaurora.org/	Starting June 1, 2021, the village will be switching to Groot for waste hauling services. Weekly recycling, refuse, and recycling pickup. Any trash outside provided cart will require a sticker.
Village of South Elgin	23865	Kane County	Waste Connections/Groot Industries	https://www.southelgin.com/government/departments/administrative_services/garbage,_recycling___yard_waste/index.php	Weekly yard waste, refuse, and recycling pickup. It does not mention a sticker needed for yard waste, just that it needs to be in a Kraft bag that clearly says "yard waste".
Village of Wayne	2,446	Kane County	No information was found	https://villageofwayne.org/	No information was found.
Warrenville	13,553	DuPage County, West of I-355	Waste Connections/Groot Industries	https://www.warrenville.il.us/803/Garbage-Recycling-Yard-Waste	Weekly pickup for refuse and recycling. Residents may put decals on their garbage cans for yard waste instead of buying yard waste bags. Decals can be obtained free.
West Chicago	25,614	DuPage County, West of I-355	Waste Connections/Groot Industries	https://westchicago.org/services-guide/garbage-and-recycling/	Residents may either purchase a cart for yard waste or use bags with a sticker attached to it. Collection is a weekly basis.
Westmont	24,429	DuPage County, East of I-355	Waste Management	https://westmont.illinois.gov/index.aspx?NID=221	Weekly collection; however, there are three different trucks for each kind of waste: garbage, recycling, and yard waste. You may purchase a yard waste and garbage sticker. A refuse container are to also be used.
Wheaton	53,970	DuPage County, West of I-355	Lakeshore Recycling Systems	https://www.wheaton.il.us/364/Garbage-Recycling	Recycling, garbage, and yard waste are picked up weekly. Stickers are only necessary for yard waste/organics, excess garbage outside of the cart, electronics, and bulk items.
Willowbrook	9,236	DuPage County, East of I-355	Waste Connections/Groot Industries	https://www.willowbrookil.org/116/Refuse-Recycling	Refuse, recycling, and yard collection is a weekly basis. Yard waste placed in yard waste bags will require a yard waste sticker per bag for collection. Residents may choose to subscribe to a yard waste cart service for a monthly fee.
Winfield	9,835	DuPage County, West of I-355	SBC Waste Solutions Disposal	http://www.villageofwinfield.com/index.aspx?nid=70	For all yard waste/refuse one sticker is required per bag/bundle. For those residents on the flat rate program no stickers are required. Recycling requires no sticker.
Wood Dale	14,012	DuPage County, East of I-355	Flood Brothers Disposal & Recycling Systems Co.	http://www.wooddale.com/residents/garbage-removal-recycling-yard-waste	Weekly collection for recycling, yard waste, and refuse. each acceptable container must be properly designated with a Wood Dale yard waste decal, which shall mean that it has a yard waste decal exclusively supplied by Wood Dale. No mention of a sticker being used.
Woodridge	34,158	DuPage County, West of I-355	Waste Connections/Groot Industries	https://www.woodridgeil.gov/my_government/administration/garbage_and_recycling/index.php	Sticker is required for all yard waste bags, weekly collection for refuse, recycling, and yard waste.

Table 1-6
West DuPage Recycling and Transfer Station
Illinois Landfill Waste Disposal Volumes and Capacity

Region	Landfill Name	Current Operator	Location	Volume Accepted (Gate Cubic Yards)						Capacity as of 1/1/2021 (In-Place Cubic Yard)
				1995	2000	2005	2010	2015	2020	
Region 1	All Landfills	Varies	Varies	1,894,308	8,550,620	12,960,037	16,500,000	15,441,731	17,203,316	145,319,326
	Orchard Hills Landfill	Waste Management	Davis Junction	NA	2,600,000	5,097,255	6,584,050	6,383,127	8,003,652	10,704,697
	Dekalb County Landfill	Waste Management	Dekalb	288,143	245,694	320,943	321,515	1,985,294	2,210,572	24,420,675
	LandComp Landfill	Republic Services	Ottawa	NA	659,254	728,813	515,244	1,070,048	995,715	8,478,610
	Lee County Landfill	Republic Services	Dixon	NA	3,052,273	4,044,660	1,552,558	1,838,421	774,373	29,668,114
	Prairie Hill RDF	Waste Management	Morrison	-	569,635	1,085,842	2,225,210	1,135,474	1,050,683	16,449,116
	Rochelle Municipal Landfill No. 2	Waste Connections	Rochelle	137,591	288,000	324,000	212,913	831,766	163,610	8,647,289
	Winnebago Landfill	Waste Connections	Rockford	375,524	1,098,657	1,358,524	5,173,144	2,197,601	4,004,711	46,950,825
	Dixon/ GROP	NA (Closed)	Dixon	706,773	-	-	-	-	-	-
	Freeport Municipal Landfill #2	NA (Closed)	Freeport	145,519	37,107	-	-	-	-	-
	BFI/ Davis Junction	NA (Closed)	Davis Junction	87,150	-	-	-	-	-	-
Region 2	All Landfills	Varies	Varies	26,122,259	13,435,437	11,579,571	6,500,000	7,513,548	8,403,129	27,956,726
	Zion Landfill	GFL	Zion	616,830	2,012,593	2,805,300	1,185,282	2,220,062	1,347,090	5,362,951
	Countryside Landfill	Waste Management	Grayslake	1,215,599	1,529,215	1,742,516	1,389,587	1,516,949	1,239,495	1,931,935
	Laraway RDF	Waste Management	Elwood	121,408	69,984	195	84,595	1,888,287	2,234,471	6,671,745
	Prairie View RDF	Waste Management	Wilmington	NA	NA	1,876,777	2,696,513	1,513,032	3,582,073	13,990,095
	Environtech	NA (Closed)	Morris	892,263	2,083,157	1,260,446	323,295	375,218	-	-
	River Bend Prairie Landfill	NA (Closed)	Dolton	372,450	507,816	737,276	875,508	-	-	-
	CID RDF	NA (Closed)	Calumet City	400,903	564,254	124,049	-	-	-	-
	Sexton #2/ Congress Development Com	NA (Closed)	Hillside	1,326,369	161,865	308,313	-	-	-	-
	Kankakee RDF	NA (Closed)	Chebanse	357,006	471,735	239,354	-	-	-	-
	Settler's Hill RDF	NA (Closed)	Batavia	1,610,027	3,920,084	2,485,345	-	-	-	-
	CDT Landfill	NA (Closed)	Joliet	1,534,404	308,050	-	-	-	-	-
	Land and Lakes/ Harbor View Landfill	NA (Closed)	Chicago	707,872	-	-	-	-	-	-
	Mallard Lake Landfill	NA (Closed)	Hanover Park	6,387,534	-	-	-	-	-	-
	Morris Community Landfill	NA (Closed)	Morris	540,135	205,701	-	-	-	-	-
	Wheatland Prairie RDF	NA (Closed)	Naperville	-	742,564	-	-	-	-	-
	Woodland RDF	NA (Closed)	South Elgin	1,542,723	858,419	-	-	-	-	-
	Greene Valley Landfill	NA (Closed)	Naperville	7,455,868	-	-	-	-	-	-
	Beecher Development Corp.	NA (Closed)	Beecher	713,536	-	-	-	-	-	-
Region 3	All Landfills	Varies	Varies	4,899,331	4,454,557	4,364,835	4,600,000	4,733,458	5,517,954	53,580,489
	Atkinson Landfill/Eco Hill	Ecology Solutions	Atkinson	53,424	-	-	212,856	-	809,213	11,745,000
	Quad Cities Landfill	Waste Connections	Rock Island	689,902	819,814	1,384,857	1,430,637	1,423,673	1,563,085	15,736,532
	Upper Rock Island County Landfill	Republic Services	East Moline	558,843	1,079,030	790,325	776,696	859,540	903,432	3,970,079
Region 4	All Landfills	Varies	Varies	5,587,922	12,772,784	9,896,608	7,500,000	6,855,177	5,418,837	81,215,539
	Livingston Landfill	Republic Services	Pontiac	2,126,447	8,272,419	6,667,994	4,342,082	3,727,159	2,877,159	28,285,869
	Streator Area Landfill #3	NA (Closed)	Streator	567,292	674,652	67,663	-	-	-	-
Region 5	All Landfills	Varies	Varies	2,070,742	1,770,921	2,177,606	1,500,000	1,846,735	1,740,024	21,772,645
Region 6	All Landfills	Varies	Varies	4,953,284	6,369,788	9,026,017	7,200,000	6,935,411	7,386,968	76,063,622
Region 7	All Landfills	Varies	Varies	1,596,316	1,938,073	2,290,601	2,200,000	1,621,105	1,791,157	44,510,214
TOTAL				**47,124,162**	**49,292,180**	**52,295,275**	**46,000,000**	**44,947,165**	**47,461,385**	**450,418,561**

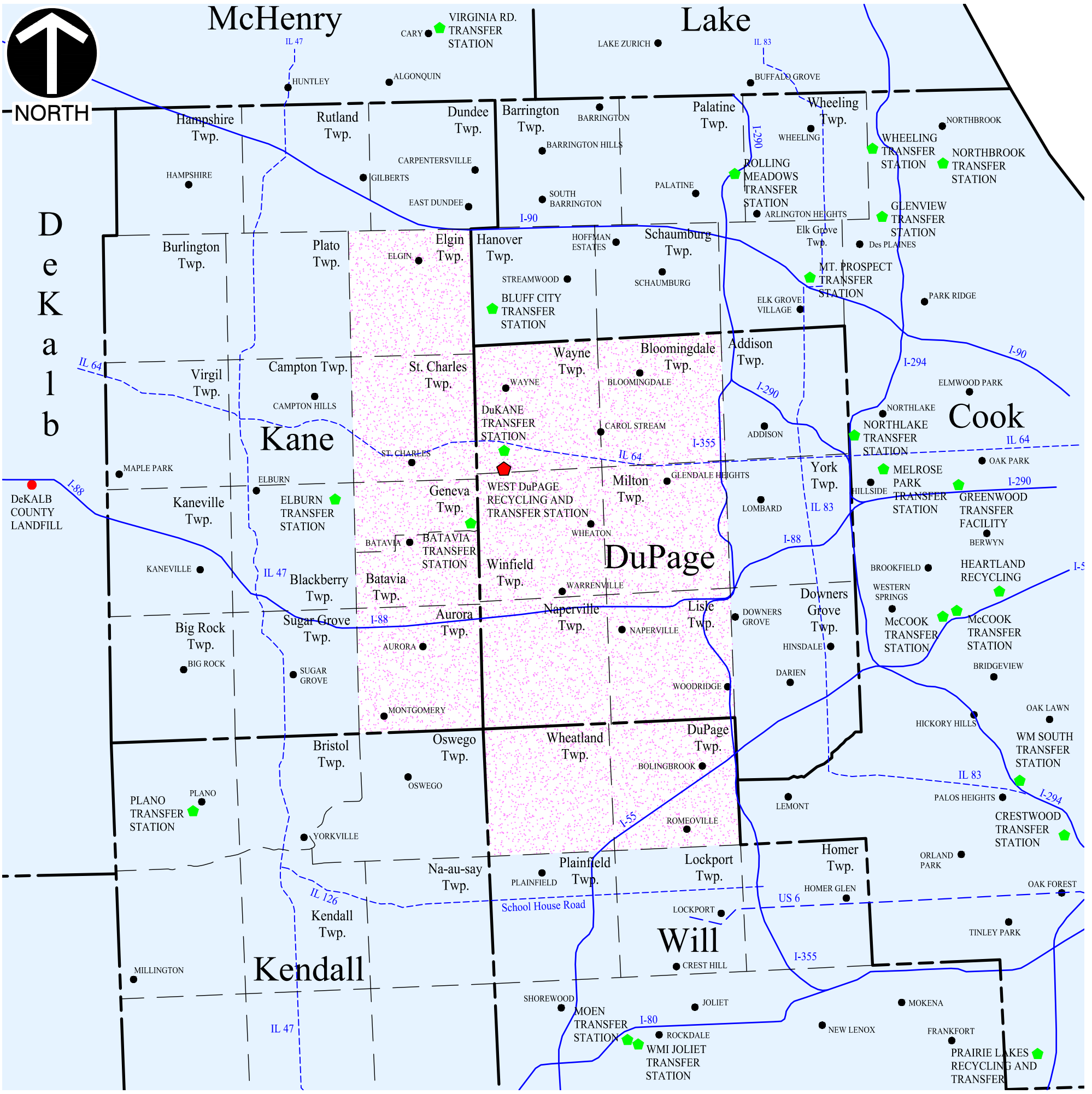
Notes:

1. Volumes and Capacity taken from respective Illinois Landfill Capacity Reports.
2. Tons per day = gate cubic yards per year divided by 3.3 gate cubic yards per ton (per IEPA annual capacity report form) divided by 286 operating days per year.

CRITERION 1

FIGURES

P:\2016\163-899\-CADD\Dwg\CV06-Siting Application\163899-SHT-5100-Service Area.dwg, 8/16/2022 1:24:14 PM, Linda
Electronic Filing: Received, Clerk's Office 04/19/2023



REFERENCE

1. LOCATIONS OF TRANSFER STATIONS BASED ON ADDRESSES FROM 2009 ILLINOIS SOLID WASTE CAPACITY REPORTS OR OTHER PUBLICLY AVAILABLE INFORMATION.

2. OWNER/OPERATORS OF TRANSFER STATIONS TAKEN FROM COMPANY WEBSITES AND OTHER PUBLICLY AVAILABLE INFORMATION.

LEGEND

- WEST DuPAGE RECYCLING AND TRANSFER STATION
- SURROUNDING TRANSFER STATION
- SURROUNDING LANDFILL
- SURROUNDING MUNICIPALITY
- WEST DuPAGE RECYCLING AND TRANSFER STATION SERVICE AREA
- COUNTY BOUNDARY LINE
- SURROUNDING COUNTY BOUNDARY LINE
- COUNTY TOWNSHIP
- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY

*HAND SIGNATURE ON FILE

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WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

TRANSFER STATION SERVICE AREA

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:
DATE:	AUGUST 2022	DWG SCALE:	1"=5.0 MI	PROJECT NO:	163-899.0005	1-1

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NORTH

McHenry
Lake
Lake Michigan
Kane
DeKalb
DuPage
Cook
Kendall
Will

CRYSTAL LAKE
CARY
VERNON HILLS
LAKE ZURICH
BUFFALO GROVE
HUNTLEY
ALGONQUIN
BARRINGTON HILLS
BARRINGTON
WHEELING
NORTHBROOK
CARPENTERSVILLE
EAST DUNDEE
WEST DUNDEE
SLEEPY HOLLOW
GILBERTS
HAMPSHIRE
SOUTH BARRINGTON
PALATINE
PINGREE GROVE
BURLINGTON
ARLINGTON HEIGHTS
Des PLAINES
HOFFMAN ESTATES
STREAMWOOD
ELGIN
PLATO TOWNSHIP
BARLETT
SCHAUMBURG
ELK GROVE VILLAGE
SOUTH ELGIN
HANOVER PARK
PARK RIDGE
LILY LAKE
VIRGIL
ROSELLE
ITASCA
CHICAGO
WOOD DALE
BENSENVILLE
ELMWOOD PARK
CAMPTON HILLS
WAYNE
BLOOMINGDALE
NORTHLAKE
ST. CHARLES
CAROL STREAM
GLENDALE HEIGHTS
ADDISON
OAK PARK
MAPLE PARK
WEST CHICAGO
ELMHURST
VILLA PARK
GENEVA
LOMBARD
HILLSIDE
BERWYN
ELBURN
GLEN ELLYN
WHEATON
OAK BROOK TERRACE
OAK BROOK
BROOKFIELD
BATAVIA
WINFIELD
FERMI NATIONAL ACCELERATOR
CLARENDON HILLS
WESTERN SPRINGS
KANEVILLE
WARRENVILLE
DOWNERS GROVE
HINSDALE
NORTH AURORA
LISLE
WESTMONT
BRIDGEVIEW
BIG ROCK
AURORA
NAPERVILLE
DARIEN
SUGAR GROVE
WOODRIDGE
BURR RIDGE
WILLOWBROOK
OAK LAWN
HICKORY HILLS
MONTGOMERY
BOLINGBROOK
ARGONNE NATIONAL LABRATORY
PLANO
OSWEGO
LEMONT
PALOS HEIGHTS
YORKVILLE
ORLAND PARK
MIDLOTHIAN
PLAINFIELD
ROMEOVILLE
HOMER GLEN
OAK FOREST
LOCKPORT
TINLEY PARK
MILLINGTON
CREST HILL
SHOREWOOD
JOLIET
MOKENA
NEW LENOX
ROCKDALE
FRANKFORT
MINOOKA

I-294
I-290
I-90
I-88
I-55
I-355
I-80
IL 47
IL 83
IL 64
IL 126
US 6
School House Road

Veolia
ROLLING MEADOWS TRANSFER STATION
WHEELING TRANSFER STATION
NORTHBROOK TRANSFER STATION
WM
BFI
GLENVIEW TRANSFER STATION
SWANCC
MT. PROSPECT TRANSFER STATION
ARC
ELK GROVE TRANSFER STATION
Groot
ELBURN TRANSFER STATION
New Horizons/ Speedway
WM SOUTH TRANSFER STATION
CRESTWOOD TRANSFER STATION
DeKALB COUNTY LANDFILL

REFERENCE

1. LOCATIONS OF TRANSFER STATIONS BASED ON ADDRESSES FROM 2009 ILLINOIS SOLID WASTE CAPACITY REPORTS OR OTHER PUBLICLY AVAILABLE INFORMATION.
2. OWNER/OPERATORS OF TRANSFER STATIONS TAKEN FROM COMPANY WEBSITES AND OTHER PUBLICLY AVAILABLE INFORMATION.
3. MUNICIPAL BOUNDARIES TAKEN FROM MUNICIPAL WEBSITES & ZONING MAPS.

LEGEND

- SURROUNDING TRANSFER STATION
- SURROUNDING LANDFILL
- SURROUNDING MUNICIPALITY
- SERVICE AREA BOUNDARY LINE
- SURROUNDING COUNTY BOUNDARY LINE
- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY

LEGEND - TRANSFER STATION OPERATOR

ARC	ARC DISPOSAL AND RECYCLING
BFI	BROWNING FERRIS INDUSTRIES
Groot	GROOT INDUSTRIES, INC.
New Horizons/ Speedway	NEW HORIZONS LTD/SPEEDWAY DISPOSAL AND RECYCLING, INC.
SWANCC	SOLID WASTE AGENCY OF NORTHERN COOK COUNTY
Veolia	VEOLIA ES SOLID WASTE MIDWEST, LLC
WM	WASTE MANAGEMENT, INC.

*HAND SIGNATURE ON FILE

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1995 TRANSFER STATIONS

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DATE:	AUGUST 2022	DWG SCALE:	1"=5.0 MI	PROJECT NO:	163-899.0005		

P:\2016\163-899\-CADD\Dwg\CV06-Siting Application\163899-SHT-S01-2022 Multiple Transfer Vendors.dwg, 1-2B, 1:288, 8/18/2022 6:26 AM, JEH
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NORTH

McHenry

Lake

Lake Michigan

Kane

DeKalb

DuPage

Kendall

Will

Cook

CRYSTAL LAKE
WM VIRGINIA RD. TRANSFER STATION
CARY
IL 47
LAKE ZURICH
VERNON HILLS
I-294
IL 83
BUFFALO GROVE
HUNTLEY
ALGONQUIN
BARRINGTON HILLS
BARRINGTON
WHEELING
I-290
LRS ROLLING MEADOWS TRANSFER STATION
WM WHEELING TRANSFER STATION
NORTHBROOK
LRS NORTHBROOK TRANSFER STATION
CARPENTERSVILLE
EAST DUNDEE
WEST DUNDEE
SLEEPY HOLLOW
HAMPSHIRE
GILBERTS
SOUTH BARRINGTON
PALATINE
ARLINGTON HEIGHTS
GLENVIEW TRANSFER STATION
SWANCC
Des PLAINES
PINGREE GROVE
I-90
BURLINGTON
HOFFMAN ESTATES
ELGIN
BLUFF CITY TRANSFER STATION WM
STREAMWOOD
MT. PROSPECT TRANSFER STATION
RS
PARK RIDGE
PLATO TOWNSHIP
BARLETT
SCHAUMBURG
ELK GROVE VILLAGE
SOUTH ELGIN
HANOVER PARK
ELK GROVE TRANSFER STATION
WC
LILY LAKE
ROSELLE
ITASCA
IL 64
VIRGIL
CHICAGO
I-294
CAMPTON HILLS
WOOD DALE
BENSENVILLE
ELMWOOD PARK
WAYNE
WC DuKANE TRANSFER STATION
BLOOMINGDALE
I-290
NORTHLAKE
I-90
ST. CHARLES
CAROL STREAM
GLENDALE HEIGHTS
ADDISON
NORTHLAKE TRANSFER STATION
RS
IL 64
I-355
WEST CHICAGO
WEST DuPAGE RECYCLING AND TRANSFER STATION
IL 64
OAK PARK
MAPLE PARK
ELMHURST
MELROSE PARK TRANSFER STATION
GREENWOOD TRANSFER FACILITY
I-290
LRS
DeKALB COUNTY LANDFILL
ELBURN
LRS ELBURN TRANSFER STATION
GENEVA
LOMBARD
VILLA PARK
HILLSIDE
IL 83
GLEN ELLYN
BATAVIA TRANSFER STATION
WM
WM
BERWYN
WHEATON
I-88
OAK BROOK TERRACE
LRS HEARTLAND RECYCLING
BATAVIA
OAK BROOK
KANEVILLE
FERMI NATIONAL ACCELERATOR
CLARENDON HILLS
BROOKFIELD
I-55
IL 47
WARRENVILLE
WESTERN SPRINGS
NORTH AURORA
DOWNERS GROVE
LISLE
HINSDALE
WESTMONT
McCOOK TRANSFER STATION
RS
McCOOK TRANSFER STATION
WC
BIG ROCK
NAPERVILLE
AURORA
SUGAR GROVE
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WOODRIDGE
DARIEN
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BRIDGEVIEW
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ARGONNE NATIONAL LABRATORY
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OSWEGO
LEMONT
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PLAINFIELD
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HOMER GLEN
OAK FOREST
IL 126
School House Road
LOCKPORT
US 6
TINLEY PARK
MILLINGTON
CREST HILL
I-355
ERDS MOEN TRANSFER STATION
SHOREWOOD
JOLIET
I-80
MOKENA
IL 47
ROCKDALE
NEW LENOX
FRANKFORT
WMI JOLIET TRANSFER STATION
WM
PRAIRIE LAKES RECYCLING AND TRANSFER
WM
MINOOKA

REFERENCE

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2. OWNER/OPERATORS OF TRANSFER STATIONS TAKEN FROM COMPANY WEBSITES AND OTHER PUBLICLY AVAILABLE INFORMATION.
3. MUNICIPAL BOUNDARIES TAKEN FROM MUNICIPAL WEBSITES & ZONING MAPS.

LEGEND

- WEST DUPAGE RECYCLING AND TRANSFER STATION
- SURROUNDING TRANSFER STATION
- SURROUNDING LANDFILL
- SURROUNDING MUNICIPALITY
- SERVICE AREA BOUNDARY LINE
- SURROUNDING COUNTY BOUNDARY LINE
- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY

LEGEND - TRANSFER STATION OPERATOR

- ERDS — ENVIRONMENTAL RECYCLING & DISPOSAL SERVICE
- LRS — LAKESHORE RECYCLING SYSTEMS, LLC
- RS — REPUBLIC SERVICES, INC.
- SWANCC — SOLID WASTE AGENCY OF NORTHERN COOK COUNTY
- WC — WASTE CONNECTIONS, INC.
- WM — WASTE MANAGEMENT, INC.

*HAND SIGNATURE ON FILE

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WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

2020 TRANSFER STATIONS

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DATE:	AUGUST 2022	DWG SCALE:	1"=5.0 MI	PROJECT NO:	163-899.0005	1-2B

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NORTH

McHenry

Lake

Lake Michigan

Cook

DeKalb

Kane

DuPage

Kendall

Will

CRYSTAL LAKE
CARY
VIRGINIA RD. TRANSFER STATION
LAKE ZURICH
VERNON HILLS
BUFFALO GROVE
HUNTLEY
ALGONQUIN
BARRINGTON HILLS
BARRINGTON
WHEELING
NORTHBROOK
WHEELING TRANSFER STATION
NORTHBROOK TRANSFER STATION
ROLLING MEADOWS TRANSFER STATION
CARPENTERSVILLE
EAST DUNDEE
WEST DUNDEE
SLEEPY HOLLOW
HAMPSHIRE
GILBERTS
SOUTH BARRINGTON
PALATINE
ARLINGTON HEIGHTS
GLENVIEW TRANSFER STATION
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PINGREE GROVE
BURLINGTON
HOFFMAN ESTATES
STREAMWOOD
PLATO TOWNSHIP
ELGIN
BLUFF CITY TRANSFER STATION
BARLETT
SCHAUMBURG
MT. PROSPECT TRANSFER STATION
PARK RIDGE
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ELK GROVE TRANSFER STATION
SOUTH ELGIN
HANOVER PARK
LILY LAKE
VIRGIL
CAMPTON HILLS
ROSELLE
ITASCA
WOOD DALE
CHICAGO
BENSENVILLE
ELMWOOD PARK
WAYNE
BLOOMINGDALE
DuKANE TRANSFER STATION
CAROL STREAM
GLENDALE HEIGHTS
ADDISON
NORTHLAKE
NORTHLAKE TRANSFER STATION
ST. CHARLES
MAPLE PARK
WEST CHICAGO
WEST DUPAGE RECYCLING AND TRANSFER STATION
OAK PARK
MELROSE PARK TRANSFER STATION
GREENWOOD TRANSFER FACILITY
ELMHURST
DeKALB COUNTY LANDFILL
ELBURN
ELBURN TRANSFER STATION
GENEVA
BATAVIA TRANSFER STATION
GLEN ELLYN
LOMBARD
VILLA PARK
HILLSIDE
BERWYN
WHEATON
OAK BROOK TERRACE
BATAVIA
KANEVILLE
FERMI NATIONAL ACCELERATOR
WINFIELD
OAK BROOK
CLARENDON HILLS
BROOKFIELD
HEARTLAND RECYCLING
WARRENVILLE
WESTERN SPRINGS
NORTH AURORA
DOWNERS GROVE
WESTMONT
HINSDALE
McCOOK TRANSFER STATION
LISLE
BIG ROCK
AURORA
NAPERVILLE
SUGAR GROVE
WOODRIDGE
DARIEN
BURR RIDGE
WILLOWBROOK
BRIDGEVIEW
OAK LAWN
HICKORY HILLS
WM SOUTH TRANSFER STATION
MONTGOMERY
BOLINGBROOK
JARGONNE NATIONAL LABRATORY
OSWEGO
PALOS HEIGHTS
LEMONT
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PLANO TRANSFER STATION
YORKVILLE
CRESTWOOD TRANSFER STATION
ORLAND PARK
MIDLOTHIAN
PLAINFIELD
ROMEOVILLE
HOMER GLEN
OAK FOREST
LOCKPORT
TINLEY PARK
MILLINGTON
CREST HILL
ERDS
MOEN TRANSFER STATION
SHOREWOOD
JOLIET
MOKENA
NEW LENOX
ROCKDALE
FRANKFORT
WMI JOLIET TRANSFER STATION
PRAIRIE LAKES RECYCLING AND TRANSFER
MINOOKA

IL 47, IL 64, IL 83, IL 126, IL 53, IL 72, IL 38, IL 171, IL 43, IL 1, IL 50, IL 7, IL 59, IL 31, IL 176, IL 120, IL 132, IL 173, IL 137, IL 41, IL 22, IL 60, IL 21, IL 45, IL 131, IL 29, IL 23, IL 115, IL 17, IL 116, IL 178, IL 251, IL 110, IL 78, IL 84, IL 40, IL 75, IL 2, IL 26, IL 88, IL 92, IL 120, IL 142, IL 83, IL 394, IL 1, IL 50, IL 7, IL 59, IL 31, IL 176, IL 120, IL 132, IL 173, IL 137, IL 41, IL 22, IL 60, IL 21, IL 45, IL 131, IL 29, IL 23, IL 115, IL 17, IL 116, IL 178, IL 251, IL 110, IL 78, IL 84, IL 40, IL 75, IL 2, IL 26, IL 88, IL 92, IL 120, IL 142, IL 83, IL 394

I-90, I-290, I-294, I-355, I-88, I-55, I-80, I-57, I-57, I-80, I-294, I-90, I-290, I-294, I-355, I-88, I-55, I-80, I-57, I-57, I-80

US 6, School House Road

LEGEND

- WEST DUPAGE RECYCLING AND TRANSFER STATION
- SURROUNDING TRANSFER STATION
- SURROUNDING LANDFILL
- SURROUNDING MUNICIPALITY
- SERVICE AREA BOUNDARY LINE
- SURROUNDING COUNTY BOUNDARY LINE
- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY

- LAKESHORE RECYCLING SYSTEMS/ DC RECYCLING SYSTEMS
- REPUBLIC SERVICES
- WASTE CONNECTIONS/GROOT/MDC ENVIRONMENTAL SERVICES
- FLOOD BROTHERS DISPOSAL & RECYCLING SYSTEMS COMPANY
- WASTE MANAGEMENT COMPANY
- SBC WASTE SOLUTIONS

LEGEND - TRANSFER STATION OPERATOR

- ERDS — ENVIRONMENTAL RECYCLING & DISPOSAL SERVICE
- LRS — LAKESHORE RECYCLING SYSTEMS, LLC
- RS — REPUBLIC SERVICES, INC.
- SWANCC — SOLID WASTE AGENCY OF NORTHERN COOK COUNTY
- WC — WASTE CONNECTIONS, INC.
- WM — WASTE MANAGEMENT, INC.

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2. OWNER/OPERATORS OF TRANSFER STATIONS TAKEN FROM COMPANY WEBSITES AND OTHER PUBLICLY AVAILABLE INFORMATION.
3. MUNICIPAL BOUNDARIES TAKEN FROM MUNICIPAL WEBSITES & ZONING MAPS.

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WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

2020 TRANSFER STATIONS AND COMPANIES SERVING VARIOUS MUNICIPALITIES

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:
DATE:	AUGUST 2022	DWG SCALE:	1"=5.0 MI	PROJECT NO:	163-899.0005	1-2C

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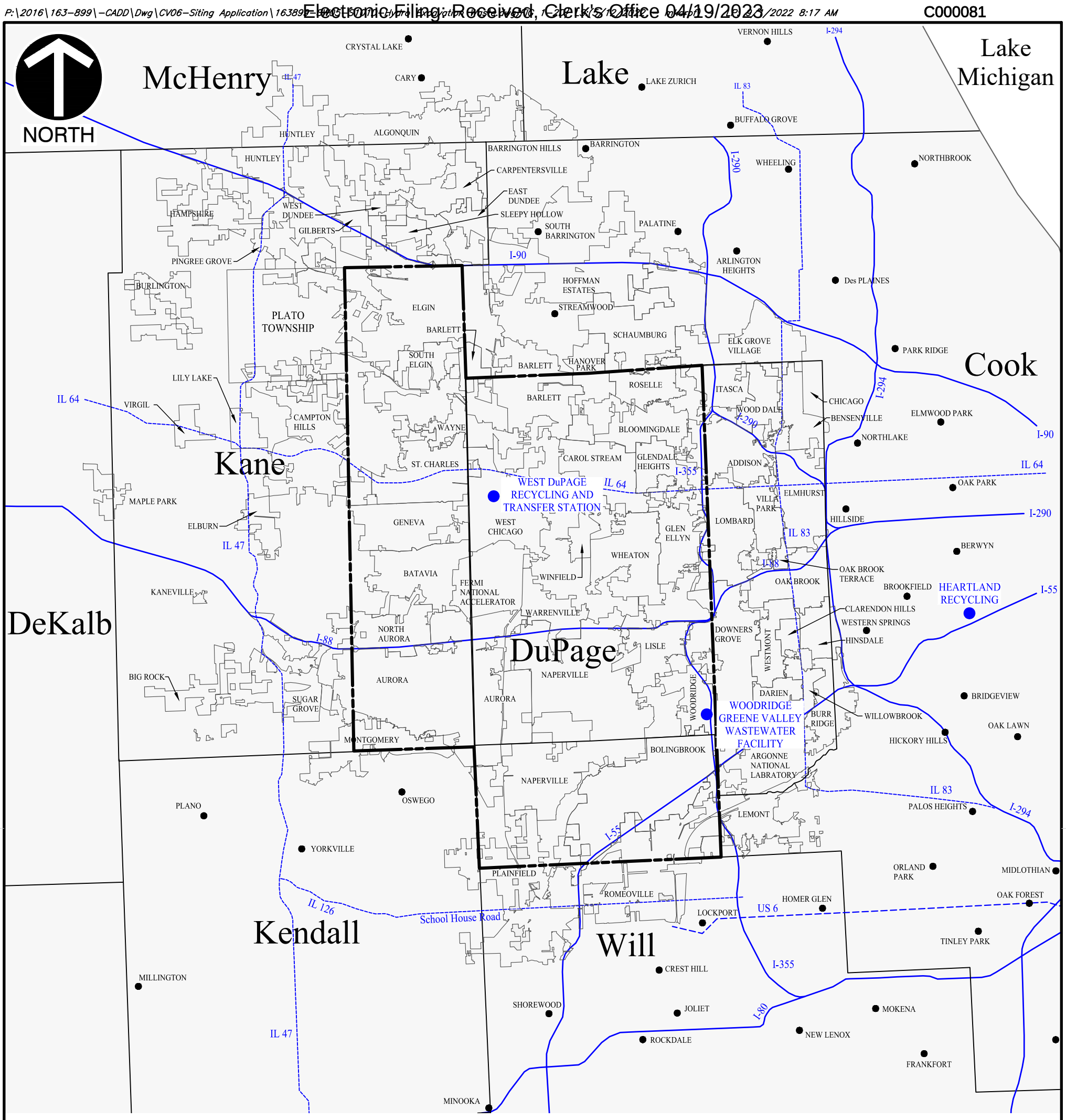

REFERENCE

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3. MUNICIPAL BOUNDARIES TAKEN FROM MUNICIPAL WEBSITES & ZONING MAPS.

LEGEND

- HYDRO EXCAVATION WASTE PERMITTED FACILITY
- SURROUNDING MUNICIPALITY
- SERVICE AREA BOUNDARY LINE
- SURROUNDING COUNTY BOUNDARY LINE
- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY

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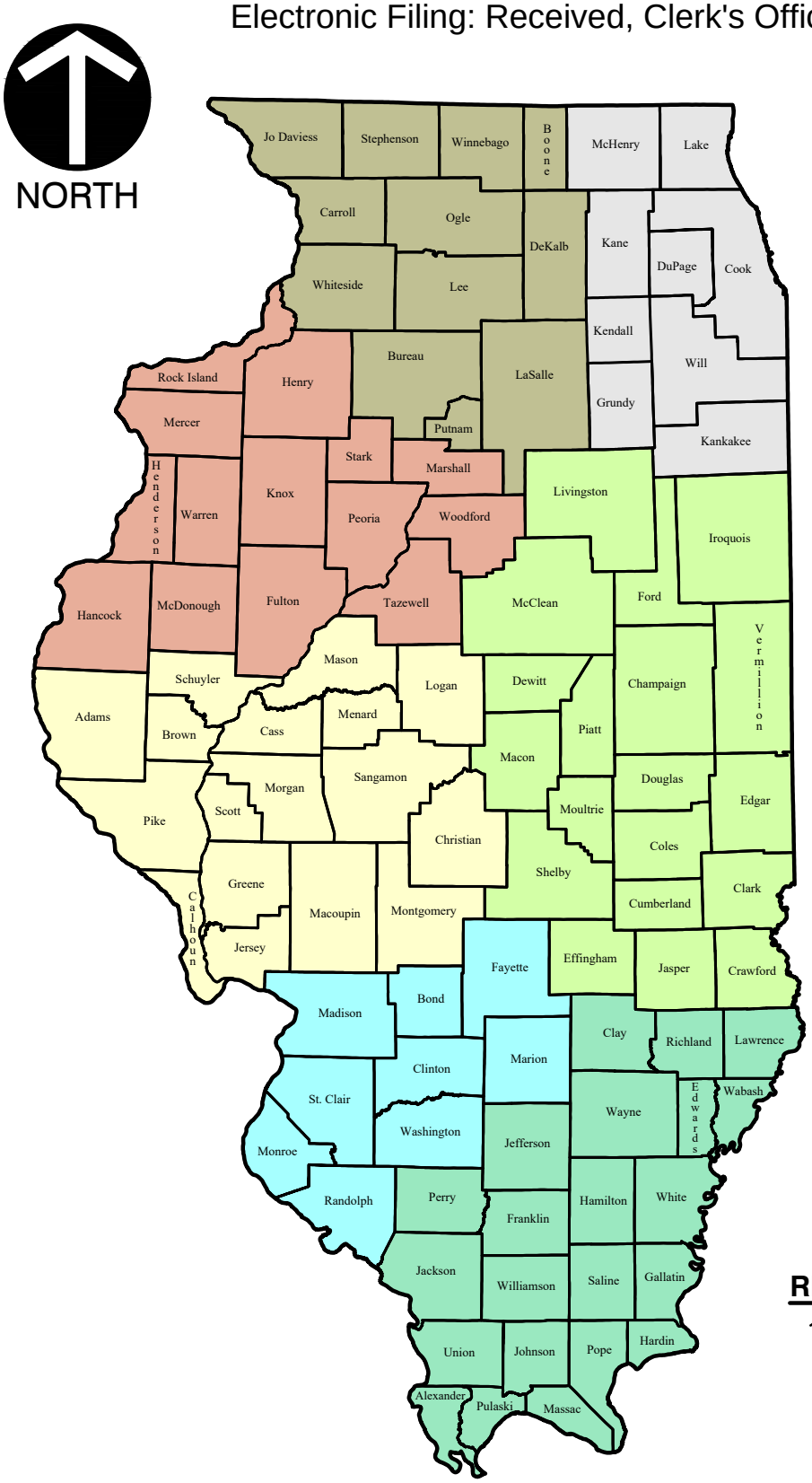
WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

PERMITTED FACILITIES FOR HYDRO EXCAVATION WASTES

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:	1-2D
DATE:	AUGUST 2022	DWG SCALE:	1"=5.0 MI	PROJECT NO:	163-899.0005		



IEPA ADMINISTRATIVE REGIONS

- REGION 1 NORTHWESTERN ILLINOIS
- REGION 2 CHICAGO METROPOLITAN
- REGION 3 PEORIA/QUAD CITIES
- REGION 4 EAST CENTRAL ILLINOIS
- REGION 5 WEST CENTRAL ILLINOIS
- REGION 6 ST. LOUIS METRO EAST
- REGION 7 SOUTHERN ILLINOIS

REFERENCE

1. BOUNDARIES OF IEPA ADMINISTRATIVE REGIONS TAKEN FROM ILLINOIS LANDFILL CAPACITY REPORTS.

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WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
ADMINISTRATIVE REGIONS

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:
DATE:	AUGUST 2022	DWG SCALE:	NOT TO SCALE	PROJECT NO:	163-899.0005	1-3

P:\2016\163-899\-CADD\Dwg\CV06-Siting Application\163899-SW05-S106-IEPA Regions.dwg{FIG 1-3} LS:(8/18/2022 - mkarpf) - LP: 8/18/2022 6:30 AM

Electronic Filing: Received, Clerk's Office 04/19/2023

C000083

NORTH

W i s c o n s i n

I o w a

Lake Michigan

I n d i a n a

REGION 1
1.9 M GATE
CUBIC YARDS

REGION 2
26.1 M GATE
CUBIC YARDS

REGION 3
4.9 M GATE
CUBIC
YARDS

REGION 4
5.6 M GATE
CUBIC YARDS

Jo Daviess, Stephenson, Winnebago, Boone, McHenry, Lake, Carroll, Ogle, DeKalb, Kane, DuPage, Cook, Whiteside, Lee, Kendall, Will, Grundy, Kankakee, Rock Island, Henry, Bureau, LaSalle, Putnam, Livingston, Iroquois, Mercer, Stark, Marshall, Peoria, Knox, Henderson, Warren, Hancock, McDonough, Fulton, McClean, Ford, Lake, Porter, LaPorte, Newton, Jasper, Pulaski, Starke, White

GALENA, FREEPORT, ROCKFORD, WOODSTOCK, WAUKEGAN, MT. CARROLL, OREGON, DIXON, STERLING, DeKALB, ELGIN, NAPERVILLE, CHICAGO, OSWEGO, JOLIET, MORRIS, OTTAWA, PRINCETON, GENESEO, ALEDO, HENRY, GALESBURG, MONMOUTH, PEORIA, MORTON, ROANOKE, KANKAKEE, PONTIAC, WATSEKA, CROWN POINT, VALPARAISO, RENSSELAER, MONTICELLO

Freeport Municipal Landfill #2
Winnebago Landfill
BFI Davis Junction
Rochelle Municipal Landfill No. 2
DeKalb County Landfill
Dixon/GROP
Upper Rock Island County Landfill
Quad Cities Landfill, Phase IV
Eco Hill
Knox County Landfill #3
Peoria City/County Landfill #2
Streator Area Landfill #3
Livingston Landfill
Zion Landfill
Countryside Landfill Inc.
West DuPage Recycling and Transfer Station
Mallard Lake Landfill
Woodland RDF
Settler's Hill RDF
Wheatland Prairie RDF
Greene Valley Landfill
Sexton #2/Congress Development Company
Land and Lakes Harbor View Landfill
River Bend Prairie Landfill
CID RDF
CDT Landfill
Laraway Recycling and Disposal Facility
Environtech
Morris Community Landfill
Beecher Development Corp.
Kankakee RDF
Newton County Landfill
Liberty Landfill

Illinois River

LEGEND

- SURROUNDING ACTIVE LANDFILL
- SURROUNDING ACTIVE LANDFILL OPERATED BY WASTE CONNECTIONS
- SURROUNDING ACTIVE LANDFILL OPERATED BY WASTE MANAGEMENT
- SURROUNDING ACTIVE LANDFILL OPERATED BY REPUBLIC SERVICES
- SURROUNDING CLOSED LANDFILL
- SERVICE AREA
- STATE BOUNDARY LINE
- COUNTY BOUNDARY LINE
- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY
- DesPLAINES/ILLINOIS RIVER

IEPA ADMINISTRATIVE REGIONS

- REGION 1 NORTHWESTERN ILLINOIS
- REGION 2 CHICAGO METROPOLITAN
- REGION 3 PEORIA/QUAD CITIES
- REGION 4 EAST CENTRAL ILLINOIS

REFERENCE

1. NAMES AND LOCATIONS OF ACTIVE AND CLOSED LANDFILLS IN ILLINOIS TAKEN FROM VARIOUS ILLINOIS LANDFILL CAPACITY REPORTS.
2. NAMES AND LOCATIONS OF ACTIVE LANDFILLS IN INDIANA TAKEN FROM https://www.in.gov/idem/landquality/files/permits sw issued.pdf

*HAND SIGNATURE ON FILE

SCALE IN MILES
0 20.0 40.0

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

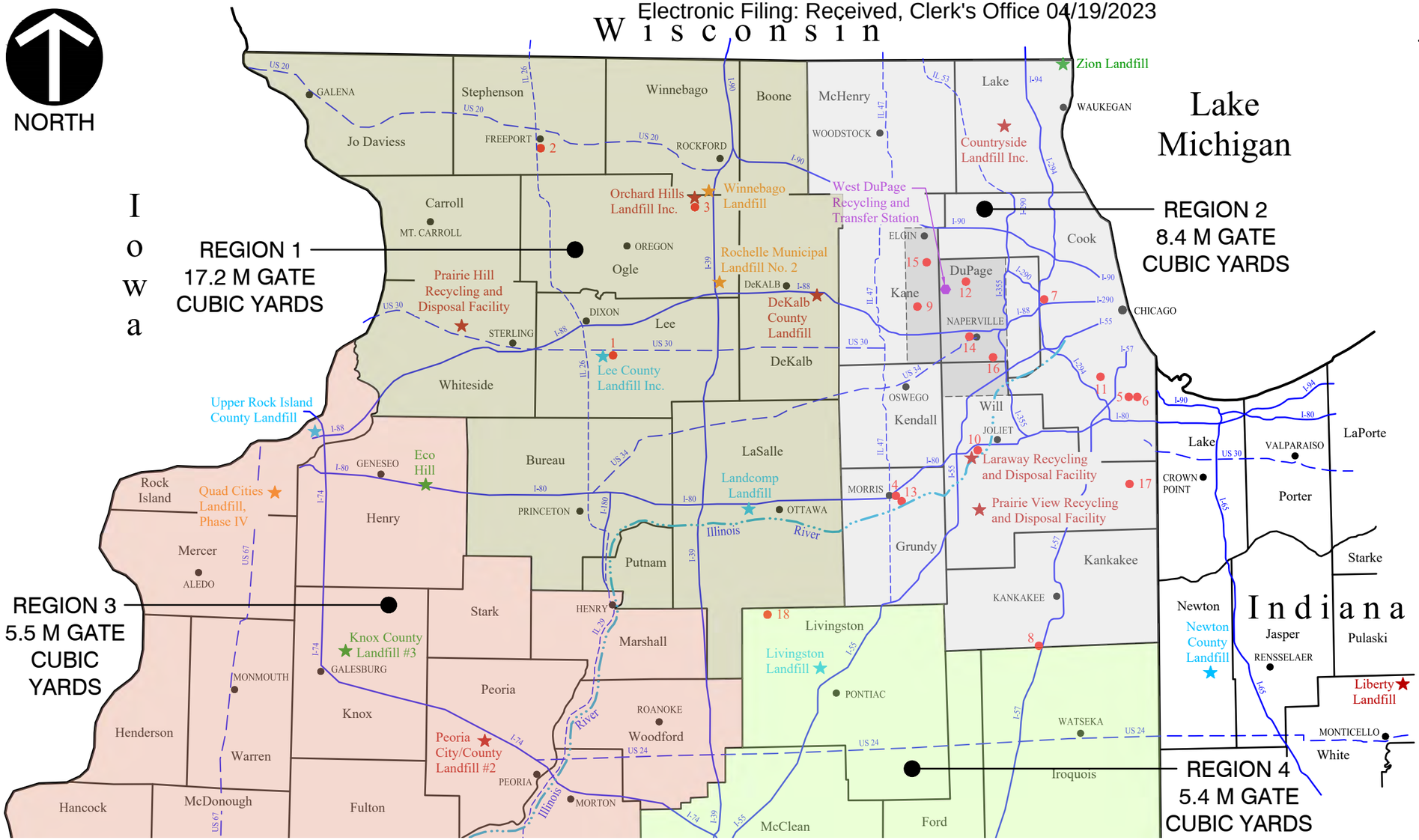
SERVICE AREA AND LANDFILL LOCATIONS
1995

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:
DATE:	AUGUST 2022	DWG SCALE:	1"=20 MILES	PROJECT NO:	163-899.0005	1-4A

P:\2016\163-899\-CADD\Dwg\CV06-Siting Application\163899-SW05-S107-Service Areas-1995.dwg[FIG 1-4A] LS:(7/29/2022 - mkarpf) - LP: 8/18/2022 6:44 AM

Electronic Filing: Received, Clerk's Office 04/19/2023

C000084



LEGEND

- SURROUNDING ACTIVE LANDFILL
- SURROUNDING ACTIVE LANDFILL OPERATED BY WASTE CONNECTIONS
- SURROUNDING ACTIVE LANDFILL OPERATED BY WASTE MANAGEMENT
- SURROUNDING ACTIVE LANDFILL OPERATED BY REPUBLIC SERVICES
- 4 SURROUNDING CLOSED LANDFILL
- SERVICE AREA
- STATE BOUNDARY LINE
- COUNTY BOUNDARY LINE
- INTERSTATE HIGHWAY
- U.S. HIGHWAY
- STATE HIGHWAY
- DesPLAINES/ILLINOIS RIVER

IEPA ADMINISTRATIVE REGIONS

- REGION 1 NORTHWESTERN ILLINOIS
- REGION 2 CHICAGO METROPOLITAN
- REGION 3 PEORIA/QUAD CITIES
- REGION 4 EAST CENTRAL ILLINOIS

CLOSED LANDFILL TABLE			
SITE No.	LANDFILL SITE NAME	SITE No.	LANDFILL SITE NAME
1	DIXON/GROP	10	CDT LANDFILL
2	FREEPORT MUNICIPAL LANDFILL #2	11	LAND AND LAKES/HARBOR VIEW LANDFILL
3	BFI/DAVIS JUNCTION	12	MALLARD LAKE LANDFILL
4	ENVIRONTECH	13	MORRIS COMMUNITY LANDFILL
5	RIVER BEND PRAIRIE LANDFILL	14	WHEATLAND PRAIRIE RDF
6	CID RDF	15	WOODLAND RDF
7	SEXTON #2/CONGRESS DEVELOPMENT COMPANY	16	GREENE VALLEY LANDFILL
8	KANKAKEE RDF	17	BEECHER DEVELOPMENT CORP.
9	SETTLER'S HILL RDF	18	STREATOR AREA LANDFILL #3

REFERENCE

1. NAMES AND LOCATIONS OF ACTIVE AND CLOSED LANDFILLS IN ILLINOIS TAKEN FROM VARIOUS ILLINOIS LANDFILL CAPACITY REPORTS.
2. NAMES AND LOCATIONS OF ACTIVE LANDFILLS IN INDIANA TAKEN FROM https://www.in.gov/idem/landquality/files/permits_sw_issued.pdf

*HAND SIGNATURE ON FILE

SCALE IN MILES

0 20.0 40.0

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630-963-6026 · 877-963-6026
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WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

SERVICE AREA AND LANDFILL LOCATIONS
2020

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:
DATE:	AUGUST 2022	DWG SCALE:	1"=20 MILES	PROJECT NO:	163-899.0005	1-4B

P:\2016\163-899\-CADD\Dwg\CV06-Siting Application\163899-SW05-S107-Service Areas-2020.dwg[FIG 1-4B] LS:(8/18/2022 - mkarpf) - LP: 8/18/2022 6:45 AM

APPENDIX 1-A

AFFIDAVIT BY RICH GOLF

AFFIDAVIT

Richard Golf being first duly sworn on oath deposes and states as follows

1. That I am of legal age, under no disability and have personal knowledge of the matters contained herein.
2. That I am a Managing Partner of Lakeshore Recycling Systems, LLC (LRS).
3. LRS has been delivering municipal solid waste (MSW) and single stream recyclables (SSR) which LRS collects to the Advanced Disposal/ WMI transfer station in Batavia (Batavia Transfer Station) from approximately 2016 to current.
4. The price per ton (or rate) that LRS is charged by Advanced Disposal for the acceptance of MSW at their Batavia Transfer Station was approximately $45 per ton from 2016 to approximately October 2020.
5. After the acquisition in October 2020, WMI increased the rates at the Batavia Transfer Station by approximately $5 per ton (or approximately 10%). In addition, WMI raised the rates at the Orchard Hills Landfill by approximately 33%. These price increases caused LRS to divert a significant portion of the MSW and recyclables it collects in the Service Area to the Elburn Transfer Station. In addition, the disposal of the MSW was diverted to Eco Hill in Atkinson.
6. Starting April 1, 2022, WMI increased the rates at the Batavia Transfer Station by another approximately $5 per ton (or approximately 10%). This rate increase may cause additional amounts of MSW and recyclables that LRS collects from the Service Area (and is currently delivered to the Batavia Transfer) to be diverted to other transfer station(s) outside of DuPage County.
7. LRS requested pricing for the acceptance of MSW from the DuKane Transfer Station in June 2018. Waste Connections quoted LRS a price per ton which was approximately $14 per ton higher than the price per ton that LRS was receiving from Advanced Disposal at the Batavia Transfer Station at that time for the same service, which has precluded LRS's use of the DuKane Transfer Station.
8. LRS has periodically requested pricing for the same service from the DuKane Transfer Station from June 2018 to April 2022. Waste Connections has continued to quote LRS a price per ton which is similar or higher than the rate quoted by them in June 2018. The rates quoted by Waste Connections remain even higher than the rates charged at the Batavia Transfer Station for the same service.
9. If the West DuPage Recycling and Transfer Station (RTS) is permitted to accept MSW and SSR, the MSW and SSR that LRS collects from the Service Area is planned to be delivered to the West DuPage RTS and transferred to a permitted landfill for disposal. The West DuPage RTS would provide the following benefits.
    - Internalization of transfer and disposal fees, which will improve margins
    - Operational efficiencies (e.g., parking trucks at transfer station)
    - Long term control of transfer and disposal costs
    - Greater certainty for capital investments

In a competitive environment, the cost savings from the above benefits would result in lower costs to LRS's customers, including the municipalities for which LRS serves.

Further Affiant sayeth not.

Dated 15 Sept 22

Signed Richard Gold

Signed and sworn before me, a notary public, this 15 day of September, 2022

Official Seal
Nicole Marie Hess
Notary Public State of Illinois
My Commission Expires 8/17/2026

APPENDIX 1-B1

LETTERS OF SUPPORT FROM HYDRO EXCAVATING COMPANIES AND ASSOCIATIONS

UNDERGROUND CONTRACTORS™ ASSOCIATION

July 24, 2020

West Chicago City Hall
475 Main Street
West Chicago, IL 60185

Re: Municipal Waste Transfer Station - 1655 Powis Rd

Dear Mayor Ruben Pineda,

I am writing to support the inclusion of a non-hazardous liquid waste solidification permit for the LRS West Chicago facility. This will support a cost-efficient means to support hydro-excavation services for major utility companies, municipalities, public and private construction; for the purpose of safely excavating non-hazardous soils surrounding areas requiring excavation, utility installation or repair.

Hydro-excavation services have become quintessential for utility companies, excavators, horizontal directional drilling (HDD) and many other essential services. This service has grown exponentially in recent years and is anticipated to continue to increase in demand.

The LRS West Chicago facility proposes to accept “Hydro Excavation Wastes” such as hydro/vacuum excavation muds, underground excavation material, and other similar materials, which are regulated as liquid wastes due to their low solids content. The Hydro Excavation Wastes will be unloaded directly into a fully contained, concrete lined mixing pit, and then be mechanically mixed with wood chips or other similar absorbent materials using a hydraulic excavator or wheel loader. The solidification process continues until the resultant material blend passes the regulatory test (i.e., paint filter test) for demonstrating the material is a solid. The solidified waste is then hauled off-site for disposal at a permitted non-hazardous waste landfill.

Due to the limited disposal locations for this liquid waste, please permit LRS the opportunity to provide this necessary service to reduce the amount of time and cost to properly dispose of non-hazardous, liquid wastes for projects DuPage and surrounding counties. With the budget constraints in the current economic environment, this will allow for more money to go towards

Underground Contractors Association of Illinois
500 Park Blvd, Suite 154C Itasca, IL 60143
Phone: (630) 467-1919 ● Fax: (630) 773-4873

actual construction budgets and improving both horizontal and vertical infrastructure modernization, safety and efficiency.

I look forward to working with you on this important issue to keep construction strong in Illinois while protecting the environment and reducing expenses. If you have any questions or need further clarification; please don't hesitate to contact me at **michael@uca.org or call me at 630-467-1919.**

UCA of IL is a construction trade association engaged in all forms of utility construction, sewer treatment and water treatment plants. With over 200 member firms that employee and support thousands of jobs in construction, related professional services and supporting services.

Sincerely,

Michael Wiedmaier
Executive Director

Underground Contractors Association of Illinois
500 Park Blvd, Suite 154C Itasca, IL 60143
Phone: (630) 467-1919 ● Fax: (630) 773-4873

JOHN NERI CONSTRUCTION CO., INC.
Sewer & Water Contractors
770 Factory Road *Addison, IL 60101
Tel: 630 629-8384* Fax: 630 629-7001
www.johnnericonstruction.com

July 24, 2020

West Chicago City Hall
475 Main Street
West Chicago, IL 60185

Re: Municipal Waste Transfer Station - 1655 Powis Rd

Dear Mayor Ruben Pineda,
I am writing to support the inclusion of a non-hazardous liquid waste solidification permit for the LRS West Chicago facility. This will provide a cost-efficient means to support hydro-excavation services for major utility companies, municipalities, public and private construction; for the purpose of safely excavating non-hazardous soils surrounding areas requiring excavation, utility installation or repair.

Hydro-excavation services have become quintessential for utility companies, excavators, horizontal directional drilling (HDD) and many other essential services. This service has grown exponentially in recent years and is anticipated to continue to increase in demand.

The LRS West Chicago facility proposes to accept "Hydro Excavation Wastes" such as hydro/vacuum excavation muds, underground excavation material, and other similar materials, which are regulated as liquid wastes due to their low solids content. The Hydro Excavation Wastes will be unloaded directly into a fully contained, concrete lined mixing pit, and then be mechanically mixed with wood chips or other similar absorbent materials using a hydraulic excavator or wheel loader. The solidification process continues until the resultant material blend passes the regulatory test (i.e., paint filter test) for demonstrating the material is a solid. The solidified waste is then hauled off-site for disposal at a permitted non-hazardous waste landfill.

Due to the limited disposal locations for this liquid waste, please permit LRS the opportunity to provide this necessary service to reduce the amount of time and cost to properly dispose of non-hazardous, liquid wastes for projects DuPage and surrounding counties. With the budget constraints in the current economic environment, this will allow for more money to go towards actual construction budgets and improving both horizontal and vertical infrastructure modernization, safety and efficiency.

I look forward to working with you on this important issue to keep construction strong in Illinois while protecting the environment and reducing expenses. If you have any questions or need further clarification; please do not hesitate to contact me at 630-629-8384.

Sincerely,

Nicholas Neri, Pres.
JOHN NERI CONSTRUCTION CO., INC.

August 18, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main St
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda and City Council,

Badger Daylighting Corp is writing to you and City Council to express our support for the siting of municipal solid waste transfer located at 1655 Powis Road, West Chicago. With consolidation within the waste and recycling industry, it is strategically important to have alternatives for Badger Daylighting to bring materials to this site. The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving suburbs of Dupage and Kane Counties.

Thank you,

Scott Schulz

Scott Schulz
Area Manager

From: Hock, John
Sent: Friday, September 4, 2020 4:56 PM
To: Scott Shulz (sschulz@badgerinc.com)
Cc: KJ Loerop; Rich Golf (RGolf@LRSRecycles.com); Lee, Chastity
Subject: Letter of Support - West DuPage Recycling and Transfer Station
Attachments: Badger Solidification 8-18-20.pdf

Scott,

Thank you for taking the time yesterday to discuss the potential benefits to your company of the proposed Lakeshore Recycling System (LRS) Facility in West Chicago for which you provided the attached letter of support. As discussed, the proposed West DuPage Recycling and Transfer Station (RTS) would accept hydro excavation wastes and similar materials for solidification. The solidified material would then be transported off-site for disposal at a permitted landfill. We understand the following based on our discussion.

- Badger Daylighting's (Badger) hydrovac vacuum trucks provide non-destructive excavation services across all of northern Illinois to a variety of customers including utility companies (e.g., Com Ed, Nicor Gas).
- Badger's fleet in northern Illinois includes approximately fifty hydrovac vehicles.
- Badger stages/ parks its fleet of vehicles in multiple locations to try to minimize drive times and better serve its customers.
- The demand for hydrovac services (and thus the generation of hydro excavation wastes) has been growing and is anticipated to continue to increase over time.
- Badger routinely uses LRS's facility in Forest View to manage its hydro excavation and related wastes.
- The anticipated benefit to Badger if the proposed LRS facility is approved is primarily transportation logistics. Specifically, Badger provides services in many areas that are more conveniently located to West Chicago than other permitted facilities (such as the Forest View) so the use of the proposed West DuPage RTS would reduce transportation costs.
- Badger would save approximately two hours for each load that could be re-directed to the proposed West DuPage RTS in lieu of the LRS Forest View Facility.
- The typical cost to a customer for Badger's hydrovac services is approximately $250 per hour plus disposal costs.
- The decreased driving time would also increase Badger's productivity (i.e., more time to be providing services vs driving).
- Approximately 40% of the work Badger performs is located more convenient to West Chicago than Forest View.
- The extended operating hours (i.e., open past 3 pm) of the LRS Forest View facility is very helpful to Badger, and similar operating hours at the proposed West DuPage RTS would be desirable.

Please let us know if our understanding of any of the above is incorrect. Also please let us know of any questions you may have. Thank you again for your support of the proposed West DuPage RTS.

John E. Hock, P.E. | *Vice President*
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200, Naperville, Illinois 60563
direct 630.541.0612 **office** 630.963.6026 **mobile** 630.291.6026
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From: Hock, John
To: Scott Shulz (sschulz@badgerinc.com)
Cc: KJ Loerop; Rich Golf (RGolf@LRSRecycles.com); Brad Renwick (brenwick@cecinc.com); Chastity Lee (clee@lrsrecycles.com)
Subject: RE: Letter of Support - West DuPage Recycling and Transfer Station
Date: Tuesday, August 30, 2022 9:30:00 AM
Attachments: Badger Solidification 8-18-20.pdf
image002.png
image006.png

Scott,

Thank you for taking the time today to discuss the proposed Lakeshore Recycling System (LRS) Facility in West Chicago for which you provided the attached letter of support. As discussed, we understand that the information in the letter of support and the below email are still accurate with the following clarifications.

- Badger's fleet in northern Illinois has increased to approximately sixty hydrovac vehicles.
- The limited operating hours at the Woodridge-Greene Valley Wastewater Facility preclude Badger Daylighting's use of this facility.

Please let us know if our understanding of any of the above is incorrect. Also please let us know of any questions you may have. Thank you again for your support of the proposed West DuPage RTS.

John E. Hock, P.E. | *Vice President*
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200, Naperville, Illinois 60563
direct 630.541.0612 **office** 630.963.6026 **mobile** 630.291.6026
www.cecinc.com

From: Hock, John
Sent: Friday, September 4, 2020 4:56 PM
To: Scott Shulz (sschulz@badgerinc.com) <sschulz@badgerinc.com>
Cc: KJ Loerop <KLoerop@LRSrecycles.com>; Rich Golf (RGolf@LRSRecycles.com) <RGolf@LRSRecycles.com>; Lee, Chastity <clee@cecinc.com>
Subject: Letter of Support - West DuPage Recycling and Transfer Station

Scott,

Thank you for taking the time yesterday to discuss the potential benefits to your company of the proposed Lakeshore Recycling System (LRS) Facility in West Chicago for which you provided the attached letter of support. As discussed, the proposed West DuPage Recycling and Transfer Station (RTS) would accept hydro excavation wastes and similar materials for solidification. The solidified material would then be transported off-site for disposal at a permitted landfill. We understand the following based on our discussion.

- Badger Daylighting's (Badger) hydrovac vacuum trucks provide non-destructive excavation services across all of northern Illinois to a variety of customers including utility companies (e.g., Com Ed, Nicor Gas).
- Badger's fleet in northern Illinois includes approximately fifty hydrovac vehicles.
- Badger stages/ parks its fleet of vehicles in multiple locations to try to minimize drive times and better serve its customers.
- The demand for hydrovac services (and thus the generation of hydro excavation wastes) has been growing and is anticipated to continue to increase over time.
- Badger routinely uses LRS's facility in Forest View to manage its hydro excavation and related wastes.
- The anticipated benefit to Badger if the proposed LRS facility is approved is primarily transportation logistics. Specifically, Badger provides services in many areas that are more conveniently located to West Chicago than other permitted facilities (such as the Forest View) so the use of the proposed West DuPage RTS would reduce transportation costs.
- Badger would save approximately two hours for each load that could be re-directed to the proposed West DuPage RTS in lieu of the LRS Forest View Facility.
- The typical cost to a customer for Badger's hydrovac services is approximately $250 per hour plus disposal costs.
- The decreased driving time would also increase Badger's productivity (i.e., more time to be providing services vs driving).
- Approximately 40% of the work Badger performs is located more convenient to West Chicago than Forest View.
- The extended operating hours (i.e., open past 3 pm) of the LRS Forest View facility is very helpful to Badger, and similar operating hours at the proposed West DuPage RTS would be desirable.

Please let us know if our understanding of any of the above is incorrect. Also please let us know of any questions you may have. Thank you again for your support of the proposed West DuPage RTS.

John E. Hock, P.E. | *Vice President*
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200, Naperville, Illinois 60563

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JACK csi

PO Box 563
Crete, IL 60417
(708) 443-5563
(708) 443-5564 fax

July 28, 2020

West Chicago City Hall
475 Main Street
West Chicago, IL 60185

Re: Municipal Waste Transfer Station - 1655 Powis Rd

Dear Mayor Ruben Pineda,

I am writing to support the inclusion of a non-hazardous liquid waste solidification permit for the LRS West Chicago facility. This will provide a cost-efficient means to support hydro-excavation services for major utility companies, municipalities, public and private construction; for the purpose of safely excavating non-hazardous soils surrounding areas requiring excavation, utility installation or repair.

The LRS West Chicago facility proposes to accept "Hydro Excavation Wastes" such as hydro/vacuum excavation muds, underground excavation material, and other similar materials, which are regulated as liquid wastes due to their low solids content. The Hydro Excavation Wastes will be unloaded directly into a fully contained, concrete lined mixing pit, and then be mechanically mixed with wood chips or other similar absorbent materials using a hydraulic excavator or wheel loader. The solidification process continues until the resultant material blend passes the regulatory test (i.e., paint filter test) for demonstrating the material is a solid. The solidified waste is then hauled off-site for disposal at a permitted non-hazardous waste landfill.

Due to the limited disposal locations for this liquid waste, please permit LRS the opportunity to provide this necessary service to reduce the amount of time and cost to properly dispose of non-hazardous, liquid wastes. This will allow for more money to go towards actual construction budgets and improving both horizontal and vertical infrastructure modernization, safety and efficiency.

Sincerely,

Cindy Gustafson, PE
President, J.A.C.K. Contractor Services, Inc.

From: Hock, John
Sent: Friday, September 4, 2020 5:17 PM
To: Cindy Gustafson (cgustafson@jackcsi.com)
Cc: KJ Loerop; Rich Golf (RGolf@LRSRecycles.com); Lee, Chastity
Subject: Letter of Support - West DuPage Recycling and Transfer Station
Attachments: JACK Contractors 2020-07-28 18_11_34.pdf

Cindy,

Thank you for taking the time today to discuss the potential benefits to your company of the proposed Lakeshore Recycling System (LRS) Facility in West Chicago for which you provided the attached letter of support. As discussed, the proposed West DuPage Recycling and Transfer Station (RTS) would accept hydro excavation wastes and similar materials for solidification. The solidified material would then be transported off-site for disposal at a permitted landfill. We understand the following based on our discussion.

- J.A.C.K. Contractor Services, Inc. (JACK) hydrovac vacuum trucks provide stormwater catch basin cleanout, non-destructive excavation services, and related services primarily in the Chicagoland area to a variety of customers including the Illinois Department of Transportation.
- JACK uses LRS's facility in Forest View to manage its stormwater catch basin, hydro excavation and related wastes.
- The anticipated benefit to JACK if the proposed LRS facility is approved is primarily transportation logistics. Specifically, JACK provides services in certain areas that are more conveniently located to West Chicago than other permitted facilities (such as the Forest View) so the use of the proposed West DuPage RTS would reduce transportation costs.
- The decreased driving time would also increase JACK's productivity (i.e., more time to be providing services vs driving).
- Approximately 25% of the work JACK performs is located more convenient to West Chicago than other available locations.

Please let us know if our understanding of any of the above is incorrect. Also please let us know of any questions you may have. Thank you again for your support of the proposed West DuPage RTS.

John E. Hock, P.E. | *Vice President*
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200, Naperville, Illinois 60563
direct 630.541.0612 **office** 630.963.6026 **mobile** 630.291.6026
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From: Cindy Gustafson <cgustafson@jackcsi.com>
Sent: Tuesday, September 8, 2020 8:21 AM
To: Hock, John
Cc: KJ Loerop; Rich Golf (RGolf@LRSRecycles.com); Lee, Chastity
Subject: Re: Letter of Support - West DuPage Recycling and Transfer Station

John,

The information is correct. Good luck with your project.

Cindy Gustafson, PE
President, J.A.C.K. Contractor Services, Inc.
A certified DBE/WBE
708.443.5563
708.443.5564 fax
708.768.4315 cell

From: Hock, John <jhock@cecinc.com>
Sent: Friday, September 4, 2020 5:17 PM
To: Cindy Gustafson
Cc: KJ Loerop; Rich Golf (RGolf@LRSRecycles.com); Lee, Chastity
Subject: Letter of Support - West DuPage Recycling and Transfer Station

Cindy,

Thank you for taking the time today to discuss the potential benefits to your company of the proposed Lakeshore Recycling System (LRS) Facility in West Chicago for which you provided the attached letter of support. As discussed, the proposed West DuPage Recycling and Transfer Station (RTS) would accept hydro excavation wastes and similar materials for solidification. The solidified material would then be transported off-site for disposal at a permitted landfill. We understand the following based on our discussion.

- J.A.C.K. Contractor Services, Inc. (JACK) hydrovac vacuum trucks provide stormwater catch basin cleanout, non-destructive excavation services, and related services primarily in the Chicagoland area to a variety of customers including the Illinois Department of Transportation.
- JACK uses LRS's facility in Forest View to manage its stormwater catch basin, hydro excavation and related wastes.
- The anticipated benefit to JACK if the proposed LRS facility is approved is primarily transportation logistics. Specifically, JACK provides services in certain areas that are more conveniently located to West Chicago than other permitted facilities (such as the Forest View) so the use of the proposed West DuPage RTS would reduce transportation costs.
- The decreased driving time would also increase JACK's productivity (i.e., more time to be providing services vs driving).

281 River Oaks Drive
P.O. Box #150
Calumet City, IL 60409

CALUMET CITY PLUMBING
EST. 1967

Tel: 708-868-0074
Fax: 708-868-0102
Web: ccp1967.com

July 27, 2020

West Chicago City Hall
475 Main Street
West Chicago, IL 60185

Re: Municipal Waste Transfer Station - 1655 Powis Rd

Dear Mayor Ruben Pineda,

I am writing to support the inclusion of a non-hazardous liquid waste solidification permit for the LRS West Chicago facility. This will provide a cost-efficient means to support hydro-excavation services for major utility companies, municipalities, public and private construction; for the purpose of safely excavating non-hazardous soils surrounding areas requiring excavation, utility installation or repair.

Hydro-excavation services have become quintessential for utility companies, excavators, horizontal directional drilling (HDD) and many other essential services. This service has grown exponentially in recent years and is anticipated to continue to increase in demand.

The LRS West Chicago facility proposes to accept "Hydro Excavation Wastes" such as hydro/vacuum excavation muds, underground excavation material, and other similar materials, which are regulated as liquid wastes due to their low solids content. The Hydro Excavation Wastes will be unloaded directly into a fully contained, concrete lined mixing pit, and then be mechanically mixed with wood chips or other similar absorbent materials using a hydraulic excavator or wheel loader. The solidification process continues until the resultant material blend passes the regulatory test (i.e., paint filter test) for demonstrating the material is a solid. The solidified waste is then hauled off-site for disposal at a permitted non-hazardous waste landfill.

Due to the limited disposal locations for this liquid waste, please permit LRS the opportunity to provide this necessary service to reduce the amount of time and cost to properly dispose of non-hazardous, liquid wastes for projects DuPage and surrounding counties. With the budget constraints in the current economic environment, this will allow for more money to go towards actual construction budgets and improving both horizontal and vertical infrastructure modernization, safety and efficiency.

I look forward to working with you on this important issue to keep construction strong in Illinois while protecting the environment and reducing expenses. If you have any questions or need further clarification; please do not hesitate to contact me at (708) 868-0074

Sincerely,

Michael Giglio
President

APPENDIX 1-B2

LETTER OF SUPPORT FROM STROM

September 2, 2022

To Whom It May Concern:

Roy Strom Refuse Removal Service was the premier family-owned waste collection service provider in the Chicagoland area. With 76 years of family ownership, we knew how to take care of our customers to ensure they were provided with the best service within the industry. Over the past several years, the dynamics within the industry have changed dramatically. Due to consolidation and ever-increasing competition from much larger national waste firms we believed that it was in the best interest of our family to sell our firm to a larger non-national waste hauler.

The dynamics within the waste industry have been ever evolving over the past 25 years, but more recently the industry has consolidated at a much faster pace than previously experienced. Prior to 2007, Roy Strom did not have a solid waste transfer station. After much work and determination, we were granted a permit for a solid waste transfer station. Prior to that time, we were unable to secure even a long-term disposal agreement at a transfer facility. This transfer station (Greenwood Transfer) was a lifeline for our business as we were now able to negotiate long-term agreements direct with the landfill. This allowed us to competitively bid on long-term municipal agreements. At that time, we had several options to negotiate landfill agreements (Waste Management, Republic Services, Advanced Disposal, and Rock River Environmental (2 landfills)). After discussions with the national waste haulers, we ultimately chose Rock River as they were the most responsive and eager to work with another non-national service provider.

In 2015, Rock River Environmental was acquired by Waste Connections, a large national waste provider. After review of the agreements in place, Waste Connections determined they would no longer accept our material at Rochelle Landfill so they required Roy Strom (Greenwood Transfer) to move the disposal to Winnebago Landfill. Upon review, Greenwood Transfer and Waste Connections were unable to maintain a relationship after this request. In 2017, Greenwood Transfer entered into an agreement with Waste Management (DeKalb Landfill) and Advanced Disposal (Davis Junction). This agreement would allow Greenwood Transfer long-term pricing.

In 2020, Waste Management and Advanced Disposal announced a merger that would bring together two of the largest waste firms in the world. Upon approval by the Department of Justice they were allowed to move forward. This changed the model from 2007 when we had four firms controlling the landfills, including 1 non-national, to today when Waste Management and Republic Service (two of the largest waste firms in the world) control almost all the landfill

space. The third option was not available as our relationship with them was not in good standing due to the 2015 merger.

After this merger was complete, we believe that the industry could eventually get to the point where long-term agreements for landfill volume will not exist for the non-national waste haulers similar to when we did not have a transfer station and were at the mercy of the national waste haulers with transfer rates that could change without notice. The biggest challenge for Greenwood Transfer in the longer term would have been the reduced options for a competitive price at the landfill. While this was just one of the several reasons ultimately Roy Strom and Greenwood Transfer station was sold to LRS Holdings in late 2020.

I believe it is in the best interest of the consumer, the private waste haulers and the municipalities that the West DuPage Recycling and Transfer Station be approved for local sitting. To be more specific as to why this should be approved is that this will increase the disposal competition in the DuPage County market which will drive the disposal prices down and allow for lower prices to the communities and businesses, and bring a lifeline to the few non-national waste haulers that are left.

Sincerely,

George Strom
Vice President of Municipal Services
LRS

APPENDIX 1-B3

LETTERS OF SUPPORT FROM WASTE HAULERS

Flood Brothers
DISPOSAL/RECYCLING SERVICES
17W609 14TH STREET
OAKBROOK TERRACE, IL 60181-3718
www.floodbrothersdisposal.com

July 16, 2020

Flood Bros Disposal Co.
17W609 14th St.
Oakbrook Terrace, IL 60181

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council of West Chicago to express our support for the siting of the Municipal Solid Waste Transfer Station located at 1655 Powis Rd, in West Chicago.

With the consolidation within the waste and recycling industries it is strategically important to have alternatives for our company to dispose and recycle material. Creating competition within the industry allows our company to offer better service and competitive pricing.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

William K. Flood Jr.
President

Molenhouse
ENTERPRISES, INC.

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, IL 60185

Date: September 25, 2019

Re: Municipal Waste Transfer Station

Dear Mayor Pineda & West Chicago City Council,

I am writing you and to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road in West Chicago.

My family owned enterprise has been in the waste hauling business in DuPage County for over 40 years, and we have witnessed massive consolidation of the waste and recycling industries in the last 15 years or so. For small haulers such as ourselves to remain competitive, it is critical to have choices in transfer stations to bring our materials. Competition within this industry segment allows our company to offer better service, competitive pricing and is ultimately beneficial for our customers, who are primarily contractors and homeowners in DuPage County.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

James Molenhouse

James Molenhouse, President
Molenhouse Enterprises, Inc

Independent Recycling Services
2401 South Laflin Street | Chicago IL 60608
Phone: 312-RECYCLE (312-732-9253) | Fax: 312-942-9482
www.312RECYCLE.com

July 13, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

RE: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda and City Council Members;

As an independent and family owned waste and recycling business for over 40 years we are writing the leadership of West Chicago to express our support for the siting of the Municipal Solid Waste Transfer Station located at 1655 Powis Road, West Chicago.

The waste and recycling industry continues to be dynamic and evolves to meet the needs of the many communities and marketplace. Therefore it is strategically important to have cost effective alternatives for our company and others to dispose and recycle material. This Municipal Solid Waste Transfer Station will do just that allowing company's like ours the ability to service our customers better and at competitive rates.

We commend the City of West Chicago for having taken the steps to expand this facility into a Municipal Solid Waste Transfer Station.

Sincerely,

Edward C. Kalebich
Chief Operating Officer

E & J DISPOSAL COMPANY

Roll Off Dumpster Rental Company- Featuring 6,10,15,20 & 30 yard containers

290 S. MAIN PLACE- SUITE 102 CAROL STREAM, IL. 60188
(630) 588-0597 fax (630) 668-7587 E Mail – ejdisposal@gmail.com Website: www.ejdisposal.com

July 2, 2020

Mayor Ruben Pineda
475 Main Street
West Chicago, Il. 60185

Re: 1655 Powis Road, West Chicago -Transfer Station

Attention: All concerned Officers of the City of West Chicago

We are happy to endorse the opportunity for a new citing of a COMPLETE transfer station that can handle both CD debris and MSW all in one location. The area is perfect and new competition would definitely be welcomed.

We have been doing business with Lakeshore Recycling at 2 other sites in the Chicago area and this company has the knowledge to run an efficient program that has rigorous guidelines for the waste industry, they run a tight ship.

Here is hoping that this possibility will become a reality in the very near future.

Sincerely,

Frank Caligiuri - President

TRI-STATE DISPOSAL

PHONE: 708.388.9910 FAX: 708.388.3984

Jeff Germany
Tri-State Disposal
13903 S Ashland Avenue
Riverdale, IL 60827

July 6, 2020

Mayor Ruben Pineda,
City of West Chicago
475 Main Street
West Chicago, IL 60185

City Council
City of West Chicago
475 Main Street
West Chicago, IL 60185

Re: Municipal Solid Waste Transfer Station
1655 Powis Road, West Chicago

Dear Mayor Pineda and the City Council of West Chicago,

I am writing to you today in support of the proposed Municipal Solid Waste Transfer Station seeking siting at 1655 Powis Road, West Chicago.

Within the past two decades, our industry has seen a lot of consolidation, leaving smaller organizations like ours with limited disposal options. I believe that the construction of a privately held waste transfer station in your area is necessary for the sustainability of the area's private hauling companies. Since the majority of transfer stations in the area are owned by publicly traded companies, the need for this location is greater now that ever.

If you have any questions or concerns, please contact me at 708.388.9910 extension 217.

Sincerely,

Jeff Germany, Secretary
Tri-State Disposal

Electronic Filing: Received, Clerk's Office 04/19/2023

DISPOSALL WASTE SERVICES, LLC
WBE/DBE CERTIFIED
5817 West Ogden Avenue
Cicero, Illinois 60804
Phone 708-458-9800 Fax 708-477-6154
www.disposallwaste.com

DisposALL Waste Services, LLC
5817 W Ogden Avenue
Cicero, IL 60804
708.458.9800

July 1st, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, IL 60185

Re: Lakeshore Recycling Systems, LLC Municipal Solid Waste Transfer Station

I am writing to you and the City Council of West Chicago to express my support for the sitting of the Municipal Solid Waste Transfer Station located at 1655 Powis Road in West Chicago.

It is so important to have strategically located options to best serve the community and waste and recycling industry. The success of my small business, which operates as both a WBE and DBE depends on having strategically important alternatives for my company to dispose and recycle material. I can provide a better quality of service and offer competitive pricing because of having this transfer station as an option. In turn, I can grow my business and give back to the communities in which we work.

The City of West Chicago sets itself apart as a leader in making informed business decisions that benefit their community and the suburban areas of both DuPage and Kane County, and should be commended for having taken the steps to secure this Solid Waste Transfer Station.

Regards,

Elizabeth Christofylakis
Owner and President of Operations

DISPOSALL
WASTE SERVICES L.L.C.
WBE/DBE CERTIFIED

Environmental
RECYCLING & DISPOSAL SERVICE

Phone: 815-725-4555 • 877-323-2222 • Fax: 815-725-5235 • PO Box 675 • Orland Park, IL 60462-0675

October 8, 2019

Environmental Recycling & Disposal
2145 Moen Ave,
Rockdale, IL 60436
815-725-4555

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council of West Chicago to express our support for the siting of the Municipal Solid Waste Transfer Station located at 1655 Powis Rd, in West Chicago.

With the consolidation within the waste and recycling industries it is strategically important to have alternatives for our company to dispose and recycle material. Creating competition within the industry allows our company to offer better service and competitive pricing.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Jay Ipema
President

October 4, 2019

Economy Disposal Service
5300 S. Lawndale Ave.
McCook, IL 60525

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council of West Chicago to express our support for the siting of the Municipal Solid Waste Transfer Station located at 1655 Powis Rd, in West Chicago.

With the consolidation within the waste and recycling industries it is strategically important to have alternatives for our company to dispose and recycle material. Creating competition within the industry allows our company to offer better service and competitive pricing.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted

Ron Tazelaar
President

S.B.C. WASTE SOLUTIONS INC

June 30, 2020

SBC Waste Solutions, INC
2401 Gardner Rd
Broadview, IL 60155

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, IL 60185

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council of West Chicago to express our support for the siting of the Municipal Solid Waste Transfer Station located at 1655 Powis Rd, in West Chicago, and the Lakeshore company.

SBC Waste Solutions is a woman owned enterprise and the market needs an independent like Lakeshore to help keep the market fair.

With the consolidation within the waste and recycling industries it is strategically important to have alternatives for our company to dispose and recycle material. Creating competition within the industry allows our company to offer better service and competitive pricing and helps the environment.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County. Your town is a leader in Illinois.

Respectfully,

Karen Coley

BOSMAN DISPOSAL

10/09/2019

Bosman Disposal
205 E. Butterfield Rd Ste. 246
Elmhurst, IL 60126

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council of West Chicago to express our support for the siting of the Municipal Solid Waste Transfer Station located at 1655 Powis Rd, in West Chicago.

With the consolidation within the waste and recycling industries it is strategically important to have alternatives for our company to dispose and recycle material. Creating competition within the industry allows our company to offer better service and competitive pricing.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted

Caleb Bosman
Bosman Disposal
630-333-3591

MBL RECYCLING

TAKING C&D RECYCLING TO THE NEXT LEVEL

www.mblrecycling.com

September 25, 2019

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago.
With the consolidation within the waste and recycling industries it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing.
The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully submitted,

Wendy Gold
President

APPENDIX 1-B4

LETTERS OF SUPPORT FROM MUNICIPALITIES

CITY OF WHEATON Illinois

CITY MANAGER'S OFFICE
303 W WESLEY STREET, WHEATON, IL, 60187
630.260.2012 | www.wheaton.il.us

Lakeshore Recycling Systems
Attn: Bill Kenny
6132 Oakton Street
Morton Grove, IL 60053

Re: Municipal Waste Transfer Station

Dear Bill,

The City of Wheaton is extremely pleased that you are seeking to locate a Municipal Solid Waste Transfer Station in nearby West Chicago at 1655 Powis Road.

We are aware of the consolidation that continues to occur within your industry. As a partner with Lakeshore Recycling Systems, we certainly see the strategic importance and value for your company having alternatives for material disposal and recycling. This new Transfer Station would create efficiencies and not only benefit LRS, but also your partners, as there would be options for disposal; and therefore, some degree of competition.

We are encouraged that West Chicago has taken steps towards opening a Municipal Waste Transfer Station serving DuPage County and the surrounding area. Thanks for your great work and desire for positive progress!

Sincerely,

John Duguay
Assistant City Manager

WHEATON MAYOR PHILIP J. SUESS CITY MANAGER MICHAEL DZUGAN
CITY COUNCIL: MICHAEL BARBIER | ERICA BRAY-PARKER | SUZANNE FITCH | LYNN ROBBINS | JOHN RUTLEDGE | CHRISTOPHER ZARUBA

Village of Forest View
7000 West 46th Street
Forest View, Illinois 60402
(708) 788-3429
(708) 788-8266 Fax
info@forestview-il.org

Village President
Lawrence Powell
Trustees
Mike Grossi
Richard Hubacek
Brigitte Kirchgatterer
Nancy Miller
Karen Stimach
Jim Sudkamp

August 4, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda and City Council Members:

I am writing you to express my support for Lakeshore Recycling Systems and your efforts to site a Municipal Solid Waste Transfer Station at 1655 Powis Road in West Chicago.

The Solid Waste Collection and Disposal Industry continues to consolidate and it is vitally important to site new waste transfer facilities to remain competitive in the solid waste industry and to provide alternatives for the disposal of solid waste and recyclable materials. Lakeshore Recycling Systems has made significant improvements at their facility located at 6201 W. Canal Bank Road in Forest View and a new Transfer Station in West Chicago will allow LRS to enhance service and offer competitive pricing to the suburbs of DuPage County and the surrounding Chicagoland metropolitan area.

With all of the difficulties involved with siting a new waste transfer facility, I commend you, Lakeshore Recycling Systems and the City of West Chicago for your efforts.

Sincerely,

Mark C. Masciola

Mark C. Masciola
Village Administrator

Village of
Hinckley
Proud Past. Bright Future.

720 James Street
Hinckley, IL 60520
www.hinckleyil.com
Office: 815-286-3836
Fax: 815-286-3651

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

As the waste and recycling industry is consolidating, alternative disposal and recycle processing options are imperative to maintain a competitive landscape. The siting of this MSW transfer station will provide a more balanced and competitive platform. This level of competition will result in better services and competitive pricing for the residents, businesses and industries throughout northern, IL.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Nancy Nelson
Village President

Lisle™
THE ARBORETUM VILLAGE

September 9, 2019

To Whom It May Concern:

When the Village of Lisle set out to issue an RFP for refuse and recycling services in 2018, there was interest in determining whether new technology, services, and cost savings were available in the hauling market. At this point, the Village had an incumbent hauler that had worked in the community for over two decades. They were well established within the community, the drivers knew their routes, residents knew their driver, and customer service was provided in a predictable fashion.

The issuance of an RFP signified that the Village would be exploring opportunities to modernize this service as well as achieve cost-savings for Lisle residents. One of the unique aspects of this process is that Lisle includes its multi-family accounts in the RFP, which added an additional layer of complexity.

Lakeshore Recycling Systems (LRS) was one of three proposals received in response. Lakeshore's proposal stood out amongst the other submittals as they (LRS) offered competitive pay-per-use as well as modified-volume-based pricing, comprehensive services, and a technological solution – the use of RFIDs – which no other company had proposed. They were extremely responsive to requests for more information, appeared at Village Board meetings to introduce themselves and answer questions, and were willing to explore a solution that was the best fit for the Lisle community.

Now, over a year since they began providing services, we are extremely pleased with their service. Single and multi-family accounts have had the opportunity to realize cost savings, while at the same time are able to take advantage of new programs such as curbside electronics recycling, household hazardous waste pick up, and composting. LRS staff is also extremely responsive to customer service needs as well as needs to communicate program information to the public. The company has also supported several community events, including the Lisle Eyes to the Skies Festival and Downtown Car Shows.

LRS provides professional and responsive customer service and innovative programs all at extremely competitive rates. We have been pleased with their performance and with the services, they provide to Lisle residents.

Sincerely,

Eric Ertmoed
Village Manager

Village of Atkinson

Biggest Little Town Around *Member of Illinois Municipal League*

Office 309-936-7658 • Fax 309-936-7648
107 West Main Street • P.O. Box 614 • Atkinson, Illinois 61235

Village of Atkinson

107 W Main Street

Atkinson, IL 61235

06/22/2020

I am writing this letter to recommend the services of Ecology Solutions to you. During the past year this company has been working with the Village of Atkinson on numerous different kinds of projects. The company offers high quality services. We can say that we have always been satisfied by their work.

One of the projects that we worked on was an upgrade, adding on of a waterline that helped to improve the Village and Ecology solutions with the need for water. The line was put in in a quick organized manner that did not cause any delays for the community as well as not causing a financial burden on the Village all at once.

The Village of Atkinson feels we are very lucky to have Ecology Solutions on our side to help improve our community. There is an agreement in place that the Village collects what is known as a host fee. Those are funds that the Village receives which in return are used for more updates and possible expansions in our small town.

From day one the Ecology's Solutions employees have always been great at communication and being on top of any matter that may come up. They have cleaned up after themselves and have graciously cleaned our streets as well. Ecology Solutions has really made improvements to the appearance of the landfill compared to the prior operator.

I would like to ask you to consider Ecology Solutions. I strongly recommend the services of the company and I am looking forward to working with the company into the future.

Sincerely,

Kenneth Taber

Mayor

Kenneth Taber

APPENDIX 1-B5

LETTERS OF SUPPORT FROM DEMOLITION AND CONSTRUCTION COMPANIES

DELTA DEMOLITION, INC
6832 W North Ave. Suite 1A
Chicago, IL 60707-4429
P- 773-252-6370 F- 773-252-8263
delta@deltademolition.com

July 1, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, IL 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

I am writing to you and the City Council of West Chicago to express my support for the establishment of a Municipal Waste Transfer Station located at 1655 Powis Road in West Chicago.

With consolidation within the waste and recycling industries, it is strategically important to my company, Delta Demolition, Inc. to have alternatives to dispose of and recycle materials from the demolition jobs we manage. Creating competition within the waste and recycling industries allows us to offer better service and competitive pricing to our customers.

The City of West Chicago should be commended for having taken the steps necessary to open another Municipal Waste Transfer Station to serve the municipalities of DuPage and Kane County.

Respectfully submitted,

Jeffrey M. Finucane
President

HENEGHAN WRECKING CO.

Established 1973

June 30, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council of West Chicago to express our support for the siting of the Municipal Solid Waste Transfer Station located at 1655 Powis Rd, in West Chicago.
With the consolidation within the waste and recycling industries it is strategically important to have alternatives for our company to dispose and recycle material. Creating competition within the industry allows our company to offer better service and competitive pricing.
The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Patrick J. Heneghan

Patrick J. Heneghan
President

PEPPER SELF PERFORM
DEMOLITION GROUP

Tim Baldocchi
timbaldocchi@pepperconstruction.com

Date 7/7/2020

Mayor Ruben Pineda
City Council of West Chicago 475 Main
Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago. With the consolidation within the waste and recycling industries, it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing. The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully submitted,

X

Timothy Baldocchi
Sr. Project Manager

FCLBUILDERS

July 9, 2020

Mayor Ruben Pineda
City Council of West
Chicago 475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station
1655 Powis Rd.
West Chicago, Il 60185

Dear Mayor Ruben Pineda & City Council,

FCL Builders is writing this letter to you Mayor as well as the City Council to express our support for the siting of the Municipal Solid Waste Transfer Station located at 1655 Powis Road in West Chicago. With the consolidation within the waste and recycling industries, it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station's serving the suburbs of DuPage and Kane Counties.

Respectfully,
FCL Builders

Jay Mumm
Vice President Field of Operations

Kinsale Contracting Group Inc.

www.kinsalecg.com

648 Blackhawk Drive • Westmont, IL 60559 • 630-325-7400 • fax 630-325-7401

July 10, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago. With the consolidation within the waste and recycling industries, it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing. The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully submitted,

KINSALE CONTRACTING GROUP INC.

Robert J. Duermit
President
E-Mail: robertd@kinsalecg.com

NICHOLAS & ASSOCIATES, INC.
NICHOLAS 1001 Feehanville Drive, Mount Prospect, IL 60056 I Phone (847) 394.6200 I Fax (847) 394.6205

July 7, 2020

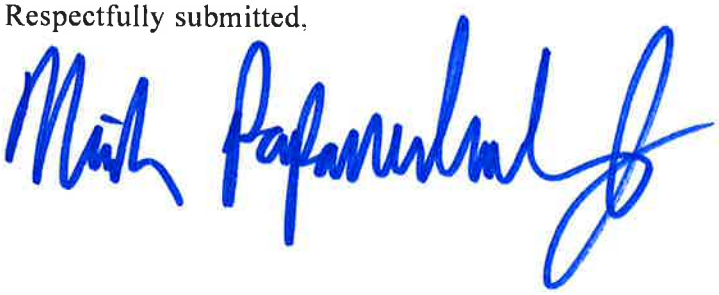
Mayor Ruben Pineda
City Council of West
Chicago 475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago. With the consolidation within the waste and recycling industries, it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing. The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully submitted,



ROBINETTE
DEMOLITION, INC.

0 S 560 Highway 83
Oakbrook Terrace, Illinois 60181
PHN: (630) 833-7997
FAX: (630) 833-8047

Wednesday, July 08, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago. With the consolidation within the waste and recycling industries, it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing. The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully submitted,

Thomas A. Robinette
President
Robinette Demolition, Inc.

Xtreme Environmental Solutions, Inc.

1275 Roosevelt Road, Suite 107
West Chicago, IL 60186

Phone (630)293-7880 Fax (630)293-7888

June 30, 2020

City of West Chicago
475 Main Street
West Chicago, IL 60185

To whom it may concern:

Xtreme Environmental is a waste consulting company located in West Chicago. We help our clients secure the lowest possible pricing on their scavenger service contracts while providing best practice recommendations, as well as implement efficient and cost reducing procedures. We've been in business for nearly 12 years. Competition in any industry is important. Without it, we as a consumer will eventually pay more when there is less competition.

Right now, Waste Management (who is merging with Advanced Disposal) and Waste Connections (who merged with Groot) are the two scavenger service companies with transfer stations in Dupage County. We support and recommend approving Lakeshore Recycling Systems Municipal Waste Transfer Station in West Chicago. This is needed now more than ever to ensure we maintain competition in this area.

Thank you for your time and consideration,

Sincerely,

Lori Davis

Lori Davis
President / Owner
Ldavis@xtremees.net

July 8, 2020

Mayor Ruben Pineda

City Council of West
Chicago 475 Main Street

West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago. With the consolidation within the waste and recycling industries, it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing. The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully,

Todd J. Grunert, CPSM, C.P.M.
Director, Procurement

Leopardo Companies
Office: 847.783.3840
Mobile: 224.385.6395
TJGrunert@leopardo.com

Slate Demolition

July 9, 2020

Mayor Ruben Pineda
City Council of West Chicago 475
Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago. With the consolidation within the waste and recycling industries, it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing. The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully submitted,

Slate Demolition LLC.

Kathy Dziedzic
Managing Director

BREAK THRU
ENTERPRISES, INC

DEMOLITION SPECIALISTS

315 Eisenhower Lane South
Lombard, IL 60148-5406

T 630 599-1900
F 630 599-1910

www.breakthrudemo.com

July 10, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago. With the consolidation within the waste and recycling industries, it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing. The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully submitted.

Roger Lisy
President

Tri-County Excavation & Construction, Inc.

630-896-7916 office
630-896-8213 fax
tricountyx@aol.com
471 NE Industrial Dr
Aurora, IL 60505

October 9, 2019

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City

I am writing you and the City Council to express support for the siting o
(MSW) Transfer Station located at 1655 Powis Road in West Chicago.

As the waste and recycling industry is consolidating, alternative dispo
options are imperative to maintain a competitive landscape. The si
station will provide a more balanced and competitive platform. Thi
result in better services and competitive pricing for the residents,
throughout northern, IL.

CONSTRUCTION DEVELOPMENT STRATEGIES COPR.
www.cdscbiz.com

Construction Development Strategies Corp.
CDSC
800 Mark Twain Trl
Batavia, IL 60510

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council of West Chicago to express our support for the siting of the Municipal Solid Waste Transfer Station located at 1655 Powis Rd, in West Chicago.
With the consolidation within the waste and recycling industries it is strategically important to have alternatives for our company to dispose and recycle material. Creating competition within the industry allows our company to offer better service and competitive pricing.
The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted

Michael Surina
Owner CDSC
630-878-5157

Skender

July 8, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago. With the consolidation within the waste and recycling industries, it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing. The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully submitted,

Mike Hester Skender Construction

D&P
CONSTRUCTION CO., INC.
• RECYCLING DIVISION •
3800 W. Lake Street • Melrose Park, IL 60160
Phone (708) 338-3534 • Fax (708) 338-9630

September 25, 2019

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago.

With the consolidation within the waste and recycling industries it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully submitted

Sherri Clementi

VP Operations

Alpine KNOCK it DOWN.com
DEMOLITION SERVICES LLC

DBE/WBE/FBE certified

July 9, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago. With the consolidation within the waste and recycling industries, it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing. The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully submitted.

Kelli Pawlik
President

U.S. Dismantlement
2600 South Throop, Chicago IL 606
P: 312.328.1400 F: 312.328.1477

July 22nd, 2020

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Mayor Ruben Pineda & City Council,

We are writing you and the City Council to express our support for the siting of the Municipal Solid Waste Transfer located at 1655 Powis Road, West Chicago. With the consolidation within the waste and recycling industries, it is strategically important to have alternatives for us to bring our materials. Creating competition within the industry allows our company to offer better service and competitive pricing. The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully submitted,

U.S. DISMANTLEMENT
Joanna Nika-Hypta
Project Manager

Joanna Nika-Hypta

GMI SERVICES

10769 Broadway • Suite 230
Crown Point, IN 46307

July 10, 2020

Dear Mayor Ruben Pineda,

GMI Services, LLC is writing to you and the City Council of West Chicago in support of the siting of the Municipal Solid Waste Transfer Station located at 1655 Powis Rd, West Chicago, IL. GMI does a large amount of work in West Chicago and this would be very beneficial to us.

With the expansion of Lakeshore Recycling Systems footprint in the area, the Municipal Solid Waste Transfer Station will better serve the community, as well as the waste and recycling industry. This will also allow for competitive pricing within the industry.

Respectfully,

Gary Longoria

President

219-808-7886 • gmiservices@comcast.net

CREEKSIDE COMPOST

Creekside Compost, LLC
2S785 S Lorang Rd
Elburn, IL
630-896-8238
creeksidecompost@yahoo.com

October 9, 2019

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

As the waste and recycling industry is consolidating, alternative disposal and recycle processing options are imperative to maintain a competitive landscape. The siting of this MSW transfer station will provide a more balanced and competitive platform. This level of competition will result in better services and competitive pricing for the residents, businesses and industries throughout northern, IL.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Sean Trowbridge
Member

July 1, 2020

David Walker
President
Diversified Waste Solutions, LLC
321 Stevens Street
Geneva, IL 60134

City of West Chicago,

I am writing to you today to endorse the expansion of the Lakeshore Recycling Systems facility on Powis Road into a solid waste transfer station.

By way of introduction, my name is David Walker and I am president of Diversified Waste Solutions.

My firm is based in Geneva Illinois with satellite offices in Atlanta and Denver.

Our business is waste consulting/brokering and we have customer presence in every major market in the country. We manage 1600 customer locations and control many millions is waste spend.

Our base of customers are most often large companies with multiple facilities scattered throughout the US.

Closer to home, we manage some 175 locations in the greater Chicagoland market. These locations vary from large industrial facilities to office buildings. All told, our local customers generate upwards of 50,000 tons of waste material annually.

With our volume, we work with every waste hauler in the Chicagoland market and utilize many of the available transfer stations and landfills.

We have worked closely with Lakeshore Recycling Systems since our inception in early 2000.

Over the past 20 years that we have been in business, we have had a front row seat to many of the consolidations, mergers and acquisitions of waste haulers throughout the country.

Some have been advantageous to the markets where the transaction has taken place, but more often than not, the customers have suffered. A reduction in competition results in a loss of opportunities, a decrease in efficiencies and an increase in overall costs to the customers.

The recent divestiture of Advanced Waste to Waste Management and GFL has been of particular concern.

The addition of a Lakeshore run transfer in the area could only result in a better business environment for our collective customers.

Sincerely,
David F Walker
David Walker
President
Diversified Waste Solutions, LLC

APPENDIX 1-B6

LETTERS OF SUPPORT FROM CITIZENS

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

As the waste and recycling industry is consolidating, alternative disposal and recycle processing options are imperative to maintain a competitive landscape. The siting of this MSW transfer station will provide a more balanced and competitive platform. This level of competition will result in better services and competitive pricing for the residents, businesses and industries throughout northern, IL.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: C+B Builders

Mailing Address: 485 Hill St. Roselle, IL

E-mail: CBBuilders@Yahoo.com

Phone Number: 630-351-6002

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: David Reyes

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: (708) 733-0527

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: _____

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-731-3094

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: _____

Company Name: Circle X

Mailing Address: _____

E-mail: _____

Phone Number: 773-746-5056

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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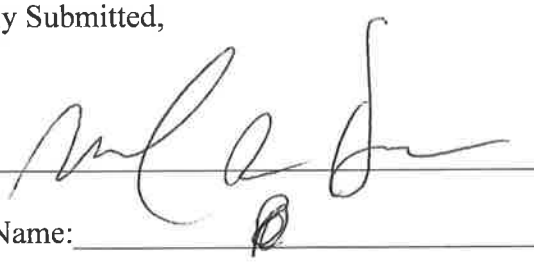
Respectfully Submitted,

Signature: 

Company Name: _____

Mailing Address: _____

E-mail: AMT 6870 @ AOL.com

Phone Number: _____

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Jose Solis

Company Name: L.R.S

Mailing Address: _____

E-mail: _____

Phone Number: 815 915 1057

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Sydney Evans

Company Name:

Mailing Address: esydney45@yahoo.com

E-mail: 60132

Phone Number:

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: _____

Company Name: Road Runner

Mailing Address: 32 Lakewood Cir St Charles IL

E-mail: _____

Phone Number: 630-495-1177

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Arturo D Partida

Company Name: AMA RRD CORP

Mailing Address: _____

E-mail: _____

Phone Number: 779 704 9406

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: monument co

Mailing Address: 23w160 north ave glen ellyn IL 60137

E-mail: _____

Phone Number: _____

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: DC Trash

Mailing Address: 8 S Hartrott, Carlton

E-mail: _____

Phone Number: 224-575-1279

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name:_____

Mailing Address:_____

E-mail:_____

Phone Number: (773)372-3652

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Jose R Frco

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 224 725 6255

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Jose T.

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630 - 501 - 4432

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: _____

Company Name: EVR

Mailing Address: _____

E-mail: _____

Phone Number: 630 816-8386

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Brian Cunta

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 847- 626-9636

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Ryan Wolowiec

Company Name: Lakeshore Recycling systems

Mailing Address: 29610 Continental Drive Warrenville IL 60555

E-mail: RyanWolowiec@gmail.com

Phone Number: 630-940-7435

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Carlos Godinez

Company Name: Lake Shore Recycling Systems

Mailing Address: 1773 W Christopher CT Romeoville, IL 60446

E-mail: Cgodinez_3@yahoo.com

Phone Number: 7734306579

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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Respectfully Submitted,

Signature:

Company Name: Lake shore Recycling

Mailing Address: 1215 Julia Dr. Romeoville IL- 60446.

E-mail: 88mmilano@gmail.com

Phone Number: (312)608-8031

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature: _____

Company Name: Lakeshore Recycling Systems

Mailing Address: 1655 Powis Rd West Chicago IL 60185

E-mail: _____

Phone Number: _____

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature:

Company Name: N/A

Mailing Address: 1320 manchester Rd

E-mail:

Phone Number: 240-571-5762

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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Respectfully Submitted,

Signature: Miguel Gonzales .C

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 469 329 8754

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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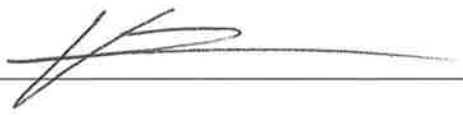
Signature: 

Company Name:_____

Mailing Address:_____

E-mail:_____

Phone Number: (630) 361-26-22

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Rafael Marin

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630 903-47-53

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Jose D Resendiz

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630 337-66-89

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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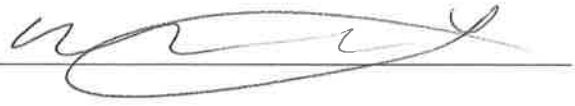
Signature: 

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-715-5905

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Jose Sotelo

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630 8028619

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Angel Beltran

Company Name:

Mailing Address:

E-mail:

Phone Number: 630 · 550 7933

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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Respectfully Submitted,

Signature: ADELFO CARRERA

Company Name:_____

Mailing Address:_____

E-mail:_____

Phone Number: (847) 760 62 94

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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Respectfully Submitted,

Signature: Jose Castillo

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630) 777-8796

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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Respectfully Submitted,

Signature: _____

Company Name: D D D

Mailing Address: _____

E-mail: _____

Phone Number: (630) 600-79-51

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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Respectfully Submitted,

Signature: _____

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-943-2474

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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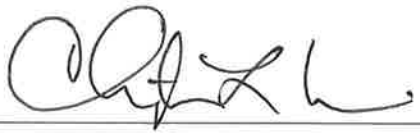
Signature: 

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-414-2508

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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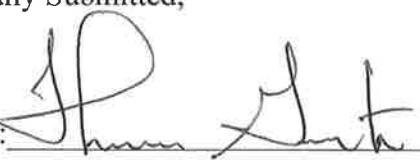
Signature: 

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630.306.9901

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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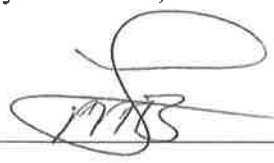
Signature: 

Company Name:

Mailing Address:

E-mail:

Phone Number: 630-21-25-77-69

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature: Salvador Alcantara

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-429-49-38

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature: Robert A Estes

Company Name: [redacted]

Mailing Address: 1655 Powis Rd

E-mail: REstes@LRSRecycling.com

Phone Number: 224-998-8857

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature:

Company Name: [redacted]

Mailing Address: 1655 Powis Rd, West Chicago

E-mail: sfystro@gmail.com

Phone Number: 630-377-7000

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature: Yunisleesa Long

Company Name: Lakeshore Recycling

Mailing Address: 901e. S. Linda Kingston

E-mail: long82899@gmail

Phone Number: 813-451-8455

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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Respectfully Submitted,

Signature: Tom V

Company Name: LRS

Mailing Address: 102 W First St. Big Rock IL.

E-mail: Regulators77@YAHOO.Com

Phone Number: 630-318-5099

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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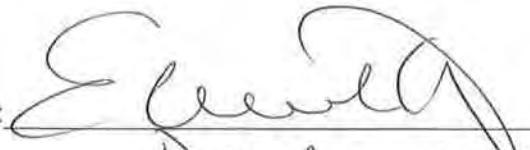
Signature: 

Company Name: Roadrunner Rolloffs

Mailing Address: 32 Littlewood Ct. St. Chas. 60174

E-mail: ewisneski32@comcast.net

Phone Number: _____

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature:

Company Name: Lakeshore Recycling

Mailing Address: 1655 Powis W. Chicago

E-mail: LMolyett@LRSRecycles.com

Phone Number: (630) 377-7000

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature: _____

Company Name: LRS

Mailing Address: 1655 POWIS RD WEST CHICAGO 60185

E-mail: JOSHHIGGINS@LRSRECYCLES.com

Phone Number: 312 888 5782

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature: Robert Medaris

Company Name: Lakeshore Recycling Systems

Mailing Address: 1655 Powis Rd, West Chicago 60185

E-mail: DMedaris@LRSRecycles.com

Phone Number: 224-575-1279

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City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature:

Company Name: LRS

Mailing Address: 714 Gillette Ave Aurora

E-mail: rrayas@lrsrecycle.com

Phone Number: 331-425-1720

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature:

Company Name: Lakeshore Recycling Systems

Mailing Address: 1655 Powis Rd, West Chicago, IL 60185

E-mail: GHanson@LRSRecycles.com

Phone Number: 773-619-6180

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City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature: Megan Kriese

Company Name: Lake Shore Recycling Pit Stop

Mailing Address: 1655 Powis Rd. West Chicago

E-mail: mkriese@LRS Recycles.com

Phone Number: 630-377-7000

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

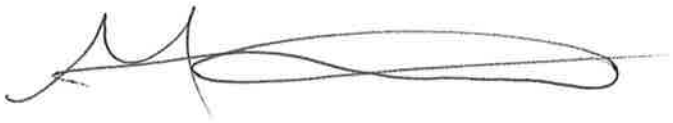
Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

As the waste and recycling industry is consolidating, alternative disposal and recycle processing options are imperative to maintain a competitive landscape. The siting of this MSW transfer station will provide a more balanced and competitive platform. This level of competition will result in better services and competitive pricing for the residents, businesses and industries throughout northern, IL.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: 

Company Name: Pit Stop

Mailing Address: 2351 Powis Rd

E-mail: gMiller2@lrsrecycles.com

Phone Number: 630-781-2131

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Franvel G S

Company Name: Calinda ~~Area~~ Roofing

Mailing Address: 1515 11th ave E, Moline

E-mail: Franvel.calinda@gmail.com

Phone Number: 615 484 3657

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Shawn Knieling

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 312-907-4008

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: [signature]

Company Name: [illegible]

Mailing Address: [illegible]

E-mail: [illegible]

Phone Number: 331-918-0204

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: MICHAEL SCEVICZ

Company Name: SCHWING PAINTING

Mailing Address: 124 FRENCH RD HAMPSHIRE

E-mail: N/A

Phone Number: 312 - 791 - 3213

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Katy Prince

Company Name: LSI Inc

Mailing Address: 380 Washington, Hampshire

E-mail:

Phone Number: 224-878-5782

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Estefanie Luna

Company Name: Waste

Mailing Address: 1995 Romke Rd, Pingree

E-mail: E.Luna91@yahoo.com

Phone Number: 773-275-1273

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Collin Sharpness

Company Name: Sharpness HVAC

Mailing Address: 10N971 Burlington Rd.

E-mail: —

Phone Number: 815-981-0896

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 331-431-0079

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Eddie Lopez

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 331-431-0079

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Allen L

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 708-340-4569

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Rogelio Camargo

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-802-723[illegible]

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: _____

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: (224) 239-8359

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Jose Segovia

Company Name: LRS

Mailing Address: _____

E-mail: _____

Phone Number: 773-749-5988

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Adan Segoviano

Company Name: LRS

Mailing Address: Adan Segoviano 23 @gmail.com

E-mail:

Phone Number: 312-889-0179

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 708-378-2860

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: _____

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 708-257-0742

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-506-2810

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Luis D Guerrero

Company Name: _____

Mailing Address: 1101 Lisa Blvd Aurora IL 60505

E-mail: Lguerrero1881.Lg@Gmail.com

Phone Number: 630-440-1567

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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Respectfully Submitted,

Signature: _____ Giovany Camillo

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 331-425-4763

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Joseph G Pa

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: (815) 451-1715

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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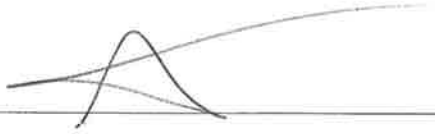
Respectfully Submitted,

Signature: 

Company Name: L

Mailing Address: _____

E-mail: _____

Phone Number: (708) 250-5845

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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Respectfully Submitted,

Signature: _____

Company Name: LRS

Mailing Address: _____

E-mail: _____

Phone Number: 630 · 377 - 7000

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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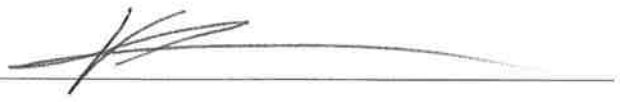
Respectfully Submitted,

Signature: 

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: (630) 361-4429

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Erasmo Castillo

Company Name: LRS

Mailing Address: _____

E-mail: _____

Phone Number: 630. 280- 4634

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 815-757-9504

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Sh-R

Company Name: _____

Mailing Address: _____

E-mail: SCReynolds29AT yAHoo.Com.

Phone Number: 815-757-9530

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Pedro J. Morado

Company Name:

Mailing Address:

E-mail:

Phone Number: (224) 629-2959

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Oscar Americo Garcia

Company Name: ~~R&S~~ R and S Roofing and Sidding

Mailing Address: _____

E-mail: _____

Phone Number: (630) 977 6467

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: Anthem

Mailing Address: 5N547 Central Rd. Itasca, IL 60143

E-mail: dan_bos@att.net

Phone Number: 630.361.3094

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 708 623-5050

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

As the waste and recycling industry is consolidating, alternative disposal and recycle processing options are imperative to maintain a competitive landscape. The siting of this MSW transfer station will provide a more balanced and competitive platform. This level of competition will result in better services and competitive pricing for the residents, businesses and industries throughout northern, IL.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: _____

Company Name: 1st Choice Building Maintenance

Mailing Address: _____

E-mail: 1st Choice Bar@gmail.com

Phone Number: 630 785-3430

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: _____

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: (708) 674-0056

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Bacilio Vidales

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-641-6670

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Jean Buenz

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-936-8786

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: Matt Nickel

Mailing Address: _____

E-mail: _____

Phone Number: _____

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Stephen L. Saraann

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630 377 2571

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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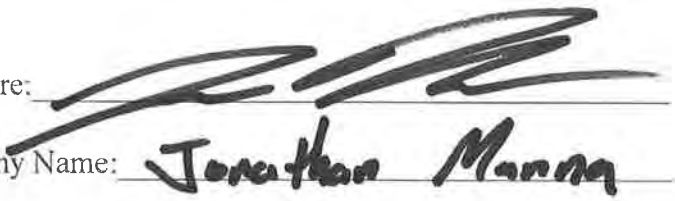
Respectfully Submitted,

Signature: 

Company Name: Jonathan Manna

Mailing Address: _____

E-mail: _____

Phone Number: 773-320-3376

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: _____

Company Name: LRS

Mailing Address: _____

E-mail: _____

Phone Number: 847-714-6771

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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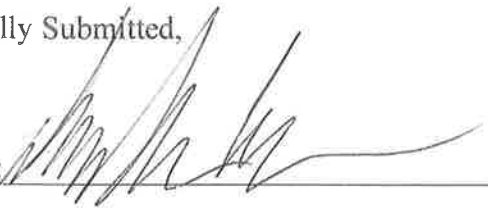
Respectfully Submitted,

Signature: 

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-776-3151

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name:_____

Mailing Address:_____

E-mail:_____

Phone Number: 815 501 8007

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Courtney Cini

Company Name:

Mailing Address:

E-mail:

Phone Number: 630-731-3094

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Thomas F. Giusto

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630 306 · 9901

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Richard Parada

Company Name:

Mailing Address:

E-mail:

Phone Number: 630-639-7765

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Jesus Antonio Morfin

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 312 823 2895

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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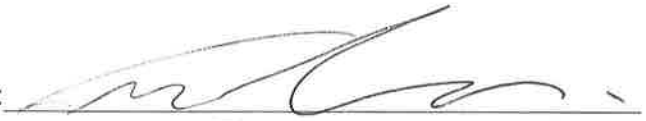
Respectfully Submitted,

Signature: 

Company Name: J. Guadalupe Navarro J.r

Mailing Address: _____

E-mail: _____

Phone Number: 630- 267 -1645

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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Respectfully Submitted,

Signature:

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: _____

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City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature:

Company Name: Melvin Valle

Mailing Address: _____

E-mail: _____

Phone Number: 224 795 3689

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

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Respectfully Submitted,

Signature: _____

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-546-7731

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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Respectfully Submitted,

Signature:

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-730-1260

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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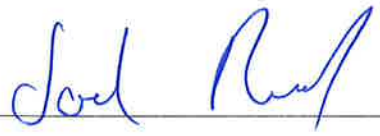
Signature: 

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-914-7595

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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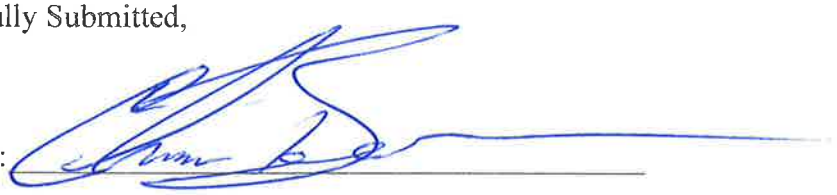
Respectfully Submitted,

Signature: 

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630 930-5194

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: _____

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 847-217-7677

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: _____

Mailing Address: 80°

E-mail: _____

Phone Number: 630-269-2678

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Faustino Castro

Company Name: Castro Construction

Mailing Address: _____

E-mail: _____

Phone Number: 224 600 4207

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Natividad

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630 5435305

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name:

Mailing Address:

E-mail:

Phone Number: 708 829 813

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 815 - 762 - 3861

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Edwin Maldonado

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 773-467 6966

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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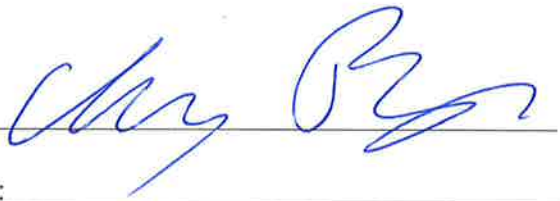
Respectfully Submitted,

Signature: 

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-336-9614

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: Terrace Masonry

Mailing Address: _____

E-mail: _____

Phone Number: 815-893-4808

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

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Respectfully Submitted,

Signature:

Company Name:

Mailing Address:

E-mail:

Phone Number: 847 219 7468

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

As the waste and recycling industry is consolidating, alternative disposal and recycle processing options are imperative to maintain a competitive landscape. The siting of this MSW transfer station will provide a more balanced and competitive platform. This level of competition will result in better services and competitive pricing for the residents, businesses and industries throughout northern, IL.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name:

Mailing Address:

E-mail:

Phone Number: 312 956 1302

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Ricardo

Company Name:

Mailing Address:

E-mail:

Phone Number: 773 - 322 7438

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

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The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature:

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-915-7882

Mayor Ruben Pineda
City Council of West Chicago
475 Main Street
West Chicago, Illinois 60185

Re: Municipal Waste Transfer Station

Dear Honorable Mayor Pineda and Members of the West Chicago City Council,

I am writing you and the City Council to express support for the siting of the Municipal Solid Waste (MSW) Transfer Station located at 1655 Powis Road in West Chicago.

As the waste and recycling industry is consolidating, alternative disposal and recycle processing options are imperative to maintain a competitive landscape. The siting of this MSW transfer station will provide a more balanced and competitive platform. This level of competition will result in better services and competitive pricing for the residents, businesses and industries throughout northern, IL.

The City of West Chicago should be commended for having taken steps to open another Municipal Waste Transfer Station serving the suburbs of DuPage and Kane County.

Respectfully Submitted,

Signature: Jean Marlette

Company Name: _____

Mailing Address: _____

E-mail: _____

Phone Number: 630-336-9615

APPENDIX 1-C

WEST CHICAGO HOST AGREEMENT

CITY OF
WEST CHICAGO

WHERE HISTORY & PROGRESS MEET

April 30, 2019

Alan Handley
Lakeshore Recycling Systems, LLC
6135 Oakton Street
Morton Grove, Illinois 60053

Dear Mr. Handley:

Enclosed you will find the original Host Community Benefit Agreement signed by Mayor Ruben Pineda. Please have Lakeshore's representative sign, make a copy for your records and return the original agreement.

If you have any questions, please contact me at (630) 293-2200 x170.

Sincerely,

Valeria Lopez

Valeria Lopez
Executive Office Manager/Deputy City Clerk

Enclosure

475 Main Street
West Chicago, Illinois
60185

T (630) 293-2200
F (630) 293-3028
www.westchicago.org

Ruben Pineda
MAYOR

Nancy M. Smith
CITY CLERK

Michael L. Guttman
CITY ADMINISTRATOR

RESOLUTION NO. 19-R-0016

A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE A HOST COMMUNITY BENEFIT AGREEMENT BETWEEN THE CITY OF WEST CHICAGO AND LAKESHORE RECYCLING SYSTEMS, LLC FOR A SOLID WASTE TRANSFER FACILITY

BE IT RESOLVED by the City Council of the City of West Chicago, in regular session assembled, that Mayor is hereby authorized to execute a Host Community Benefit Agreement between the City of West Chicago and Lakeshore Recycling Systems, LLC for a Solid Waste Transfer Facility in substantially the form attached hereto and incorporated herein as Exhibit "A".

APPROVED this 1st day of April, 2019

AYES: 11

NAYES: 2

ABSTAIN: _____

ABSENT: _____

PRESENT 1

Mayor Ruben Pineda

ATTEST:

City Clerk Nancy M. Smith

HOST COMMUNITY BENEFIT AGREEMENT BETWEEN THE CITY OF WEST CHICAGO, DUPAGE COUNTY, ILLINOIS, AND LAKESHORE RECYCLING SYSTEMS, LLC FOR A SOLID WASTE TRANSFER FACILITY

This HOST BENEFIT COMMUNITY AGREEMENT ("Agreement") is made as of the 1st day of April, 2019, between the CITY OF WEST CHICAGO, DuPage County, Illinois ("City") and LAKESHORE RECYCLING SYSTEMS, LLC ("Company").

RECITALS

WHEREAS, the Company currently operates a solid waste management facility, which receives, sorts/ separates, recycles and transfers Construction or Demolition Debris (hereinafter referred to as the C&D Recycling Facility) on the premises legally described in Exhibit A attached hereto and consisting of approximately 27.81 acres (hereinafter referred to as the "Subject Property"); and

WHEREAS, the Company plans to file with the City a request for site location approval for the construction and operation of a new Transfer Facility with sufficient capacity to receive and transfer to landfills an annual average of 1,500 tons per day of non-hazardous Municipal Waste and Hydro Excavation Waste (as those terms are defined below) with ancillary truck parking and storage and maintenance facility combined ("Transfer Facility"); and

WHEREAS, the Company desires to construct the Transfer Facility on the Subject Property and operate the Transfer Facility in conjunction with the C&D Recycling Facility; and

WHEREAS, the City is authorized by State of Illinois law, pursuant to Section 39.2 of the Illinois Environmental Protection Act (415 ILCS 5/39.2) to, among other things, receive, hold hearings, and decide an application for the site location of a pollution control facility proposed to be located in the City of West Chicago; and

WHEREAS, the City Council of the City of West Chicago ("City Council") adopted Pollution Control Facility Site Approval Procedures consistent with Section 39.2 of the Illinois Environmental Protection Act, for the purpose of preparing a comprehensive approach to the site location review process of a solid waste pollution control facility in the City of West Chicago; and

WHEREAS, Section 39.2 of the Illinois Environmental Protection Act acknowledges a local government's power to negotiate and enter into a host community benefit agreement with an applicant for site location of a pollution control facility; and

WHEREAS, the Company desires to provide certain environmental protection and compensation to the City with respect to the Transfer Facility, if the Transfer Facility obtains all required approvals and commences operation; and

WHEREAS, the City is desirous of obtaining such environmental protections and compensation, provided that the City shall have no obligation to grant site location approval of the Transfer Facility unless and until, through the local site location review process, it finds that the Transfer Facility meets or exceeds all criteria required by 415 ILCS 5/39.2. Regardless of whether site location approval is granted, this Agreement survives the local site location review process; and

WHEREAS, the City has not consented to, concurred in or objected to the proposed plans of the Company to develop the Transfer Facility, and nothing in this Agreement shall be deemed by the Company, the City, other public agencies, or the public to indicate that the City has heretofore adopted any position on the potential development of the Transfer Facility; and

WHEREAS, if the City grants site location approval of the Transfer Facility, and if thereafter the Illinois Environmental Protection Agency issues permits for the development and operation of the Transfer Facility, the Company is willing to pay a host community benefit fee, as hereinafter set forth, to the City to assist the City in meeting the costs associated with the Transfer Facility and for other general revenue needs of the City as the City may deem appropriate.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, the City and the Company agree as follows:

ARTICLE 1
DEFINITIONS AND TERM OF AGREEMENT

Section 1.1 Definitions

"Act" as used in these definitions and this Agreement, shall mean the Illinois Environmental Protection Act, as amended from time to time (415 ILCS 5/1, et seq.).

"Construction or Demolition Debris" whether or not capitalized, means "clean construction or demolition debris" as defined by Section 5/3.160(b) of the Act (415 ILCS 5/3.160(b)), or "general construction or demolition debris," as defined by Section 5/3.160(a) of the Act (415 ILCS 5/3.160(a)).

"Food Scrap" whether or not capitalized and used in any of its grammatical forms, means "food scrap" as defined in Section 5/3.197 of the Act (415 ILCS 5/3.197).

"Hydro Excavation Wastes" means solid/liquid waste such as hydro/vacuum excavation muds, underground excavation material, drilling muds, and other similar materials.

"IAC" as used in these definitions and this Agreement, shall mean the Illinois Administrative Code.

"IEPA" means the Illinois Environmental Protection Agency.

"IPCB" means the Illinois Pollution Control Board.

"Landscape Waste" whether or not capitalized and in any of its grammatical forms, means "landscape waste" as defined by Section 5/3.270 of the Act.

"Municipal Waste" whether or not capitalized and used in any of its grammatical forms, means "municipal solid waste", as defined by Section 5/3.290 of the Act (415 ILCS 5/3.290), except that such waste does not include Construction or Demolition Debris, Recyclables, Unacceptable Waste, or Landscape Waste.

"Recyclables" whether or not capitalized and used in any of its grammatical forms, means any material, which would otherwise be disposed of or discarded, which is separated from Municipal Waste or Construction or Demolition Debris at the source of generation so as to render it useable in a process, or alone, such that it can be returned to the economic mainstream in the form of raw materials or products. Examples of recyclables are newspaper, glass bottles, high density, polyethylene containers, aluminum food and beverage containers, chipboard, and corrugated containers. Recyclables do not include any materials removed or separated from, or containing Unacceptable Wastes.

"Regular Business Hours" of the Transfer Facility shall mean 4:00 a.m. to 12:00 a.m. on weekdays and 4:00 a.m. to 12:00 p.m. on Saturdays, with no operation on Sundays or the six major Federal holidays (New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas), provided that on the Saturday following any Federal holiday Regular Business Hours may be extended by the Company to 12:00 a.m. The Regular Business Hours for accepting Municipal and Hydro Excavation Waste may be extended but only upon the prior approval of the City, such approval being in writing.

"Solid Waste" whether or not capitalized, means Municipal Waste, Landscape Waste, Food Scrap, , and Construction or Demolition Debris, including those materials in these classifications that have received a Beneficial Use Determination (BUD) designation by the IEPA, as those terms are defined in this Section.

"Transfer Facility" whether or not capitalized, means, "Transfer Station" as defined by 5/3.83 of the Act (415 ILCS 5/3.83), including the property on which the Transfer Station is located, and specifically references the Transfer Facility the Company desires to construct and operate located on approximately 27.81 acres at 1655 Powis Road, Illinois, permanent parcel #01-32-101-004 and #01-32-200-001, at the property described on Exhibit A.

"Unacceptable Waste" whether or not capitalized and used in any of its grammatical forms, means (a) "hazardous waste" as defined by Section 5/3.15 of the Act (415 ILCS 5/3.15) or by 35 IAC 721.03; (b) "industrial process waste" as defined by Section 5/3.235 of the Act (415 ILCS 5/3.235), except allowable special waste and such industrial process waste which poses no present or potential threat to human health or the environment and which has no inherent properties which makes its disposal in a landfill difficult to manage by normal means, and which has been specifically approved by the IEPA; (c) "pollution control waste" as defined by Section 5/3.335 of the Act (415 ILCS 5/3.335); (d) "sludge" as defined by Section 5/3.465 of the Act (415 ILCS 5/3.465); (e) "potentially infectious medical waste" as defined by Section 5/3.360 of the Act; (f)

"special waste" as defined by Section 5/3.475 of the Act; (g) "polychlorinated byphenyls" as defined in the Toxic Substances Control Act, 15 U.S.C. Section 2601-2692, or regulations promulgated thereunder; (h) source, special or byproduct nuclear materials, radioactive waste, high-level or low-level radioactive waste, or transuranic waste as defined in the Atomic Energy Act, 42 U.S.C. Sections 2014, et seq., or regulations promulgated thereunder; or (i) "asbestos" as defined in 40 CFR 763.83, except that Unacceptable Waste does not include Hydro Excavation Waste.

Section 1.2 Term

This Agreement commences on the date executed and continues in force and effect until the Transfer Facility ceases to operate and is no longer permitted by the IEPA to accept Muncipal Waste and/or Hydro Excavation Waste. In addition, the City may terminate this Agreement if the Company is in default of this Agreement as provided in Section 4.2. The terms of this Agreement that are specifically extended beyond termination (i.e., as provided in Sections 2.1, 2.2, 2.3, 4.1, 4.6, 4.7, 4.8, 4.9, and 5.2), survive this term provision. The Company, in turn, may, at its sole discretion, terminate this Agreement if it determines that it is no longer economically desirable to operate the Transfer Facility and it rescinds its IEPA permit to operate. The Company agrees that, should this Agreement be terminated, the Company will immediately remove all Muncipal Waste and/or Hydro Excavation Waste from the Transfer Facility and stop its operations and receipt and acceptance of Muncipal Waste and/or Hydro Excavation Waste.

ARTICLE 2
ENVIRONMENTAL PROTECTIONS

Section 2.1 Compliance with Laws

The Company shall comply at all times, in connection with the development and operation of the Transfer Facility, with: all laws, ordinances, and final and non-appealable conditions of this site location (should it be approved by the City); conditions and requirements of any permit that is issued for development or operation of the Transfer Facility; modified or amended rules and regulations and ordinances of any Federal, State or local governmental agency or authority relating to the development, operation, monitoring, remediation, or closure of the Transfer Facility; and, this Agreement. In addition, should the Company obtain approval from the City, pursuant to Section 39.2 of the Act, but contest on appeal, one or more conditions, if any, placed on such approval, the Company agrees that, with respect to such contested condition(s), it will not commence permitting, development, construction or operation of the Transfer Facility, until a final decision has been entered by the IPCB . With respect to the closing of the Transfer Facility, the Company agrees to comply with any government ordinance, rule, law or directive as to post-closure requirements and pay the entire costs associated therewith. This Section 2.1 survives the termination of this Agreement.

Section 2.2 Waste Acceptability

The Company shall only allow Solid Waste and/or Hydro Excavation Waste to be intentionally accepted at, transported to, stored at, or otherwise present at the Transfer Facility. All

Municipal Waste and/or Hydro Excavation Waste, except when being transported to or from the Transfer Facility, must be kept inside (i.e., within a fully enclosed area of) the Transfer Facility. Unacceptable Waste accepted at, transported to, stored at, or otherwise present at, on, or in the Transfer Facility shall be properly removed within 24 hours. Willful violation of this prohibition of Unacceptable Waste is a material breach of this Agreement and enforceable by injunction, or any other legal theory, and the enforceability of this provision survives the termination of this Agreement.

The Company agrees that it shall not receive at the Transfer Facility more than 1,500 tons of Municipal Waste and/or Hydro Excavation Waste per day (calculated on a rolling twelve (12) month average, based on 5.5 days per week), except with the prior written approval of the City. The parties may at any time by mutual agreement modify this provision, and such modification shall not be considered an event which triggers the requirement of local siting approval.

Section 2.3 Defense and Indemnification and Insurance

The Company covenants and agrees at Company's sole cost and expense to defend, indemnify and hold harmless the City, individual members of the City Council, and any and all employees, agents, officers, or representatives of the City (collectively "City Affiliates"), from and against all claims, suits, actions, administrative enforcement proceedings, losses, damages of all kinds, costs, expenses, fines and penalties, attorneys' fees and expenses of litigation, of any nature whatsoever, relating in any way directly or indirectly to the Transfer Facility where the same are caused by the Company's negligence, willful misconduct or breach of this Agreement. This includes, but is not limited to, any condition or occurrence, or any release, discharge or emission at, onto, above, under, through or from the Transfer Facility; or the Company's execution, performance, or non-performance of this Agreement or of any conditions placed on siting (should the facility be approved or the operations of the Company conducted at the Transfer Facility). This includes, but is not limited to, any claims of injury to any person (including, but not limited to death) or property for violation of or non-compliance with any law, ordinance, rule or regulation (including without limitation any environmental, health, antitrust, civil rights, employment or trade law, or statutory or common law obligation or liability). The Company shall with the advice and consent of the City (which consent shall not be unreasonably withheld, conditioned or delayed)assume the defense of all suits, administrative proceedings and disputes of any description with all persons, entities, political subdivisions or government agencies arising out of the matters to be indemnified under this Agreement. In the event of a written offer to settle such matter on monetary terms only, and the Company wishes to accept and pay the same, but the City does not agree to suchsettlement, the Company shall pay the amount to the City and the City shall assume the further defense of the matter, and Company shall have no further liability for defense or indemnification, provided however, that the foregoing shall not apply to any non-monetary terms of an offer, such as where consent to an injunction is stated as a term in the offer to settle.In the event that the City or any of the City Affiliates is/are named as a defendant(s) in any lawsuit arising out of the matters to be indemnified under this Agreement, the Company shall have the right to choose the attorney(s) who represent(s) them in said lawsuit, and the reasonable costs, expenses and fees associated with said attorney(s) in relation to said lawsuit shall be paid by the Company pursuant to the indemnification provisions herein. City shall have the right to reject said choice in the event of actual conflict of interest or if the attorney has a family relationship to any City employee, officer,

or official,.and in any event, the City shall have the right to participate at its own expense in any proceeding, claim, suit or action. Company shall pay, promptly upon entry, any nonappealable order, judgment or other final resolution of any claim or dispute arising out of the matters to be indemnified under this Agreement and shall pay promptly when due any fines, penalties or agreed settlements arising out of the matters to be indemnified under this Agreement. In the event that such payment is not made, the City or any City Affiliate, at their sole discretion, may proceed to file suit against the Company to compel such payment. The City Affiliates shall give reasonable notice of the service of any suit upon them to the Company, and shall give reasonable notice of any claim, action, administrative proceeding, loss or other damages. In the event of a claim or suit against Company arising out of the sole negligence, willful misconduct or breach of this Agreement by the City or any City Affiliate, City shall be obligated to defend and indemnify Company on the terms set forth in this section.. The City shall be responsible on the same terms as the Company's responsibility is based for indemnification of any injury or damage to the extent the same results from the sole negligence, willful misconduct or breach of this Agreement by the City or any City Affiliate. In addition, nothing in this Agreement shall be construed as a waiver of any common law or statutory immunity the City may have to such liability. This Section 2.3 survives termination of this Agreement.

Nothing in this Section shall be construed as a waiver of any rights either party may have with regard to contesting its alleged obligation for defense and indemnification by way of Declaratory Judgment or otherwise.

Further, any defense and indemnity provided herein is independent of and shall not be limited by reason of the enumeration of any insurance coverage which the Company has obtained. In that regard, Company shall purchase and maintain the following types of insurance with the following aggregate coverage limits: (a) General Liability - $5,000,000; (b) Automobile Liability - $5,000,000; and (c) Workers Compensation - $3,000,000. Such insurance shall include the City of West Chicago as an additional insured, except for workers' compensation insurance, on a non-contributory primary basis and, if such coverage is commercially available, shall include "Occurrence" basis wording or provide for other substantially similar coverage that protects the City against the equivalent risks issued by a company or companies qualified to do business in the State of Illinois . A Certificate of Liability Insurance in substantially the form of the sample Certificate of Liability Insurance attached as Exhibit C shall be filed with the City, and this Certificate of Liability Insurance and the insurance policies required by this Section shall contain a provision that coverage afforded under the policies will not be canceled or allowed to expire until at least thirty (30) days prior written notice (ten (10) days in the case of nonpayment of premium) has been given to the City. Company assures the City that a valid Certificate of Insurance will be in the City's possession at all times.

ARTICLE 3
HOST FEES

Section 3.1 Purpose

In consideration of the additional fees and costs to be incurred by the City, should the West Chicago City Council approve the Transfer Facility site location and should the Company build the Transfer Facility and begin accepting Municipal Waste and/or Hydro Excavation Waste, the Company agrees to pay the City the following fees.

Section 3.2 Quantity Based Fees

The Company shall pay to the City a base fee as provided below for each ton of Municipal Waste and/or Hydro Excavation Waste, except landscape waste and recyclables, received at the Transfer Facility (whether received in the same or separate vehicles) from the first date Muncipal Waste and/or Hydro Excavation Waste is received through the termination of this Agreement. In the event the Transfer Facility accepts Food Scraps either in dedicated truckloads or commingled with Landscape Waste, the Company agrees to pay the per ton fee provided for in this section on the Food Scraps accepted at the Transfer Facility. The parties agree to work together to track and implement the mechanisms needed to assure the City payment on Food Scraps. The parties agree that the initial concept for implementing such a program may but need not necessarily be as the following language which is included herein for illustrative purposes only: "in order to determine the amount of Food Scrap accepted at the Transfer Facility that has been commingled with Landscape Waste from residential sources, the Company shall annually weigh and track the amount of Food Scrap it receives during the months of January, February and March when Food Scrap is not commingled with Landscape Waste. The Company shall determine a monthly average based on these three months and shall pay the City the per-ton fee on Food Scraps for those three months and for the remaining nine months of the calendar year based on the monthly average computed for that calendar year. If the Company receives Food Scraps from non-residential sources, for example grocery stores, restaurants and food processing firms, the Company shall pay the City the per ton fee on those Food Scraps based on the actual weights received. The Company shall provide the City with the data and calculations used to compute the monthly average by April 10 of each year and the City shall either accept or reject the monthly average proposed by the Company by April 20 of each year." Beginning on January 1, 2021, the annual increase provision in Section 3.3 will be used to determine the per-ton fee.

Per Ton Fee

The Company shall pay the City a Host Benefit Fee equal to two dollars and forty-five cents ($2.45) per ton of Muncipal Waste and/or Hydro Excavation Waste received at the Transfer Facility. Per-ton fees shall be payable only if, as and when waste is received and accepted at the Transfer Facility.

If the Company is awarded the City contract for curbside and/or alley collection and disposal of refuse, recyclable, and yard waste from all present and future single-family residences and multiple family dwellings of four (4) or less residential dwelling units in the City, the Company shall pay the City a separate Collection Fee of $0.40 for each ton of Municipal Waste received at the Transfer Facility. The Collection shall be paid from the first date Municipal Waste is received at the Transfer Facility pursuant to the City contract through the terminaton of the City contract.

Section 3.3: Annual Increase

Beginning as of January 1, 2021, and as of each January 1 thereafter, the per-ton fees described in Section 3.2 above will be adjusted from the per-ton fees of the previous year by the percentage change during the previous year in the Revised Consumer Price Index for All Urban Consumers (CPI-U) published by the United States Department of Labor – Statistics for the Chicago-Gary-Kenosha area, provided, however, that at no time shall the increase be less than 0% or greater than 4%. If the Consumer Price Index for All Urban Consumers shall cease to be published in the time frame described above, the City and Company shall designate a comparable time frame or index, which shall then be used for determining the annual rate of adjustment.

Section 3.4 Identification and Weight of Receipts

The Company shall weigh all receipts of Solid Waste and/or Hydro Excavation Waste on a certified scale, which is inspected at least once each calendar year by the Company, and a copy of said inspection shall be provided to the City upon request. In addition, the Company shall identify for the City, in writing, a listing of all receipts categorized by date, type of Solid Waste and/or Hydro Excavation Waste and other material in each receipt (if not Solid Waste and/or Hydro Excavation Waste), and weight of Solid Waste and/or Hydro Excavation Waste (or other material if not Solid Waste and/or Hydro Excavation Waste) in each receipt, so that the City can determine by its review of these records the number of incoming vehicles, the type of vehicle and identification of the hauling entity or person (in the case of an individual rather than business hauler), the load weight and total weight of each vehicle, and the type of waste or material contained on each vehicle received at the Transfer Facility each calendar day.

Further, the Company shall keep records of outgoing Solid Waste and/or Hydro Excavation Waste, such that the City can determine by its review of these records the number of outbound vehicles, the type of vehicle, the destination of each vehicle, and the type of waste contained on each vehicle leaving the Transfer Facility each calendar day. In addition, should the City request records concerning the load weight and total weight of each outbound vehicle, the Company agrees to provide that information, from weights measured at the Transfer Facility or at the destination of the vehicles leaving the Transfer Facility, from the time the Company receives the City's request on moving forward basis for any time period(s) designated by the City.

Section 3.5: Auditing

The Company shall keep complete and accurate books and records relating to the determination of the fees described in Article 3, in an auditable form, including those records described in Section 3.4. No more than once per year, the Company shall permit the City and its designated representatives access to such books and records (paper and electronic version) for inspection and copying. In the event that such inspection reveals any underpayment(s) of the fees described in Sections 3.2 and 3.3, the Company shall promptly pay the City the amount(s) of such underpayment(s), and if such underpayment is in excess of $1,500.00, shall reimburse the City for its reasonable costs and expenses of such inspection and, if necessary, collection, including any professional and technical fees (including attorneys' fees) in connection therewith. If any inspection reveals an underpayment in excess of $1,500, the City may inspect again within six months. In the event that such inspection reveals any overpayment(s) of the subject fees, the

Company may credit the amount of such overpayment(s) against the payments of the subject fees in subsequent quarters. The City shall give the Company at least seven (7) days notice before incurring such costs and expenses but nothing in this Agreement or this Section shall limit the City's right and ability to review, inspect, copy and audit the Company's books and records as set forth in this Section.

Section 3.6: Payment Schedule for Fees

The fees described in this Article shall be paid on a quarterly basis. The quarterly payments shall be calculated on a calendar-year basis; that is, they shall be calculated for the three-month periods ending on the last day of March, June, September and December of each year during the term of this Agreement and any extension thereof. The payment shall be made not later than forty-five (45) days after the last day of the preceding quarter and shall be limited to the Solid Waste transferred during the quarter to which it applies. Past due payments of the fees shall be subject to a late charge of one-and-one-half percent (1½ %) per month or fraction of a month for which the payment is late. Payment of such interest shall not otherwise excuse or cure any default by the Company under this Agreement.

Section 3.7: Inspection and Enforcement

If the Company is charged by the City with having violated any City enforceable law, ordinance, rule or regulation, or any of the Company's permit or site location approval conditions, the Company will be given a corrective notice along with a deadline to comply. If the Company fails to come into compliance and correct the violation, the City will proceed to issue a citation that requires the Company to appear at an Administration Adjudication hearing or the City will proceed through the court process. If the Company is found by a court or through the Administration Adjudication process to be guilty of such violation, or if the Company admits guilt or pleads no contest to such violation, the Company shall reimburse the City for all reasonable fees and costs associated with the City's investigation and prosecution of such violation, including, but not limited to, attorneys' fees. Additionally, Company agrees to pay upon a finding or admission of guilt or a plea of no contest to the City $500.00 per day as liquidated damages, for each day after notice of such violation was received until the violation is cured, for the Company's violation of the provisions of this Agreement which require compliance with any City enforceable law, ordinance, rule or regulation, or any of the Company's permit or site location approval conditions or requirements, or siting conditions (such as conditions concerning tarping or untarping of vehicles, pick-up or clean-up of litter, noise control, odor control, vector control, dust control, or random load inspections),. The $500.00 liquidated damages provision shall increase annually, pursuant to the manner and method set forth in Section 3.3 of this Agreement.

ARTICLE 4
MISCELLANEOUS

Section 4.1: Assignment

The Company shall not assign or attempt to sublet this Agreement or any interest in this Agreement or any right or privilege appurtenant to this Agreement without first obtaining the City's written consent, which consent shall not be unreasonably withheld, conditioned or delayed: provided, however, that the Company may assign or transfer its interest in this Agreement to an affiliate of the Company without consent in the event that the affiliate is more than 50% owned by the Company. In addition, no transfer of any ownership or other interest in the Transfer Facility may be made without the prior written approval of the City, which approval shall not be unreasonably withheld, conditioned or delayed. The right to seek assignment or approval may occur only if all payments to the City by the Company have been made and if the Company is not otherwise in default in connection with obligations under this Agreement. If the Company requests the City's consent to an assignment of this Agreement or approval of a transfer of ownership or other interest in the Transfer Facility, the Company shall submit written notice containing at least the following information, plus any information required by the City's ordinance pertaining to such assignment request, should such an ordinance be in existence at the time of the request:

(a) The name of the proposed assignee;

(b) The terms of the proposed assignment except that Company is not required to disclose consideration, price or payment terms

(c) The nature of business of the proposed assignee and the proposed use by the assignee; and

(d) Information relating to the financial responsibility and general reputation in the solid waste field of the proposed assignee that City may require.

In the event of the City's agreement to assignment, the proposed assignee shall agree to the following:

(e) To assume all obligations and duties of the Company under this Agreement and any conditions placed on the site location approval by the City;

(f) To be bound as an original party to this Agreement; and

(g) To make any and all payments due under this Agreement and/or assignment to City directly at its offices, as such payments become due; and

Subject to the provisions of this Agreement limiting the right to assign this Agreement shall be binding on and inure to the benefit of the parties and their heirs and successors. Furthermore, in the event of an approved assignment or transfer, the Company shall remain primarily responsible for all obligations and liabilities of this Agreement which accrue prior to the execution of any approved assignment or transfer. Transfer of a fifty-percent (50%) or greater interest in the Company to another owner or owners shall be deemed an unpermitted transfer under this Section, unless made with the approval of the City. The City may require an additional written commitment from the assignee or transferee to assume and comply with the duties and obligations of this

Agreement. The City shall not unreasonably withhold, condition or delay approval of a proposed assignment or transfer. This Section 4.1 survives termination of this Agreement.

Section 4.2: Default

The occurrence of any one or more of the following constitutes a "default" by the Company under this Agreement. Should the Company be in default of this Agreement, the City may, at its sole discretion, terminate this Agreement.

(a) The failure by the Company to pay any fee due and payable under this Agreement; if the Company does not cure such failures within thirty (30) days after notice thereof from the City to the Company;

(b) The failure by the Company to observe or perform in any material respect pursuant to Section 2.1 of this Agreement or any other provision of this Agreement, if the Company does not cure such failure within thirty (30) days after notice thereof from the City to the Company. In the event such failures cannot reasonably be cured within thirty (30) days, the Company must, before the thirtieth day: notify the City that it cannot complete its cure, present the City with a plan and timeline (which meets with the reasonable approval of the City) for completing the cure and implementing a plan to prevent the same or a similar failure from occurring again, and diligently continue to cure such failures during the initial thirty (30) day cure time period and any additional period beyond the thirty (30) days approved by the City. However, to the extent the Company's default under this Agreement concerns its failure to comply with Section 2.2 (Waste Acceptability), the more restrictive provision (this or Section 2.2) shall control in determining whether the Company is in default of this Agreement;

(c) The Company admits in writing its inability to pay its debts as they mature and makes an assignment for the benefit of creditors or applies for or consents to the appointment of a trustee or receiver for the Company or a major part of its property;

(d) A trustee or receiver is appointed for the Company or for a major part of its property, and it is not discharged within ninety (90) days after such appointment; or

(e) Bankruptcy, reorganization arrangement, insolvency or liquidation proceedings or other proceedings for relief under any bankruptcy law, or similar law, for the relief of debtors are instituted by or against the Company and, if instituted against the Company, are allowed against it or are not dismissed within 180 days after such institution.

Section 4.3: Notice

Any notice to be given hereunder by either party to the other shall be in writing and be sent by personal delivery, by overnight delivery service or by registered or certified mail, postage

prepaid, return receipt requested, and shall be deemed communicated when delivered or three (3) business days from the date of mailing, whichever is earlier. Notices shall be addressed as set forth below, but each party may change its address by written notice to the other in accordance with this Section:

To the City, notice shall be sent to both the City and the City's Attorney at the following addresses:

TO THE CITY AT:

Attention: Michael Guttman, City Administrator
Address: West Chicago City Hall
475 Main Street
West Chicago, Illinois 60185

WITH COPY TO THE CITY'S ATTORNEYS AT:

Attention: Dennis G. Walsh, Esq.
Address: Klein, Thorpe and Jenkins, Ltd.
20 N. Wacker Drive - Suite 1660
Chicago, Illinois 60606-2903

To the Company, notice shall be sent to the Company at the following addresses:

TO THE COMPANY AT:

Attention: Alan Handley
Address: Lakeshore Recycling Systems, LLC
6135 Oakton Street
Morton Grove, Illinois 60053

Section 4.4: Agreement Controls

This Agreement constitutes the entire understanding of the parties hereto relating to the subject matter contained herein, except that it does not, in any way, constitute the City's agreement or obligate the City to approve the Company's site location application. If such application is filed with the City and if such application is approved by the City, this Agreement is to be read as an additional obligation and not as superseding the Company's obligation to comply with any conditions of the City's site location approval and any laws, ordinances, rules or regulations applicable to the site or Transfer Facility.

Section 4.5: Captions

Captions of the Articles, Sections and paragraphs of this Agreement are for convenience or reference only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

Section 4.6: Enforcement of Siting Conditions

The Company agrees that, should the Transfer Facility receive site location approval pursuant to Section 39.2 of the Act from the City of West Chicago, that any final and non-appealable conditions imposed on the Transfer Facility or Company as part of such approval are enforceable by the City against the Company, in the same manner in which the City's ordinances or this Agreement are enforceable, or pursuant to a City ordinance, should one be in effect at the time of the enforcement. Section 4.6 survives the termination of this Agreement.

Section 4.7: Governing Law and Forum for Litigation

This Agreement shall be governed by and construed in accordance with the laws of the State of Illinois. Any litigation filed by the Company or the City against the other party and involving this Agreement shall be filed in the Circuit Court of DuPage County, Illinois. Section 4.7 survives the termination of this Agreement.

Section 4.8: Severability

The provisions of this Agreement shall be deemed to be severable, and the invalidity or unenforceability of any provision shall not affect the validity and enforceability of the other provisions hereof. Section 4.8 survives the termination of this Agreement.

Section 4.9: Binding Effect

This Agreement shall inure to the benefit of and be binding upon the respective parties hereto, their successors and assigns. However, nothing in this Section should be construed to allow the Company to assign its interest in this Agreement unless done pursuant to Section 4.1 of this Agreement. Section 4.9 survives the termination of this Agreement.

Section 4.10: Force Majeure

Neither party hereto shall be deemed to be in default or to have breached any provision of this Agreement as a result of any delay, failure in performance or interruption of services resulting directly or indirectly from acts of God, acts of civil or military authority, civil disturbance, or war or labor strikes or interruptions, which are beyond the control of such non-performing party.

Section 4.11: No Third-Party Beneficiaries

Nothing in this Agreement, whether expressed or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any person other than the parties and their respective successors and assigns, nor shall any provision give any third persons any right or rights of action against any party to this Agreement.

Section 4.12: Legal and Related Expenses

The Company shall pay the City within 45 days after receiving the appropriate documentation, the reasonable and necessary costs incurred by the City in the pre-filing review process, including, but not limited to, staff review time, engineering and other consultant fees and expenses and attorneys' fees and expenses. The Company shall reimburse the City, within 45 days after receiving the appropriate documentation, for such pre-filing review costs. The City agrees that the pre-filling review costs to be reimbursed by the Company will not exceed $35,000 without prior written agreement from the Company.

The Company agrees to reimburse the City, within 45 days after receiving the appropriate documentation, for the reasonable and necessary fees and costs (including, but not limited to consulting and attorneys' fees and costs and City staff costs) incurred in connection with the drafting and negotiation of this Agreement. The City agrees that the host agreement drafting and negotiation costs to be reimbursed by the Company will not exceed $15,000 without prior written agreement from the Company.

Section 4.13: Records

In addition to those records described in Sections 3.4 and 3.5, above, the Company shall provide to the City, upon the City's request, free of charge and in a timely manner, copies of all of the following documents in any manner connected with the Transfer Facility:

1. Documents submitted or received by the Company, its representatives, agents, attorneys, employees, or consultants to or from any State or Federal government, or any regulatory or administrative agency, including:

(a) those documents and/or records that are to be submitted by the Company and/or its agents, representatives or consultants to any state and/or federal environmental regulatory/compliance agency including but not limited to documents and/or records which involve changes to the construction or operation of the Transfer Facility;

(b) correspondence and/or other communications of any type, kind or sort with any state and/or federal environmental regulatory/ compliance agency;

(c) those documents not otherwise subject to attorney client privilege or work product privilege, and/or records filed with or received from any state or federal regulatory agency relevant to investigations, inquiries, charges, complaints, citations or notices of violations made and/or issued by any such governmental authority with respect to the Company's conduct and/or activity on or related to the Transfer Facility. Draft settlement decrees and orders, shall not be subject to disclosure to the City.

All such documents and/or records described herein shall be provided to the City prior to, if reasonably possible, or otherwise contemporaneously with their anticipated submittal by the Company and/or its agents and consultants to any state and/or local federal regulatory agency, and the City shall have a reasonable opportunity to review such anticipated submittals and make comments and/or suggested changes and modifications to the same, which the Company is neither required to respond to or accept. The Company shall provide the City with any documents and/or records received by the Company from any state, local and/or federal regulatory agency within ten (10) days of receipt thereof.

2. . Subject to the limitation in Section 4.13 (1)(c), documents not otherwise subject to attorney client privilege of work product privilege submitted or received by the Company, its representatives, agents, employees, or consultants to or from any citizen pertaining to the development or operations of the Transfer Facility, particularly comments or complaints concerning such development or operations and including but not limited to the inbound or outbound vehicles to the Transfer Facility.

3. The Company shall maintain on a daily basis books and records pertaining to the weight and volume of Solid Waste at the Transfer Facility and the daily traffic count of vehicles utilizing the Transfer Facility (setting forth the truck number of each vehicle, the weight of waste each vehicle contains, the classification of waste and its origin). The City, its authorized agents and representatives shall be permitted to inspect such books and records which the Company shall maintain. The City shall also be permitted to inspect any and all books, records, data, documents and reports maintained by the Company concerning compliance with any and all applicable federal, state and local laws, statutes, regulations, rules and/or ordinances relating to the operation of the Transfer Facility and the waste handling/disposal activities described herein.

The Company shall maintain a true and accurate copy of any and all books, records, data, information, documents and reports noted herein at the Transfer Facility.

Section 4.14: Access

The Company shall allow any agent duly authorized by the City:

(a) Except in case of emergency, all entries under this 4.14 shall be upon at least one day notice, and all City representatives entering shall be escorted at all times by designated Company personnel. Entries pursuant to 4.14(f) shall be only upon probable cause, as set forth in written notice of the proposed entry, to believe that a material term of this Agreement has been or is being violated; provided, however, nothing in this section or this Agreement shall limit in any way the City's rights under any of its codes and/or ordinances, including but not limited to any rights of inspection.

(b) To enter the Transfer Facility at reasonable times. For purposes of this Section, "reasonable times" means any time during Regular Business Hours and any time not during Regular Business Hours when persons are at the Transfer Facility and/or operations are being conducted and/or the City wants to assure that any siting conditions, local ordinances or contractual provisions between the Company and City are not being violated during non-operational hours (e.g., if there is a siting condition or law or regulation prohibiting overnight storage of waste and the Transfer Facility stops operating at 6:00 p.m., the Company must provide access for the City to enter the Transfer Facility at any time after 6:00 p.m., if the City desires to verify the Company's compliance with the overnight storage restriction);

(c) To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this Agreement or any local ordinance

(d) To inspect no more than four times per year during Regular Business Hours of equipment constructed or operated under this Agreement or pursuant to a siting condition. If such inspection reveals any violation of this Host Agreement or a siting condition, the City may inspect again within two weeks;

(e) To obtain and remove no more than once per year during Regular Business Hours samples of any discharge or emission of contaminants or suspected contaminants. As used in this Section "contaminants" is defined pursuant to Section 3.06 of the Act (415 ILCS 5/3.06). Any samples obtained shall be split samples and shared with the Company;

(f) To enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized or prohibited by this Agreement.

Section 4.15 City's Use of Transfer Facility

Subject to the force majeure provisions of this Agreement, upon written request of the City, the Company shall arrange for disposal capacity for all of the residential waste generated within the City's boundaries which Company is permitted to receive for storage and transfer. The Company's obligation to secure disposal capacity shall extend only to residential waste which is initially abandoned or discarded within the City.

The Company agrees that its charges to the City or its contractor for storage, transfer and off-site treatment, recycling and/or disposal of Municipal Waste will be no greater than the lowest charges the Company charges any other non-affiliated, non-trans-load, non-swap solid waste customer with similar volume. If requested by the City, the Company agrees to demonstrate to the City's satisfaction that the Company has and is complying with this Section 4.15 including providing access to all documents and/or records, which may be redacted to avoid disclosure of customer identities, reflecting the amounts and types of waste accepted by the Transfer Facility as well as any and all documents, which may be redacted to avoid disclosure of customer identities, affecting charges assessed to customers and/or users of the Transfer Facility. The City acknowledges that this is proprietary information and will not disclose the same to any other person or entity except as required by law.

In addition, upon issuance of an operating permit by the IEPA for the Transfer Facility and upon the Transfer Facility beginning to accept Municipal Waste and for a period extending through the term of this Agreement for as long as the Transfer Facility continues to accept Municipal Waste, City employees may dump up to 2,500 tons per year of the following items: Municipal Waste (maximum of 800 tons);wood chips, stumps and logs; Construction or Demolition Debris, and cement or asphalt materials at the Transfer Facility at no cost to the City.

Contractor shall annually provide up to a total of twenty (20) 1-1/2 cubic yard dumpsters or up to sixty (60) 90 gallon carts (or a combination of dumpsters and carts up to the total proportionate amounts) for one-time pick up each at special events and/or City use, at no cost where ease and frequency of collection is deemed to be in the best interest of the City.

Section 4.16 Preference for City Residents and Firms

The Company agrees that it shall give preference to suitably skilled applicants residing in the City before hiring applicants residing in other communities for work at the Transfer Facility, to the extent that such preference does not violate any state or federal employment, civil rights or similar laws, or union contracts, but the ultimate decision will be left with the Company. Further, the Company agrees that, for all work performed at the Transfer Facility, it shall require its contractors to give preference to hiring new employees from suitably skilled applicants residing in the City before hiring applicants residing elsewhere. The Company further agrees that it shall give preference to firms and businesses located in the City which provide a competitive price or bid

(where bidding is required) and which are capable of performing the required work before contracting with or otherwise retaining firms and businesses headquartered elsewhere.

The Company, at the written request of the City, will notify the City promptly of each job opening and contract opportunity at the Transfer Facility, and shall use reasonable efforts to provide such notice not less than forty-eight (48) hours before the Company publicly announces such opening or opportunity.

The Company agrees to incorporate a courtesy drop-off area into the facility design, for the convenient use and benefit of the citizens of the City. The drop-off area will accept, at no charge to the residents of the City subject to providing proof of residency at the time of drop off, up to two discarded electrical or electronic devices per household per year commonly known as electronic waste or e-waste, excluding CRT monitors or big screen televisions. CRT monitors or big screen televisions would be accepted for a fee of $35 per item. If the Company is awarded the City contract for curbside and/or alley collection and disposal of refuse, recyclable, and yard waste from all present and future single-family residences and multiple family dwellings of four (4) or less residential dwelling units in the City, CRT monitors and big screen televisions shall be accepted at no charge subject to the two devices per household per year limitiation and subject to providing proof of residencey at the time of drop off. The acceptance of the CRT monitors and big screen televisions for free shall occur from the first date Municipal Waste is received at the Transfer Facility pursuant to the City contract through the terminaton of the City contract.

Section 4.17 Traffic Control

All transfer trailer truck traffic entering and existing this site must utilize Powis, Kress and Roosevelt Roads and North Avenue (IL 64). Site plan and off-site road improvements are subject to final engineering approval of the Public Works Department and must meet all applicable codes and ordinances in affect at the time of permitting.

Section 4.18 Transfer Facility Control Measures

The Company shall seek to prevent any waste, litter or debris from being discarded onto public traveled roads due to the Company's operation of the Transfer Facility and shall abide by a litter control plan as approved by the City as a result of the siting process. Should the waste, litter or debris from such operation pose a problem in the reasonable opinion of the City, the City, at its option, may require the Company to sweep or otherwise clean Powis Road in the City of West Chicago, as needed. The Company shall keep the Transfer Facility and all buildings and other improvements built or utilized by the Company in good condition and repair for the term of this Agreement. In addition:

a. All tipping of Municipal Waste at the Transfer Facility shall be on the tipping floor inside the transfer building, and, except as provided in Subsection b. below, the Company shall have the tipping floor free of waste and cleaned with a mechanical street sweeper by the end of each operating day;

b. No Municipal Waste shall be left on the tipping floor inside the transfer building or outside the transfer building on the Transfer Facility property overnight, except:

i. In transfer trailers, provided that such trailers are suitably covered and staged at least 500 feet from Powis Road right-of-way;

ii. In the event of an emergency, the IEPA or person previously appointed by the City Council or, in the absence of such an appointment, the Mayor has given prior approval of temporary overnight storage on the tipping floor inside the transfer building; and

c. Empty waste collection containers and empty transfer trailers may be stored outside the transfer building at least 500 feet from Powis Road right-of-way;

d. The Company shall conduct all operations in a manner that is protective of the public health, safety, welfare, groundwater resources and the environment. The Company shall comply with all City ordinances and all applicable laws, ordinances, rules and regulations, including but not limited to IPCB regulations and the City code.

e. At a minimum, the Company shall provide a street sweeper to remove mud, dirt and dust tracked on to hard surfaces inside and outside the Transfer Facility property including onto Powis Road within three-fourths (3/4) mile of the Transfer Facility property on an as needed basis, but not less frequently than daily except during severe weather conditions (e.g., heavy rains, winter conditions when salt has been applied to the roadway). All access drives, parking areas, storage areas and vehicle maneuvering areas of the Transfer Facility property shall be paved and swept with a street sweeper as needed, but not less frequently than daily;

f. The Transfer Facility and any area used for the outdoor storage of any material or equipment will be fenced and visually screened from viewing from off the Transfer Facility property by means of said fence and appropriate landscaping as approved by the City.

g. For odor control the Company agrees to the following.

i. conduct all Municipal Waste handling and transfer operations completely indoors.

ii. Municipal Waste will be delivered primarily in enclosed vehicles, and tarps will be required on all non-enclosed loads.

iii. Unloading, transferring, and loading operations for Municipal Waste will be performed within the building.

iv. Municipal Waste will be removed from the tipping floor with a frequency adequate to greatly minimize the generation of odors.

v. The Municipal Waste tipping floor areas will be cleaned with a pressure washer as needed.

vi. If malodors are detected off-site, the source of odor generation will be removed from the Site, and the off-site condition will be monitored by Transfer Facility

personnel to insure against reoccurrence. If a continuous source of odorous materials is identified, the generator will be contacted and advised that the materials must be effectively treated for odor control or the service will be discontinued and the materials no longer brought to the Transfer Facility.

Nothing in this subsection shall limit the Company's ability to implement new odor control technologies.

h. The Company agrees to keep the truck doors to the Transfer Facility closed, except for emergencies and to allow trucks to enter and exit the facility, during Regular Business Hours.

Section 4.19 Community Relations/Complaint Resolution

As of the date of commencement of development of the Transfer Facility, and for the balance of the operating life of the Transfer Facility, the Company shall assign and designate a telephone number and representative which shall be responsible for receipt of inquiries, complaints and calls which may arise from the public relative to the operation of the Transfer Facility as outlined in this Agreement. This telephone number will be answered by a person employed or retained by the Company during Regular Business Hours. The Company shall also provide a voice mail telephone number and a website for public inquiries and complaints. All complaints shall be initially investigated by the Company within forty-eight (48) hours. All such complaints and inquiries received from the public shall be responded to and addressed promptly. The Company shall also keep a log of the date and time such complaint, inquiry or communication was received, the nature of the complaint, inquiry or communication, the name of the person initiating such contact, the date and time which response was made to such complaint, inquiry or communication, as well as the method in which any such complaint, inquiry or communication was addressed and or resolved. The Company shall supply the same information as from time to time requested by the City. In addition, the Company shall provide the City with an emergency telephone number for contacting the Transfer Facilty Manager after Regular Business Hours in the event of an emergency.

Section 4.21 Site Location Decision

The City has not, by entering into this Agreement with the Company, predetermined whether it will grant or deny site location approval for the Transfer Facility or whether the Company can (or cannot) establish any of the criteria related to site location approval. The City shall review the Company's application for site location approval for the Transfer Facility on the Transfer Facility Site in accordance with the criteria set forth by Illinois law as provided for in 415 ILCS 5/39.2.

Section 4.22 Siting Application and Pre-Filing Review

The Company shall provide a siting application consistent with the terms of this Agreement and the requirements of Section 39.2 of the Act and the City of West Chicago's Siting Procedures. Prior to filing the siting application with the City the Company agrees to provide the City an

opportunity to conduct a pre-filing review of the siting application. The pre-filing review shall consist of the Company submitting a final draft of the siting application to the City for its review and comment. The Company agrees to reimburse the City for its pre-filing review costs in accordance with Section 4.12 of this Agreement.

Section 4.23 Green Building Principles

The Company shall consider utilizing green building principles in the design and operation of the Transfer Facility. These green building principles used for the design and operation of the Transfer Facility shall be documented to the City in a memorandum as part of the Pre-Filing review to be conducted pursuant to Section 4.22 of this Agreement.

City and Company acknowledge that solid waste hauling, transfer and disposal are subject to possible improvements due to ongoing technological developments. Company agrees to monitor technological developments relevant to its business, and the parties will periodically discuss the feasibility and cost effectiveness of incorporating such developments into the Transfer Facility.

Section 4.24 **Fees**

The Fee, as described in Article VII, Section 14-93(a)(3) of the City's Code of Ordinances must be paid by the Applicant at the time an application is filed and additional payments must be made as required by Article VII, Section 14-93(a)(3) of the City's Code of Ordinances, before the application may be considered

ARTICLE 5
AUTHORITY AND GUARANTY OF PAYMENT

Section 5.1: Authority to Enter Into Agreement

The Company hereby represents and warrants that it is a valid and existing Illinois corporation, in good standing, authorized to do business in the State of Illinois, and that individuals executing this Agreement have been duly authorized by the Company to act on its behalf and enter into this Agreement. In addition, the Company agrees to provide the City, at the time of execution of the Agreement, with a copy of the corporate resolution authorizing the execution of this Agreement.

The Company, by its signature on this Agreement, certifies that it has not been barred from contracting with a unit of local government as a result of a violation of Section 33E-3 or 33E-4 of the Illinois Criminal Code (720 ILCS 5/33E-3, 5/33E-4).

Section 5.2: Guaranty of Payment

As additional consideration for and assurance of performance of this Agreement, the Company and _____ tender to the City and the City accepts, the Guaranty of Performance and Payment attached to this Agreement as Exhibit B. This Guaranty of Performance and Payment survives termination of this Agreement.

Section 5.3: Covenants Run with the Land

The parties agree that the covenants, agreements and understandings contained in this Agreement, which expressly survive its termination touch and concern the Subject Property, and that such covenants, agreements and understandings shall run with the Subject Property. The Company agrees that the City may prepare, and the Company shall promptly execute duplicate originals of an instrument, in recordable form, which will constitute a memorandum of Host Community Benefit Agreement, attaching an executed copy of this Agreement as an exhibit, and record such Memorandum in the Office of the DuPage County, Illinois Recorder of Deeds.

Section 5.4: Financial Assurance

The Company shall to provide, if reasonably feasible, a minimum of six (6) months notice to the City prior to ceasing operations at the Transfer Facility. Regardless of the foregoing, the Company shall provide to City within seven (7) days notice of any final internal decision to close the facility. Not less than three (3) months prior to ceasing operations, the Company, at its sole cost, shall provide to the City financial assurance, in a form reasonably acceptable to the City, sufficient (as agreed to by the Parties) to cover the costs of properly closing the Transfer Facility, which financial assurance shall be maintained until the Transfer Facility has been closed in accordance with all applicable legal requirements. Such financial assurance shall be in the form of a letter of credit, escrow account, policy of insurance or a guaranty from a creditworthy guarantor.

IN WITNESS WHEREOF, the parties hereto have executed this instrument on the day and year first written above.

THE CITY OF WEST CHICAGO,
DuPage County, Illinois

By: _____
Name: Ruben Pineda
Title: Mayor

ATTEST:

Nancy M. Smith
Name: NANCY M. SMITH
Title: CITY CLERK

LAKESHORE RECYCLING SYSTEMS, LLC

By: _____
Name: [illegible] T HANSEN
Title: COO

ATTEST:

Marie A. Poff
Name: Marie A Poff
Title: EXECUTIVE ASSISTANT

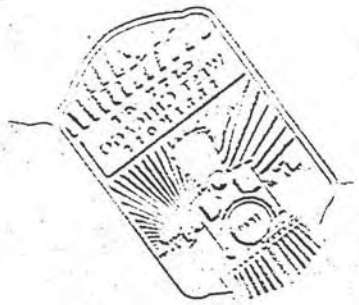


Exhibit A

LEGAL DESCRIPTION

Exhibit B

GUARANTY OF PERFORMANCE AND PAYMENT

_____, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, does for itself and its successors and assigns, hereby unconditionally guaranty the full and prompt performance of each and every covenant, condition, agreement and obligation to be performed and observed by_____, including the payment by _____, of all sums due and owing to the City Of West Chicago, DuPage County, Illinois, in and by that certain Host Community Benefit Agreement entered into between _____ and the City of West Chicago on the _____ day of _____, 20__. _____ hereby waives notice of default, nonpayment, non-performance or non-observance by the City of West Chicago, and proof, notice or demand to charge _____ under this Guaranty of Performance and Payment. _____ hereby consents to each and every extension of time that the City of West Chicago may grant to _____ under the said Host Community Benefit Agreement. _____ expressly agrees that the validity of this Guaranty of Performance and Payment shall in no way be terminated, affected or impaired by reason of the assertion by the City of West Chicago against _____ of any of the rights or remedies reserved to the City of West Chicago pursuant to the provisions of the said Host Community Benefit Agreement. _____ further covenants and agrees that this Guaranty of Performance and Payment shall remain and continue in full force and effect as to any renewal, modification or extension of the said Host Community Benefit Agreement.

_____ hereby represents and warrants that it is a valid and existing corporation organized under Illinois law, in good standing. Additionally, _____ hereby represents and warrants that the individual executing this Guaranty of Performance and Payment has been duly authorized by _____ to act on its behalf and enter into this Guaranty of Performance and Payment. Further, _____ agrees to provide the City, at the time of execution of this Guaranty of Performance and Payment, with a copy of the resolution authorizing the execution of this Guaranty of Performance and Payment. Further, _____ agrees that this Guaranty of Performance and Payment shall be governed by and construed in accordance with the laws of the State of Illinois. Any litigation filed by the City or _____ against the other party and involving this Guaranty of Performance and Payment or the Host Community Benefit Agreement to which this Guaranty of Performance and Payment relates, shall be filed in the Circuit Court of DuPage County, Illinois. _____ further covenants and agrees that in any action or proceeding brought by the City of West Chicago or _____, on any matters whatsoever arising out of, under or by virtue of the terms of the said Agreement or this Guaranty of Performance and Payment, _____ shall and hereby does waive trial by jury.

_____, by its signature on this Guaranty of Performance and Payment, certifies that it has not been barred from contracting with a unit of local government as a result of a violation of Section 33E-3 or 33E-4 of the Illinois Criminal Code (720 ILCS 5/33E-3, 5/33E-4).

_____ agrees to pay all expenses, including reasonable attorney's fees, incurred by the City of West Chicago in enforcing this Guaranty of Performance and Payment.

_____

By: _____
Its: _____

And

By: _____
Its: _____

Dated: _____, 20____

Certificate

The undersigned, _____, hereby certifies that he is the duly elected, qualified and acting _____ of _____, a corporation duly organized and existing under the laws of the State of Illinois (the "Corporation"); that as such officer, he is in charge of the Minute Book and other corporate records of said Corporation; that the following is a full, true and correct copy of the resolutions appearing in the records of the Corporation, and that said resolutions were adopted by a legal majority of the Board of Directors of said Corporation, at a meeting thereof duly and regularly held on _____; and the undersigned further certifies that as of the date hereof, said resolutions have not been rescinded or modified and are in full force and effect.

Resolved, that any two officers of the Company be, and hereby are, authorized upon such terms and conditions as they shall deem proper to execute and deliver for and on behalf of the Company such guaranty agreements and other instruments or written obligations of the Company as may be desired or required in connection with the Guarantees containing such terms and conditions as may be acceptable or agreeable to any two of said officers, such acceptance and agreement to be conclusively evidenced by any two of said officers' execution and delivery thereof;

Further Resolved, that the Company's execution of any guaranty agreements and other instruments or written obligations in connection with Guarantees, in the judgment of the Board of Directors, may reasonably be expected to benefit, directly or indirectly, the Company;

Further Resolved, that any two of said officers, are hereby authorized in the name of an on behalf of the Company to take such further action and to do all things that may appear in the discretion of any of them to be necessary in connection with renewals, extensions for any period, rearrangements, retirements or compromises of the indebtedness, obligations and liability of the Company or Affiliates to the Lenders arising out of Guarantees or any other indebtedness, obligations and liabilities of the Company or Affiliates owing to the Lenders;

Further Resolved, that any two of said officers are authorized and empowered to do or cause to be done all such acts or things and to sign and deliver, or cause to be signed and delivered, all such documents, instruments and certificates (including, without limitation, any and all requests, notices, and certificates required or permitted to be given or made to Lenders under the terms of any of the instruments executed on behalf of the Company in connection with the

Guarantees), in the name and on behalf of the Company as any two of said officers, in their discretion, may deem necessary, advisable or appropriate to effectuate or carry out the purposes and intent of the foregoing Resolutions and to perform the obligations of the Company under all instruments executed on behalf of the Company in connection with the Guarantees;

Further Resolved, that the execution by any of said officers, of any document authorized by the foregoing Resolutions or any document executed in the accomplishment of any action or actions so authorized, is (or shall become upon delivery) the enforceable and binding act and obligation of the Company, without the necessity of the signature or attestation of any other officer of the Company or the affixing of the corporate seal;

Further Resolved, that all acts, transactions, or agreements undertaken prior to the adoption of these Resolutions by any of said officers or representatives of the Company in its name and for its account in connection with the foregoing matters are hereby ratified, confirmed and adopted by the Company; and

Further Resolved, that the Secretary, Assistant Secretary, or other appropriate officer of the Company is hereby authorized to certify these Resolutions.

Dated at _____, Illinois, this _____ day of _____, 20__.

_____

Name: _____

Title: _____

Exhibit C

CERTIFICATES OF LIABILITY

APPENDIX 1-D

DUPAGE COUNTY HOST AGREEMENT

EN-R-0266-20

SECONDARY HOST COMMUNITY BENEFIT AGREEMENT BETWEEN DUPAGE COUNTY, ILLINOIS AND LAKESHORE RECYCLING SYSTEMS, LLC FOR A SOLID WASTE TRANSFER FACILITY

WHEREAS, the Illinois General Assembly has granted the County of DuPage ("County") authority to enter into agreements and do all other acts in relation to the concerns of the County necessary to the exercise of its corporate powers (55 ILCS 5/5-1005), including specific authority relative to the disposal of solid wastes (55 ILCS 5/5-15, *et seq.*); and

WHEREAS, the Lakeshore Recycling Systems. LLC ("Company") currently operates a solid waste management facility, which receives, sorts, separates, recycles and transfers Construction or Demolition Debris on a parcel in DuPage County of approximately 27.81 acres; and

WHEREAS, the Company plans to file with the City of West Chicago a request for site location approval for the construction and operation of a new municipal solid waste transfer facility ("Transfer Facility") with sufficient capacity to receive and transfer to landfills an annual average of 1,500 tons per day; and

WHEREAS, the Illinois General Assembly has authorized the County, pursuant to the Illinois Environmental Protection Act, (415 ILCS 5/39.2), to negotiate and approve a secondary host agreement for the pollution control facility proposed to be located in the City of West Chicago; and

WHEREAS, the County has not consented to, concurred in or objected to the proposed plans of the Company to develop the Transfer Facility, and nothing in the attached Agreement shall be deemed by the Company, the County, other public agencies, or the public to express or indicate that the County has adopted any position relative to the proposed development of the Transfer Facility; and

WHEREAS, in the event the City of West Chicago grants site location approval for the Transfer Facility, and if, thereafter, the Illinois Environmental Protection Agency issues permits for the development and operation of the Transfer Facility and operations commence, the Company is willing to pay a secondary host community benefit fee, as set forth in the attached Agreement, to the County; and

WHEREAS, any fees received by the County pursuant to the attached Agreement shall be applied to assist the County in meeting its costs associated with the Transfer Facility and for County's responsibility to plan for the management of municipal solid waste including providing recycling and reuse programs.

NOW, THEREFORE, in consideration of the mutual covenants and agreements stated herein, the Agreement between the County and Company is hereby accepted and approved and that the Chairman of the DuPage County Board is hereby authorized and directed to execute the attached AGREEMENT on behalf of the COUNTY; and

BE IT FURTHER RESOLVED that the DuPage County Clerk be directed to transmit certified copies of this Resolution and the attached AGREEMENT to Lakeshore Recycling Systems, LLC, Attn. Alan Handley, 6135 Oakton St., Morton Grove, IL 60053.

Enacted and approved this 10th day of March, 2020 at Wheaton, Illinois.

DANIEL J. CRONIN, CHAIRMAN
DU PAGE COUNTY BOARD

Attest: _____
JEAN KACZMAREK, COUNTY CLERK

AYES 18
NAYS 0
ABSENT 0

SECONDARY HOST COMMUNITY BENEFIT AGREEMENT BETWEEN DUPAGE COUNTY, ILLINOIS, AND LAKESHORE RECYCLING SYSTEMS, LLC FOR A SOLID WASTE TRANSFER FACILITY

This HOST BENEFIT COMMUNITY AGREEMENT ("Agreement") is made as of the 10th day of March, 2020, between DuPage County, Illinois ("County") and LAKESHORE RECYCLING SYSTEMS, LLC ("Company").

RECITALS

WHEREAS, the Company currently operates a solid waste management facility, which receives, sorts/ separates, recycles and transfers Construction or Demolition Debris (hereinafter referred to as the C&D Recycling Facility) on the premises legally described in Exhibit A attached hereto and consisting of approximately 27.81 acres (hereinafter referred to as the "Subject Property"); and

WHEREAS, the Company plans to file with the City of West Chicago a request for site location approval for the construction and operation of a new Transfer Facility with sufficient capacity to receive and transfer to landfills an annual average of 1,500 tons per day of non-hazardous Municipal Waste and Hydro Excavation Waste (as those terms are defined below) with ancillary truck parking and storage and maintenance facility combined ("Transfer Facility"); and

WHEREAS, the Company desires to construct the Transfer Facility on the Subject Property and operate the Transfer Facility in conjunction with the C&D Recycling Facility; and

WHEREAS, the County is authorized by State of Illinois law, pursuant to the Illinois Environmental Protection Act to negotiate and approve a secondary host agreement for the pollution control facility proposed to be located in the City of West Chicago; and

WHEREAS, the Company desires to provide certain environmental protection and compensation to the County with respect to the Transfer Facility, if the Transfer Facility obtains all required approvals and commences operation; and

WHEREAS, the County has not consented to, concurred in or objected to the proposed plans of the Company to develop the Transfer Facility, and nothing in this Agreement shall be deemed by the Company, the County, other public agencies, or the public to indicate that the County has heretofore adopted any position on the potential development of the Transfer Facility; and

WHEREAS, if the City of West Chicago grants site location approval of the Transfer Facility, and if thereafter the Illinois Environmental Protection Agency issues permits for the development and operation of the Transfer Facility, the Company is willing to pay a secondary host community benefit fee, as hereinafter set forth, to the County to assist the County in meeting the costs associated

with the Transfer Facility and for other general revenue needs of the County as the County may deem appropriate.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, the County and the Company agree as follows:

ARTICLE 1
DEFINITIONS AND TERM OF AGREEMENT

Section 1.1 Definitions

"Act" as used in these definitions and this Agreement, shall mean the Illinois Environmental Protection Act, as amended from time to time (415 ILCS 5/1, et seq.).

"Construction or Demolition Debris" whether or not capitalized, means "clean construction or demolition debris" as defined by Section 5/3.160(b) of the Act (415 ILCS 5/3.160(b)), or "general construction or demolition debris," as defined by Section 5/3.160(a) of the Act (415 ILCS 5/3.160(a)).

"Food Scrap" whether or not capitalized and used in any of its grammatical forms, means "food scrap" as defined in Section 5/3.197 of the Act (415 ILCS 5/3.197).

"Hydro Excavation Wastes" means solid/liquid waste such as hydro/vacuum excavation muds, underground excavation material, drilling muds, and other similar materials.

"IAC" as used in these definitions and this Agreement, shall mean the Illinois Administrative Code.

"IEPA" means the Illinois Environmental Protection Agency.

"IPCB" means the Illinois Pollution Control Board.

"Landscape Waste" whether or not capitalized and in any of its grammatical forms, means "landscape waste" as defined by Section 5/3.270 of the Act.

"Municipal Waste" whether or not capitalized and used in any of its grammatical forms, means "municipal solid waste", as defined by Section 5/3.290 of the Act (415 ILCS 5/3.290), except that such waste does not include Construction or Demolition Debris, Recyclables, Unacceptable Waste, or Landscape Waste.

"Recyclables" whether or not capitalized and used in any of its grammatical forms, means any material, which would otherwise be disposed of or discarded, which is separated from Municipal Waste or Construction or Demolition Debris at the source of generation so as to render it useable in a process, or alone, such that it can be returned to the economic mainstream in the form of raw materials or products. Examples of recyclables are newspaper, glass bottles, high density, polyethylene containers, aluminum food and beverage containers, chipboard, and corrugated

containers. Recyclables do not include any materials removed or separated from, or containing Unacceptable Wastes.

"Regular Business Hours" of the Transfer Facility shall mean 4:00 a.m. to 12:00 a.m. on weekdays and 4:00 a.m. to 12:00 p.m. on Saturdays, with no operation on Sundays or the six major Federal holidays (New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas), provided that on the Saturday following any Federal holiday Regular Business Hours may be extended by the Company to 12:00 a.m. The Regular Business Hours for accepting Municipal and Hydro Excavation Waste may be extended but only upon the prior approval of the City of West Chicago, such approval being in writing.

"Solid Waste" whether or not capitalized, means Municipal Waste, Landscape Waste, Food Scrap, , and Construction or Demolition Debris, including those materials in these classifications that have received a Beneficial Use Determination (BUD) designation by the IEPA, as those terms are defined in this Section.

"Transfer Facility" whether or not capitalized, means, "Transfer Station" as defined by 5/3.500 of the Act (415 ILCS 5/3.83), including the property on which the Transfer Station is located, and specifically references the Transfer Facility the Company desires to construct and operate located on approximately 27.81 acres at 1655 Powis Road, Illinois, permanent parcel #01-32-101-004 and #01-32-200-001, at the property described on Exhibit A.

"Unacceptable Waste" whether or not capitalized and used in any of its grammatical forms, means (a) "hazardous waste" as defined by Section 5/3.15 of the Act (415 ILCS 5/3.15) or by 35 IAC 721.03; (b) "industrial process waste" as defined by Section 5/3.235 of the Act (415 ILCS 5/3.235), except allowable special waste and such industrial process waste which poses no present or potential threat to human health or the environment and which has no inherent properties which makes its disposal in a landfill difficult to manage by normal means, and which has been specifically approved by the IEPA; (c) "pollution control waste" as defined by Section 5/3.335 of the Act (415 ILCS 5/3.335); (d) "sludge" as defined by Section 5/3.465 of the Act (415 ILCS 5/3.465); (e) "potentially infectious medical waste" as defined by Section 5/3.360 of the Act; (f) "special waste" as defined by Section 5/3.475 of the Act; (g) "polychlorinated byphenyls" as defined in the Toxic Substances Control Act, 15 U.S.C. Section 2601-2692, or regulations promulgated thereunder; (h) source, special or byproduct nuclear materials, radioactive waste, high-level or low-level radioactive waste, or transuranic waste as defined in the Atomic Energy Act, 42 U.S.C. Sections 2014, et seq., or regulations promulgated thereunder; or (i) "asbestos" as defined in 40 CFR 763.83, except that Unacceptable Waste does not include Hydro Excavation Waste.

Section 1.2 Term

This Agreement commences on the date executed and continues in force and effect until the Transfer Facility ceases to operate and is no longer permitted by the IEPA to accept Muncipal Waste and/or Hydro Excavation Waste. In addition, the County may terminate this Agreement if the Company is in default of this Agreement as provided in Section 4.2. The Company, in turn, may, at its sole discretion, terminate this Agreement if it determines that it is no longer economically desirable to operate the Transfer Facility and it rescinds its IEPA permit to operate. The Company agrees that,

should this Agreement be terminated, the Company will immediately remove all Muncipal Waste and/or Hydro Excavation Waste from the Transfer Facility and stop its operations and receipt and acceptance of Muncipal Waste and/or Hydro Excavation Waste.

ARTICLE 2
ENVIRONMENTAL PROTECTIONS

Section 2.1 Compliance with Laws

The Company shall comply at all times, in connection with the development and operation of the Transfer Facility, with: all laws, conditions and requirements of any permit that is issued for development or operation of the Transfer Facility; modified or amended rules and regulations and ordinances of any Federal or State agency or authority relating to the development, operation, monitoring, remediation, or closure of the Transfer Facility. With respect to the closing of the Transfer Facility, the Company agrees to comply with any government ordinance, rule, law or directive as to post-closure requirements and pay the entire costs associated therewith.

Section 2.2 Waste Acceptability

The Company shall only allow Solid Waste and/or Hydro Excavation Waste to be intentionally accepted at, transported to, stored at, or otherwise present at the Transfer Facility. All Municipal Waste and/or Hydro Excavation Waste, except when being transported to or from the Transfer Facility, must be kept inside (i.e., within a fully enclosed area of) the Transfer Facility. Unacceptable Waste accepted at, transported to, stored at, or otherwise present at, on, or in the Transfer Facility shall be properly removed within 24 hours.

Section 2.3 Defense and Indemnification

The Company covenants and agrees at Company's sole cost and expense to defend, indemnify and hold harmless the County, individual members of the County Board, and any and all employees, agents, officers, or representatives of the County (collectively "County Affiliates"), from and against all claims, suits, actions, administrative enforcement proceedings, losses, damages of all kinds, costs, expenses, fines and penalties, attorneys' fees and expenses of litigation, of any nature whatsoever, relating in any way directly or indirectly to the Transfer Facility where the same are caused by the Company's negligence, willful misconduct or breach of this Agreement. This includes, but is not limited to, any condition or occurrence, or any release, discharge or emission at, onto, above, under, through or from the Transfer Facility; or the Company's execution, performance, or non-performance of this Agreement or of any conditions placed on siting (should the facility be approved or the operations of the Company conducted at the Transfer Facility). This includes, but is not limited to, any claims of injury to any person (including, but not limited to death) or property for violation of or non-compliance with any law, ordinance, rule or regulation (including without limitation any environmental, health, antitrust, civil rights, employment or trade law, or statutory or common law obligation or liability). The Company shall assume the defense of all suits, administrative proceedings and disputes of any description with all persons, entities, political subdivisions or government agencies arising out of the matters to be indemnified under this Agreement. Company

shall pay, promptly upon entry, any nonappealable order, judgment or other final resolution of any claim or dispute arising out of the matters to be indemnified under this Agreement and shall pay promptly when due any fines, penalties or agreed settlements arising out of the matters to be indemnified under this Agreement. In the event of a claim or suit against Company arising out of the sole negligence, willful misconduct or breach of this Agreement by the County or any County Affiliate, County shall be obligated to defend and indemnify Company only to the extent permitted by law. In addition, nothing in this Agreement shall be construed as a waiver of any common law or statutory immunity the County may have to such liability. This Section 2.3 survives termination of this Agreement.

Nothing in this Section shall be construed as a waiver of any rights either party may have with regard to contesting its alleged obligation for defense and indemnification by way of Declaratory Judgment or otherwise.

ARTICLE 3
HOST FEES

Section 3.1 Purpose

In consideration of the additional fees and costs to be incurred by the County's Environmental Division and the County's responsibility to plan for the management of municipal solid waste including providing recycling and reuse programs, the Company agrees to pay the County the following fees should the West Chicago City Council approve the Transfer Facility site location and should the Company build the Transfer Facility and begin accepting Municipal Waste and/or Hydro Excavation Waste. The Company agrees to pay the County the following fees.

Section 3.2 Quantity Based Fees

The Company shall pay to the County a base fee as provided below for each ton of Municipal Waste and/or Hydro Excavation Waste, except landscape waste and recyclables, received at the Transfer Facility (whether received in the same or separate vehicles) from the first date Muncipal Waste and/or Hydro Excavation Waste is received through the termination of this Agreement. In the event the Transfer Facility accepts Food Scraps either in dedicated truckloads or commingled with Landscape Waste, the Company agrees to pay the per ton fee provided for in this section on the Food Scraps accepted at the Transfer Facility, in accordance with the methodology and calculations agreed to between the Company and the City of West Chicago.

Per Ton Fee

The Company shall pay the County a Host Benefit Fee equal to $.58 per ton of Muncipal Waste and/or Hydro Excavation Waste received at the Transfer Facility. Per-ton fees shall be payable only if, as and when waste is received and accepted at the Transfer Facility.

Section 3.3: Annual Increase

Beginning as of January 1, 2021, and as of each January 1 thereafter, the per-ton fees described in Section 3.2 above will be adjusted from the per-ton fees of the previous year by the percentage change during the previous year in the Revised Consumer Price Index for All Urban Consumers (CPI-U) published by the United States Department of Labor – Statistics for the Chicago-Gary-Kenosha area, provided, however, that at no time shall the increase be less than 0% or greater than 4%. If the Consumer Price Index for All Urban Consumers shall cease to be published in the time frame described above, the County and Company shall designate a comparable time frame or index, which shall then be used for determining the annual rate of adjustment.

Section 3.4 Identification and Weight of Receipts

The Company shall weigh all receipts of Solid Waste and/or Hydro Excavation Waste on a certified scale, which is inspected at least once each calendar year by the Company, and a copy of said inspection shall be provided to the County upon request.

Further, the Company shall keep records of outgoing Solid Waste and/or Hydro Excavation Waste, such that the County can determine by its review of these records the number of outbound vehicles, the type of vehicle, the destination of each vehicle, and the type of waste contained on each vehicle leaving the Transfer Facility each calendar day. In addition, should the County request records concerning the load weight and total weight of each outbound vehicle, the Company agrees to provide that information, from weights measured at the Transfer Facility or at the destination of the vehicles leaving the Transfer Facility, from the time the Company receives the County's request on moving forward basis for any time period(s) designated by the County.

Section 3.5: Auditing

The Company shall keep complete and accurate books and records relating to the determination of the fees described in Article 3, in an auditable form, including those records described in Section 3.4. No more than once per year, the Company shall permit the County and its designated representatives access to such books and records (paper and electronic version) for inspection and copying. In the event that such inspection reveals any underpayment(s) of the fees described in Sections 3.2 and 3.3, the Company shall promptly pay the County the amount(s) of such underpayment(s). In the event that such inspection reveals any overpayment(s) of the subject fees, the Company may credit the amount of such overpayment(s) against the payments of the subject fees in subsequent quarters.

Section 3.6: Payment Schedule for Fees

The fees described in this Article shall be paid on a quarterly basis. The quarterly payments shall be calculated on a calendar-year basis; that is, they shall be calculated for the three-month periods ending on the last day of March, June, September and December of each year during the term of this Agreement and any extension thereof. The payment shall be made not later than forty-five (45) days after the last day of the preceding quarter and shall be limited to the Solid Waste transferred

during the quarter to which it applies. Past due payments of the fees shall be subject to a late charge of one-and-one-half percent (1½ %) per month or fraction of a month for which the payment is late. Payment of such interest shall not otherwise excuse or cure any default by the Company under this Agreement.

ARTICLE 4
MISCELLANEOUS

Section 4.1: Assignment

The Company shall not assign or attempt to sublet this Agreement or any interest in this Agreement or any right or privilege appurtenant to this Agreement without first obtaining the County's written consent, which consent shall not be unreasonably withheld, conditioned or delayed: provided, however, that the Company may assign or transfer its interest in this Agreement to an affiliate of the Company without consent in the event that the affiliate is more than 50% owned by the Company. In addition, no transfer of any ownership or other interest in the Transfer Facility may be made without the prior written approval of the County, which approval shall not be unreasonably withheld, conditioned or delayed. The right to seek assignment or approval may occur only if all payments to the County by the Company have been made and if the Company is not otherwise in default in connection with obligations under this Agreement.

Subject to the provisions of this Agreement limiting the right to assign this Agreement shall be binding on and inure to the benefit of the parties and their heirs and successors. Furthermore, in the event of an approved assignment or transfer, the Company shall remain primarily responsible for all obligations and liabilities of this Agreement which accrue prior to the execution of any approved assignment or transfer. Transfer of a fifty-percent (50%) or greater interest in the Company to another owner or owners shall be deemed an unpermitted transfer under this Section, unless made with the approval of the County. The County may require an additional written commitment from the assignee or transferee to assume and comply with the duties and obligations of this Agreement. The County shall not unreasonably withhold, condition or delay approval of a proposed assignment or transfer. This Section 4.1 survives termination of this Agreement.

Section 4.2: Default

The occurrence of any one or more of the following constitutes a "default" by the Company under this Agreement. Should the Company be in default of this Agreement, the County may, at its sole discretion, terminate this Agreement.

(a) The failure by the Company to pay any fee due and payable under this Agreement; if the Company does not cure such failures within thirty (30) days after notice thereof from the County to the Company;

(b) The Company admits in writing its inability to pay its debts as they mature and makes an assignment for the benefit of creditors or applies for or consents to the appointment of a trustee or receiver for the Company or a major part of its property;

(c) A trustee or receiver is appointed for the Company or for a major part of its property, and it is not discharged within ninety (90) days after such appointment; or

(d) Bankruptcy, reorganization arrangement, insolvency or liquidation proceedings or other proceedings for relief under any bankruptcy law, or similar law, for the relief of debtors are instituted by or against the Company and, if instituted against the Company, are allowed against it or are not dismissed within 180 days after such institution.

Section 4.3: Notice

Any notice to be given hereunder by either party to the other shall be in writing and be sent by personal delivery, by overnight delivery service or by registered or certified mail, postage prepaid, return receipt requested, and shall be deemed communicated when delivered or three (3) business days from the date of mailing, whichever is earlier. Notices shall be addressed as set forth below, but each party may change its address by written notice to the other in accordance with this Section:

To the County, notice shall be sent to both the County and the County's Attorney at the following addresses:

TO THE COUNTY AT:

Attention: DuPage County
Daniel J. Cronin, Chairman
421 N. County Farm Rd.
Wheaton, IL 60187

WITH COPY TO THE COUNTY's ATTORNEYS AT:

Attention: DuPage County State's Attorney
Honorable Robert Berlin
Judicial Office Facility Annex
503 N. County Farm Rd.
Wheaton, IL 60187

To the Company, notice shall be sent to the Company at the following addresses:

TO THE COMPANY AT:

Attention: Alan Handley
Address: Lakeshore Recycling Systems, LLC
6135 Oakton Street
Morton Grove, Illinois 60053

Section 4.4: Agreement Controls

This Agreement constitutes the entire understanding of the parties hereto relating to the subject matter contained herein.

Section 4.5: Captions

Captions of the Articles, Sections and paragraphs of this Agreement are for convenience or reference only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

Section 4.6: Governing Law and Forum for Litigation

This Agreement shall be governed by and construed in accordance with the laws of the State of Illinois. Any litigation filed by the Company or the County against the other party and involving this Agreement shall be filed in the Circuit Court of DuPage County, Illinois. Section 4.6 survives the termination of this Agreement.

Section 4.7: Severability

The provisions of this Agreement shall be deemed to be severable, and the invalidity or unenforceability of any provision shall not affect the validity and enforceability of the other provisions hereof. Section 4.7 survives the termination of this Agreement.

Section 4.8: Binding Effect

This Agreement shall inure to the benefit of and be binding upon the respective parties hereto, their successors and assigns. However, nothing in this Section should be construed to allow the Company to assign its interest in this Agreement unless done pursuant to Section 4.1 of this Agreement. Section 4.8 survives the termination of this Agreement.

Section 4.9: Force Majeure

Neither party hereto shall be deemed to be in default or to have breached any provision of this Agreement as a result of any delay, failure in performance or interruption of services resulting directly or indirectly from acts of God, acts of civil or military authority, civil disturbance, or war or labor strikes or interruptions, which are beyond the control of such non-performing party.

Section 4.10: No Third-Party Beneficiaries

Nothing in this Agreement, whether expressed or implied, is intended to confer any rights or remedies under or by reason of this Agreement on any person other than the parties and their respective successors and assigns, nor shall any provision give any third persons any right or rights of action against any party to this Agreement.

Section 4.11: Access

The Company shall allow any agent duly authorized by the County to enter the Transfer Facility at reasonable times. For purposes of this Section, "reasonable times" means any time during Regular Business Hours and any time not during Regular Business Hours when persons are at the Transfer Facility.

Section 4.12 Traffic Control

All transfer trailer truck traffic entering and existing this site must utilize Powis, Kress and Roosevelt Roads and North Avenue (IL 64). Site plan and off-site road improvements are subject to final engineering approval of the Land Use or Zoning Department and must meet all applicable codes and ordinances in affect at the time of permitting.

Section 4.13 Transfer Facility Control Measures

The Company shall seek to prevent any waste, litter or debris from being discarded onto public traveled roads due to the Company's operation of the Transfer Facility and shall abide by a litter control plan as approved by the City of West Chicago as a result of the siting process.

a. All tipping of Municipal Waste at the Transfer Facility shall be on the tipping floor inside the transfer building, and, except as provided in Subsection b. below, the Company shall have the tipping floor free of waste and cleaned with a mechanical street sweeper by the end of each operating day;

b. Empty waste collection containers and empty transfer trailers may be stored outside the transfer building at least 500 feet from Powis Road right-of-way;

c. The Company shall conduct all operations in a manner that is protective of the public health, safety, welfare, groundwater resources and the environment. The Company shall comply with all applicable laws, ordinances, rules and regulations, including but not limited to IPCB regulations.

d. At a minimum, the Company shall provide a street sweeper to remove mud, dirt and dust tracked on to hard surfaces inside and outside the Transfer Facility property including onto Powis Road within three-fourths (3/4) mile of the Transfer Facility property on an as needed basis, but not less frequently than daily except during severe weather conditions (e.g., heavy rains, winter conditions when salt has been applied to the roadway). All access drives, parking areas, storage areas and vehicle maneuvering areas of the Transfer Facility property shall be paved and swept with a street sweeper as needed, but not less frequently than daily;

e. The Transfer Facility and any area used for the outdoor storage of any material or equipment will be fenced and visually screened from viewing from off the Transfer

Facility property by means of said fence and appropriate landscaping as approved by the City.

f. The Company agrees to keep the truck doors to the Transfer Facility closed, except for emergencies and to allow trucks to enter and exit the facility, during Regular Business Hours.

Section 4.14 Green Building Principles

The Company shall consider utilizing green building principles in the design and operation of the Transfer Facility.

Section 4.15 Drop Off Area for Recyclables from Residents

The Company shall establish a recycling drop-off for recyclables including but not limited to bottles, cans, cardboard, paper generated by residents and small businesses, at the Transfer Facility property. The recyclables will be accepted at no cost to the resident. The list of acceptable recyclables may be amended by agreement between the County and the Company.

Section 4.16 Household Hazardous Waste Collection

The Company will partner with the County on an application(s) to the Illinois EPA for the funding of household hazardous waste collection(s) at the Transfer Facility at the request of the County. The Company's sole responsibility will be to provide the location for each event.

ARTICLE 5
AUTHORITY AND GUARANTY OF PAYMENT

Section 5.1: Authority to Enter Into Agreement

The Company hereby represents and warrants that it is a valid and existing Illinois corporation, in good standing, authorized to do business in the State of Illinois, and that individuals executing this Agreement have been duly authorized by the Company to act on its behalf and enter into this Agreement. In addition, the Company agrees to provide the County, at the time of execution of the Agreement, with a copy of the corporate resolution authorizing the execution of this Agreement.

The Company, by its signature on this Agreement, certifies that it has not been barred from contracting with a unit of local government as a result of a violation of Section 33E-3 or 33E-4 of the Illinois Criminal Code (720 ILCS 5/33E-3, 5/33E-4).

Section 5.2: Covenants Run with the Land

The parties agree that the covenants, agreements and understandings contained in this Agreement, which expressly survive its termination touch and concern the Subject Property, and that such covenants, agreements and understandings shall run with the Subject Property. The Company agrees that the County may prepare, and the Company shall promptly execute duplicate originals of an instrument, in recordable form, which will constitute a memorandum of Host Community Benefit Agreement, attaching an executed copy of this Agreement as an exhibit, and record such Memorandum in the Office of the DuPage County, Illinois Recorder of Deeds.

IN WITNESS WHEREOF, the parties hereto have executed this instrument on the day and year first written above.

THE COUNTY OF DURAGE,
DuPage County, Illinois

By: _____

Name: Daniel. J. Cronin

Title: County Board Chairman

ATTEST:

_____

Name: Jean Kaczmarek

Title: County Clerk

LAKESHORE RECYCLING SYSTEMS, LLC

By: _____

Name: Alan T Handley

Title: CEO

ATTEST:

_____

Name: Marie A. Paff

Title: Corporate Secretary

Exhibit A

LEGAL DESCRIPTION

THAT PART OF THE NORTH ½ OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS, TO WIT:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 32; THENCE NORTH 88 DEGREES 56 MINUTES 37 SECONDS EAST ALONG THE NORTH LINE OF SAID SECTION 32, A DISTANCE OF 1331.65 FEET TO THE NORTH AND SOUTH DIVIDING LINE OF THE NORTHWEST ¼ OF SAID SECTION 32; THENCE SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 500.00 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81 IN THE OFFICE OF THE DUPAGE COUNTY RECORDER; THENCE CONTINUING SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 685.0 FEET TO THE SOUTHWEST CORNER OF THE TRACT OF LAND DESCRIBED IN A SPECIAL WARRANTY DEED RECORDED FEBRURARY 6, 2001 AS DOCUMENT NO. R2001-020758; THENCE NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST, ALONG SAID SOUTH LINE (SAID LINE BEING PARALELL WITH THE SOUTH LINE OF SAID DEFENSE PLANT CORPORATION TRACT), A DISTANCE OF 1880.12 FEET TO THE WESTERLY RIGHT OF WAY LINE FOR THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 20 DEGREES 30 MINUTES 46 SECONDS WEST, ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 729.01 FEET TO THE SOUTHEAST CORNER OF SAID DEFENSE PLANT CORPORATION TRACT; THENCE SOUTH 89 DEGREES 32 MINUTES 15 SECONDS WEST, ALONG SAID SOUSTH LINE, A DISTANCE 1650.66 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF POWIS ROAD PER DOCUMENT NO. R2003-146376, SAID POINT ALSO BEING 81.96 FEET EAST OF THE SOUTHWEST CORNER OF SAID DEFENSE PLANT CORPORATION; THENCE SOUTH 2 DEGREES 29 MINUTES 05 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 536.49 FEET TO A POINT OF CURVATURE; THENCE SOUTHWESTERLY, ALONG SAID EASTERLY RIGHT OF WAY LINE BEING THE ARC OF A CURVE CONCAVE WESTERLY, HAVING A RADIUS OF 739.00 FEET AND WHOSE CHORD HAS A BEARING OF SOUTH 3 DEGREES 47 MINUTES 33 SECONDS WEST, AN ARC DISTANCE OF 149.66 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

CRITERION 2:

“the facility is so designed, located, and proposed to be operated that the public health, safety, and welfare will be protected”
415 ILCS 5/39.2(a)(ii)

CRITERION 2:
DESIGN, LOCATION STANDARDS, AND OPERATING PLAN

The Illinois Environmental Protection Act, at 415 ILCS 5/39.2 (a)(ii), requires that an applicant for a transfer station siting demonstrate that the facility is so designed, located, and proposed to be operated so that the public health, safety, and welfare will be protected. This report demonstrates that the proposed Lakeshore Recycling Systems, LLC West DuPage Recycling and Transfer Station is designed, located, and proposed to be operated so that public health, safety, and welfare will be protected.

Prepared for:

LAKESHORE RECYCLING SYSTEMS, LLC
WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS
DUPAGE COUNTY

Prepared by:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
NAPERVILLE, ILLINOIS

CEC Project 163-899

AUGUST 2022

2.0 INTRODUCTION

The Illinois Environmental Protection Act requires that a pollution control facility, such as the transfer station that is the subject of this application, be so designed, located, and proposed to be operated that the public health, safety, and welfare will be protected. This report demonstrates that the proposed Lakeshore Recycling Systems, LLC (LRS) West DuPage Recycling and Transfer Station (West DuPage RTS) is designed, located, and proposed to be operated so that public health, safety, and welfare will be protected.

The West DuPage RTS is located on an approximately 27.66-acre parcel located at 1655 Powis Road, West Chicago, DuPage County, Illinois (see Figure 2-1). LRS currently operates a permitted solid waste management facility [Permit No. 2015-124-OP] that receives, sorts/separates, transfers and recycles construction or demolition debris (C&D) on approximately 6.11 acres of the site (C&D Recycling Facility). The C&D Recycling Facility is shown on Drawing C100 and includes the site entrance, the scale, the C&D transfer/screening building, the C&D sorting line building, and storage bunkers.

The site also includes an office, maintenance building, parking areas, additional hard surfaced areas, access controls, utilities, outdoor lighting, and a stormwater control system. As such, LRS currently performs other operations at the site that support its overall business. In addition, most of the infrastructure, personnel, and systems required to appropriately operate the West DuPage RTS are already present at the site. In summary, LRS currently conducts the following operations at the site:

- Receipt, sorting/separation, recycling and transfer of up to an annualized average of 1,250 tons per day of C&D;
- Staging and removal of recyclable materials;
- Mulch production and sales from recycled wood;
- Parking and maintenance of waste collection vehicles;
- Parking and maintenance of street sweepers;
- Parking and maintenance of portable restroom transportation vehicles;
- Staging and maintenance of containers, totes, and portable toilets; and
- Dispatch and customer service (call center).

As proposed, West DuPage RTS will also perform the following operations:

- Receipt and transfer of non-hazardous municipal solid wastes (referred to as “MSW” or more generally as “solid waste”);
- Receipt, solidification, and transfer of hydro excavation wastes;

- Receipt and transfer of single-stream recyclables (referred to as "SSR" or more generally as "recyclables");
- Drop-off area for West Chicago residents' electrical/electronic devices; and
- Drop-off area for recyclables generated by residents and small businesses.

Loads of MSW from collection vehicles will be consolidated into larger loads for transport to an area landfill for disposal. Loads of hydro excavation wastes will be solidified and then transported to an area landfill for disposal. Electronic waste from West Chicago citizens will be consolidated and transported to a recovery facility. Loads of recyclables from collection vehicles (and recyclables from residents) will be consolidated into larger loads for transport to a material recovery facility (MRF), such as LRS's MRF in Forest View, for re-use as a commodity. The proposed operations at the West DuPage RTS will allow for more efficient processing and/or transportation of these materials to a MRF or disposal facility (landfill). In addition, the expanded operations at the facility will allow for more improved recycling of the C&D.

West DuPage RTS is a unique facility due its desirable location, relatively large size, and diversity of operations, and will be a premier waste management and recycling facility in the State of Illinois.

Subject to Illinois Environmental Protection Agency (IEPA) permitting, West DuPage RTS is anticipated to accept up to 1,950 tons per day of which up to 650 tons per day may be MSW, up to 300 tons per day may be hydro excavation wastes, up to 750 tons per day may be C&D, and up to 250 tons per day may be SSR.

The C&D operations, MSW/SSR operations, and hydro excavation waste operations are separate business lines so the probability of the site receiving peak amounts of waste from these three different business lines on the same day is highly unlikely. Regardless, the site has been designed to manage the peak amounts of each material type on the same day.

2.1 SITE LOCATION

2.1.1 CURRENT PROPERTY USE AND EXISTING SITE CONDITIONS

The West DuPage RTS property consists of an approximately 27.66-acre parcel located at 1655 Powis Road, West Chicago, DuPage County, Illinois. The site is located on the east side of Powis Road, approximately 0.6 miles south of the intersection of North Avenue and Powis Road, within the corporate limits of West Chicago, Illinois. A site location map is provided on Drawing C000 and an aerial photograph showing the existing site features is provided on Drawing C100.

A single industrial building is present on the southwest portion of the site, and is being used for offices, vehicle maintenance, and transfer/recycling of construction and demolition debris. The remainder of the west side of the site consists of paved surfaces and parking lots, and vegetated landscaping and drainage areas. On the east side of the property are a stormwater detention area, a jurisdictional wetland area in the southeast corner, and a closed sludge impoundment area.

The western end of the existing building is the office/administration area. A second floor area is used for storage of records and spare vehicle parts. This section of the existing building was constructed utilizing current "green" construction methods and materials. Multiple parking spaces are provided west of the office/administration area for employees and visitors. Additional parking for employees is provided in the northwest portion of the site.

East of the office/administration area is the vehicle maintenance facility, with six service bays. The south side of vehicle maintenance facility includes storage rooms, a mechanical room, an electrical room, and an employee break room and lockers.

The eastern, high-bay portion of the existing building is an approximately 15,000-square-foot C&D transfer/screening building. C&D is unloaded inside the building on the concrete floor, and is moved via a front loader and grapple to the screener and then the C&D sorting line building.

The C&D sorting line building is an approximately 7,600-square-foot addition, which has sheet metal housing on a second-story structure suspended across the top of parallel concrete walls that form ground level, storage bays. Waste moves from west to east through the C&D sorting line building. Waste is first screened in the C&D transfer/screening building to separate material by size and then conveyed through a manual sorting line. On the sorting line, laborers segregate materials by dropping them down separate chutes into the storage bays below the C&D sorting line building.

As indicated above, LRS currently operates a C&D recycling facility; waste hauling business; street sweeping business; and portable restroom business at the site. The C&D Recycling Facility

operates pursuant to IEPA Permit No. 2015-124-OP, which is provided in Appendix 2-A. All vehicles currently enter and exit the site from the south entrance. C&D collection vehicles pass over the scale for identification, weighing and screening prior to proceeding to the C&D transfer/ screening building for unloading (see Drawing C100).

The C&D Recycling Facility operates in accordance with Section 22.38 of the Act. Currently, the site:

- Limits the receipt and transfer of general C&D to approximately 1,250 tons per day [Special Condition 4].
- Receives general C&D at the site Monday through Saturday, twenty-four hours per day [Special Condition 20].
- Sorts all general C&D (to separate recyclable material from non-recyclable material) within forty-eight hours of receipt [Special Condition 28].
- Transports all non-recyclable and unacceptable material off-site for disposal within seventy-two hours of its receipt [Special Condition 30].
- Limits the percentage of non-recyclable general C&D to 25% or less of the total incoming general C&D [Special Condition 31].
- Transports off-site all putrescible or combustible recyclable general C&D within forty-five days of receipt [Special Condition 33].
- Stores recyclable concrete or clean soil for a maximum period of three months [Special Condition 37].
- Transport off-site all non-putrescible recyclable general C&D within six months of receipt [Special Condition 32].

The C&D Recycling Facility permit requirements are anticipated to be updated based on the recent revisions to Section 22.38 of the Act.

LRS uses a focused and targeted approach based on years of industry experience to maximize the recovery and recycling of materials. The processes begins with an understanding and identification of the predominant types of materials in the load, as different materials are managed differently. Separation techniques used include mechanical (e.g., scalping, screening, magnetic, and shredding) and manual (e.g., sorting lines). Materials which are recycled/reused include:

- “A” wood (processed into mulch);
- “B” wood (hauled to landfills for use as road base);
- Asphalt shingles (hauled to beneficial re-use facilities);
- Metal such as iron, aluminum and nails (hauled to metal reclaimers);
- Concrete, brick, block, and various aggregates (hauled to recycling/crushing facilities);

- Unpainted drywall (hauled to recycling facilities); and
- Cardboard (hauled to processing facility for baling and subsequent recycling).

Separated materials are generally staged in bunkers underneath the sorting line or along the perimeter of the C&D sorting line building. Wood is processed (e.g., shredded) in the area north of the C&D transfer/screening building. Non-recyclable material is loaded into transfer trailers for transportation to a landfill for disposal.

A particular site operation that is unique and noteworthy is the mulching operation. The site creates mulch from the "A" wood, which is clean processed wood such as pallets and new construction lumber scraps. The wood is size-reduced through two shredders, which also remove any nails, and then colored (e.g., brown, red). The mulch is "dry" relative to mulch created from branches/logs because it is created from processed wood. LRS's mulch degrades much slower (and thus lasts much longer) and does not grow funguses, which results in a highly desired superior product over other mulches.

LRS parks and maintains vehicles and containers associated with its waste collection, street sweeping, and portable toilet businesses at the site. Containers are staged in various locations on the site (see Drawing C100).

2.1.2 AMENDMENT TO PLANNED UNIT DEVELOPMENT AND SITE DEVELOPMENT PERMIT

West Chicago approved Ordinance No. 15-O-0018 on May 18, 2015 (see Appendix 2-B1), which granted a preliminary and final planned unit development (PUD) and special use permits and allowed the site to be operated as:

- A construction and demolition debris recycling facility with outside storage;
- Fuel sales and storage; and
- Building material sales with outside storage.

The PUD includes the development and operation of the following:

- Existing C&D recycling and transfer building;
- Existing C&D sorting line and storage bunkers;
- Inbound and outbound scales (note only one scale is installed at this time);
- Existing office and maintenance building;
- Existing mulching operation;
- Existing stormwater management features; and
- Existing employee parking, vehicle parking, and container staging areas.

LRS submitted a PUD Amendment Application and a Site Development Permit Application to West Chicago on June 20, 2019 (PUD Amendment Application). Revisions to the PUD Amendment Application were submitted on September 27, 2019 and November 11, 2019. The PUD Amendment Application was approved by West Chicago on June 15, 2020. The ordinance approving the PUD Amendment Application is provided in Attachment 2-B2 (PUD Amendment).

The PUD Amendment authorizes improvements to existing site operations and facilities, summarized as follows:

- Additional passenger vehicle parking;
- Additional truck/industrial vehicle parking;
- Additional paved outside storage areas for separated materials, roll-off boxes, storage containers, and portable toilets;
- An expansion of the existing C&D transfer/screening building including a loading pit (C&D expansion building);
- A new maintenance building;
- Stormwater management improvements;
- Site utility modifications;
- Re-establishment of prior disturbed wetland buffer; and
- Appurtenances related to the above.

The C&D expansion building is designed to be an approximately 22,500-square-foot rectangular, pre-engineered metal building with access doors along the east perimeter. A drive-through loading pit is located on the south perimeter approximately 8 feet lower than the tipping floor. These improvements will provide a more efficient site operation and accommodate LRS's growing operations. No additional special uses or operations were requested by the PUD Amendment Application. The site features being added and/or modified as part of the PUD Amendment are shown on Drawings C104 through C109. Phase I improvements on the east side of the site, including paving and stormwater, were completed during 2021. As a clarification, the site operations described in the PUD Amendment are not subject to this local siting application.

2.1.2.1 Identification of Applicant and Property Owner

West DuPage RTS will be operated by LRS. LRS is also the applicant. LRS is a limited liability corporation. The officers of LRS are:

- Alan Handley - Chief Executive Officer
- Tom Martin - Chief Financial Officer
- John Larsen - Chief Operating Officer
- Brian Tibble - Chief Marketing Officer

Appendix 2-C1 contains a certificate of good standing. The sole manager and member of LRS is LRS Holdings, LLC whose address is 5500 Pearl Street, Rosemont, Illinois 60018. The current major investor of LRS and LRS Holdings, LLC is the Macquarie Infrastructure Partners.

As required by Section 2.3 of the Host Community Benefit Agreement Between the City of West Chicago and LRS (see Appendix 1-B), LRS will obtain certificates of insurance from companies having a Best rating of A VI or better that shall, at such time as the West DuPage RTS is permitted, cover accidents such as fires, explosions, non-sudden accidental occurrences and pollution impairment.

For approximately twenty years, LRS has provided recycling and 100% waste diversion programs, affordable roll-off container service, on-site storage, portable restrooms, street sweepers, and comprehensive waste removal to businesses and homeowners. The following is additional information regarding LRS:

- LRS is the leading independent provider of recycling, diversion and non-hazardous, solid waste management services, as well as temporary services (sweeping and portable restrooms) across the Chicagoland area.
- LRS differentiates itself through aggressive and innovative diversion and recycling programs, technology advances, exceptional customer service and strong awareness for the environment with the goal of diverting as much waste as possible.
- LRS operates approximately ten strategically located MSW transfer stations and/or C&D recycling and transfer facilities in Illinois and Wisconsin.
- LRS operates a single-stream sorting facility with state-of-the-art technology in Forest View.

The operating experience of LRS and its subsidiaries in the field of solid waste management is summarized in Appendix 2-C2. This information includes the past operating experience of subsidiaries of the parent corporation operating or licensed in Illinois in the field of solid or hazardous waste management. A summary is also provided of any actual or alleged violations

during the last ten years with environmental laws and regulations governing solid or hazardous management operations or activities. As applicable, the information includes a citation of the applicable statute or ordinance violated or alleged to be violated and a brief written summary of the activities or operations giving rise to the actual or alleged violations and the ultimate outcome of the matter, including whether any fines or penalties were imposed. In summary, all alleged violations/compliance issues involved actions by former operators prior to LRS's acquisition of those facilities.

The property is currently owned by Oscar (IL) LLC, which is part of W. P. Carey Inc (W. P. Carey). W. P. Carey is an asset management company that leases properties to tenants on a long-term basis. The lease extends to at least the year 2044 and LRS may purchase the property at its discretion during the lease term. Documentation regarding the ownership of the property is provided in Appendix 2-C3.

2.1.2.2 Plat of Survey

The address of the West DuPage RTS is 1655 Powis Road, West Chicago, DuPage County. A plat of survey and legal description for the property is provided on Drawing C101. The property is comprised of two parcels (property index numbers 01-31-101-0004 and 01-32-100-001) that total approximately 27.66 acres.

2.1.2.3 Existing Topography and Features

The existing site features (including the existing construction or demolition debris recycling and transfer facility) and land uses within 500 feet of the West DuPage RTS are shown on the aerial photograph provided on Drawing C100. No other regional pollution control facility is operated on, adjacent to, or within 500 feet of the West DuPage RTS.

A topographic survey of the West DuPage RTS, the aerial photograph of the West DuPage RTS, and United States Geological Survey data for the property within 500 feet of the West DuPage RTS property line is provided on Drawing C100A. The same information shown on Drawing C100A along with existing zoning and the boundary of the floodway and floodplain (as defined by the Federal Emergency Management Agency flood insurance rate map and as discussed in Criterion 4) is provided on Drawing C100B.

A topographic survey and existing features of the West DuPage RTS, including the existing construction or demolition debris recycling and transfer facility, are shown on Drawings C102 (west) and C103 (east).

2.1.3 EXISTING UTILITIES

The existing utilities are shown on Drawings C102 and C103 and include electric (Commonwealth Edison Company [ComEd]), telephone/data (Comcast Corporation [Comcast]), natural gas (Nicor Gas [Nicor]), water (Village of West Chicago), and sanitary (Village of West Chicago).

Certain utilities (e.g., water main) will be relocated or improved as part of the improvements described in the PUD Amendment Application. The utility improvements are shown on Drawings C108 and C109. Additional description for each utility is as follows:

- Electric: The site is fed by a ComEd 24kV, three-phase power line that enters the site underground via conduit/cabling near the southern property boundary, originating from the west side of Powis Road. The conduit/cabling leads to an electrical transformer located south of the southeast corner of the existing building. From the transformer, power enters an existing mechanical room at the southeast corner of the building and is distributed. The 24kV power was looped through the site and provides more than adequate power for the site.
- Telephone/Data: Telephone and high-speed internet lines enter the site near the south side of the property via underground cable. An additional fiber optic cable enters at the same location and is a redundant measure providing backup for the site telephone/data services. All cables enter the existing building near the southwest corner.
- Natural Gas: The natural gas supply is a high-pressure 2-inch line provided by Nicor. Gas enters the site from an 8-inch gas line on the east side of Powis Road that runs due east from Powis Road and enters the existing building near the southwest corner. The high-pressure line has sufficient capacity to heat various portions of the building while at the same time powering an Ingersoll Rand generator that (in the case of a power outage) can run the office, scale, building lighting, and other loads.
- Water: The water supply to the site is provided from a public 8-inch ductile iron pipe that loops around the west half of the site. The 8-inch loop connects to an existing City of West Chicago 12-inch water main that runs north-south on the west side of Powis Road. The 8-inch main crosses Powis Road near the south and north access driveways. Services are tapped off the 8-inch main in the locations indicated on the plans.
- Sanitary Sewer: The sanitary sewer is an 8-inch polyvinyl chloride sewer that runs on the south side of the site and leads to a 12-inch polyvinyl chloride sewer that runs south to north along the east side of Powis Road.

2.1.4 LOCATION STANDARDS

2.1.4.1 Residential Properties

Section 22.14(a) of the ACT states the following:

> *No person may establish any pollution control facility for use as a garbage transfer station, which is located less than 1000 feet from the nearest property zoned for primarily residential uses or within 1000 feet of any dwelling, except in counties of at least 3,000,000 inhabitants.*

DuPage County has less than 3,000,000 inhabitants, so West DuPage RTS may not be established within 1,000 feet of the nearest property zoned for primarily residential uses or within 1,000 feet of any dwelling. West DuPage RTS is located in West Chicago but portions or the surrounding area are located in unincorporated DuPage County. The West Chicago and DuPage County zoning for the surrounding properties are shown on Figure 2-2. A 1,000-foot setback is also shown on the figure.

Figure 2-2 indicates that all of the surrounding properties within 1,000 feet of the West DuPage RTS are zoned Airport District (by West Chicago), Manufacturing District (by West Chicago), or Light Industrial (by DuPage County), except for railroad properties directly to the east of the site. Residences are not permitted uses in an Airport District (by West Chicago), Manufacturing District (by West Chicago), or Light Industrial (by DuPage County).

Two railroad properties are present directly east of the site, which are zoned Estate Residence District (ER-1). The West Chicago Municipal Code indicates that the purpose of the ER-1 is to establish regulations for larger lot single-family residential areas, and that neighborhoods in this district shall consist of very low-density single-family homes. Permitted uses are single-family detached dwellings, home occupations, small community residences, forest preserves, and parks and recreational areas when publicly owned. Accessory buildings may include swimming pools, bathhouses, tennis courts, green houses, guesthouses, and horses/stables. Allowable "special uses" are golf courses including driving range, bar, restaurant, meeting and banquet rooms; country club; site reclamation and cleanup plan areas; and above ground service facilities.

The western railroad property is currently owned by the Union Pacific Railroad and the eastern railroad property is currently owned by Canadian National Railway. The railroads have been present for over seventy years, and remain active today. The properties are each approximately 100 feet wide, have steep banks that rise up approximately 10 feet above surrounding grade, and have no nearby vehicle access (see photographic log in Appendix 2-D1). The lot requirements for a residence in an ER-1 include the following:

- Minimum lot area: 40,000 square feet;
- Minimum lot width: 100 feet at front, lot line and 200 feet at building line; and
- Minimum setbacks:
  - Front yard: 50 feet;
  - Corner side yard: 50 feet;
  - Side yard: 30 feet;
  - Rear yard: 50 feet; and
  - Maximum lot coverage: 30%

The physical features of the property, the lack of access, and the above lot requirements make it physically impossible to construct a residence on the railroad property. This conclusion is supported by the letter from West Chicago provided in Appendix 2-D2, which indicates that the ER-1 zoning classification is a remnant from when it was annexed into West Chicago, residential development on this property is physically impossible, and West Chicago concludes the setback criteria is not applicable to this property. Thus, as shown on Figure 2-3, the nearest property zoned for primarily residential use is approximately 2,000 feet to the east.

Figure 2-3 also demonstrates that there are no residential properties or dwellings within 1,000 feet of West DuPage RTS. The figure was based upon Civil & Environmental Consultants, Inc.'s (CEC) review of zoning maps, aerial photographs, as well as a visual survey, performed by John Hock of CEC, of all properties and buildings within approximately 3,500 feet of the site. Figure 2-3 demonstrates that the nearest residential property is over 3,000 feet to the east.

2.1.4.2 100-Year Floodplain Limits

As part of the PUD Amendment process, a stormwater report was submitted to DuPage County to demonstrate compliance with the DuPage County Countywide Stormwater and Floodplain Ordinance. DuPage County issued Stormwater Management Certification No. SM2019-0061 to the site on December 6, 2019. A summary of the approved evaluation and an assessment of the site improvements is provided in Criterion 4. In summary, the base flood elevation (BFE) encroaches on the site in an approximately 0.05-acre area located north of the east detention pond as shown on Drawing C103. As discussed in more detail in Criterion 4, the proposed operations are located over 500 feet west of the floodplain area and the finished floor elevations of buildings are approximately four feet higher than the BFE. Thus, the West DuPage RTS is not within the designated 100-year floodplain or is flood proofed.

2.1.4.3 Wetland Location Documentation

Section 404 of the Clean Water Act prohibits filling within jurisdictional Wetlands or Waters of the United States without prior authorization from the United States Army Corps of Engineers. As

part of the PUD Amendment process, a stormwater report, which also addressed on-site wetlands, was submitted to DuPage County to demonstrate compliance with the DuPage County Countywide Stormwater and Floodplain Ordinance. DuPage County issued Stormwater Management Certification No. SM2019-0061 to the site on December 6, 2019 (see Appendix 2-F2). The wetland evaluation (Tab 4 of the Stormwater Report) that was approved is provided in Appendix 2-F1. In summary, wetlands are located on the eastern extent of the West DuPage RTS as detailed in the report prepared by V3 Companies located in Appendix 2-F1. The location of the wetlands are also shown on Drawing C103. The wetlands are well buffered from the proposed operations and no filling of jurisdictional wetlands are proposed.

2.1.4.4 Archaeological or Historical Sites

The Illinois Historic Preservation Agency (IHPA) was requested in correspondence, dated August 22, 2018, to perform a file search for the property and determine if any significant historic, architectural, or archaeological resources are located at the site (see Appendix 2-E1). The IHPA correspondence indicates that no significant historic, architectural, or archaeological resources are known to be located at the site. The IHPA correspondence is provided in Appendices 2-E2.

2.1.4.5 Threatened or Endangered Species

The site is located in an industrial area of West Chicago, Illinois and has a long history of industrial uses. As part of the PUD Amendment process, a stormwater report, which also addressed on-site wetlands and potential threatened and endangered species, was submitted to DuPage County to demonstrate compliance with the DuPage County Countywide Stormwater and Floodplain Ordinance. DuPage County issued Stormwater Management Certification No. SM2019-0061 to the site on December 6, 2019 (see Appendix 2-F2). The threatened and endangered species evaluation is provided in Appendix V of October 9, 2018 Wetland Delineation and Assessment Report provided in Tab 4 of Appendix 2-F1. In summary, no threatened or endangered species or critical habitats were determined to be present.

To confirm the ongoing lack of presence of any threatened or endangered species, an updated Illinois Ecological Compliance Assessment Tool (EcoCAT) report was obtained. The updated EcoCAT report indicates that the Illinois Natural Heritage Database contains no record of state-listed threatened or endangered species, Illinois natural area inventory sites, dedicated Illinois nature preserves, or registered land and water reserves in the vicinity of the project location. The updated EcoCAT information is provided in Appendix 2-E3.

2.1.4.6 Wild and Scenic Rivers

The National Wild and Scenic Rivers Act was passed in 1968 to preserve selected rivers that possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic,

cultural, or other similar values. The National Wild and Scenic Rivers System [www.rivers.gov] online database was queried. The website indicates that Illinois has one stretch of river designated as a wild and scenic river: the Vermilion River from river mile 46.9 to river mile 29.8 [www.rivers.gov/illinois.php]. This location is near Danville and is over 100 miles from the site.

2.1.4.7 Airports

The nearest airport to the proposed transfer station facility is the DuPage Airport. The DuPage Airport is located directly west of the site. Transfer stations are not prohibited from being located nearby to airports. Federal Aviation Administration (FAA) Advisory Circular 15/5200-33B (Advisory Circular) provides guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. The Advisory Circular indicates the following regarding MSW transfer stations:

- Enclosed waste-handling facilities that receive MSW behind closed doors; process it via compaction, incineration, or similar manner; and remove all residue by enclosed vehicles generally are compatible with safe airport operations, provided they are not located on airport property or within the runway protection zone (RPZ).
- These facilities should not handle or store putrescible waste outside or in a partially enclosed structure accessible to hazardous wildlife.
- MSW transfer facilities that are open on one or more sides; that store uncovered quantities of municipal solid waste outside, even if only for a short time; that use semi-trailers that leak or have trash clinging to the outside; or that do not control odors by ventilation and filtration systems (odor masking is not acceptable) do not meet the FAA's definition of fully enclosed trash transfer stations.

As discussed in the operating plan, the West DuPage RTS meets all of the above criteria so will be compatible with safe airport operations.

As noted above, the Advisory Circular indicates that waste handling facilities should not be located within an RPZ. FAA Advisory Circular 150/5300-13A, Section 310 indicates the following regarding the RPZ:

- The RPZ's function is to enhance the protection of people and property on the ground through the airport ownership over RPZs.
- The RPZ is trapezoidal in shape and is centered about the extended runway centerline.
- The RPZ has two components with varying widths (central portion and controlled activity), and the approach RPZ may be different from the departure RPZ.
- The RPZ generally extends 1,000 feet from the end of the runway.

The RPZ for the DuPage Airport in the area of the site is shown in Appendix 2-G1. As shown, the western portion of the site is located within the RPZ. This portion of the facility is only used for ingress/egress, landscaping, vehicle parking, and stormwater controls. All waste handling and management facilities, occupied structures, and storage of recyclable materials are located farther to the east.

The height of all buildings and structures at the West DuPage RTS are subject to a clear zone avigation easement (Avigation Easement). The Avigation Easement is provided in Appendix 2-G2 and indicates that a specified clear zone area be and remain free and clear of any structure, tree or other object which is or would constitute an obstruction or hazard to the flight of aircraft landing or taking off from the DuPage Airport. The clear zone area varies in elevation across the site ranging from approximately elevation 785 feet mean sea level at the western property limit (closest to the DuPage Airport) to approximately elevation 825 feet mean sea level at the eastern property limit (farthest from the DuPage Airport). The following are the clear zone area elevations and maximum elevations for the buildings at the site:

- The clear zone area elevations at the MSW and SSR transfer building vary from approximately 801 to 805 feet mean sea level. The maximum elevation of the MSW and SSR transfer building is approximately 800 feet mean sea level.
- The clear zone area elevations at the solidification building vary from approximately 797 to 798 feet mean sea level. The maximum elevation of the solidification building is approximately 787 feet mean sea level.
- The clear zone area elevations at the portable restroom building vary from approximately 797 to 801 feet mean sea level. The maximum elevation of the portable toilet building is approximately 787 feet mean sea level.

Based on the above information, the proposed buildings meet the height requirements of the Avigation Easement.

An agreement was executed between the DuPage Airport Authority (DAA), OSCAR, LLC, and LRS dated January 19, 2022 (Airport Agreement), which is provided in Appendix 2-G3. The Airport Agreement indicates the following:

- Upon receiving final, non-appealable siting approval pursuant to 415 ILCS 5/39.2 to construct and operate the West DuPage RTS, and upon receiving an IEPA development permit, LRS shall 1) execute and grant to DAA a new avigation easement (see attachment to Airport Agreement in Appendix 2-G3), 2) LRS shall reduce the roof height of its existing

transfer building so as to stay below all critical elevations in the new avigation easement, and 3) LRS shall not allow any penetrations whatsoever to the new avigation easement.

- LRS shall pay to the DAA a fee of $0.15 for each ton of municipal waste and/or hydro excavation waste received at the West DuPage RTS.
- LRS shall comply with all design and operational features described in a letter and corresponding attachments, dated September 8, 2021, which is attached to the Airport Agreement.
- The DAA, based upon its current knowledge of the proposed West DuPage RTS, agrees that the proposed West DuPage RTS will not pose a threat to the safe operation of the DuPage Airport. Accordingly, the DAA currently has no objection and will not object to the siting approval of the West DuPage RTS.
- The DAA is not currently aware of any violations of or contradictions with the guidance set forth in FAA Advisory Circular 15/5200-33B and FAA Advisory Circular 150/5300-13A by the proposed construction and operation of the West DuPage RTS.

2.2 SITE DESIGN

As discussed in Section 2.1, LRS currently operates a permitted C&D recycling facility at the site and currently performs other operations at the site that support its overall business. The proposed development includes the following:

- Conversion of the expanded C&D expansion building to an MSW and SSR transfer building;
- Integration of the C&D recycling and transfer operations with the MSW transfer operations;
- Construction of mixing pits and a building for solidification of hydro excavation wastes (hydro excavation waste building);
- Installation of a second scale;
- Use of northern driveway for the exiting of vehicles; and
- Establishment of drop off area for electronic wastes and recyclables.

The site plan for West DuPage RTS is provided on Drawings C200 and C201. The site design is discussed further below.

2.2.1 MSW AND SSR TRANSFER BUILDING

The C&D expansion building will be converted to an MSW and SSR transfer building. Barrier walls will be installed around the majority of the perimeter as shown on Drawing C302. A deflector plate will be installed at the top of the barrier wall, as needed, to prevent litter from falling behind the barrier wall. The proposed design of the barrier wall is the same as the barrier wall currently installed in the C&D tipping building. It is also the same design as has been used at LRS's MSW transfer station at 3152 South California Avenue for over fifteen years. This barrier wall has required only minimal repairs during this time.

The tipping floor will be a minimum 8-inch thick slab-on-grade reinforced concrete as shown on the detail on Drawing C302. Floor elevations of the transfer station are designed so that the highest elevation will be at the building walls with a downward slope both into and out of the building. Similarly, the loading pit is designed to be slope in the direction of a collection sump in the approximate center of the pit. Any wastewater that flows to either sump will flow through an oil-water separator into the sanitary sewer (see Drawing C302).

2.2.1.1 Integration of C&D and MSW Operations

The operations of the existing C&D recycling and transfer operations will be fully integrated with the MSW transfer operations:

- An opening will be present between the C&D transfer/screening building and the MSW and SSR transfer building. The opening will have a door that will be closed when not in use.
- Non-recyclable C&D material deposited in the C&D transfer/screening building can be transported into the MSW and SSR transfer building.
- A load (or a portion of a load) that is accepted as MSW which predominantly contains recyclables (e.g., wood, metal, cardboard) can be transported from the MSW and SSR transfer building into the C&D transfer/screening building for processing.
- Non-recyclable materials from the sorting line will fall into a storage bunker on the east end of the C&D sorting line building. The non-recyclable material will be removed and managed as MSW.

Currently, the site cannot accept loads that are not all C&D. The ability to accept MSW will allow additional material to be recycled that is not currently able to be recycled. The integrated operation will thus actually increase the amount of material that the site is able to recycle. The scalping of MSW loads would not occur if sufficient tip floor space and equipment is unavailable or if unloading or loading activities would be significantly impeded (i.e., during peak hours of high waste acceptance days).

The ability to accept MSW will provide needed revenues to allow the site to upgrade is C&D screening and sorting system. The upgraded infrastructure will also facilitate an increase in the amount of C&D material able to be recycled.

If approval of the MSW transfer operations receive local siting and IEPA approval, the facility boundary will become the entire 27-acre property and the "22.38" permit for the C&D transfer and recycling operation will no longer be applicable.

2.2.2 HYDRO EXCAVATION WASTE BUILDING

Mixing pits and a building will be constructed for the solidification of hydro excavation wastes. The location of the hydro excavation waste building is shown on Drawing C200, and is designed to be an approximately 3,000-square-foot rectangular, pre-engineered metal building. The south perimeter of the building will be open to provide access to staged solidification material and the mixing pits. The hydro excavation waste building will be equipped with electric and water service (see Drawings C108 and C109).

Two mixing pits will be constructed as shown on Drawing C300. A staging area for solidification material will be constructed in between the loading pits. The mixing pits will be constructed from reinforced concrete and lined with high-density polyethylene. The mixing pits will slope down from down from the south perimeter to flat area approximately four feet in depth. A plan and elevation views of the building are provided on Drawing C300. Details of the mixing pit are also provided in Drawing C300.

2.2.3 SECOND SCALE

Access to the site is currently provided by a two-way access drive located on the west perimeter of the facility along the east right-of-way of Powis Road. The access drive currently accommodates all vehicles entering and exiting the site, including employee vehicles, single-unit waste collection vehicles, semi-trailer transfer vehicles, and emergency vehicles. The same access drive (the South Drive) will be used only for incoming vehicles at the West DuPage RTS.

The PUD allows both an inbound and outbound scale to be installed. However, only one scale is currently installed. If a second scale is not installed prior, a second scale will be installed south of the existing scale upon operation of the MSW transfer station. The new scale (to the south) will used for entering vehicles and the existing scale (to the north) will be used for exiting vehicles.

2.2.4 NORTHERN DRIVE AND TRAFFIC FLOW

A second two-way access drive is located on the west perimeter of the facility along the east right-of-way of Powis Road. This drive (the North Drive) is approximately 350 feet north of the South Drive. To improve traffic flow, the site will open the North Drive and use it for all exiting vehicles. The planned traffic flow using the North Drive is shown on Drawing C400.

Collection vehicles will enter the site through the South Drive (middle lane) and proceed east to the inbound truck scale. At the scale, each incoming disposal vehicle will be weighed and billing information will be obtained from the driver (i.e., company, type of waste, origin of waste, etc.). MSW disposal vehicles will then proceed east to unload in the transfer station building through the east bay doors. After unloading, they will proceed out of the site in a counterclockwise direction and, presuming the truck's tare weight (weight when empty) is known, the truck will exit the facility. If the truck's tare weight is unknown, the truck will proceed across the outbound scale to obtain the tare weight, and then proceed north to exit the facility. Vehicles with hydro excavation wastes will proceed in a similar manner, only proceeding to the hydro excavation waste building. The traffic flow pattern for collection vehicles is shown on Drawing C400 and further detail is provided on Drawing C401.

Vehicles entering the site that do not need to pass over the scale (e.g., employees, street sweepers, portable restroom vehicles) will use the left lane. These vehicles will proceed north and then travel the appropriate route as shown on Drawing C400.

Transfer trailers will enter the site using the right hand lane and proceed around the south side of the existing building to the loading pit. They do not need to pass over the scale. A pit scale will be installed and used to measure the weight of the contents of the transfer trailer, during loading. After loading, the transfer trailers will exit the loading pit and move forward onto the exit ramp, where the load will be tarped. All transfer trailers are planned to be equipped with auto tarpers. The exit ramp will be approximately 20 feet wide and building extension at the loading ramp exit will be provided to allow adequate space for the autotarping prior to exiting the building. Once the load is tarped, the transfer trailer will proceed in a counter-clockwise direction and exit the facility. The traffic flow pattern for transfer trailers is shown on Drawing C400.

The turning radius for the various vehicle types and movements were evaluated and, as shown on Drawings C401 and C404, adequate space is available for anticipated turns. Planned signage and pavement markings are shown on Drawing C403. Queuing space is provided as vehicles enter the site, potentially wait to use the C&D tipping building, potentially wait to use the MSW and SSR transfer building and potentially wait to receive their ticket as they exit the site (see Drawing C402).

2.2.5 ELECTRONICS AND RECYCLABLES DROP OFF AREA

Pursuant to Section 4.16 of the Host Community Benefit Agreement with West Chicago, the site will accept, at no charge to the residents of West Chicago (subject to providing proof of residency at the time of drop off), up to two discarded electrical or electronic devices per household per year, excluding cathode-ray tube monitors or big screen televisions. Cathode-ray tube monitors or big screen televisions would be accepted for a fee of $35 per item. The site may also accept electronic wastes from other area residents on a fee based system.

Pursuant to Section 4.15 of the Host Community Benefit Agreement with DuPage County, the site will establish of a drop off area for recyclables (e.g., bottles, cans, cardboard and paper) generated by residents and small businesses at no cost to the residents.

An electronic and recyclables drop off area will be established just north of the office building as shown on Drawing C200. Customers will enter the site by proceeding over the scale and will be directed to park in the designated parking spots. A trained LRS employee will then assist the customer at the drop off location. Customers will place recyclables directly in the designated container at no cost. For electronic wastes, the LRS employee will check that the item(s) is allowable to be received, assist with unloading (if needed), receive payment (if needed), and place the electronic waste in the

designated container for consolidation and transport to a recovery facility. The LRS employee will also provide exit instructions for customers using this area.

2.3 STORMWATER MANAGEMENT DESIGN

The stormwater at the site will be managed in accordance with the applicable requirements of IEPA and as listed in the IEPA General National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges from Industrial Activities, in addition to the local requirements of the City of West Chicago and DuPage County. The stormwater management design for the site is provided below. The stormwater management features may be modified, as requested, based on comments during IEPA permitting.

2.3.1 SURFACE WATER MANAGEMENT SYSTEM

The site has an existing surface water management system that includes the following major components:

- Two permanent above ground detention structures (east detention pond and west detention pond);
- A forebay (settling basin) for the east detention pond;
- Inflow and outflow structures;
- Underground pipes; and
- Drainage ditches.

In general, stormwater from the western portion of the site flows to the west detention pond via sheet flow and underground piping, and discharges through an outflow structure to the stormwater sewer system along Powis Road. Stormwater from the eastern portion of the site flows to the east detention pond via sheet flow or underground piping, and discharges through an outflow structure to Kress Creek.

As part of the PUD Amendment process, a stormwater report was submitted to DuPage County and the City of West Chicago to demonstrate compliance with the DuPage County Countywide Stormwater and Floodplain Ordinance. DuPage County issued Stormwater Management Certification No. SM2019-0061 to the site on December 6, 2019 (see Appendix 2-F2). The approved Stormwater Report (Tabs 1 and 2) are provided in Appendix 2-F1. The stormwater improvements were subsequently approved by the City of West Chicago as part of the site development permit (i.e., Building Permit) on November 20, 2020 (see Appendix 2-F3).

As part of the PUD Amendment, both ponds are being expanded, and a new restrictor is being added to each. Due to the addition of increased restriction, post-development discharges are decreased for both ponds as compared to pre-development, and the maximum allowable release rate will meet the requirements in the DuPage County Stormwater Ordinance. The stormwater management system is shown on Drawings C106 and C107. The approved stormwater

improvements on the eastern portion of the site, including the enlargement of the east detention basin and modifications to the outflow control structure, were completed in 2021. The record drawings for the improvements to the eastern portion of the site, including the stormwater improvements, were approved by the City of West Chicago on November 16, 2021 (see Appendix 2-F4).

The Stormwater Management Permit Application that was approved by DuPage County and West Chicago contemplated the impervious nature of all of the improvements proposed in this siting application. Thus, no additional improvements to the stormwater management system are proposed in this siting application.

2.3.2 STORMWATER POLLUTION PREVENTION

Stormwater pollution prevention will be managed on site both during operations as required by the site's General Storm Water NPDES Permit from Industrial Activities (see Appendix 2-F5). Discharges associated with the operation of West DuPage RTS are managed through controls and procedures as detailed in the site's stormwater pollution prevention plan, which incorporates the following:

- Settling Basin: The existing settling basin functions to settle out solids before water entry into the east detention pond area. The settling basin has been regraded to remove sediment buildup and increase settling capacity.
- Floating Boom with Silt Curtain: A floating boom with silt curtain will be installed near the outfall of each detention pond, and will help collect sediment, oil, and other pollutants that may have entered the pond prior to discharge. The floating boom will be an Elastec Type I Stillwater Screen equipped with a PIG Oil-Only Absorbent Boom (or equivalent) to aid in oil removal.
- Infiltration Trench: The existing 2.5-foot wide infiltration trenchwill be reinstalled and expanded in length to serve the west pond tributary area. This is being expanded to assist with the volume control requirement of the west pond upstream impervious area. The infiltration trench will be equipped with a Filtrexx PetroLoxx tubular mesh devise (or equivalent) to add oil removal capacity to the post-construction best management practice.
- Erosion Controls: Silt fencing, straw bale filters, temporary seeding, and other methods will be used as needed to prevent erosion.
- Employee Training: Employees will be trained to identify situations that may cause exposure of waste or other materials to stormwater runoff.
- Routine Inspections: Trained employees will perform routine inspections of stormwater management features to identify any needed maintenance or repairs.

- Quarterly Monitoring: Sample collection and visual observations of the stormwater discharge from the west detention pond to the storm sewers along Powis Road (Outfall #1) and from the east detention pond into Kress Creek (Outfall #2) are performed and documented on a quarterly basis.

2.4 OPERATIONS PLAN

This section describes the daily operating procedures at the proposed transfer station facility. The operations plan details waste acceptance and handling procedures, nuisance control procedures, staffing and equipment requirements, cleaning procedures and closure plan for the proposed transfer station. Per the Host Agreement Community Benefit Agreement between the City of West Chicago, DuPage County, Illinois, and Lakeshore Recycling Systems, LLC for a Solid Waste Transfer Facility (Host Agreement), West DuPage RTS shall conduct all operations in a manner that is protective of the public health, safety, welfare, groundwater resources and the environment. West DuPage RTS shall comply with all city ordinances and all applicable laws, ordinances, rules, and regulations, including but not limited to Illinois Pollution Control Board regulations and the city code.

2.4.1 DAYS AND HOURS OF OPERATION

Consistent with the Host Agreement, West DuPage RTF anticipates operating hours for the MSW Transfer Station of 4:00 a.m. to 12:00 a.m. on weekdays and 4:00 a.m. to 12:00 p.m. on Saturdays, with no operation on Sundays or the six major federal holidays (New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day), provided that on the Saturday following any federal holiday regular business hours may be extended by the company to 12:00 a.m. The regular business hours for accepting municipal and hydro excavation waste may be extended upon the prior approval of the city in writing (definition of regular business hours in Host Agreement). C&D will continue to be accepted Monday through Saturday, twenty-four hours per day, consistent with the current operations.

2.4.2 FACILITY STAFFING AND TRAINING

LRS currently employs approximately 125 persons at the facility including office personnel, mechanics, drivers, operators, facility manager, and laborers. The proposed transfer station will be staffed with the necessary number of employees to safely and efficiently operate the facility. A facility manager and operators will primarily manage and perform the operations at the MSW transfer and solidification buildings. A brief description of the primary duties and training requirements for the facility manager and operators are provided below. The exact number and duties of personnel managing and performing the operations at the MSW transfer and solidification buildings may vary over time.

2.4.2.1 Facility Manager

The facility manager is responsible for the supervision of all activities at the site, including safety and emergency response coordination (emergency coordinator), inspection of all operational and

safety equipment, on-the-job training for personnel, site inspection, production and incident reporting and record keeping, and load inspections. The facility manager duties are:

- To allocate work efficiently to all support staff in order to maximize productivity, meet customer demands and maintain quality of service.
- To efficiently develop and provide appropriate work training and instruction to staff members, in accordance with company deadlines.
- To communicate customer requirements to relevant staff members.
- To manage the completion of all operating equipment installations, repairs, and replacements in accordance with company procedures and deadlines.
- To recruit and train/arrange training for staff for the site as required.

Responsibilities will also include coordinating and maintaining site records. These records include, but are not limited to, waste and recyclable receipt data, load checking reports, results of inspections (by IEPA or relevant local authorities), copies of all submitted reports (to IEPA or any relevant local authorities), employee training records, and employee personnel records.

The facility manager's training will include operating requirements, safety and emergency response, record keeping and reporting, and identification of unacceptable wastes/load inspections.

2.4.2.2 Equipment Operators

At least one trained operator per shift will be present and responsible for operating the wheel loader used to load waste and recycling materials from the tipping floor into the transfer trailer, and operate any other equipment needed for operations. This person will also ensure that all weight records of transfer trailers are collected and stored. This position requires training on hazardous waste and unacceptable waste identification. A similarly trained operator will be present in the C&D transfer/screening building and the hydro excavation waste building during operations.

The equipment operator's training includes operating requirements, safety and emergency response, record keeping and reporting, and identification of unacceptable wastes/load inspections.

2.4.3 WASTE ACCEPTANCE

West DuPage RTS will accept municipal waste and SSR for transfer to off-site disposal location(s). "Municipal waste" is defined by Section 3.290 of the Illinois Environmental Protection Act to mean garbage, general household and commercial waste, industrial lunchroom or office waste, landscape waste, and construction or demolition debris. The site will also accept SSR for transfer to processing facilities for separation and re-use as a commodity.

While included in the definition of municipal waste, landscape waste has been banned from disposal in Illinois landfills since July l, 1990 and now has an entirely separate regulatory structure that involves composting. Thus, West DuPage RTS will not accept loads of landscape waste.

Hydro excavation wastes are a solid/liquid waste created through a combination pressurized water and air vacuum system generally used for construction or maintenance services, such as potholing to expose utilities, installation of utility poles, installation of piers/footings, trenching near utilities, and clean out of storm sewers. The system cuts through soils/materials, breaks them up, and lifts the slurry from the excavation area into a debris tank.

West DuPage RTS will accept hydro excavation wastes for solidification and transfer to off-site disposal location(s). "Hydro Excavation Wastes" is defined to mean solid/liquid waste such as hydro/vacuum excavation muds, underground excavation material, and other similar materials (definitions in Host Agreement). This is the same definition as listed in the Host Agreement except that "drilling muds" has been removed. Operational procedures for the hydro excavation wastes is provided in Appendix 2-H.

The C&D Recycling Facility will continue to meet the following requirements contained in the site's current IEPA Permit (Permit No. 2015-124-OP provided in Appendix 2-A) and Section 22.38 of the Illinois Environmental Protection Act.:

- Sort all general C&D (to separate recyclable material from non-recyclable material) within forty-eight hours of receipt [Special Condition 28].
- Transport all non-recyclable and unacceptable material off-site for disposal within seventy-two hours of its receipt [Special Condition 30].
- Transport off-site all putrescible or combustible recyclable general C&D within forty-five days of receipt [Special Condition 33].
- Store recyclable concrete or clean soil for a maximum period of three months [Special Condition 37].
- Transport off-site all non-putrescible recyclable general C&D within six months of receipt [Special Condition 32].

The site will reject materials that are not compatible with the operations of the proposed transfer station facility. The following wastes, at a minimum, are considered unauthorized and will not be knowingly accepted at the site:

- Hazardous substances (as defined by Section 3.215 of the Illinois Environmental Protection Act);

- Hazardous waste (as defined by Section 3.220 of the Illinois Environmental Protection Act);
- Potentially infectious medical wastes (as defined by the Illinois Environmental Protection Act in Section 3.84);
- Universal waste (as defined by Title 35 of the Illinois Administrative Code Part 733 including batteries, pesticides, mercury-containing equipment and lamps);
- Regulated asbestos containing materials;
- Polychlorinated biphenyl wastes;
- Used motor oil;
- Source, special or by-product nuclear materials;
- Radioactive wastes (both high and low level);
- Sludge;
- White goods (incidental white goods received at the proposed transfer station will be segregated and stored for pickup by an off-site recycler);
- Lead-acid automotive batteries (incidental automotive batteries received at the transfer station will be segregated and stored for pickup by an off-site recycler);
- Used tires (incidental tires received at the transfer station will be segregated and stored for pickup by an off-site recycler); and
- Landscape waste.

Rejected materials will not be allowed to unload, or will be promptly removed and transferred to an appropriate facility for ultimate disposition or, to the extent allowed by law, legally placed back on the vehicle that transported said unauthorized waste to West DuPage RTS and sent away from West DuPage RTS.

West DuPage RTS reserves the right to reject any other materials or loads that are deemed incompatible with site operations. West DuPage RTS will deny access to a vehicle for reasons that include, but are not limited to, the following:

- The vehicle is known, or reasonably suspected, to contain unauthorized waste materials.
- The vehicle appears likely to leak or spill material, especially material that is easily windblown or otherwise scattered.
- The vehicle does not appear to be in safe operating condition.
- The vehicle has repeated non-compliance with LRS's tarping policy.

2.4.4 OPERATING EQUIPMENT

Mobile equipment will be used to facilitate all transfer operations and to handle material for storage and load out after processing. The following provides an overview of the typical types of equipment that will be used at the proposed transfer station facility:

- Semi-tractor/yard tractors for transfer trailer hauling/on-site movement;
- Semi-trailers for material transfer to landfill; and
- Wheel loaders for material handling to transfer trailers.

Other equipment may also be used as needed. If replacement equipment is necessary, due to equipment failure or breakdown, the equipment will be brought in from contractor rental yards. The list of mobile equipment may be changed or supplemented in response to incoming volumes, materials types, etc.

2.4.5 TRANSFER OPERATIONS AND STORAGE

Per the Host Agreement, all tipping of municipal waste at the transfer facility shall be on the tipping floor inside the transfer building, and, except as provided below, the West DuPage RTS shall have the tipping floor free of waste and cleaned with a mechanical street sweeper by the end of each operating day.

Per the Host Agreement, no municipal waste shall be left on the tipping floor inside the transfer building or outside the transfer building on the transfer facility property overnight, except:

- In transfer trailers, provided that such trailers are suitably covered and staged at least 500 feet from Powis Road right-of-way;
- In the event of an emergency, the IEPA or person previously appointed by the city council or, in the absence of such an appointment, the mayor has given prior approval of temporary overnight storage on the tipping floor inside the transfer building; and
- Empty waste collection containers and empty transfer trailers may be stored outside the transfer building at least 500 feet from Powis Road right-of-way.

Unloading and loading of the waste will take place only inside the transfer station building, and only under the direction of West DuPage RTS operating personnel. Loading equipment inside the structure will load the waste into transfer trailers in the loading pit on the south side of the building. All transfer trailers are planned to be equipped with auto tarpers. The exit ramp will be approximately 20 feet wide and a building extension will be provided at the loading ramp exit to allow adequate space for the autotarping prior to exiting the building. During tarping, the driver

will be trained to make sure that no waste is clinging to the outside of the transfer trailer and no leaks are occurring.

Per the Host Agreement, West DuPage RTS agrees to keep the truck doors to the transfer facility closed, except for emergencies and to allow trucks to enter and exit the facility, during regular business hours. Spotters will be present inside and outside of the MSW and SSR transfer building to open and close the doors as vehicles enter and exit the MSW and SSR transfer building.

No waste shall be left on the floor of the transfer station for more than twenty-four hours. SSR may be stored on the floor inside the transfer station building as needed to allow sufficient material to be accumulated to provide a full transfer trailer load. Salvaging of recyclable material from MSW loads may occur if adequate tipping floor space is available (e.g., during non-peak hours or during lower volume days). For example, loads with predominantly metal or concrete material may be salvaged from the incoming waste and placed in storage bunkers for subsequent recycling (similar to the material from the C&D recycling operation).

Waste and/or recyclables may be kept temporarily outside in transfer trailers which are tarped/covered for no more than twenty-four hours, except over holidays and weekends, when the time shall be extended by an additional twenty-four hours for a holiday and forty-eight hours for a weekend. As indicated above, all transfer trailers shall be tarped/covered at all times during such periods of temporary storage.

2.4.6 ON-SITE TRAFFIC CONTROLS

As vehicles enter the site, pavement markings and/or signs will direct the vehicle which lane to use. A spotter will be stationed at the entrance to assist/ direct vehicles as needed (see Drawings C400 through C404).

In-bound collection vehicles will proceed over the in-bound scale. Security cameras, a screen display and an intercom is present for the driver to communicate with the scale clerk located in the office. The purpose of the scales is the measure the weight of the waste being delivered to the site. Typically an in-bound and out-bound weight are obtained, and then the difference between the two weights is the amount of waste delivered to the site (and is the basis of the customers invoice). Customers may request a ticket/receipt documenting the recorded weights upon exiting the site. Currently, drivers need to park and exit their vehicles to walk into the office to provide payment and/or obtain a printed ticket.

LRS will be implementing an electronic ticketing system at the site to minimize time on the scales and the ticketing/ receipt process. This system is currently in the process of being deployed at the

other LRS facilities, and has received positive feedback to date. The process includes the following:

- For the inbound trucks, the scale clerk simply records the company name, license plate, driver, material, weight, and related information. The process is very quick, and the truck generally only needs to stop for about ten seconds on the in-bound scale.
- LRS collects and stores tare-weights (empty weights) of each of the packer-trucks for its own vehicles and regular customers (recalibrated monthly). The stored tare-weight is then used for each transaction, which allows those vehicles to predominantly bypass the outbound scale. For these customers, the scale clerk routinely sends a batch-ticket to the designated customer via email.
- For those that do need to proceed over the out-bound scale, a large monitor/screen (approximately 50 inches) and corresponding camera system will be present which will display the truck, license plate, driver, tare- weight and related information. The driver can take a picture of the monitor/screen with their phone, opt for an emailed ticket, or request a printed ticket/receipt.
- For those that request a printed ticket/receipt or need to provide payment, the vehicle will pull off the scale and park in the designated area along the east side of the exit drive. A scale assistant will then obtain payment and/or print the ticket/receipt from a handheld device. This eliminates the driver exiting the truck or entering the office, and dramatically decreases the per truck scale time.

A spotter will also be present at the queuing areas for the C&D tipping building and the MSW and SSR transfer building (see Drawings C401 through C404). The spotters will communicate to the waiting vehicles when a loading area is available and which to use. They will assist outbound vehicles as needing regarding the outbound route. Signage will be present at the site as shown on Drawing C403 to assist drivers.

2.4.7 CLEANING PROCEDURES

The tipping floor will be cleaned using a mechanical street sweeper with a water spray and vacuum system at least once per twenty-four-hour period. The tipping floor and barrier walls will be cleaned with a pressure washer after sweeping at least weekly to remove waste residue and further control odors. A disinfectant may be used in the washwater to control odors. The area behind the barrier walls will also be routinely inspected and cleaned. All excess washwaters from the tipping floor will be directed through the oil-water separator to the sanitary sewer system along the south perimeter of the MSW and SSR transfer building (see Drawing C302).

2.4.8 LITTER CONTROL

Unloading, transferring and loading of all waste will be performed within the transfer station building to minimize the potential for wind-blown distribution of litter. Tarps on all loaded incoming and outgoing open-top trucks will contain the waste to prevent its escape onto the grounds or the public roadways. Loaded transfer trailers will be tarped using auto tarpers prior to exiting the loading pit ramp. A building extension is provided on the east (outbound) end of the loading pit such that the tractor will be on level ground while tarping. LRS uses the ratchet side roll for open top trailers manufactured by Mountain Tarp. LRS has a fleet of approximately 100 transfer trailers and approximately twenty-five are equipped with these auto tarpers. The remainder of the fleet is planned to be equipped with auto tarpers in the next two years. Any brokers which are used will be required to use a similar auto tarper. West DuPage RTS shall use its best efforts to assure that vehicles hauling waste to and from West DuPage RTS shall be suitably covered so as to prevent waste from leaving the vehicles.

Fencing surrounds the West DuPage RTS property, and assists in keeping any windblown litter from leaving the site. In order to ensure the effectiveness of these litter prevention measures, West DuPage RTS will patrol the site during hours of operation to collect any litter. Any litter collected will be added to the waste being managed on the tipping floor.

Per the Host Agreement, West DuPage RTS shall seek to prevent any waste, litter or debris from being discarded onto public traveled roads due to the operation of the West DuPage RTS and shall abide by a litter control plan as approved by the city as a result of the siting process. Should the waste, litter or debris from such operation pose a problem in the reasonable opinion of the city, the city, at its option, may require the West DuPage RTS to sweep or otherwise clean Powis Road in the City of West Chicago, as needed. West DuPage RTS shall keep the site, including all buildings and other improvements built or utilized by West DuPage RTS, in good condition and repair for the term of the Host Agreement.

2.4.9 VECTOR CONTROL

Several design and operational features have been incorporated into the proposed transfer station to minimize the potential to attract vectors, including:

- Elimination or minimization of available food by removing waste on a first in, first out basis. The waste material will remain at the proposed transfer station for only a short period of time before being processed and removed;
- Daily cleaning of the floor inside the proposed transfer station building, as discussed above;
- Regular inspections by site personnel for rodents, insects and birds;
- Containment of waste within the transfer station building;
- Requiring that all vehicles entering and exiting the site be properly tarped or fully enclosed; and
- Contracting with a professional exterminator to inspect and/or treat the site on at least a biweekly basis.

2.4.10 DUST AND MUD CONTROL

All access roads, parking areas, storage areas and vehicle-maneuvering areas will be appropriately paved, thus minimizing dust generated at the site. With the exception of entrance and exit bays, the transfer station buildings will be fully enclosed to protect operations from the wind. Potential dust impacts from material operations within the structure (e.g. unloading, processing, and loading) will be mitigated by periodic wash downs of the floors and barrier wall areas.

Per the Host Agreement, at a minimum, the company shall provide a street sweeper to remove mud, dirt and dust tracked on to hard surfaces inside and outside the site including onto Powis Road within three-fourths mile of the site on an as-needed basis, but not less frequently than daily except during severe weather conditions (e.g., heavy rains, winter conditions when salt has been applied to the roadway). All access drives, parking areas, storage areas and vehicle maneuvering areas at the site shall be paved and swept with a street sweeper as needed, but not less frequently than daily.

2.4.11 ODOR CONTROL

Odors will be controlled at the facility through several effective design and operating features. Waste will be delivered primarily in enclosed vehicles, and tarps will be required on all non-enclosed loads. Unloading, transferring, and loading operations will be performed within the building. Waste will be removed from the tipping floor with a frequency adequate to greatly minimize the generation of odors. The cleaning procedures discussed in Section 2.4.7 will also help control odors.

Per the Host Agreement, West DuPage RTS agrees to the following to control odors:

- Conduct all MSW handling and transfer operations completely indoors.
- MSW will be delivered primarily in enclosed vehicles, and tarps will be required on all non-enclosed loads.
- Unloading, transferring, and loading operations for MSW will be performed within the building.
- MSW will be removed from the tipping floor with a frequency adequate to greatly minimize the generation of odors.
- The MSW tipping floor areas will be cleaned with a pressure washer as needed.
- If malodors are detected off-site, the source of odor generation will be removed from the site, and the off-site condition will be monitored by site personnel to insure against reoccurrence. If a continuous source of odorous materials is identified, the generator will be contacted and advised that the materials must be effectively treated for odor control or the service will be discontinued and the materials no longer brought to the site.

Due to the site's proximity to the DuPage Airport, the MSW and SSR transfer building will be equipped with a ventilation and filtration system. The ventilation system will remove air from the building and be designed to work in conjunction with the building design and operations to provide a negative air pressure condition within the building. The filtration system will be designed to effectively eliminate any odors from the exhaust. The ventilation and filtration system will include the following:

- Ventilation fans mounted in the roof or outside walls of the MSW and SSR transfer building;
- A duct system at the inlet of each ventilation fan;
- An ozone generating equipment and dispersion device installed within each duct system which will destroy any odorous compounds or bacteria; and
- A particulate filter system at the inlet of each ventilation unit.

The design details of the ventilation and filtration system are provided in Appendix 2-I and Drawing C301. As agreed up with the DAA, the ventilation and filtration system will be equipped with a filtration or treatment system designed to address hydrogen sulfide or other reduced sulfur compounds if said odors can be detected off-site.

The MSW and SSR transfer building will be equipped with fast opening/closing doors at all vehicle ingress/egress locations including openings for transfer trailers and waste collection vehicles. LRS employees serving as spotters will open and close the doors as vehicles enter and exit the MSW and SSR transfer building. Doors will also be provided at vehicle access locations to the C&D tipping building and any storage bunkers under the sorting line. The doors are sized and will be

operated to minimize the area open to the outside at any one time (which will maximize the effectiveness of the ventilation system).

The design of the ventilation and filtration system and proposed odor control procedures were agreed upon and incorporated into the Airport Agreement discussed in Section 2.1.4.7. The Airport Agreement indicates that DAA agrees that the proposed West DuPage RTS will not pose a threat to the safe operation of the DuPage Airport.

2.4.12 NOISE CONTROL

Noises associated with the operation of the proposed transfer station include vehicular traffic, equipment, and safety signals on mobile equipment. The design and location of the proposed transfer station minimizes the potential for noise related concerns.

West DuPage RTS is located in an industrial area and will have minimal noise impact to the surrounding properties. Noise characteristics are expected to be similar to those generated by existing surrounding land uses.

Unloading and loading of the transfer vehicles will take place inside the proposed transfer station building, thereby reducing noise levels outside of the building. All on-site equipment will be equipped with mufflers and will utilize other sound-suppressing devices, as required, for compliance with applicable state regulations. A routine maintenance program will be followed to ensure all on-site equipment is kept in good working order.

2.4.13 SITE SECURITY

West DuPage RTS as proposed is bordered on the north by manufacturing properties, the east by railroad tracks, the south by a closed landfill, and to the west by Powis Road and the DuPage Airport. The site is surrounded with 6-foot fence with a locking gate system. The point of access to the proposed transfer station will be two gated entrance/exits off Powis Road. Signage is present at the entrance gate identifying the facility, operating hours and a warning to all unauthorized persons. A similar sign will be placed at the exit gate.

During operating hours, all traffic entering the facility passes by the scale office, which is visible to the scale personnel and equipped with multiple security cameras that are visible on monitors by the scale personnel. The security cameras are positioned to allow full and constant visibility of the driveway, scale, and entrance area. Any unauthorized traffic will be stopped at this point. During non-operating hours, the access gates at Powis Road will be in a closed and locked position. Lights are installed at the site entrance, in parking areas and on the transfer station building to provide adequate lighting. A security camera system will also be installed at strategic locations

around the site. The site currently has approximately fifty security cameras located inside and outside of buildings, which have twenty-four-hour local and remote viewing access.

Per the Host Agreement, any area used for the outdoor storage of any material or equipment will be fenced and visually screened from viewing from off the site by means of said fence and appropriate landscaping as approved by the city.

2.4.14 VEHICLE FUELING PROCEDURES

Vehicles will be fueled using mobile equipment. Fuel tanks are also located on-site.

2.4.15 COMMUNICATIONS

All equipment operators at the facility will be equipped to communicate with the facility manager and other personnel via mobile phone at all times during operating hours. Emergency numbers will be clearly posted.

2.4.16 MONITORING PLAN

Stormwater discharges will be monitored quarterly at the West DuPage RTS in accordance with the NPDES permit and stormwater pollution prevention plan as described in Section 2.3.2. Wildlife will also be monitored quarterly as discussed in Section 2.4.18.

The proposed design and operations of the West DuPage RTS preclude the potential for impacts to groundwater. In addition, the West DuPage RTS does not include the construction or operation of any regulated air emission sources. As such, no groundwater and/ or air quality monitoring is anticipated to be required by the IEPA, and no groundwater and/or air monitoring is proposed.

2.4.17 RECORDKEEPING

Accurate and up-to-date records documenting facility operations will be maintained at the site. These records will include, but are not limited to, the following:

- Daily records of the amounts and description of the various types of materials received;
- Load inspection reports;
- Results of inspections (by IEPA, county, or local authorities);
- Copies of all submitted reports (to IEPA, county, or local authorities);
- Employee training records; and
- Employee personnel records.

The records will be maintained for a period of at least two years. The records of the amounts and description of the various types of materials received will include both waste receipts and scale weight on the disposal tickets and logs (electronic and/or hard copies), including, without limitation, those showing the amount in tons of all material received.

2.4.18 WILDLIFE HAZARD MITIGATION

LRS agreed to perform various items to mitigate potential wildlife hazards, which were incorporated into the Airport Agreement discussed in Section 2.1.4.7. The Airport Agreement indicates that DAA agrees that the proposed West DuPage RTS will not pose a threat to the safe operation of the DuPage Airport.

The site proposes to perform the following to mitigate potential wildlife hazards, which includes all of the items incorporated into the Airport Agreement:

- Train Staff: The site will create their own wildlife hazard management plan, which will state how trained staff will monitor and deter certain wildlife species. The wildlife hazard management plan will assign titles and responsibilities to individuals whom will be responsible for wildlife control activities. Management will train assigned facility employees on the role they will play to reduce wildlife hazards (e.g. use of pyrotechnic harassments). If any questions about the formation, implementation, or general questions about the contents of the management plan ever occur, a qualified airport wildlife biologist will be consulted.
- Install Anti-Perching Devices: Anti-perching devices will be installed on building edges of the MSW and SSR transfer building.
- Perform Routine Wildlife Surveys: The site will perform quarterly wildlife surveys to ensure that the wildlife mitigation techniques are working as intended. The inspections will include the MSW and SSR transfer building, and any observed small gaps that may allow birds to enter the building will be sealed. As agreed upon with the DAA, the quarterly wildlife surveys will also include the ponds, storage areas and inactive equipment, and the records of the quarterly wildlife surveys will be retained for a period of no less than three years and submitted to the DAA upon request by the DAA.
- Use of Deterrents in Misters: Misters will be installed in the MSW and SSR transfer building. A deterrent (e.g., methyl anthranilate, which is a grape-flavored food grade

additive that acts as an irritant to birds when applied to the air) can be used in the misters, as needed, to prevent birds from nesting and/or entering the building.

- Install Netting Along Roof Structures: Netting will be installed along the bottom of roof structures, as needed, to prevent birds from accessing flat areas (where birds like to roost and nest).
- Focus Ventilation: Duct work will be installed, as needed, to provide focused ventilation where odors are anticipated to be more prevalent (e.g., MSW staging areas).
- Extend Riprap Around West Pond: The riprap that is currently surrounding the west pond is preventing birds, such as waterfowl, from walking into or out of the pond. This feature will be extended further into the grass, widening the buffer between the water and grass. As agreed upon with the DAA, riprap will also be added around the east pond.
- Monitor Wildlife With Game Cameras: Wildlife at the ponds will be monitored with game cameras, which will capture wildlife utilizing the ponds when employees are not present. Checking the cameras periodically will periodically viewed to provide information regarding the time and type of wildlife using the ponds. Trained staff can then mitigate the hazards as needed. As agreed upon with the DAA, the records of the wildlife camera footage will be retained for a period of no less than three years and submitted to the DAA upon request by the DAA.
- Vary Harassment: To keep the birds from becoming accustomed to harassment tactics, the site will designate an employee or employees to periodically patrol the west and east ponds and harass any birds observed.
- Maintain Grass Height: The grass around the east pond, if any beyond the riprap area, will be maintained at a height (approximately twelve inches) that allows easy inspection of the pond so that any wildlife may be harassed to leave the area. The shortened grass height will also deter many species from utilizing it, such as Canada geese.
- Install Grid-Wire System: A grid-wire system will be installed on the east and west ponds to keep most waterfowl and wading birds from utilizing the ponds. To keep larger birds from using the water, a checkerboard pattern is planned. The grid-wire system involves running cables from one side to another in one direction (north to south) and then running a second set of wires perpendicular.
- As agreed upon with the DAA, LRS shall develop a communications plan along with the DAA to alert the DAA staff to the presence of any wildlife hazards, if observed by LRS on-site and to communicate the results of the quarterly wildlife surveys.

2.4.19 SITE THROUGHPUT CAPACITY

Subject to IEPA permitting, West DuPage RTS is anticipated to accept up to 1,950 tons per day of which up to 650 tons per day may be MSW, up to 300 tons per day may be hydro excavation wastes, up to 750 tons per day may be C&D and up to 250 tons per day may be SSR.

The maximum volumes are based on the following:

- MSW: LRS currently hauls approximately 250 tons per day of MSW from the Service Area. The 650-ton-per-day limit would accommodate the existing volume LRS hauls, a similar volume from other privately owned companies, reasonable growth, and a contingency for a peak day.
- C&D: The site is currently permitted to accept up to 1,250 tons per day. LRS currently accepts an average of approximately 300 tons per day with peaks of approximately 750 tons per day. These volumes are not anticipated to change if the acceptance of MSW is approved. The 750-ton-per-day limit (which is reduced from the current limit of 1,250 tons per day) would accommodate the existing volume LRS accepts and a contingency for a peak day.
- Hydro Excavation Waste: LRS currently accepts between 100 to 400 tons per day at its Heartland Recycling facility in Forest View. Approximately half of this volume is anticipated to be diverted to the West DuPage RTS if approved because customers have indicated that this approximate percentage of hydro excavation waste is generated closer to West Chicago than Forest View (and they would want to take advantage of the reduced transportation costs). The proposed limit of 300 tons per day would accommodate the diversion of approximately 100 to 150 tons per day, reasonable growth, and a contingency for a peak day.
- SSR: LRS currently hauls approximately 90 tons per day of SSR from the Service Area. The 250 tons per day limit would accommodate the existing volume LRS hauls, a similar volume from other privately owned companies, reasonable growth, and a contingency for a peak day.

The C&D operations, MSW/SSR operations and hydro excavation waste operations are separate business lines so the probability of the site receiving peak amounts of waste from these three different business lines on the same day is highly unlikely. Regardless, the site has been designed to manage the peak amounts of each material type on the same day.

The site and operating features that determine the daily throughput capacity of a transfer station are the following:

- Incoming waste flow;
- The available capacity to queue incoming waste vehicles;
- The time needed for collection vehicles to empty their loads and exit the facility;
- The time needed to load a transfer trailer;
- The tipping floor size and stockpiling capacity; and
- The operating hours of the facility.

2.4.20 DAILY OPERATING CAPACITY AND THROUGHPUT CAPACITY DESIGN

The following summarizes our evaluation of site features that are determinative of daily operating capacity and throughput capacity, relative to the anticipated acceptance volumes. The assumptions discussed below are typical estimates and may vary.

2.4.20.1 Incoming Waste Flow

This evaluation utilizes a summary of the anticipated collection and transportation times based on the following:

- MSW and SSR:
  - The typical route schedules of West DuPage RTS MSW and SSR collection vehicles, which schedules are consistent week to week and are not expected to significantly change with the operation of West DuPage RTS.
  - The typical arrival times of West DuPage RTS MSW and SSR collection vehicles at the Batavia Transfer Station, with the exception that the West DuPage RTS will accommodate the acceptance of MSW and SSR vehicles after 4:30 p.m. (which is approximate cut off time at the Batavia Transfer Station).
  - The typical distribution of the number of West DuPage RTS packer trucks versus roll off trucks that deliver MSW to the Batavia Transfer Station (i.e., approximately 90% packer trucks versus 10% roll-off trucks).
  - The typical average weights of West DuPage RTS MSW and SSR collection vehicles as received at the Batavia Transfer Station, which average weights are not expected to significantly change with the operation of West DuPage RTS.
- C&D:
  - The typical incoming C&D collection vehicle times at the site.
  - The typical incoming distribution and average weight of C&D material types at the site.
- Hydro Excavation Wastes:
  - The incoming hydro excavation waste acceptance times at LRS's facility in Forest View, which are anticipated to be similar at the West DuPage RTS.
  - The typical average weights of hydro excavation waste in incoming vac trucks at LRS's facility in Forest View, which are anticipated to be the same at the West DuPage RTS.

The information indicates the following:

- Minor amounts of MSW and SSR will be accepted prior to 9:00 a.m.
- The peak hours of MSW and SSR acceptance will be between 10:00 a.m. and 12:00 p.m., and then again between 3:00 p.m. and 6:00 p.m.

- Waste and SSR acceptance volumes will diminish after 6:00 p.m.
- The C&D waste acceptance is more evenly distributed throughout the day, and minor amounts are accepted in early morning and evening hours.
- The hydro excavation waste is unloaded in a separate building in a different area of the site so the acceptance of these materials do not affect the throughput evaluation for the C&D, MSW, and SSR.

2.4.20.2 Unloading Time and Queuing Capacity

Trucks may be required to queue (i.e., wait in line) if multiple trucks arrive at the transfer station facility in a short amount of time. The time needed to weigh-in a vehicle at the scale is approximately thirty seconds. The time for a collection vehicle (MSW, SSR, or C&D) to pull forward to the transfer station building, back into the building, discharge its load and pull out of the area (such that the area is clear for another disposal vehicle) is estimated to be approximately five minutes.

The C&D transfer/screening building is equipped with two 30-foot wide bay doors. Two vehicles can be unloading in each bay door at a time. Based on an unloading time of five minutes, up to forty-eight C&D collection vehicles can be unloaded in the C&D transfer/screening building in an hour (sixty minutes/hour x one unloading vehicle/five minutes x four concurrent vehicles/ unloading vehicle). To be conservative and allow for maneuvering of a loader, only three vehicles at a time are assumed to be unloaded at one time so the capacity would be thirty-six C&D collection vehicles per hour.

The MSW and SSR transfer building will be equipped with four 14-foot wide bay doors. During a peak time, a second loader would be needed to push the waste to storage areas, which may preclude the use of one of the bay doors during that time. To be conservative, only three vehicles at a time are assumed to be unloaded at one time (i.e., either two MSW collection vehicles and one SSR vehicle, or one MSW collection vehicle and two SSR vehicles). Based on an unloading time of five minutes, up to thirty-six vehicles can be unloaded at the MSW and SSR transfer building in an hour (sixty minutes/hour x one unloading vehicle/five minutes x three concurrent vehicles/unloading vehicle).

The West DuPage RTS entrance drive has sufficient capacity for at least seven collection vehicles: one on the scale and at least six queuing between Powis Road and the scale. Additional queuing capacity is available between the scale and the unloading areas as shown on Drawing C400, if needed, to prevent any on-site traffic gridlock.

2.4.20.3 MSW and SSR Transfer Trailer Loading Rate

LRS will use a large excavator with an approximately ten cubic yard bucket for the transfer of MSW and SSR. Based on similar operation at another LRS facility, the typical time to load MSW into a transfer trailer with this front-end loader is approximately eight minutes and the capacity of a transfer trailer loading with MSW is approximately 24 tons. CEC viewed video from surveillance cameras and observed loading operations at the LRS facility at 3152 S California, and confirmed transfer trailers are consistently loaded with MSW within this time. The average weight of a loaded transfer trailer with SSR is estimated to be approximately 18 tons per load and, primarily due to the lower density of SSR relative to MSW, the time to load a transfer trailer with SSR is estimated to be approximately eleven minutes.

If the MSW and/or SSR is being unloaded onto the tipping floor at a rate less than the respective load out rates, MSW and/or SSR may not need to be stored on the tipping floor (assuming waste is being loaded during that time). If the MSW and/or SSR is being unloaded onto the tipping floor at a rate greater than the respective load out rates, MSW and/or SSR will need to be stored on the tipping floor. If a longer time is taken to load the transfer trailer, additional waste will need to be stored. It should be noted that transfer trailer loading can occur simultaneously with unloading occurring.

Based on the above, the facility has the capacity to load up to 7.5 transfer trailers per hour of MSW and approximately 5.5 transfer trailers per hour of SSR.

2.4.20.4 C&D Transfer and Processing Rate

The C&D transfer and processing procedures vary by the type of material accepted. Source separated materials (e.g., shingles, broken concrete) are not processed through the screener and sorting line. These types of loads are much heavier than mixed C&D loads so typically comprise a significant percentage of the general C&D accepted on a weight basis.

Mixed loads of C&D are processed through the screener and sorting line to remove as much recyclable material as practical. Materials separated by the screener are transported via conveyor to the cover building. Materials separated by the sorting line are dropped into storage bunkers. Non-recyclable materials from the sorting line proceed through the sorting line and are deposited in a separate storage bunker for subsequent transfer through the MSW and SSR transfer building loading pit.

Based on historical operations, the site can manage (separate, screen, sort, transport and/or distribute into storage bays for subsequent recycling) approximately 40 tons per hour. The load out of recyclable material is not required every day so is not a limiting factor in the throughput

evaluation. The estimated maximum amount of non-recyclable material required to be loaded out via the MSW and SSR transfer building loading pit is 188 tons per day (25% of 750 tons per day of C&D). The load out of the non-recyclable material is included in the evaluation of the load out of the MSW. The portion of non-recyclables from the sorting line would be consistently brought to the MSW and SSR transfer building throughout the day. The other portion of non-recyclables (e.g., bulky items) are separated from loads prior to processing and can be moved to the MSW and SSR transfer building during the operating day or at the end of the operating day. During a maximum MSW and SSR acceptance day, the non-recyclable C&D would be staged and loaded out from the MSW and SSR transfer building at the end of the day.

2.4.20.5 Tipping Floor Size

The tipping floor for the MSW and SSR transfer building is approximately 16,150 square feet (85 feet by 190 feet). Waste and SSR will be unloaded in separate locations, which may vary based on actual daily acceptance volumes of each. Waste and SSR cannot occupy the entire tipping floor as adequate maneuvering space is needed for the loader and the disposal vehicles. During a maximum waste acceptance day, the MSW is anticipated to be stored on the southeast and/ or southwest portion of the MSW and SSR transfer building, and the SSR stored in the northwest portion. During peak hours of a maximum MSW and SSR acceptance day, the opening between the MSW and SSR transfer building and the C&D tipping floor is not anticipated to be used.

The tipping floor for the C&D transfer and screening building is approximately 10,850 square feet (70 feet by 155 feet). C&D is unloaded and bulky, non-recyclable materials are separated. The remainder of the C&D will be provided to the excavator that will feed the C&D to the screening/ sorting system.

2.4.20.6 Operating Hours

C&D will continue to be accepted Monday through Saturday, twenty-four hours per day, consistent with the current operations. West DuPage RTS anticipates operating hours for MSW, SSR, and hydro excavation wastes of up to 4:00 a.m. to 12:00 a.m. on weekdays and 4:00 a.m. to 12:00 p.m. on Saturdays. These hours will allow operational flexibility to accommodate specific customer or market needs. However, the transfer station facility will not be open all of these hours if the customer needs and market do not warrant those hours.

2.4.20.7 Evaluation of Maximum Amount - MSW, SSR, and C&D

Tables 2-1, 2-2, and 2-3, located in the tables section of this Criterion 2, provide an evaluation of the needed tipping floor storage volume for 650 tons per day of MSW, 750 tons per day of C&D

and 250 tons per day of SSR. The MSW and SSR are accepted into and loaded out of the same building so are evaluated together as follows:

- The distribution of acceptance times (by percentage) for MSW and SSR is based the current arrival times of West DuPage RTS MSW and SSR collection vehicles at the Batavia Transfer Station, with the exception that the West DuPage RTS will accommodate the acceptance of MSW and SSR vehicles after 4:30 p.m. (which is current approximate cut off time at the Batavia Transfer Station).
- MSW and SSR collection vehicles have needed to leave a route to unload at the Batavia Transfer Station prior to closing and then go back to complete their route, or miss the closing time; these loads then unload early in the morning at the Batavia Transfer Station. With the later operating hours at the West DuPage RTS, all of these trucks will complete their second routes and unload at the West DuPage RTS at the end of the operating day.
- The collection vehicle arrivals are generally spread out over the course of each hour (e.g., data generally indicates two minute to ten times between load acceptance at the Batavia Transfer Station).
- The arrival times were extrapolated to the maximum acceptance volumes. This is a conservative assumption as the addition of routes would tend to spread the traffic distribution (due to additional variations in route times and travel distances back to the West DuPage RTS).
- The percentage of MSW accepted by packer truck versus roll off truck is the same as the typical distribution of West DuPage RTS MSW collection vehicles delivering MSW to the Batavia Transfer Station.
- Each packer truck (for both MSW and SSR) generally completes two routes during the day, although some vehicles will only complete one route. The first peak occurs between 10:00 a.m. and noon, with the largest amount of trucks received between 11:00 a.m. and noon. The 11:00 a.m. to noon hour thus corresponds to the time that the most MSW and SSR is stored on the tipping floor.
- A lull in the number of MSW and SSR trucks occurs after the first peak, with the lowest acceptance hour of the operating day between 1:00 p.m. and 2:00 p.m. On average, only one truck at a time will be unloading in the building during this time period (versus up to three at a time during a peak hour). This time period of low waste acceptance allows the large majority of the MSW and SSR to be loaded out and the storage areas to be nearly empty before the afternoon peak.
- The afternoon peak starts after 3:00 p.m. (when the second round for each vehicle is completed) and goes to about 6:00 p.m.
- Non-recyclable C&D arrives in the MSW and SSR transfer building as described in Section 2.4.19.7.

As shown in Tables 2-2 and 2-3, the MSW and SSR transfer building is anticipated to receive up to fifteen MSW waste collection vehicles and eleven SSR vehicle in one hour (from 11:00 a.m. to noon), which is less than the thirty-six vehicles per hour capacity. SSR takes up a higher proportion of the tip floor (since its density is less than the density of MSW). During this time, MSW trucks would generally be unloading two at a time while the SSR vehicles would be primarily unloading one at a time.

The anticipated storage locations, vehicle unloading locations, typical loader movements and approximate storage volumes for MSW and SSR over a peak acceptance day are shown on Figure 2-4. The largest storage volumes would occur during the 11:00 a.m. to noon hour (as the collection vehicles complete their "first round"). During the second round, the SSR trucks could be parked/ staged on-site and unloaded later if helpful for site operations. As shown on Figure 2-4, more than adequate staging areas are available.

As shown in Tables 2-1, the C&D transfer/screening building is anticipated to receive up to twenty-two C&D collection vehicles in one hour (which is approximately 60% of the unloading capacity of the C&D transfer/screening building). The anticipated storage locations, vehicle unloading locations, typical loader movements, and approximate storage volumes for C&D over a peak acceptance day are shown on Figure 2-4. The largest storage volumes would occur at the end of the operating (as the staged non-recyclable C&D increases until it is transported to the MSW/SSR transfer building). As shown on Figure 2-4, more than adequate staging areas are available.

As mentioned above, an acceptance rate of 650 tons per day of MSW, 750 tons per day of C&D and 250 tons per day of SSR is proposed. The above evaluation indicates that the proposed West DuPage RTS can easily manage an acceptance rate of up to 650 tons per day of MSW, 750 tons per day of C&D and 250 tons per day of SSR under the anticipated incoming waste flow.

2.4.20.8 Evaluation of Maximum Amount - Hydro Excavation Wastes

The capacity of the solidification operation is dependent on the time to unload the hydro excavation waste, solidify the material with wood chips or similar, and load the solidified mixture. The capacity is also dependent on the capacity of the mixing pits. The following is information regarding the hydro excavation waste process:

- The dimensions of the two solidification pits are shown on Drawing C300. Each pit has the capacity to hold approximately 23,000 gallons.
- At least 8,000 gallons of hydro excavation waste can be added to each prior to mixing (to avoid overtopping during mixing).
- A typical load contains up to approximately 1,400 gallons (approximately 6.5 tons) and takes ten to fifteen minutes to unload.
- Since the site has two unloading pits, the unloading capacity is 65 tons per hour (6.5 tons/ load x five loads/hour x two mixing pits) or 780 tons over a twelve-hour operating day.
- The ratio of hydro excavation waste to wood chips is approximately 2:1 (so every 100 tons of hydro excavation waste would be mixed with about 50 tons of wood chips).
- The weight of an outgoing load is approximately 20 tons (consisting of approximately 6.7 tons of wood chips and 13.3 tons of hydro excavation waste).
- The mixing and loading process takes approximately ten minutes per load so the loading capacity is approximately 120 tons per hour (six loads per hour x 20 tons per load) or 1,440 tons over a twelve-hour operating day.
- Unloading in one pit can occur simultaneous with mixing/loading in the other pit.
- The anticipated material processing and traffic volumes are provided in Table 2-4.

The capacity is also dependent on the availability of solidification material, which is dependent on the incoming C&D.

The anticipated maximum acceptance amount is 300 tons per day (or approximately forty-six trucks at 6.5 tons per truck). The forty-six trucks would result in a total of approximately 4.6 hours of unloading time (forty-six trucks divided by five trucks per hour divided by two pits) over a twelve-hour day, which the site can easily accommodate. The number of outgoing loads for the approximately 450 tons of solidified material (300 tons of hydro excavation waste + 150 tons of wood chips) would be approximately 22.5 trucks (at 20 tons per load). The total load time would be approximately 3.75 hours (22.5 trucks divided by six trucks per hour) over the approximately twelve-hour day, which the site can easily accommodate.

The above evaluation indicates that the proposed West DuPage RTS can easily manage an acceptance rate of up to 300 tons per day of hydro excavation waste under the anticipated incoming waste flow.

2.4.21 FINAL CLOSURE

The expected life of the facility is at least twenty years. Final closure of West DuPage RTS will consist of the following activities:

- Removal of all wastes from the transfer station building;
- Cleaning of the transfer station building and equipment;
- Removal of all equipment; and
- Preparation and submittal of closure documentation to the IEPA.

Per Section 5.4 of the Host Agreement, LRS will provide, if reasonably feasible, a minimum of six months' notice to West Chicago prior to ceasing operations. Regardless of the foregoing, LRS shall provide West Chicago with seven days' notice of any final internal decision to close the MSW transfer operations.

Closure activities will be initiated within thirty days of the date LRS declares the acceptance of its last load of waste, or within thirty days of notification of closure, whichever is less. No waste will be accepted at the proposed transfer station after either of the two above-mentioned activities. Access gates will be secured and signs will be posted which indicate that the facility is closed and is no longer accepting MSW.

2.4.21.1 Waste Removal

All waste materials are anticipated to be removed from West DuPage RTS within twenty-four hours of arrival to the transfer station.

2.4.21.2 Building and Equipment Cleaning

After all waste has been removed from the MSW transfer building, all areas and equipment that were in contact with waste will be thoroughly cleaned. Such areas will include, but are not limited to, the tipping floor and barrier walls. The building is anticipated to remain and be re-purposed.

2.4.21.3 Equipment Removal

After the MSW transfer building has been cleaned, on-site equipment will be removed from the proposed transfer station for beneficial reuse or resale.

2.4.21.4 Continued Monitoring

Since all wastes will be removed, continued monitoring is not anticipated to be required by the IEPA and no continued monitoring after certification of closure is proposed.

2.5 CONSTRUCTION QUALITY ASSURANCE AND CONTROL PROGRAM

Construction quality assurance (CQA) generally consists of a planned and systematic actions to assess conformity of construction with the required plans and specifications, and to provide adequate confidence that constructed items meet contractual and regulatory requirements. Construction quality control (CQC) generally consists of actions implemented by the contractor to document that its methods, materials, and workmanship are accurate and correct, and meet contractual and regulatory requirements including required plans and specifications.

All required regulatory approvals, including an IEPA development permit and any local permits, will be received prior to construction of the West DuPage RTS. The development features of the West DuPage RTS will described in the narrative and drawings which will be submitted to the IEPA as part of the application for a development permit. The narrative and drawings submitted to the IEPA will be consistent with the approved local siting application.

Construction level drawings and specifications will be developed prior to the construction of the various project components. A CQA/CQC plan will also be prepared which will define the requirements regarding the following:

- Roles and responsibilities;
- Contractor submittals;
- Quality assurance testing;
- Field observations;
- Survey requirements;
- Project documentation and routine reporting; and
- Project coordination meetings.

The construction of the following features will be observed and documented:

- Foundations and slabs;
- Roadways and/or paving;
- Buildings and ancillary features;
- Scale;
- Utilities; and
- Stormwater control features.

A construction documentation report and certification, including as-built drawings, will be submitted to the IEPA as part of the application for an operating permit. All construction documentation will be consolidated and maintained at the site.

2.6 NOTICE INFORMATION

No later than fourteen days prior to a request for location approval, the applicant caused written notice of this request for location approval to be served by certified mail, return receipt requested, on the owners of all property within 400 feet in each direction of the site, said owners being such persons or entities which appear from the authentic tax records of DuPage County. Written notice was also served upon members of the General Assembly from the legislative district in which the site is located and was published in a newspaper of general circulation published in the county in which the Site is located. The notices stated the name and address of the applicant, the location of the site, the nature and size of the development, the nature of the activity proposed, the probable life of the proposed activity, the date when the request for site approval will be submitted, and a description of the right of persons to comment on such request as hereafter provided. The notices were all performed more than fourteen days prior to this request for location approval. An affidavit demonstrating the above is provided in Appendix 2-J.

2.7 CERTIFICATION

I hereby certify that all information contained in this Application for Local Siting Approval for Criterion 2 was prepared by me or under my direct supervision, and is true and correct to the best of my knowledge and belief.

John Hock, P.E.

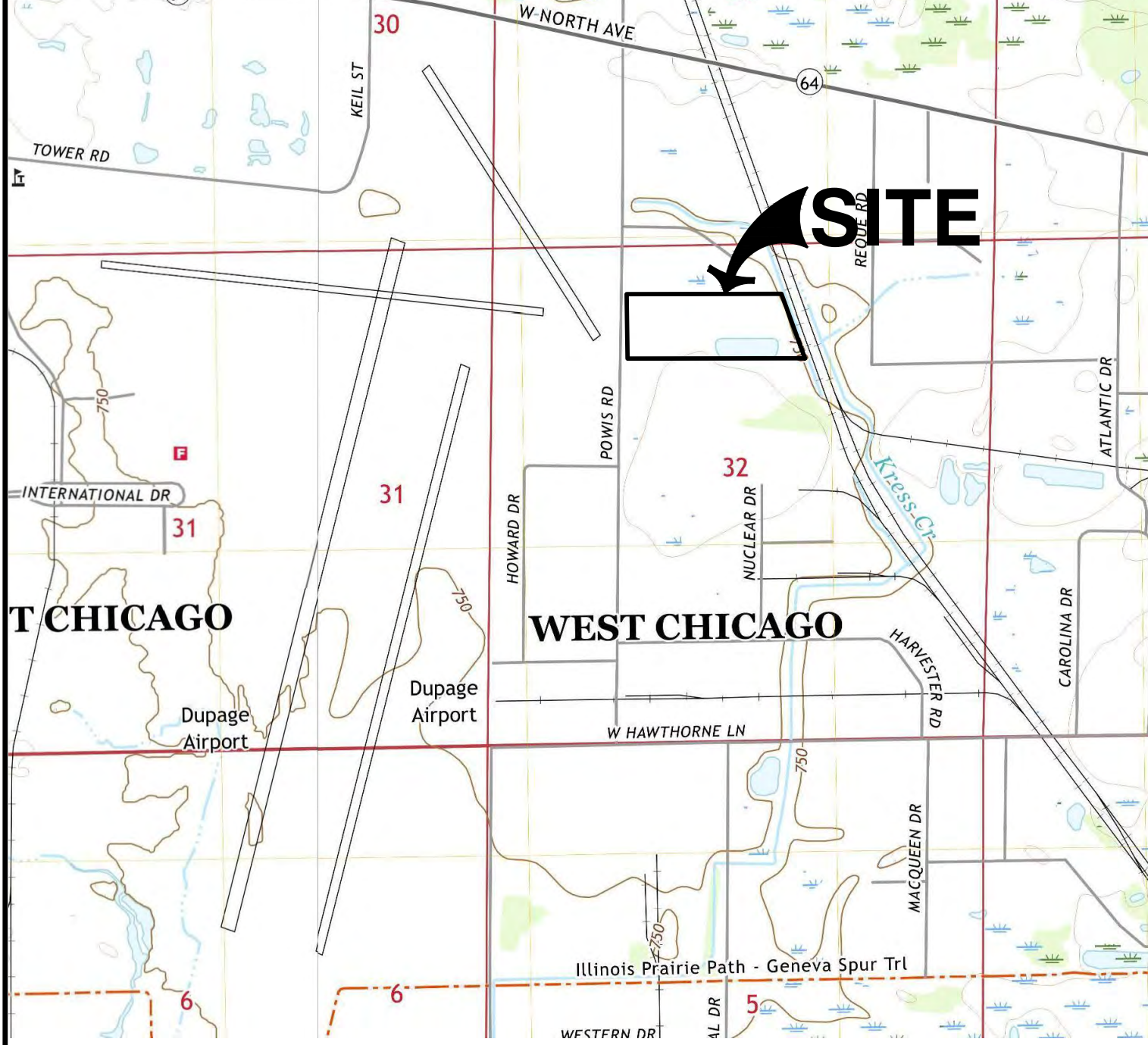
6-14-2022
Date

062-047623 - IL
Professional Engineer Registration Number and State

CRITERION 2

FIGURES

Electronic Filing: Received, Clerk's Office 04/19/2023
P:\2016\163-899\-CADD\Dwg\CV06-Siting Application\163899-SW05-S000-Site Location Map.dwg(FIG 2-1) LS:(8/24/2022 - mkarpf) - LP: 8/24/2022 7:01 AM C000358



REFERENCE

1. U.S.G.S. 7.5' TOPOGRAPHIC MAP, WEST CHICAGO QUADRANGLE, ILLINOIS DATED: 2021.

*HAN
SC
0

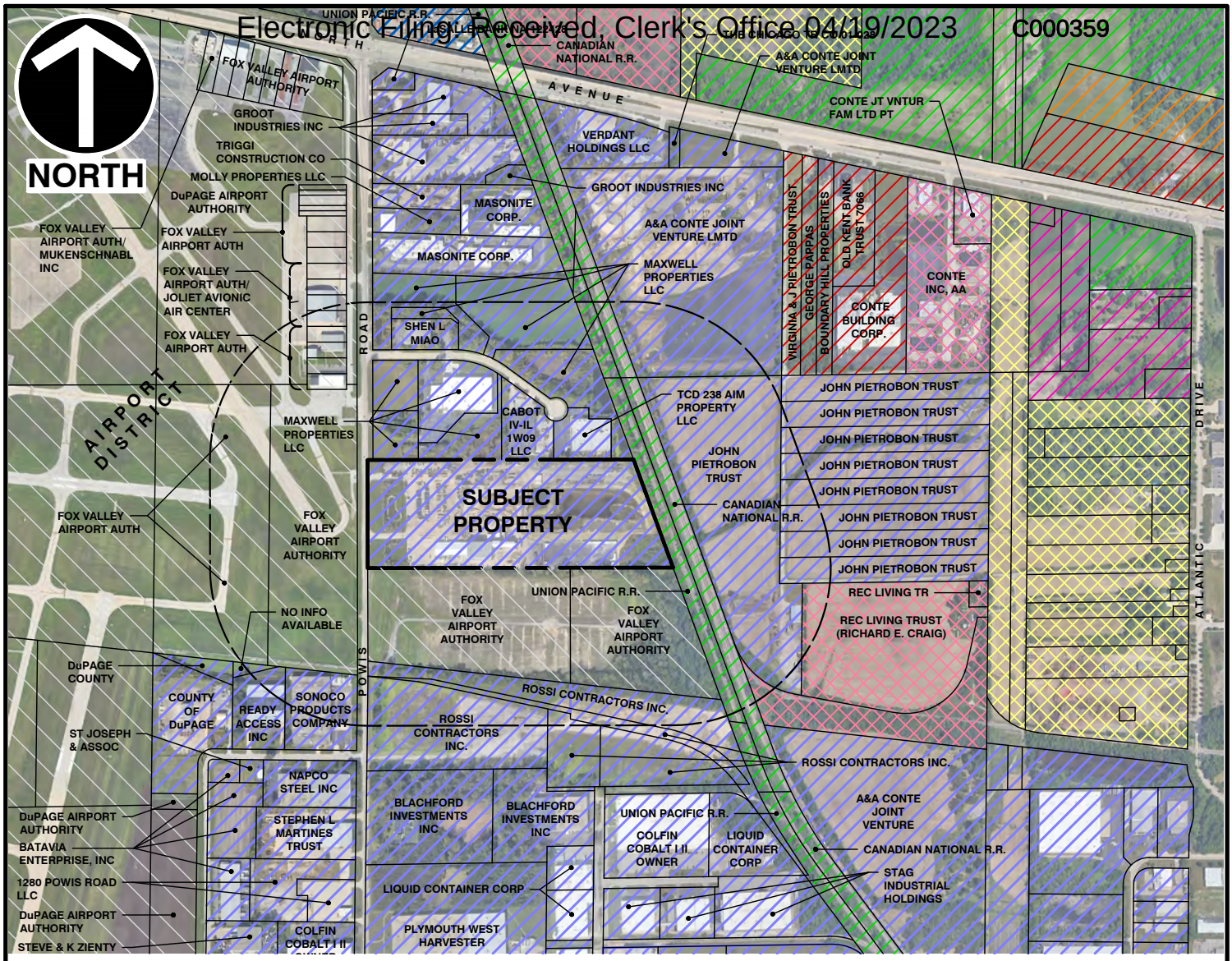
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE REC
TRANSFER ST
1655 POWIS
WEST CHICAGO,

SITE LOCATIO

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGU
DATE:	AUGUST 2022	DWG SCALE:	1"=2000'	PROJECT NO:	163-899.0005	

Electronic Filing: Received, Clerk's Office 04/19/2023



LEGEND

- SUBJECT PROPERTY
- SURROUNDING PROPERTY
- 1000 FOOT PROPERTY OFFSET

LEGEND - UNINCORPORATED ZONING

- UNINCORPORATED LIGHT INDUSTRIAL
- UNINCORPORATED SINGLE FAMILY

LEGEND - CITY OF WEST CHICAGO ZONING

- B–2 GENERAL BUSINESS DISTRICT
- B–3 REGIONAL SHOPPING DISTRICT
- ER–1 ESTATE RESIDENCE DISTRICT
- M MANUFACTURING DISTRICT
- R–6 MULTIPLE FAMILY RESIDENTIAL DISTRICT
- ORI OFFICE/RESEARCH/LIGHT INDUSTRIAL DISTRICT
- AIRPORT DISTRICT

REFERENCE

1. 2021 ZONING MAP BY THE CITY OF WEST CHICAGO.
2. IMAGE PROVIDED BY GOOGLE EARTH. GOOGLE MAP DATA @ 2022.

SCALE IN FEET

0 1000 2000

*HAND SIGNATURE ON FILE

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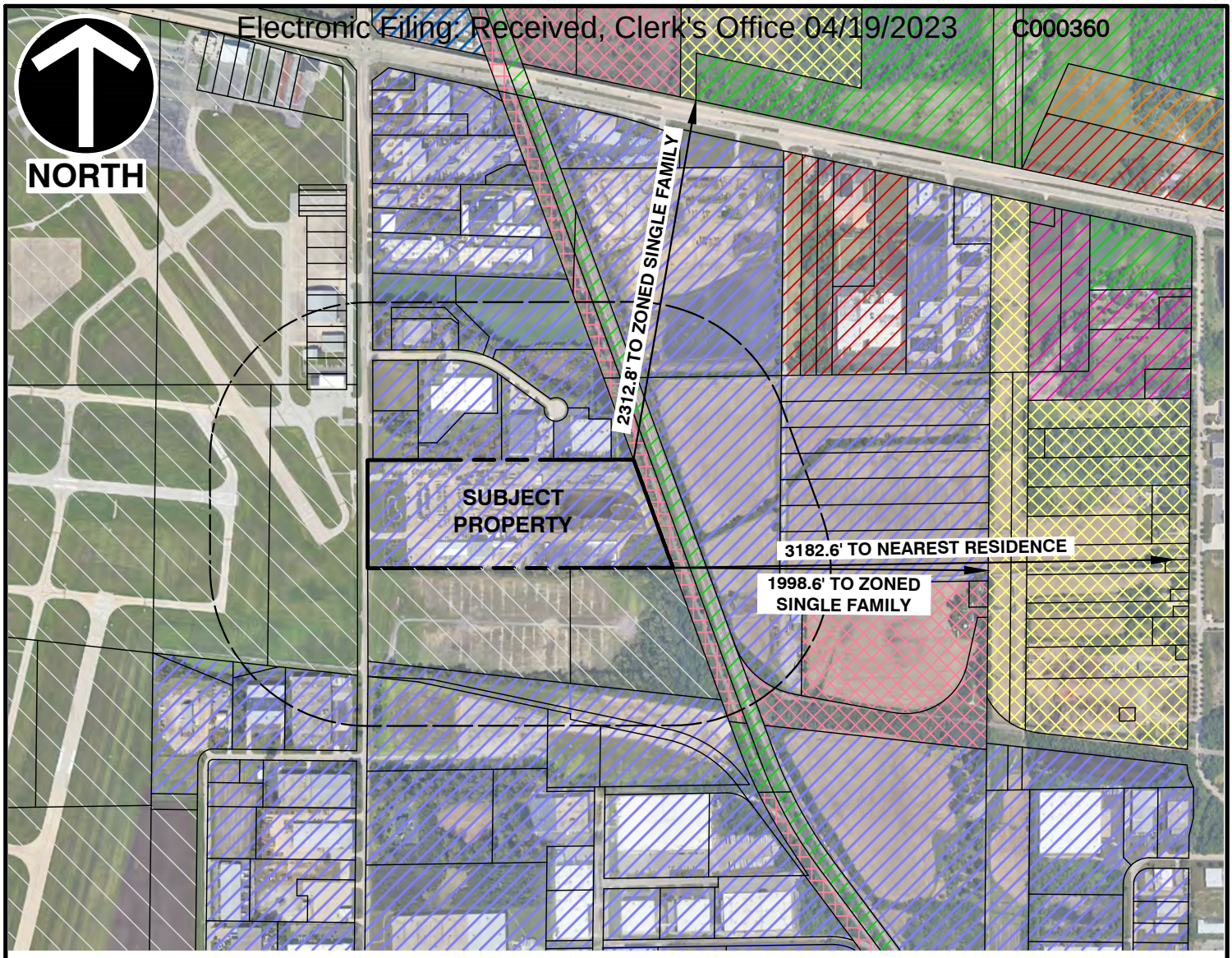
WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

SURROUNDING PROPERTIES AND ZONING FOR 1000 FOOT PROPERTY OFFSET

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:	2-2
DATE:	AUGUST 2022	DWG SCALE:	1"=1000'	PROJECT NO:	163-899.0005		

P:\2016\163-899\-CADD\Dwg\CV06-Siting Application\163899-SW05-S001-Surrounding Properties.dwg[FIG 2-2] LS:(8/24/2022 - mkarpf) - LP: 8/24/2022 8:07 AM

Electronic Filing: Received, Clerk's Office 04/19/2023 C000360



LEGEND

- SUBJECT PROPERTY
- SURROUNDING PROPERTY
- 1000 FOOT PROPERTY OFFSET

LEGEND - UNINCORPORATED ZONING

- UNINCORPORATED LIGHT INDUSTRIAL
- UNINCORPORATED SINGLE FAMILY

LEGEND - CITY OF WEST CHICAGO ZONING

- B-2 GENERAL BUSINESS DISTRICT
- B-3 REGIONAL SHOPPING DISTRICT
- ER-1 ESTATE RESIDENCE DISTRICT
- M MANUFACTURING DISTRICT
- R-6 MULTIPLE FAMILY RESIDENTIAL DISTRICT
- ORI OFFICE/RESEARCH/LIGHT INDUSTRIAL DISTRICT
- AIRPORT DISTRICT

REFERENCE

1. 2021 ZONING MAP BY THE CITY OF WEST CHICAGO.
2. IMAGE PROVIDED BY GOOGLE EARTH. GOOGLE MAP DATE @ 2022.

SCALE IN FEET

0 1000 2000

*HAND SIGNATURE ON FILE

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WEST CHICAGO, ILLINOIS

SURROUNDING PROPERTIES

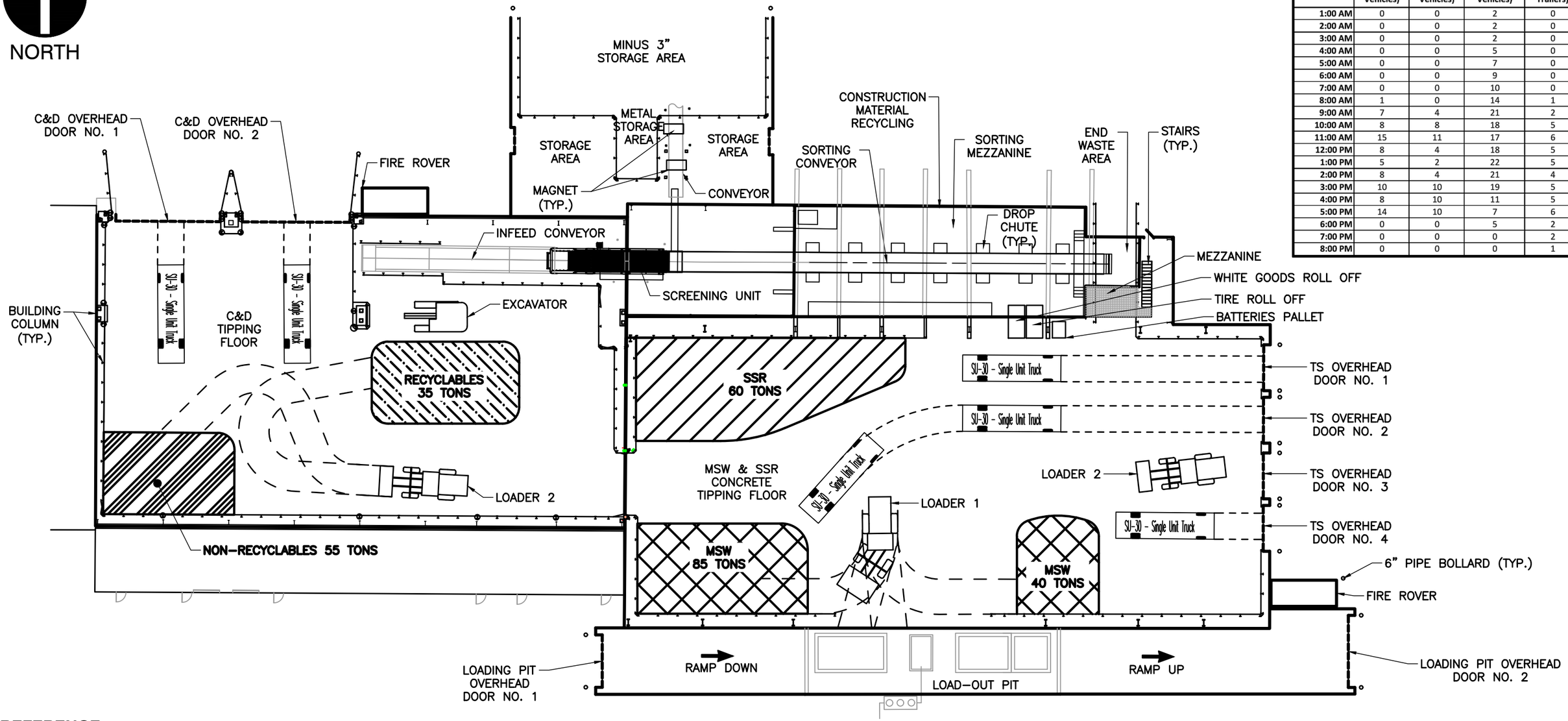
DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:
DATE:	AUGUST 2022	DWG SCALE:	1"=1000'	PROJECT NO:	163-899.0005	2-3

P:\2016\163-899\-CADD\Dwg\CV06-Siting Application\163899-SW05-S002-Surrounding Properties.dwg[FIG 2-3] LS:(8/24/2022 - mkarpf) - LP: 8/24/2022 8:10 AM

Electronic Filing: Received, Clerk's Office 04/19/2023

C-000361

NORTH



Summary of Incoming/ Outgoing Vehicles, Maximum Daily Rates

Time Period	Incoming MSW (Collection Vehicles)	Incoming SSR (Collection Vehicles)	Incoming C&D (Collection Vehicles)	Outgoing MSW or SSR (Transfer Trailers)
1:00 AM	0	0	2	0
2:00 AM	0	0	2	0
3:00 AM	0	0	2	0
4:00 AM	0	0	5	0
5:00 AM	0	0	7	0
6:00 AM	0	0	9	0
7:00 AM	0	0	10	0
8:00 AM	1	0	14	1
9:00 AM	7	4	21	2
10:00 AM	8	8	18	5
11:00 AM	15	11	17	6
12:00 PM	8	4	18	5
1:00 PM	5	2	22	5
2:00 PM	8	4	21	4
3:00 PM	10	10	19	5
4:00 PM	8	10	11	5
5:00 PM	14	10	7	6
6:00 PM	0	0	5	2
7:00 PM	0	0	0	2
8:00 PM	0	0	0	1

REFERENCE

1. DRAWING BASE IS 9/29/2020 "BARRIER WALL & BOLLARD PLAN" BY SANDMAN, INC.
2. I-BEAMS IN OVERHEAD PORTION OF LOADING PIT AREA WERE REMOVED FROM THIS DRAWING FOR CLARITY PURPOSES. REFER TO SHEET A1B FOR AN ARCHITECTURAL SECTION VIEW OF THE LOADING PIT AREA.
3. LOADER 1 SIZE AND DIMENSIONS ARE BASED ON A CAT 980K. OVERALL LENGTH OF LOADER 1 IS 31.10 FT. WITH AN OVERALL WIDTH OF 10.60 FT. A SMALLER LOADER MAY BE USED DEPENDING ON INCOMING MATERIAL VOLUMES AND OTHER OPERATIONAL FACTORS.
4. LOADER 2 SIZE AND DIMENSIONS ARE BASED ON A CAT 950M. OVERALL LENGTH OF LOADER 2 IS 26.90 FT. WITH AN OVERALL WIDTH OF 9.25 FT.
5. EXCAVATOR SIZE AND DIMENSIONS ARE BASED ON A KAMATSU PC210. OVERALL LENGTH WITH ARM ON THE GROUND IS 31.3 FT. WITH AN OVERALL WIDTH OF 9.2 FT. EXCAVATOR REPRESENTED ON DRAWINGS IS POSITIONED WITH THE ARM RAISED.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 30 60

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WEST CHICAGO, ILLINOIS

STORAGE PLAN - MAXIMUM DAILY RATES

DRAWN BY:	MMS	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:
DATE:	AUGUST 2022	DWG SCALE:	1"=30'	PROJECT NO:	163-899.0005	2-4

P:\2016\163-899\-CADD\Dwg\CV05-Local Siting Application\163899-CV05-Waste Storage Plan.dwg[2-4] LS:(9/13/2022 - mkarpl) - LP: 9/13/2022 7:29 AM

CRITERION 2

TABLES

Table 2-1
West DuPage Recycling and Transfer Station
Projected Material Processing and Traffic Volume
750 Tons Per Day Construction or Demolition Debris

Time	Collection Vehicle Distribution (all open top)		C&D Delivered								Outgoing			Recyclable Materials Processed/ Transferred							Required C&D Tip Floor Storage	
	Hour Incoming		Hour Incoming				Total Hourly Incoming		Cumulative Incoming Tip Flr		Recycl. Material	MSW sort line	MSW scalping	Hourly Processing			Scalped MSW Removed	Hourly Transferred	Cum Transferred	Hourly Truck Volumes	Recycl. + Non-recycl.	
(Hour Beginning)	To C&D Tip Floor (trucks)	To bunkers (trucks)	Tip Flr (trucks)	Tip Flr (tons)	Bunker (trucks)	Bunker (tons)	Trucks	Tons	Tons	yd^3	Tons	Tons	Tons	Uptime	Tons/hr	Cum Processed	tons	(trucks)	(tons)	(trucks)	Tons	yd^3
12:00 AM			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0.7%	0.3%	1	4	1	3	2	8	4	22	4	0	1	0	0	0	0	0	0	2	4	22
2:00 AM	0.7%	0.3%	1	4	1	3	2	8	9	44	7	0	2	0	0	0	0	0	0	2	9	44
3:00 AM	0.7%	0.3%	1	4	1	3	2	8	13	66	11	0	2	0	0	0	0	0	0	2	13	66
4:00 AM	1.9%	0.7%	4	12	1	7	5	19	25	127	21	0	4	0	0	0	0	0	0	5	25	127
5:00 AM	2.5%	1.1%	5	16	2	11	7	26	41	204	34	0	7	0	0	0	0	4	80	11	41	204
6:00 AM	2.4%	1.8%	5	15	4	18	9	34	56	280	37	9	10	1	30	30	0	4	160	13	26	130
7:00 AM	2.8%	1.8%	6	18	4	18	10	36	74	369	43	18	13	1	30	60	0	4	240	14	14	69
8:00 AM	4.0%	2.6%	8	25	5	26	14	51	99	495	55	27	17	1	30	90	0	5	340	19	9	45
9:00 AM	7.0%	3.0%	15	44	6	31	21	75	143	717	83	36	24	1	30	120	0	1	360	22	23	117
10:00 AM	6.0%	2.6%	13	38	5	26	18	64	181	905	105	45	31	1	30	150	0	1	380	19	31	155
11:00 AM	5.6%	2.4%	12	35	5	25	17	60	216	1082	126	54	37	1	30	180	24	1	400	18	12	62
12:00 PM	6.5%	1.8%	14	41	4	18	18	60	258	1288	151	63	44	1	30	210	24	2	440	20	24	118
1:00 PM	7.4%	3.0%	16	47	6	31	22	78	304	1522	181	72	52	1	30	240	24	2	480	24	40	202
2:00 PM	7.4%	2.7%	16	47	6	28	21	74	351	1757	211	81	60	1	30	270	24	2	520	23	57	287
3:00 PM	7.0%	2.1%	15	44	4	21	19	66	396	1978	238	90	67	1	30	300	24	1	540	20	72	358
4:00 PM	4.0%	1.4%	8	25	3	14	11	39	421	2105	250	99	72	1	30	330	24	1	560	12	67	335
5:00 PM	2.0%	1.5%	4	13	3	15	7	28	434	2168	255	105	74	1	20	350	24	0	560	7	60	298
6:00 PM	1.5%	0.8%	3	9	2	8	5	17	443	2216	257	111	75	1	20	370	24	0	560	5	49	246
7:00 PM	0.0%	0.0%	0	0	0	0	0	0	443	2216	257	111	75	0	0	370	64	0	560	0	9	45
8:00 PM	0.0%	0.0%	0	0	0	0	0	0	443	2216	257	111	75	0	0	370	73	0	560	0	0	0
9:00 PM	0.0%	0.0%	0	0	0	0	0	0	443	2216	257	111	75	0	0	370	73	0	560	0	0	0
10:00 PM	0.0%	0.0%	0	0	0	0	0	0	443	2216	257	111	75	0	0	370	73	0	560	0	0	0
11:00 PM	0.0%	0.0%	0	0	0	0	0	0	443	2216	257	111	75	0	0	370	73	0	560	0	0	0
DAILY TOTALS	70.0%	30.0%	148	443	63	306	211	750	443	2216	257	111	75	13	370	370	73	28	560	239	MAX 72	MAX 358

Assumptions:

211 is total collection vehicles per day.
750 tons = maximum daily throughput of C&D.
4.85 is average tons per load of those unloaded directly to outdoor bunkers (8 tons per load for concrete/ heavies and 4 tons per load for shingles).
3 is average tons per load to C&D tip floor/building for separation and processing.
20 tons = average tons of outbound truck load.
1 ton C&D = 5 cubic yards on tipping floor (or 400 pounds/cubic yard).
75% = percentage of total incoming C&D that is recycled.
25% = percentage of total incoming C&D that is not recycled (and hauled off as MSW).
70% is percentage of vehicles unloaded in C&D tip floor.
30% is percentage of clean loads unloaded directly in outdoor storgage bunkers.
17% is percentage of material unloaded on C&D tip floor that is separated and removed as MSW.
40 is rate of separation and feeding of C&D into screener and sorting line (in tons per hour).
30% is percentage of non-recyclables from screening and sorting system.

Civil & Environmental Consultants, Inc.

Table 2-2
West DuPage Recycling and Transfer Station
Projected Material Processing and Traffic Volume
250 Tons Per Day Single Stream Recyclables

Time	LRS Collection Vehicle Distribution		SSR Delivered									Outgoing		SSR Transferred				Required Tip Floor Storage	
	Hour Incoming		Hour Incoming				Total Hourly Incoming			Cumulative Incoming				Hourly Transferred			Hourly Truck Volumes		
(Hour Beginning)	Packer (trucks)	Roll-off (trucks)	Packer (trucks)	Packer (tons)	Roll-off (trucks)	Roll-off (tons)	Trucks	Tons	yd^3	Tons	yd^3	SSR Tons	MSW Tons	Trucks	Tons	yd^3	(trucks)	Tons	yd^3
12:00 AM			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0.0%	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0.0%	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0.0%	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0.0%	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	5.8%	0.0%	4	14	0	0	4	14	72	14	72	14	0	0	0	0	4	14	144
10:00 AM	12.5%	0.0%	8	31	0	0	8	31	155	45	227	45	0	2	36	180	10	9	94
11:00 AM	17.5%	0.0%	11	43	0	0	11	43	217	89	444	89	0	1	18	90	12	35	348
12:00 PM	6.7%	0.0%	4	17	0	0	4	17	83	105	527	105	0	1	18	90	5	33	334
1:00 PM	3.3%	0.0%	2	8	0	0	2	8	41	114	568	114	0	2	36	180	4	6	56
2:00 PM	5.8%	0.0%	4	14	0	0	4	14	72	128	640	128	0	1	18	90	5	2	20
3:00 PM	16.7%	0.0%	10	41	0	0	10	41	207	169	847	169	0	2	36	180	12	7	74
4:00 PM	15.8%	0.0%	10	39	0	0	10	39	196	209	1043	209	0	2	36	180	12	11	106
5:00 PM	15.8%	0.0%	10	39	0	0	10	39	196	248	1239	248	0	2	36	180	12	14	138
6:00 PM			0	0	0	0	0	0	0	248	1239	248	0	0.8	14.22	71.1	1	0	-5
7:00 PM			0	0	0	0	0	0	0	248	1239	248	0	0	0	0	0	0	-5
8:00 PM			0	0	0	0	0	0	0	248	1239	248	0	0	0	0	0	0	-5
9:00 PM			0	0	0	0	0	0	0	248	1239	248	0	0	0	0	0	0	-5
10:00 PM			0	0	0	0	0	0	0	248	1239	248	0	0	0	0	0	0	-5
11:00 PM			0	0	0	0	0	0	0	248	1239	248	0	0	0	0	0	0	-5
DAILY TOTALS	100%	0%	62	248	0	0	62	248	1239	248	1239	248	0	13.79	248	1241	76	MAX 35	MAX 348

Assumptions:

62 is total collection vehicles per day.
250 tons = maximum daily throughput of SSR.
4 tons = average packer truck load.
18 tons = average transfer trailer load.
1 ton MSW = 10 cubic yards on tipping floor (or 200 pounds/cubic yard).
100% = percentage of incoming SSR that is sent to a MRF.
0% = percentage of incoming SSR that is not recycled (and hauled off as MSW).

Table 2-3
West DuPage Recycling and Transfer Station
Projected Material Processing and Traffic Volume
650 Tons Per Day Municipal Solid Waste

Time	LRS Collection Vehicle Distribution		Municipal Solid Waste Delivered									Outgoing MSW			Municipal Solid Waste Transferred					Required Tip Floor Storage	
	Hour Incoming		Hour Incoming				Total Hourly Incoming			Cumulative Incoming		from C&D	from SSR	MSW	Hourly Transferred			Cum Out	Hourly Truck Volumes		
(Hour Beginning)	Packer (trucks)	Roll-off (trucks)	Packer (trucks)	Packer (tons)	Roll-off (trucks)	Roll-off (tons)	Trucks	Tons	yd^3	Tons	yd^3	Tons	Tons	Tons	Trucks	Tons	yd^3	tons	(trucks)	Tons	yd^3
12:00 AM			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0.0%	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0.0%	0.6%	0	0	0	2	0	2	9	2	9	9	0	2	0	0	0	0	0	11	54
7:00 AM	0.0%	0.6%	0	0	0	2	0	2	9	4	19	18	0	4	0	0	0	0	0	22	109
8:00 AM	0.0%	1.7%	0	0	1	6	1	6	28	9	47	27	0	9	1	24	120	24	2	12	62
9:00 AM	6.3%	1.7%	5	43	1	6	7	49	243	58	290	36	0	58	2	48	240	72	9	22	110
10:00 AM	8.3%	1.7%	7	56	1	6	8	62	310	120	600	45	0	120	3	72	360	144	11	21	105
11:00 AM	17.1%	1.1%	15	116	1	4	15	120	600	240	1200	78	0	240	5	120	600	264	20	54	270
12:00 PM	7.7%	1.7%	7	52	1	6	8	58	288	298	1489	87	0	298	4	96	480	360	12	25	124
1:00 PM	6.3%	0.0%	5	43	0	0	5	43	214	341	1703	96	0	341	3	72	360	432	8	5	23
2:00 PM	8.3%	0.6%	7	56	0	2	8	58	291	399	1994	105	0	399	3	72	360	504	11	0	-1
3:00 PM	10.8%	0.6%	9	73	0	2	10	75	377	474	2370	114	0	474	3	72	360	576	13	12	60
4:00 PM	8.9%	0.0%	8	61	0	0	8	61	303	535	2673	123	0	535	3	72	360	648	11	10	48
5:00 PM	16.5%	0.0%	14	112	0	0	14	112	560	647	3233	129	0	647	4	96	480	744	18	32	158
6:00 PM			0	0	0	0	0	0	0	647	3233	135	0	647	1	24	120	768	1	14	68
7:00 PM			0	0	0	0	0	0	0	647	3233	175	0	647	2	48	240	816	2	6	28
8:00 PM			0	0	0	0	0	0	0	647	3233	184	0	647	0.6	15	76	831	1	0	-2
9:00 PM			0	0	0	0	0	0	0	647	3233	184	0	647	0	0	0	831	0	0	-2
10:00 PM			0	0	0	0	0	0	0	647	3233	184	0	647	0	0	0	831	0	0	-2
11:00 PM			0	0	0	0	0	0	0	647	3233	184	0	647	0	0	0	831	0	0	-2
DAILY TOTALS	90%	10%	77	613	9	34	85	647	3233	647	3233	184	0	647	34.6	831	4156	831	120	MAX 54	MAX 270

Assumptions:

85 is total collection vehicles per day.
650 tons = approximate daily throughput of MSW.
8 tons = average MSW packer truck load.
4 tons = average MSW roll-off truck load.
24 tons = average MSW transfer trailer load.
1 ton MSW = 5 cubic yards on tipping floor (or 400 pounds/cubic yard).
90% of total incoming vehicles are MSW packer trucks.
10% of total incoming vehicles are MSW roll-off trucks.

Civil & Environmental Consultants, Inc.

Table 2-4
West DuPage Recycling and Transfer Station
Projected Material Processing and Traffic Volume
300 tons per day of Hydro Excavation Waste

Time	Collection Vehicle Distribution		Hydro Excavation Waste Delivered						Outgoing		Solidified Transferred			Required Pit Storage
	Hour Incoming		Hour Incoming				Total Hourly Incoming				Hourly Transferred		Hourly Truck Amounts	
(Hour Beginning)	Hydro Vac (trucks)	Other (trucks)	HydroVac (trucks)	HydroVac (tons)	Other (trucks)	Other (tons)	Trucks	Tons	HydroVac Tons	Absorbent Tons	Trucks	Tons	(trucks)	Tons
12:00 AM			0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM			0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM			0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM			0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM			0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	0.0%	0.0%	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	2.5%	0.0%	1	7	0	0	1	7	7	4	0	0	1	11
7:00 AM	2.8%	0.0%	1	8	0	0	1	8	16	8	1	20	2	4
8:00 AM	1.3%	0.0%	1	4	0	0	1	4	20	10	0	0	1	9
9:00 AM	3.2%	0.0%	1	10	0	0	1	10	29	15	1	20	2	4
10:00 AM	8.3%	0.0%	4	25	0	0	4	25	54	27	2	40	6	1
11:00 AM	12.5%	0.0%	6	37	0	0	6	37	91	46	2	40	8	17
12:00 PM	14.7%	0.0%	7	44	0	0	7	44	135	68	4	80	11	3
1:00 PM	17.1%	0.0%	8	51	0	0	8	51	186	93	3	60	11	19
2:00 PM	13.3%	0.0%	6	40	0	0	6	40	226	113	3	60	9	19
3:00 PM	14.7%	0.0%	7	44	0	0	7	44	270	135	4	80	11	5
4:00 PM	6.8%	0.0%	3	20	0	0	3	20	290	145	1	20	4	15
5:00 PM	2.7%	0%	1	8	0	0	1	8	298	149	1.4	28	3	0
6:00 PM			0	0	0	0	0	0	298	149	0	0	0	0
7:00 PM			0	0	0	0	0	0	298	149	0	0	0	0
8:00 PM			0	0	0	0	0	0	298	149	0	0	0	0
9:00 PM			0	0	0	0	0	0	298	149	0	0	0	0
10:00 PM			0	0	0	0	0	0	298	149	0	0	0	0
11:00 PM			0	0	0	0	0	0	298	149	0	0	0	0
DAILY TOTALS	100%	0%	46	298	0	0	46	298	298	149	22.4	448	68	MAX 19

Assumptions:

46 total collection vehicles per day.
300 Tons = maximum daily throughput of hydro excavation waste.
6.5 tons = average hydro vac truck load.
20 tons = average solidified load.

CRITERION 2

DRAWINGS

Electronic Filing: Received, Clerk's Office 04/19/2023

C000368

LAKESHORE RECYCLING SYSTEMS, LLC

WEST DUPAGE RECYCLING AND TRANSFER STATION

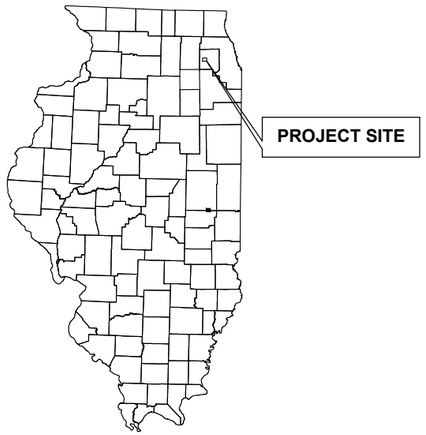
1655 POWIS ROAD

WEST CHICAGO, ILLINOIS

LOCAL SITING APPLICATION

LEGEND

- STORM MANHOLE
- CATCH BASIN
- INLET
- FLARED END SECTION
- STORM STRUCTURE NOT LOCATED
- SANITARY MANHOLE
- CLEAN OUT
- WATER MANHOLE
- WATER VALVE
- FIRE HYDRANT
- POWER POLE
- LIGHT POLE
- ELECTRIC BOX
- AC UNIT
- ELECTRIC CONTROL CABINET
- ELECTRIC TRANSFORMER
- GAS METER
- FIBER OPTIC PULL BOX
- BOLLARD
- STALL COUNT
- SPOT GRADE
- CONIFEROUS BUSH
- DECIDUOUS TREE
- PROPERTY LINE
- EASEMENT LINE
- ADJACENT RIGHT-OF-WAY (APPROX.)
- SETBACK LINE
- CONTOUR W/ ELEVATION
- STORM SEWER
- SANITARY SEWER
- 8" DIP WATER LINE (UNCONFIRMED)
- BURIED ELEC. LINE
- RAILROAD TRACKS
- WOOD FENCE
- CHAIN LINK FENCE
- WIRE/METAL FENCE
- 100-YR FIS BFE=752.25
- 10-YR FIS BFE=751.50
- WETLAND BUFFER
- DELINEATED POND/WETLAND
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATER SERVICE
- PROPOSED GAS
- PROPOSED ELECTRIC
- PROPOSED COMMUNICATIONS
- PROPOSED SPOT GRADE
- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- PROPOSED COIR LOG DITCH CHECK
- PROPOSED RIPRAP
- PROPOSED CATCH BASIN
- PROPOSED INLET
- PROPOSED SANITARY MANHOLE
- PROPOSED CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED GAS METER
- PROPOSED ELECTRIC METER
- PROPOSED OIL WATER SEPARATOR
- PROPOSED STALL COUNT
- PROPOSED FLARED END SECTION
- PROPOSED EROSION CONTROL BLANKET
- PROPOSED WETLAND BUFFER VEGETATION
- PROPOSED INLET PROTECTION
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- PROPOSED LIGHT DUTY PAVEMENT
- PROPOSED HEAVY DUTY PAVEMENT



COUNTY MAP SOURCE:
ILLINOIS STATE GEOLOGICAL SURVEY

SITE LOCATION MAP

NOT TO SCALE

BENCHMARKS

BM 1
"+"CUT, CONTROL POINT 8
ELEVATION = 756.28 (NAVD 88)

BM 2
REBAR, CONTROL POINT 5
ELEVATION = 758.60 (NAVD 88)

BM 3
REBAR, CONTROL POINT 6
ELEVATION = 755.04 (NAVD 88)

BM 4
REBAR, CONTROL POINT 4
ELEVATION = 755.31 (NAVD 88)

NGS DK3273
BRASS DISK, NE CORNER OF POWS ROAD AND POWIS COURT
ELEVATION = 757.10 (NAVD 88)

NGS DK3275
BRASS DISK, W SIDE HOWARD DRIVE 300' S OF HOWARD DRIVE.
ELEVATION = 751.73 (NAVD 88)

BASIS OF BEARING

THE HORIZONTAL DATUM IS THE ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE NAD 83 AND THE VERTICAL DATUM IS NAVD 88.

LIST OF DRAWINGS

C000	COVER SHEET
C100	AERIAL PHOTOGRAPH AND SURROUNDING FEATURES
C100A	AERIAL PHOTOGRAPH WITH USGS AND SITE TOPOGRAPHY
C100B	FLOOD INFORMATION AND ZONING COMPOSITE
C101	ALTA/NSPS LAND TITLE SURVEY
C102	EXISTING SITE CONDITIONS WEST
C103	EXISTING SITE CONDITIONS EAST
C104	AMENDED P.U.D. SITE PLAN WEST
C105	AMENDED P.U.D. SITE PLAN EAST
C106	AMENDED P.U.D. GRADING AND DRAINAGE PLAN WEST
C107	AMENDED P.U.D. GRADING AND DRAINAGE PLAN EAST
C108	AMENDED P.U.D. UTILITIES WEST
C109	AMENDED P.U.D. UTILITIES EAST
C200	PROPOSED SITE PLAN WEST
C201	PROPOSED SITE PLAN EAST
C300	HYDRO EXCAVATION WASTE BUILDING PLAN
C301	MSW AND SSR TRANSFER BUILDING PLAN VIEW
C302	COMBINED BUILDING PLAN
C400	VEHICLE TRAFFIC FLOW PLAN
C401	VEHICLE TRACKING TURNING PLAN
C402	QUEING/STACKING PLAN
C403	SIGNAGE AND PAVEMENT MARKING PLAN
A1A	MSW AND SSR TRANSFER BUILDING - ELEVATION VIEWS 1
A1B	MSW AND SSR TRANSFER BUILDING - ELEVATION VIEWS 2
A2	MSW AND SSR TRANSFER BUILDING - ELEVATION VIEWS 3
A3	HYDRO EXCAVATION WASTE BUILDING - ELEVATION VIEW

PROJECT CONTACT INFORMATION

SITE OPERATOR
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CONTACT: RICHARD GOLF

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NAPERVILLE, IL 60563
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FX: (630) 963-6027
CONTACT: DOUGLAS MCCLINTIC, P.L.S.

VILLAGE
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
MAYOR: RUBEN PINEDA
PUBLIC WORKS: ROBERT FLATTER
COMMUNITY DEVELOPMENT: TOM DABAREINER
ENGINEER: STEVE PERTZBORN

CIVIL ENGINEER
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
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DAVE A. KAMANO, P.E.

UTILITY COMPANIES

ELECTRIC SERVICE
COMED
PH: (877)-426-6331

SANITARY
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WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

GAS
NICOR
PH: (888) 642-6748

WATER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

STORM SEWER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

ENGINEER'S CERTIFICATE

STATE OF ILLINOIS }
} S.S.
COUNTY OF DUPAGE }

I, JOHN E. HOCK, AN ILLINOIS PROFESSIONAL ENGINEER, DO HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC., ILLINOIS LICENSED PROFESSIONAL DESIGN FIRM NO. 184.004002, LICENSE EXPIRES APRIL 30, 2023, UNDER MY PERSONAL DIRECTION FOR THE EXCLUSIVE USE OF THE CLIENT NOTED HEREON. REPRODUCTION OR USE BY THIRD PARTIES IS STRICTLY PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE UNDERSIGNED.

GIVEN UNDER MY HAND AND SEAL AT NAPERVILLE, ILLINOIS, THIS 14TH DAY OF SEPTEMBER, 2022.

JOHN E. HOCK
ILLINOIS PROFESSIONAL ENGINEER NO. 062.047623
LICENSE EXPIRES NOVEMBER 30, 2023.

*HAND SIGNATURE ON FILE

Call Before You Dig
JULIE ILLINOIS ONE-CALL SYSTEM

ILLINOIS LAW REQUIRES ANYONE DIGGING TO CALL JULIE AT 1-800-892-0123 AT LEAST 48 HOURS/TWO WORKING DAYS PRIOR TO THE START OF EXCAVATION AND THE PROJECT MUST BEGIN WITHIN 14 CALENDAR DAYS FROM THE CALL.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

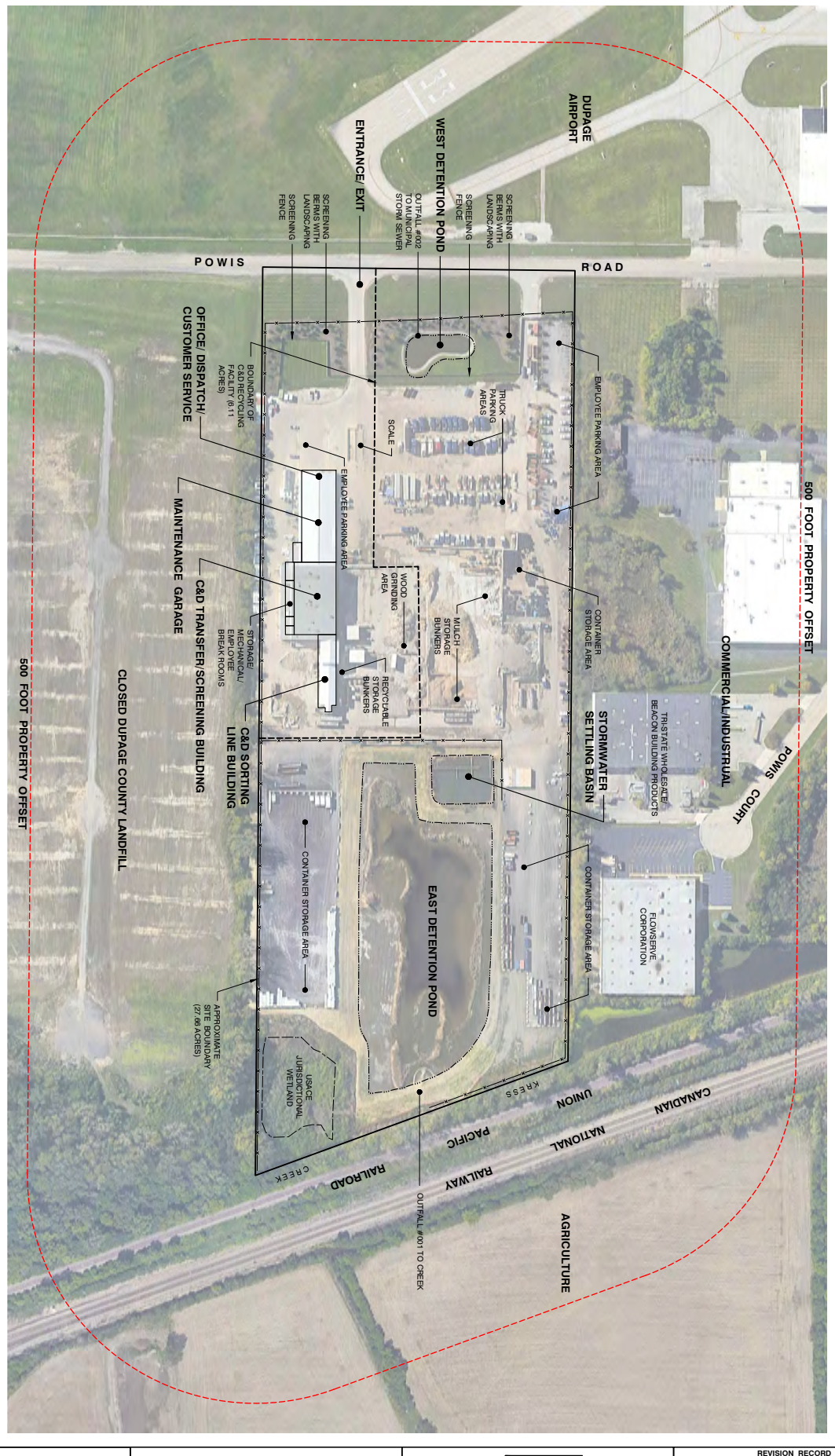
COVER SHEET

DATE:	AUGUST 2022
DWG SCALE:	AS SHOWN
PROJECT NO:	163-899.0005
DRAWING NO.:	C000
SHEET	1 OF 26

DRAWN BY: MMS
CHECKED BY: DAK
APPROVED BY: JEH*

P:\2016\163-899\CAD\Dwg\C000-Local Siting Application\163899-C000-Cover Sheet.dwg[C000] 9/8/2022 - mwulf - LPT: 9/13/2022 8:19 AM

P:\2016\163-899\--CADD\Dwg\CIVIL-Local Siting Application\163899-CIVIL-C100-Aerial Photograph.dwg[C100] LS(8/9/2022 - mlarpf) - LP: 8/13/2022 8:22 AM



SITE MAP

LOCATION: SECTION 32, TOWNSHIP 40N, RANGE 9E

REFERENCE
1. IMAGE PROVIDED BY GOOGLE EARTH, GOOGLE MAP DATA © 2022.

SCALE IN FEET
0 100 200
*TRUNC SCALE MAY CHG PLT

DRAWING NO.:	C100
SHEET	2 OF 28

AERIAL PHOTOGRAPH AND SURROUONDING FEATURES

DATE:	AUGUST 2022	DRAWN BY:	MMS
DWG SCALE:	1" = 100'	CHECKED BY:	DAK
PROJECT NO:			163-899.0005
APPROVED BY:			JEH*

WEST DUPAGE RECYCLING AND TRANSFER STATION LOCAL SITING APPLICATION 1655 POWIS ROAD WEST CHICAGO, ILLINOIS

CEC
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

REVISION RECORD

NO	DATE	DESCRIPTION

Electronic Filing: Received, Clerk's Office 04/19/2023

C000370

NORTH

LEGEND

- SUBJECT PROPERTY
- SURROUNDING PROPERTY
- 500 FOOT PROPERTY OFFSET

SITE MAP

LOCATION: SECTION 32, TOWNSHIP 40N, RANGE 9E

REFERENCE

1. IMAGE PROVIDED BY GOOGLE EARTH. GOOGLE MAP DATA © 2022.
2. USGS IMAGE PROVIDED THROUGH THE DUPAGE COUNTY INFORMATION TECHNOLOGY DEPARTMENT – GIS DIVISION.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 100 200

REVISION RECORD

NO.	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AERIAL PHOTOGRAPH WITH USGS AND SITE TOPOGRAPHY

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1" = 100'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.:

C100A

SHEET 3 OF 26

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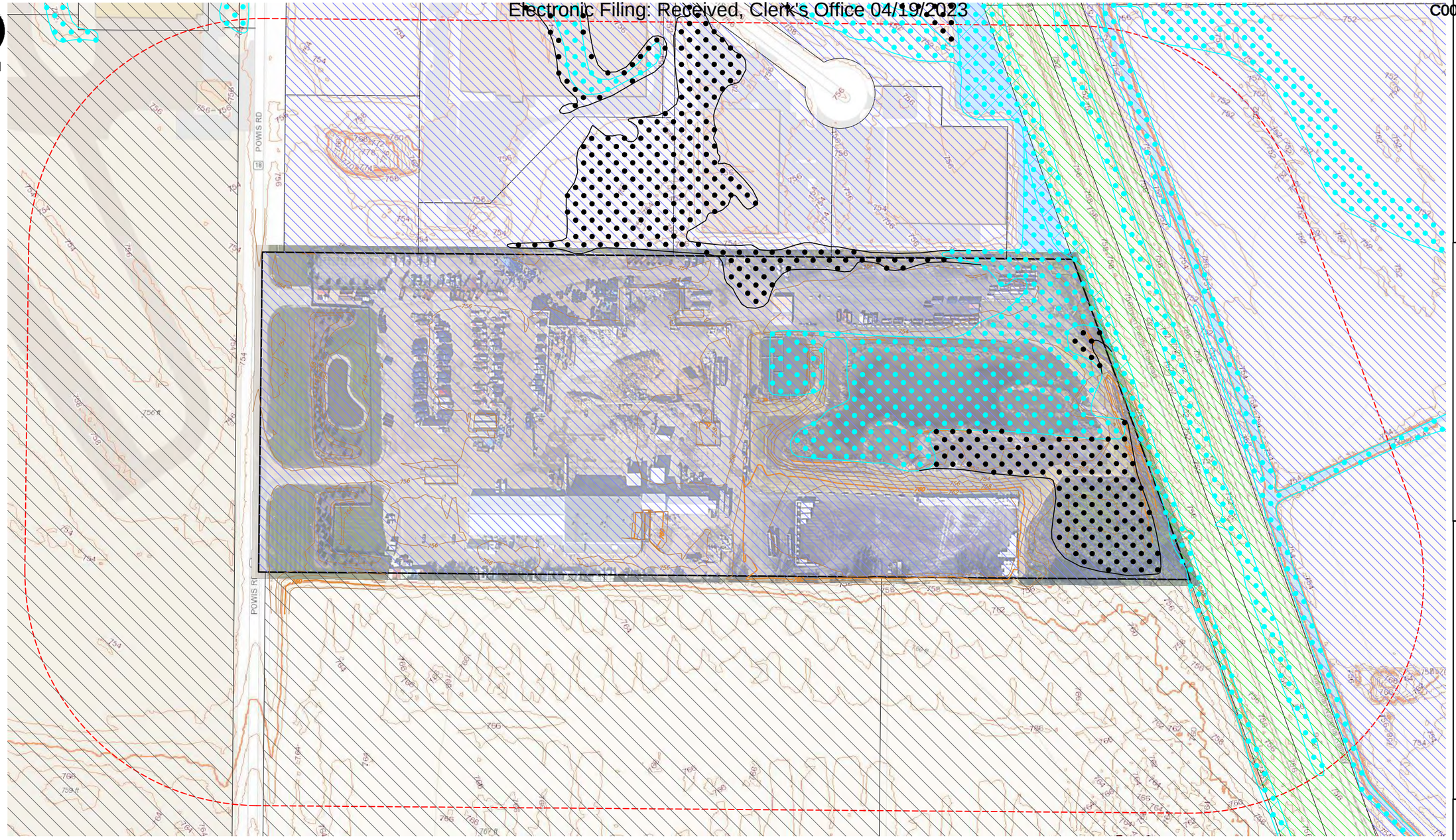
Electronic Filing: Received, Clerk's Office 04/19/2023

C000371

NORTH



LEGEND

- SUBJECT PROPERTY
- SURROUNDING PROPERTY
- 500 FOOT PROPERTY OFFSET

LEGEND - UNINCORPORATED ZONING

- UNINCORPORATED LIGHT INDUSTRIAL

LEGEND - CITY OF WEST CHICAGO ZONING

- B-3 REGIONAL SHOPPING DISTRICT
- ER-1 ESTATE RESIDENCE DISTRICT
- M MANUFACTURING DISTRICT
- AIRPORT DISTRICT

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equalled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A: No Base Flood Elevations determined.
- ZONE AE: Base Flood Elevations determined.
- ZONE AH: Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR: Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99: Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V: Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE: Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X: Areas of 0.2% annual chance flood; Areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from the 1% annual chance flood.

SITE MAP

LOCATION: SECTION 32, TOWNSHIP 40N, RANGE 9E

REFERENCE

1. IMAGE PROVIDED BY GOOGLE EARTH. GOOGLE MAP DATA © 2022.
2. USGS IMAGE PROVIDED THROUGH THE DUPAGE COUNTY INFORMATION TECHNOLOGY DEPARTMENT – GIS DIVISION.
3. 2021 ZONING MAP PROVIDED BY THE CITY OF WEST CHICAGO.
4. FLOOD HAZARD INFORMATION BASED ON FLOOD INSURANCE RATE MAP NUMBER 17043C0036J REVISED AUGUST 1, 2019 PROVIDED BY FEMA.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 100 200

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

FLOOD INFORMATION AND ZONING COMPOSITE

DATE:	AUGUST 2022
DRAWN BY:	MMS
SCALE:	1"= 100'
CHECKED BY:	DAK
DWG NO:	163-899.0005
PROJECT NO:	
APPROVED BY:	JEH*

DRAWING NO.: C100B

SHEET 4 OF 26

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Electronic Filing: Received, Clerk's Office, 04/18/2023

ALTA/NSPS LAND TITLE SURVEY

OF

THAT PART OF THE NORTH 1/2 OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS, TO WIT.

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 32; THENCE NORTH 88 DEGREES 56 MINUTES 37 SECONDS EAST ALONG THE NORTH LINE OF SAID SECTION 32, A DISTANCE OF 1331.65 FEET TO THE NORTH AND SOUTH DIVIDING LINE OF THE NORTHWEST 1/4 OF SAID SECTION 32; THENCE SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 500.00 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81 IN THE OFFICE OF THE DUPAGE COUNTY RECORDER; THENCE CONTINUING SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 685.0 FEET TO THE SOUTHWEST CORNER OF LAND DESCRIBED IN A SPECIAL WARRANTY DEED RECORDED FEBRUARY 6, 2001 AS DOCUMENT NO. R2001-020758; THENCE NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST ALONG THE SOUTH LINE OF SAID TRACT, A DISTANCE OF 103.80 FEET FOR THE POINT OF BEGINNING; THENCE CONTINUING NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST, ALONG SAID SOUTH LINE (SAID LINE BEING PARALLEL WITH THE SOUTH LINE OF SAID DEFENSE PLANT CORPORATION TRACT), A DISTANCE OF 1880.12 FEET TO THE WESTERLY RIGHT OF WAY LINE FOR THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 20 DEGREES 30 MINUTES 46 SECONDS WEST, ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 729.01 FEET TO THE SOUTHEAST CORNER OF SAID DEFENSE PLANT CORPORATION TRACT; THENCE SOUTH 89 DEGREES 32 MINUTES 15 SECONDS WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 1650.66 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF POWIS ROAD PER DOCUMENT NO. R2003-146376, SAID POINT ALSO BEING 81.96 FEET EAST OF THE SOUTHWEST CORNER OF SAID DEFENSE PLANT CORPORATION; THENCE SOUTH 2 DEGREES 29 MINUTES 05 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 536.49 FEET TO A POINT OF CURVATURE; THENCE SOUTHWESTERLY, ALONG SAID EASTERLY RIGHT OF WAY LINE BEING THE ARC OF A CURVE CONCAVE WESTERLY, HAVING A RADIUS OF 739.00 FEET AND WHOSE CHORD HAS A BEARING OF SOUTH 3 DEGREES 47 MINUTES 33 SECONDS WEST, AN ARC DISTANCE OF 149.66 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

PIN: 01-32-101-004
01-32-200-001

1655 POWIS ROAD
WEST CHICAGO, IL 60185

REVISION RECORD

NO	DATE	DESCRIPTION

PROFORMA SCHEDULE B ITEMS

1–7	NOT PLOTTABLE	15	RIGHTS OF WAY FOR DRAINAGE DITCHES, TILES FEEDERS, LATERALS & OTHER DRAINAGE EASEMENTS IF ANY – NOT PLOTTABLE
8	CLEAR ZONE AVIATION EASEMENT PER DOC. 916606 – NOT PLOTTABLE	16	RIGHTS OF THE OWNERS OF LANDS BORDERING ON THE KRESS CREEK TO THE UNINTERRUPTED FLOW OF WATERS – NOT PLOTTABLE
9	TERMS, PROVISIONS & CONDITIONS RELATING TO WATERMAIN & SANITARY RECAPTURE COSTS PER DOC. R93-046010 – NOT PLOTTABLE	17–18	INTENTIONALLY DELETED
(10)	SLUDGE IMPOUNDMENT AREA RESTRICTIONS PER DOC.R2001-020758 & R2002-130084 – PLOTTED	(19A)	SOUTH FENCE ENCROACHMENT – PLOTTED
11	IEPA NO FURTHER REMEDIATION LETTER PER DOC. R2004-249272 – NOT PLOTTABLE	(19B)	NORTH FENCE ENCROACHMENT – PLOTTED
12	IEPA NO FURTHER REMEDIATION LETTER PER DOC. R2007-117131 – NOT PLOTTABLE	19(C)	NORTH CHAIN LINK FENCE ENCROACHMENT – NO FENCE OBSERVED THEREFORE NOT PLOTTED
(13)	EASEMENT FOR WATERMAIN, STORMWATER MANAGEMENT & BEST MANAGEMENT PRACTICES PER DOC. R2016-144354 – PLOTTED	20	MEMORANDUM OF LEASE PER DOC. R2018-116701 – NOT PLOTTABLE
14	RIGHTS OF WAY FOR RAILROADS, SWITCH TRACKS OR SPURS – NOT PLOTTABLE		

EXISTING LEGEND:

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- EXISTING WOOD FENCE
- EXISTING CHAIN LINK FENCE
- EXISTING SANITARY SEWER LINE
- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- W — EXISTING WATER LINE
- FO — EXISTING FIBER OPTIC LINE
- T — EXISTING TELEPHONE LINE
- UG–E — EXISTING UNDERGROUND ELEC. LINE
- OH–W — EXISTING OVERHEAD ELECTRIC

TOPOGRAPHIC SYMBOLS: MAILBOX; FLAG POLE; GROUND LIGHT; SIGN; SATELLITE DISH; LIGHT STANDARD; AC UNIT; BOLLARD; PARKING METER; ANTENNA; GRAVE; HANDICAP PARKING SYMBOL; TEST PIT; MONITORING WELL @ TOP OF COVER; SOIL SAMPLE; TEST SITE; STORM MANHOLE; CATCH BASIN (TYPE); CURB INLET; RISER PIPE; INLET (CIRCULAR); DRAIN; BEEHIVE INLET SQUARE; INLET SQUARE; RECESSED CURB INLET; SANITARY MANHOLE; CLEAN OUT; COMBINATION MANHOLE; STAND PIPE (RISER); LIFT STATION; WATER MANHOLE; WATER BOX (WATER VALVE); FIRE HYDRANT; WATER WELL; SPRINKLER VALVE; WATERLINE MARKER; WATER METER; WATER PUMP; HOSE BIB BUILDING; PIV – POST INDICATOR VALVE; SPRINKLER HEAD; IRRIGATION VALVE; IRRIGATION CONTROL BOX; FIRE DEPT. CONNECTION; FIRE DEPT. CONNECTION (BLDG.); FARM SPIGOT

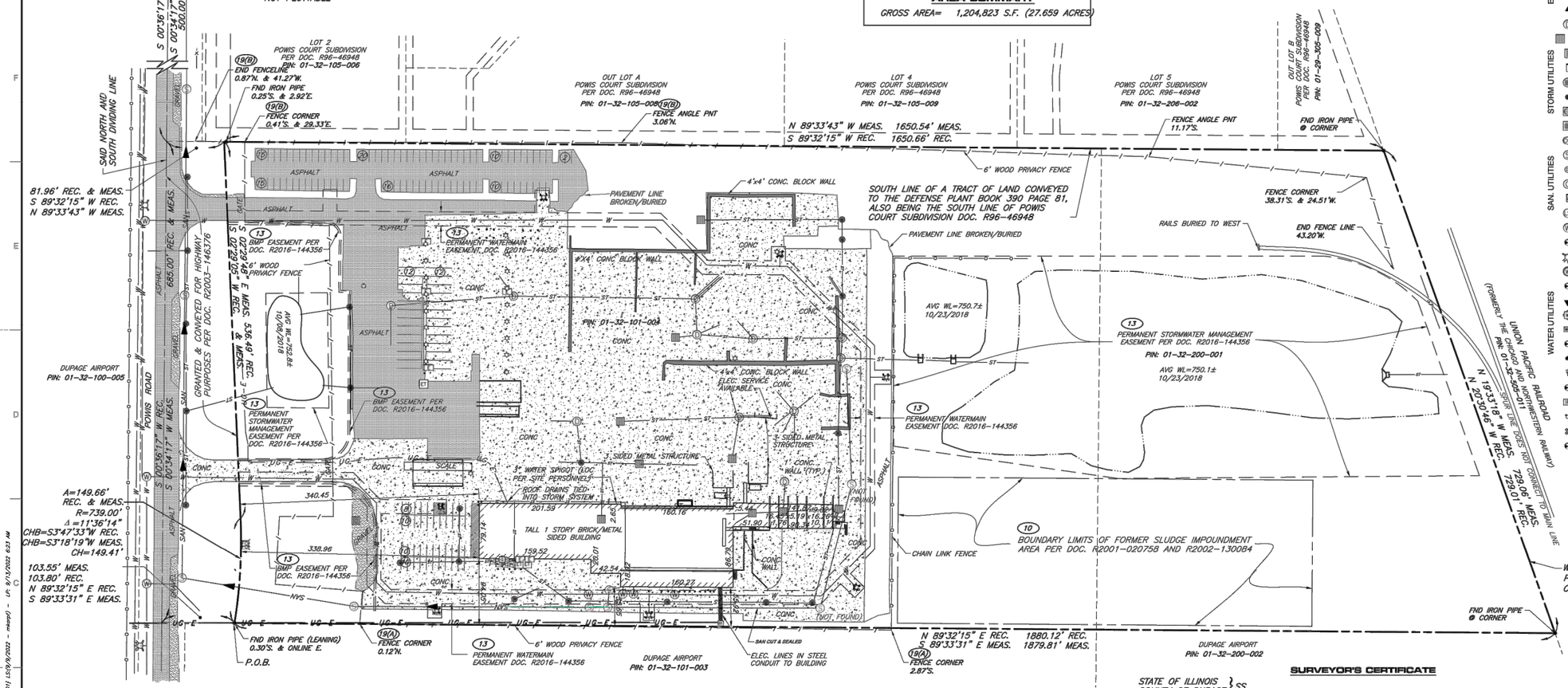
GAS UTILITIES: GAS MANHOLE; GAS LINE MARKER; GAS BOX (GAS VALVE); GAS METER; GAS TAP; PROPANE TANK; GAS WELL

VEGETATION: TREE, DECIDUOUS (800 SIZE TYPE); TREE, CONIFER (800 SIZE TYPE); BUSH/SHRUB (SIZE); STUMP

MISC. UTILITIES: POWER POLE; GUY WIRE; GUY POLE; TELEPHONE POLE; TELEPHONE PEDESTAL; TELEPHONE LINE MARKER; TELEPHONE MANHOLE; ELECTRIC MANHOLE; ELECTRIC LINE MARKER; ELECTRIC PULL BOX (FLUSH WITH GRADE); ELECTRIC CONTROL BOX (ON BUILDING); HIGH TENSION TOWER; ELECTRIC METER; FIBER OPTIC MARKER; TRAFFIC POLE; TRAFFIC MANHOLE; CABLE PEDESTAL; TRAFFIC SIGNAL BOX/CABINET (ABOVE GRADE); MANHOLE (UTILITY UNKNOWN); OIL WELL; VALVE BOX (UNKNOWN, FLUSH WITH GRADE); TELEPHONE PULL BOX (FLUSH WITH GRADE); UTILITY CABINET (UNKNOWN, ABOVE GRADE); VAULT; ELECTRIC HANDHOLE; STEAM MANHOLE; TRANSFORMER; STAND PIPE; TRAFFIC PULL BOX (FLUSH WITH GRADE); TRAFFIC DETECTOR HOUSING; FIBER OPTIC PULL BOX (FLUSH WITH GRADE); UTILITY POLE; ELECTRIC CONTROL CABINET (ABOVE GRADE); TELEPHONE BOX/CABINET (ABOVE GRADE); FIBER OPTIC BOX/CABINET (ABOVE GRADE); FIBER OPTIC MANHOLE; UTILITY PULL BOX (UNKNOWN, FLUSH W/GRADE); ELECTRIC PEDESTAL; TEST BORING; PERC HOLE; SEEP

AREA SUMMARY

GROSS AREA= 1,204,823 S.F. (27.659 ACRES)



SURVEYOR'S NOTES:

1. THIS SURVEY IS BASED ON PROFORMA TITLE COMMITMENT 18000150813A REVISED DECEMBER 11, 2018, PREPARED BY STEWART TITLE GUARANTY COMPANY, THESE PROPERTIES ARE SUBJECT TO ALL COVENANTS AND RESTRICTIONS RELATING TO THE USE AND CHARACTER OF THE LAND AS ALL MATTERS APPEARING OF PUBLIC RECORD AND AS MAY BE DISCLOSED BY A MORE CURRENT TITLE COMMITMENT OR REPORT.
2. BASIS OF BEARING: ILLINOIS STATE PLANE – EAST ZONE
3. NO PZR ZONING REPORT WAS PROVIDED AT THE TIME OF THIS SURVEY. PER THE CITY OF WEST CHICAGO 2018 ZONING MAP, DATED 04/18/2018, THE SURVEYED PROPERTY IS ZONED MANUFACTURING DISTRICT PLANNED UNIT DEVELOPMENT.
4. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO GAPS OR OVERLAPS.
5. THE SURVEYED PROPERTY IS LOCATED WITHIN AREAS OF 0.2% ANNUAL CHANCE FLOOD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREA S WITHIN ZONE AE, BASE FLOOD ELEVATIONS DETERMINED, ACCORDING TO MAP NO. 17043C0036J WITH EFFECTIVE DATE OF AUGUST 1, 2019.
6. THE UNDERSIGNED DID NOT OBSERVE EVIDENCE OF CURRENT EARTH MOVING, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
7. THE UNDERSIGNED HAS OBSERVED NO EVIDENCE OF SITE USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
8. THE UNDERSIGNED HAS NO KNOWLEDGE OF PROPOSED CHANGES IN STREET RIGHT OF WAY LINES. THERE IS EVIDENCE OF PAVEMENT RESURFACING ON OGDEN AVENUE.
9. THE UNDERSIGNED OBSERVED PARKING AS FOLLOWS:

REGULAR SPACES	150
HANDICAP SPACES	0

10. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
11. NO WETLAND DELINEATION WAS OBSERVED AT THE TIME THIS SURVEY WAS PERFORMED.

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS } SS
COUNTY OF DUPAGE }

TO:

- OSCAR (IL) LLC, A DELAWARE LIMITED LIABILITY COMPANY
- STEWART TITLE GUARANTY COMPANY

I HEREBY CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND DOES INCLUDE ITEMS 1, 2, 3, 4, 6(a), 6(b), 7(a), 7(b1), 8, 9, 16, 17, 18 AND 19 OF TABLE A THEREOF.

FIELD WORK WAS COMPLETED ON MAY 19, 2019.

THIS PLAT HAS BEEN PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. ILLINOIS LICENSED PROFESSIONAL DESIGN FIRM NO. 184.004002, LICENSE EXPIRES APRIL 30, 2021, UNDER MY PERSONAL DIRECTION FOR THE EXCLUSIVE USE OF THE CLIENT NOTED HEREON. REPRODUCTION OR USE BY THIRD PARTIES IS STRICTLY PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE UNDERSIGNED.

DATED THIS 14TH DAY OF OCTOBER, A.D., 2020.

ILLINOIS LICENSED PROFESSIONAL LAND SURVEYOR NO. 035-002992
LICENSED VALID THROUGH NOVEMBER 30, 2020

DOUGLAS R. McCLINTIC 035-002992 PROFESSIONAL LAND SURVEYOR NAPERVILLE, IL STATE OF ILLINOIS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
Ph: 630.963.6026 · 877.963.6026 · Fax: 630.963.6027
www.cecinc.com

ALTA/NSPS LAND TITLE SURVEY
1655 POWIS ROAD
WEST CHICAGO, IL 60185
Situate In

DUPAGE COUNTY, ILLINOIS
Made For
LAKESHORE RECYCLING SYSTEMS, INC.
6132 OAKTON STREET
MORTON GROVE, IL 60053

DATE:	OCTOBER 15, 2020	SCALE:	1"=80'
DRAWN BY:	SRH	CHECKED BY:	DRM
PROJECT NO:	163-899.0004	APPROVED BY:	DRM*

DRAWING NO.: C101
SHEET 5 OF 26

P:\2016\163-899\-CAD\Dwg\CIVIL-Local Shop Application\163899-CIV1-ALTA Survey.dwg(C101) LEO 9/13/2022 8:31 AM

C000373

NORTH

20 FT SIDE YARD BUILDING SETBACK
9 FT SIDE YARD PARKING SETBACK
STRIPING FOR PARKING AREA (TYP.)
PROPERTY LINE
72 BUSHES TOTAL
ASPHALT (TYP.)
LANDSCAPED AREA
LANDSCAPED AREA
EX. WM EASEMENT
TANK
TANK
MATCHLINE
MULCH STORAGE AREA
STRIPING FOR PARKING AREA (TYP.)
CONCRETE BLOCKS (TYP.)
APPROX. LOC. 2.5' WIDE INFILTRATION TRENCH ALONG EDGE OF PAVEMENT
WEST DETENTION BASIN
ELEC. SERVICE AVAILABLE
C & D MATERIAL STORAGE AREA
LANDSCAPED AREA
OFFICE/ DISPATCH/ CUSTOMER SERVICE
SCALE
THREE-SIDED BUILDINGS
C&D SORTING LINE BUILDING
FIRE ROVER
EQUIPMENT
ENTRANCE/EXIT
EX. WM EASEMENT
ROOF DRAINS TIED INTO STORM SYSTEM
3" WATER SPIGOT (LOC PER SITE PERSONNEL)
20 FT FRONT YARD PARKING SETBACK
40 FT FRONT YARD BUILDING SETBACK
PROPPERTY LINE
STRIPING FOR PARKING AREA (TYP.)
MAINTENANCE GARAGE
C&D TRANSFER/ SCREENING BUILDING
LANDSCAPED AREA
STORAGE/MECHANICAL/ EMPLOYEE BREAK ROOMS
MATCHLINE
EX. WM EASEMENT
20 FT SIDE YARD BUILDING SETBACK
15 FT SIDE YARD PARKING SETBACK
PROPERTY LINE
POWIS ROAD

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

EXISTING SITE CONDITIONS WEST

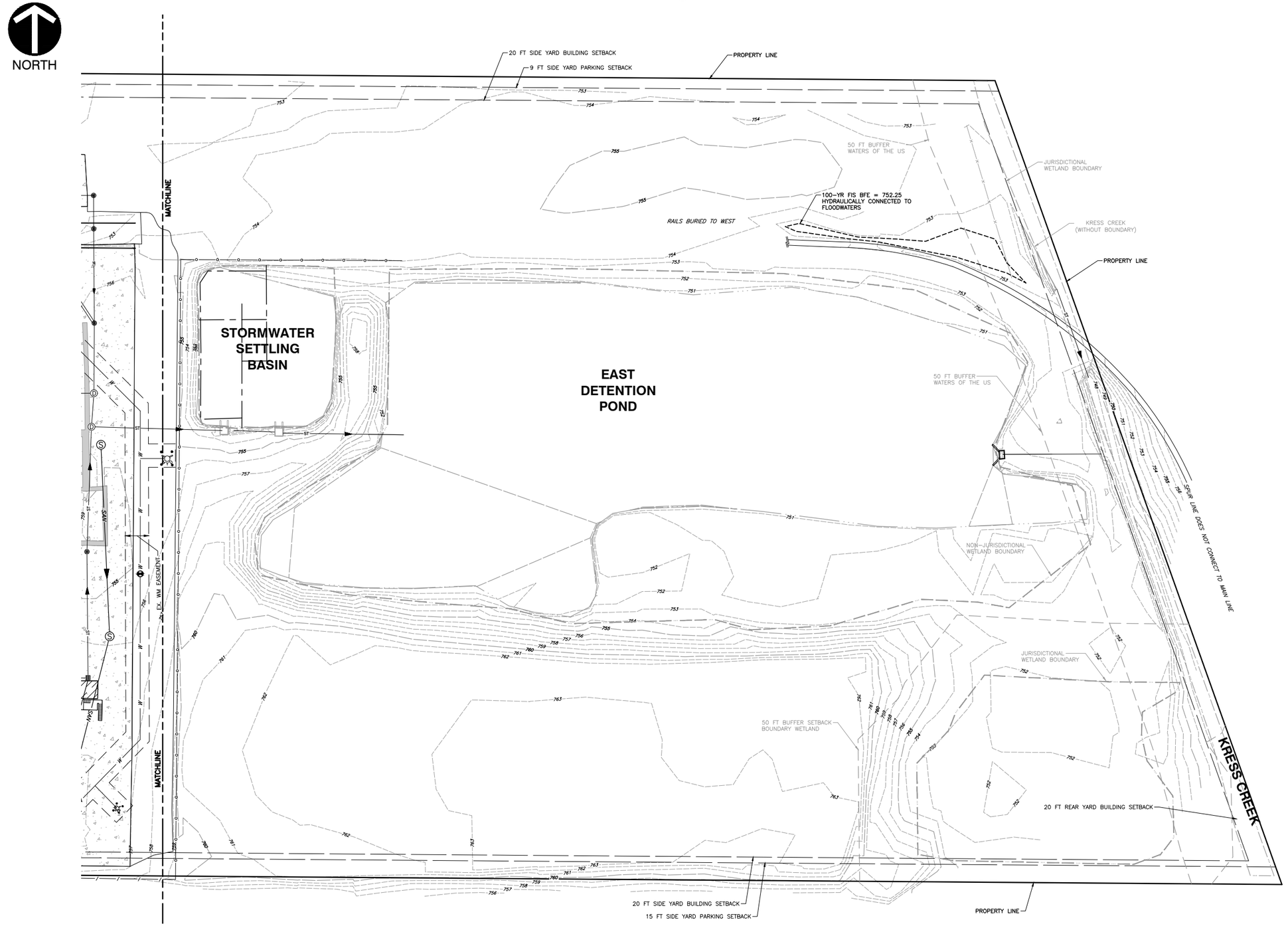
DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C102

SHEET 6 OF 26

M:\2019\163-899-0005\CAD\Layouts\163-899-0005-C102 Existing Conditions.dwg [C102] Layout: LS1 - 8/15/2022 8:24 AM

C000374



REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING
AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

EXISTING SITE CONDITIONS EAST

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.:
C103
SHEET 7 OF 26

P:\2016\163-899\~CAD\[dwg]\CVSS-Local Siting Application\163-899-C105-C107 thru C153-Existing Conditions.mxd[C103] LST 9/6/2022 LP 9/13/2022 8:24 AM

Electronic Filing: Received, Clerk's Office 04/19/2023

C000375

NORTH

PROPERTY LINE
LIGHT DUTY PAVEMENT
PROPOSED PARKING ADDITION
HVAC EQUIPMENT (TYP.) DESIGN TO BE FINALIZED
72 BUSHES TOTAL
PARKING STOP BLOCKS (TYP. OF 6)
CONCRETE WALKWAY
MAINTENANCE FACILITY (60' X 170', 35 FT HIGH) FFE = 757.0
RAMP TO BLDG FLOOR
757.0
756.0
HANDICAP PARKING SIGN (TYP. OF 6)
ADA ACCESSIBLE RAMP
HEAVY DUTY PAVEMENT
125 LF PROPOSED WALL MATCH EX.
MATCHLINE
"A" WOOD STORAGE BUNKER (10-FT HIGH)
VERMERR GRINDER
RED WOOD STORAGE BUNKER (10-FT HIGH)
BROWN WOOD STORAGE BUNKER (10-FT HIGH)
"B" WOOD STORAGE BUNKER (10-FT HIGH)
ROAD BASE STORAGE BUNKER (10-FT HIGH)
"8" STORAGE BUNKER
CRUMBO SHREDDER
3-SIDED STRUCTURE
WEST DETENTION POND
PROPOSED PARKING ADDITION
HEAVY DUTY PAVEMENT
POWIS ROAD
ENTRANCE/EXIT
INSTALL PREVIOUSLY APPROVED SECOND SCALE
LIGHT DUTY PAVEMENT
PARKING STOP BLOCKS (TYP. OF 6)
HANDICAP PARKING SIGN (TYP. OF 6)
ROOF DRAINS TIED INTO STORM SYSTEM
3" WATER SPIGOT (LOC PER SITE
COVER BUILDING
CONCRETE STAIRS AND LANDING (SEE ARCH. PLANS)
C&D SORTING LINE BUILDING
OFFICE/DISPATCH/ CUSTOMER SERVICE
MAINTENANCE GARAGE
C&D TRANSFER/ SCREENING BUILDING
C&D EXPANSION BUILDING (112'X198', 40 FT HIGH) FFE = 756.40
LOADING PIT
BEGIN FENCE REMOVAL AND REPLACEMENT
CONCRETE PAVEMENT STANDARD
PROPOSED PARKING ADDITION
END OF FENCE REMOVE/REPLACEMENT
PROPERTY LINE
HEAVY DUTY PAVEMENT
CONCRETE LOADING PIT WITH RAMPS (SEE ARCH. PLANS)

SAWCUT EXISTING PAVEMENT TO CLEAN, NEAT, STRAIGHT LINE
LIMIT OF NEW PAVEMENT
ASPHALT EMULSION SEALANT
CONCRETE
EXISTING PAVEMENT SECTION
AGGREGATE SUBBASE
COMPACTED SUBGRADE

NOTE:
1. PROVIDE TACK COAT ALONG SAWCUT TO BIND EXISTING PAVEMENT TO NEW PAVEMENT. FOR AREAS WITH PATCHING AND OVERLAY, PROVIDE TACK COAT TO BIND EXISTING PAVEMENT WITH NEW ASPHALT.

PAVEMENT SAWCUT
NOT TO SCALE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AMENDED P.U.D. SITE PLAN WEST

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1" = 40'
CHECKED BY:	DAK
PROJECT NO.:	163-899.0005
APPROVED BY:	JEH*

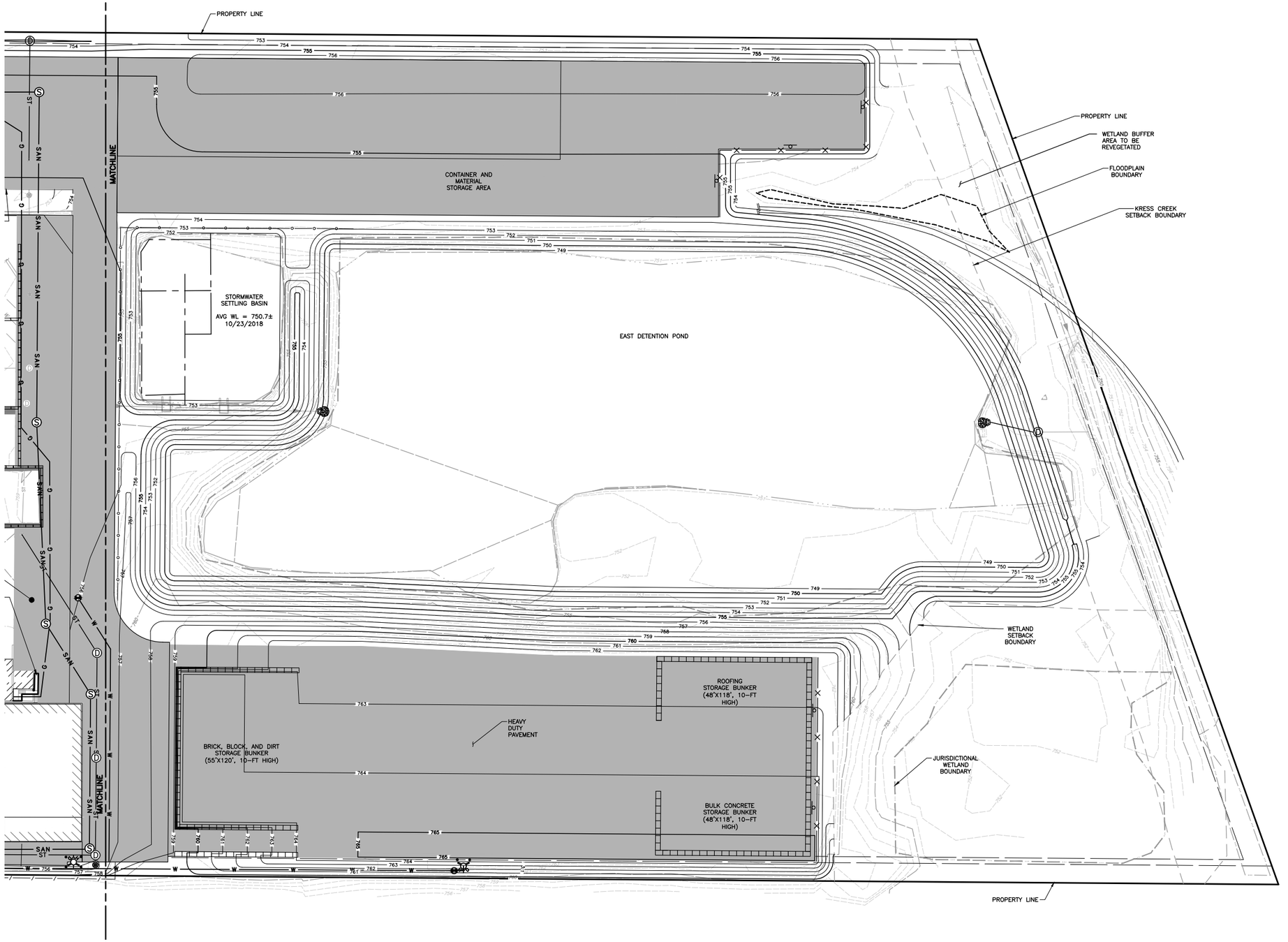
DRAWING NO.:
C104
SHEET 8 OF 26

P:\2016\163-899\...\C104 thru C105-Amended PUD Site Plan.dwg(C104) LS(8/9/2022 - mkay() - LP: 8/12/2022 6:25 AM

Electronic Filing: Received, Clerk's Office 04/19/2023

C000376

NORTH



REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
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3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

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630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

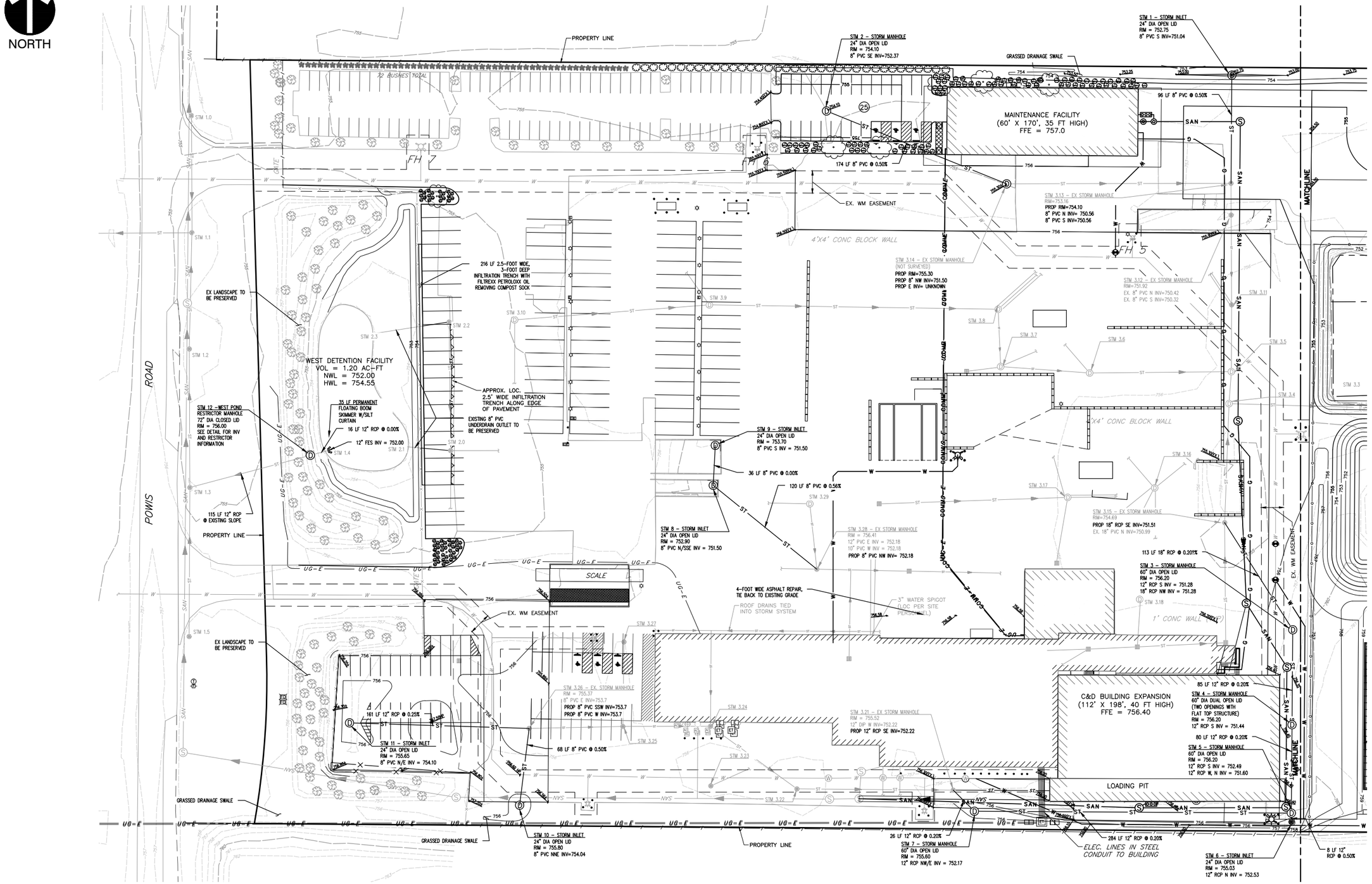
AMENDED P.U.D. SITE PLAN EAST

DATE:	AUGUST 2022
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

DRAWING NO.:
C105
SHEET 9 OF 26

P:\2016\163-899\-CAD\[Dwg]\C105-Local Siting Application\163899-C105-C104 thru C105-Amended PUD Site Plan.dwg(C105) LS(9/9/2022 - mkemp) LP: 9/13/2022 8:25 AM

C000377



REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

NOTES

1. PROPOSED RIMS AND INVERTS FOR EXISTING STORM STRUCTURES THAT WERE UNABLE TO BE SURVEYED SHALL BE CONFIRMED DURING CONSTRUCTION OR REPLACED, IF NEEDED.

Stage - Storage - Discharge West Pond Table

Contour (feet)	Area (acre)	Storage Volume (acre-feet)	Cumulative Storage Volume (acre-feet)	Area (square miles)	Discharge (cfs)
752.00	0.23	0.00	0.00	0.000	0.00
753.00	0.39	0.31	0.31	0.001	0.15
754.00	0.470	0.43	0.74	0.001	0.20
754.55	0.950	0.46	1.20	0.001	0.25

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AMENDED P.U.D. GRADING AND DRAINAGE PLAN WEST

DRAWN BY:	MMS
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*
DATE:	AUGUST 2022
DWG SCALE:	1"=40'

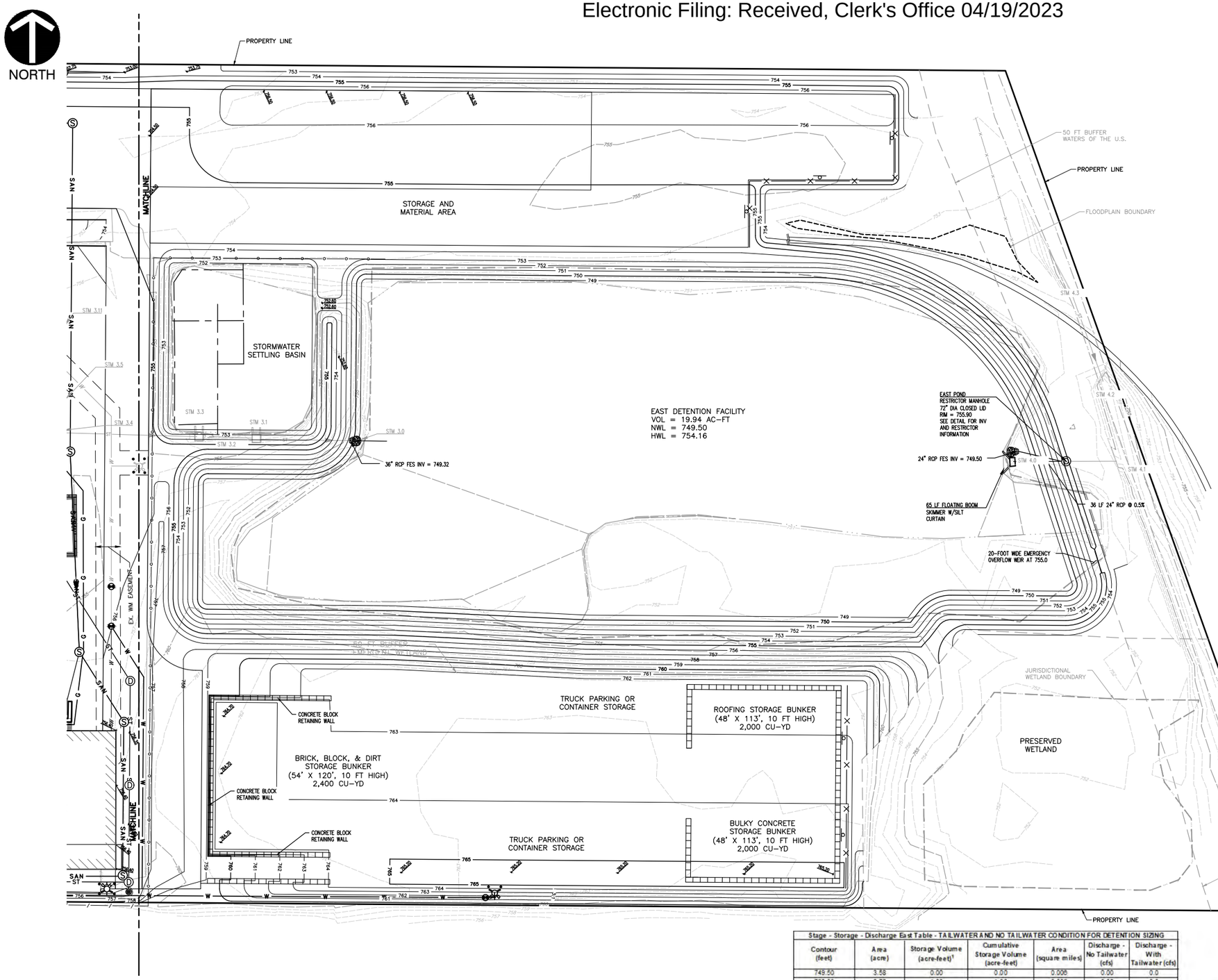
DRAWING NO.: C106

SHEET 10 OF 26

AM 8/19 2022/11/8 ut - [drawing - 2022/8/8/ST (INT)\dgn\Borg & Borg GDU Freeway.dgn - 8/19 - 2022/11/8 ut]

Electronic Filing: Received, Clerk's Office 04/19/2023

C000378



EXISTING STORM STRUCTURE INFORMATION

STM 1.0 CB BEEHIVE
RIM=753.26
12" RCP S INV=750.46

STM 1.1 CB BEEHIVE
RIM=752.99
12" RCP N INV=750.09
12" RCP S INV=750.09
12" RCP W INV=749.89

STM 1.2 CB BEEHIVE
RIM=753.00
12" RCP S/N INV=750.30

STM 1.3 CB BEEHIVE
RIM=753.87
12" RCP N INV=750.97
4" PVC NE INV=751.07
12" RCP S INV=751.07

STM 1.4 8" PVC
INV=752.20

STM 1.5 CB BEEHIVE
RIM=755.09
12" RCP N INV=751.59

STM 2.0 CB BEEHIVE
RIM=753.99
6" PVC S INV=752.49
8" PVC W INV=752.49

STM 2.1 8" PVC
INV=752.23

STM 2.2 CB BEEHIVE
RIM=754.07
6" PVC N INV=752.57
6" PVC E INV=752.57
6" PVC S INV=752.87
8" PVC W INV=752.47

STM 2.3 6" PVC
INV=752.22

STM 3.0 36" RCP E
INV=749.32

STM 3.1 SQUARE METAL GRADE LID (30"X30")
RIM=754.55
36" RCP W INV=748.72
36" RCP E INV=748.72

STM 3.2 36" RCP E
INV=749.21

STM 3.3 SQUARE METAL GRATE LID (30"X30")
RIM=754.57
60" CMP W INV=747.15

STM 3.4 SQUARE STORM STRUCTURE
RIM=755.22
24" N INV=750.22
60" E INV=749.47
18" S INV=750.62
18" S INV=749.47
STRUCTURE IS APPROXIMATELY 6'X6' SQUARE CONCRETE BOX FILLED W/WATER

STM 3.5 STORM MANHOLE
RIM=755.73
N INV=749.7±
24" RCP S INV=750.43
18" RCP W INV=750.43
FILLED W/WATER

STM 3.6 STORM MANHOLE
RIM=756.35
8" NW INV=753.85
18" RCP E INV=751.05
W INV=751.0±
FILLED W/WATER

STM 3.7 STORM MANHOLE
RIM=756.34
10" PVC N INV=751.41
12" PVC NE INV=744.24
18" PVC E INV=751.94
12" PVC W INV=754.54
FILLED W/WATER

STM 3.8 STORM MANHOLE
RIM=756.54
8" RCP NE INV=751.84
8" RCP NE INV=751.84
12" RCP S INV=751.64
12" RCP W INV=751.74
6" RCP NE INV=752.94
FILLED W/WATER

STM 3.9 STORM MANHOLE
RIM=756.64
4" PVC WNW INV=753.74
10" PVC E INV=753.44
6" PVC SW INV=753.44
SAN LID ON STRUCTURE
FILLED W/WATER

STM 3.10 STORM MANHOLE
RIM=755.01
6" CLAY E INV=753.31
6" CLAY S INV=753.31
SAN LID ON STRUCTURE

STM 3.11 STORM MANHOLE
RIM=755.03
8" PVC N INV=752.23
S INV=749.6±
8" PVC NW INV=750.53 (SIDE BY SIDE)
8" PVC NW INV=750.53 (SIDE BY SIDE)
FILLED W/WATER

STM 3.16 STORM MANHOLE
RIM=755.12
NNE INV=751.22 (SEE BELOW)
10" PVC S INV=749.72
12" PVC SSW INV=751.12
4" PVC SW INV=753.52
10" PVC NW INV=749.72 (BROKEN PIPE)
FILLED W/WATER
NNE INV HAS A "BELL" HOUSING TURNED DOWNWARD UNDER WATER

STM 3.17 STORM MANHOLE
RIM=755.81
18" PVC E INV=751.81
6" PVC E INV=752.01
6" PVC S INV=752.11
10" PVC SSW INV=753.01
6" PVC NNW INV=752.01
FILLED W/WATER

STM 3.18 STORM STRUCTURE
RIM=755.85
S INV=752.5±
FILLED W/WATER

STM 3.22 STORM MANHOLE
RIM=755.46
12" PVC NE/E INV=752.26

STM 3.23 STORM MANHOLE
RIM=755.60
12" PVC NE INV=753.0

STM 3.24 STORM MANHOLE
RIM=756.20
8" PVC W INV=753.10
10" PVC N INV=753.45
12" PVC SE INV=752.90

STM 3.25 STORM MANHOLE
RIM=755.70
8" PVC W/N/E INV=753.20

STM 3.27 STORM MANHOLE
RIM=755.97
8" PVC S INV=753.27

STM 3.29 STORM MANHOLE
RIM=756.40
8" PVC S/W INV=754.20
FILLED W/WATER

STM 4.0 STORM CONTROL RELEASE CONCRETE STRUCTURE W/FLAP GATE AND WING WALLS INTO RETENTION AREA (30"X30" GRATE LID)
RIM=753.35
8" STEEL PIPE IN MOVABLE FLAP GATE-CURRENT INV=750.54
30" RCP E INV=749.06

STM 4.1 30" RCP W
INV=748.37

STM 4.2 60" CMP NW
INV=747.06

STM 4.3 60" CMP SE
INV=747.82

Stage - Storage - Discharge East Table - TAILWATER AND NO TAILWATER CONDITION FOR DETENTION SIZING							
Contour (feet)	Area (acre)	Storage Volume (acre-feet)[1]	Cumulative Storage Volume (acre-feet)	Area (square miles)	Discharge - No Tailwater (cfs)	Discharge - With Tailwater (cfs)	
749.50	3.58	0.00	0.00	0.006	0.00	0.0	
750.00	3.75	1.83	1.83	0.006	0.62	0.0	
751.00	3.92	3.84	5.67	0.006	1.50	0.0	
752.00	4.10	4.01	9.68	0.006	2.02	0.0	*2.23 cfs at 752.47 elevation (no tailwater condition)
753.00	4.69	8.81	14.28	0.007	–	1.18	
754.00	4.97	4.83	19.11	0.008	–	1.81	*1.89 cfs at 754.16 (tailwater conditions)
755.00	5.25	5.11	24.22	0.008	–	--	*see note 3
755.10	5.30	5.85	24.76	0.008	–	--	*see note 3

NOTES:
1. Acre-feet of storage per contour interval approximated by multiplying the average contour acreage between the interval, times contour depth.
2. Tributary area to East Pond is 22.47 acres, therefore, allowable release shall not exceed 2.247 cfs.
3. 100-year high water level is dictated by tailwater condition model and is 754.16. There is no release above 754.16 for the 100-year tailwater model condition.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

NOTES

1. PROPOSED RIMS AND INVERTS FOR EXISTING STORM STRUCTURES THAT WERE UNABLE TO BE SURVEYED SHALL BE CONFIRMED DURING CONSTRUCTION OR REPLACED, IF NEEDED.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AMENDED P.U.D. GRADING AND DRAINAGE PLAN EAST

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C107
SHEET 11 OF 26

AM 8:52 2022/8/1 - J:\Interw - 2022/8/8\LST\01\Applications\163-899-0005-C107.dwg, C107, Layout: C107, Xrefs: Inv, Plot: 2022/8/8 8:52 AM, AM

Electronic Filing: Received, Clerk's Office 04/19/2023

C000379

NORTH

PROPERTY LINE

72 BUSHES TOTAL

EXISTING VALVE NO. 1 (WEST SIDE OF POWS, NOT SHOWN)

EXISTING VALVE NO. 2 (WEST SIDE OF POWS, NOT SHOWN)

POWS ROAD

WEST DETENTION POND

EXISTING PUBLIC WATERMAIN

EX. WM EASEMENT

SAN 6 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 754.8
INV = 750.56

OIL-WATER SEPARATOR
RIM = 756.5
INV E= 750.96
INV W= 750.96

SAN 7 – SANITARY CLEANOUT
RIM=756.3
INV=750.85

SAN 8 – SANITARY CLEANOUT
RIM = 756.5

CITY TO CONFIRM METER REQUIREMENTS

6" GATE VALVE (MJ) IN VALVE BOX

6 LF 6" PVC @ 1.00%

27 LF 6" DIP

77 LF 8" PVC @ 0.40%

SIAMESE CONNECTION #3

35 LF 6" DIP

6" 45° BEND (MJ)

56 LF 6" DIP

PROPOSED PRIVATE WATERMAIN

2 LF 6" DIP

268 LF 8" PVC @ 0.40%

MATCHLINE

VALVE VAULT NO. 3
PRESSURE CONNECTION
8" TAPPING VALVE
IN 60" VAULT
RIM = 756.5±

GAS/COMM LINES TO BE INSTALLED IN THE SAME TRENCH

SANITARY SEWER CUT & SEALED

SAN 5 – SANITARY MANHOLE
RIM = 755.41
8" PVC S INV=749.47 (ASSUMED)
PROP 8" PVC N INV=749.47

6"X3" RECEIVER (MJ) AND 3" TO 2" BRASS FPT FITTING

WOODFORD MODEL V200 W/2" OUTLET (SEE NOTE #1)

6 LF 3" DIP

103 LF 3" DIP

TWO (2) 3" 45° BENDS

144 LF 3" DIP

EX. 164 LF OF ASSUMED 8" PVC AT 0.40% SEE NOTE #2

164 LF 8" PVC @ 0.40%

EXISTING SANITARY SEWER AND STRUCTURES ABANDONED IN PLACE BETWEEN SAN 1.4 AND SAN 1.8

PROPOSED PRIVATE WATERMAIN

ELEC/COMM LINES TO BE IN THE SAME TRENCH

VALVE VAULT NO. 1
CUT-IN CONNECTION
8" GATE VALVE
IN 60" VAULT
RIM = 756.0'

8" 45° BEND (MJ)

SAN 4 – SANITARY MANHOLE
RIM = UNKNOWN
8" PVC N INV=748.81 (ASSUMED)
PROP 8" PVC SE INV=748.81

50 LF 8" DIP

68 LF 8" PVC @ 0.40%

8" 45° BEND (MJ)

LINE STOP 1

RECONFIGURE INTERNAL PLUMBING TO GO UNDERGROUND INSIDE BUILDING AND CONNECT TO EXISTING BUILDING WATER LINE ON EXTERIOR. CONFIRM EXISTING WATER LINE LOCATION IN BUILDING

ROOF DRAINS TIED INTO STORM SYSTEM

3" WATER SPIGOT (LOC PER SITE PERSONNEL)

WTR 1.2 – EX VALVE VAULT
RIM = 756.27
PIPE RUNS N/S & E/W T/P=750.17
FILLED W/ WATER

WTR 1.3 – EX VALVE VAULT
RIM = 756.02
E/W T/P=750.32
FILLED W/ WATER

CUT-IN CONNECTION

C&D BUILDING EXPANSION
(112' X 198', 40 FT HIGH)
FFE = 756.40

SAN 3 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 756.35
INV = 748.54

PROPOSED PUBLIC WATERMAIN

126 LF 8" PVC @ 0.40%

SIAMESE CONNECTION #2

171 LF 8" DIP

WTR 1.1 – EX VALVE VAULT
RIM = 756.36
PIPE RUNS N/S & E/W T/P=750.46
FILLED W/ WATER

SAN 1.5 – EX SANITARY MANHOLE
RIM = 756.13
6" PVC N/E INV=751.88
6" PVC S INV=750.28

EXISTING PUBLIC WATERMAIN

8" 45° BEND (MJ)

100 LF 8" DIP

OIL-WATER SEPARATOR
RIM = 756.55
INV E= 747.70
INV W= 747.70

SAN 1 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 756.50
8" PVC E/W INV=747.51
NE INV=747.6±

SAN 2 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 756.30
INV = 748.04

LOADING PIT

SAN 1.1 – EX SANITARY MANHOLE
RIM = 755.78
12" PVC N INV=744.28
8" PVC E INV=744.28
(FLOW N)

SAN 1.2 – EX SANITARY MANHOLE
RIM = 756.41
8" PVC E/WNW INV=745.01

PROPERTY LINE

WTR 1.0 – EX VALVE VAULT
RIM = 756.08
E/W T/P = 750.28
FILLED W/ WATER

SAN 1.3 – EX SANITARY MANHOLE
RIM = 756.15
BOTTOM OF STRUCTURE INV=746.50

SANITARY SEWER CUT & SEALED

SAN 1.4 – EX SANITARY MANHOLE
RIM = 756.13
6" PVC N INV=748.13
8" PVC W INV=746.53

251 LF 8" PVC @ 0.40%

8" 45° BEND (MJ)

263 LF 8" CL 52 DIP (TYP.)

132 LF 8" PVC @ 0.40%

8"X8"X6" TEE (MJ)

FIRE HYDRANT #1
GRADE RING=757.4±

8"X8"X8" TEE

EX. WM EASEMENT

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REFERENCE:

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2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AMENDED P.U.D. UTILITIES WEST

DATE:	AUGUST 2022
DRAWN BY:	MMS
CHECKED BY:	DAK
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

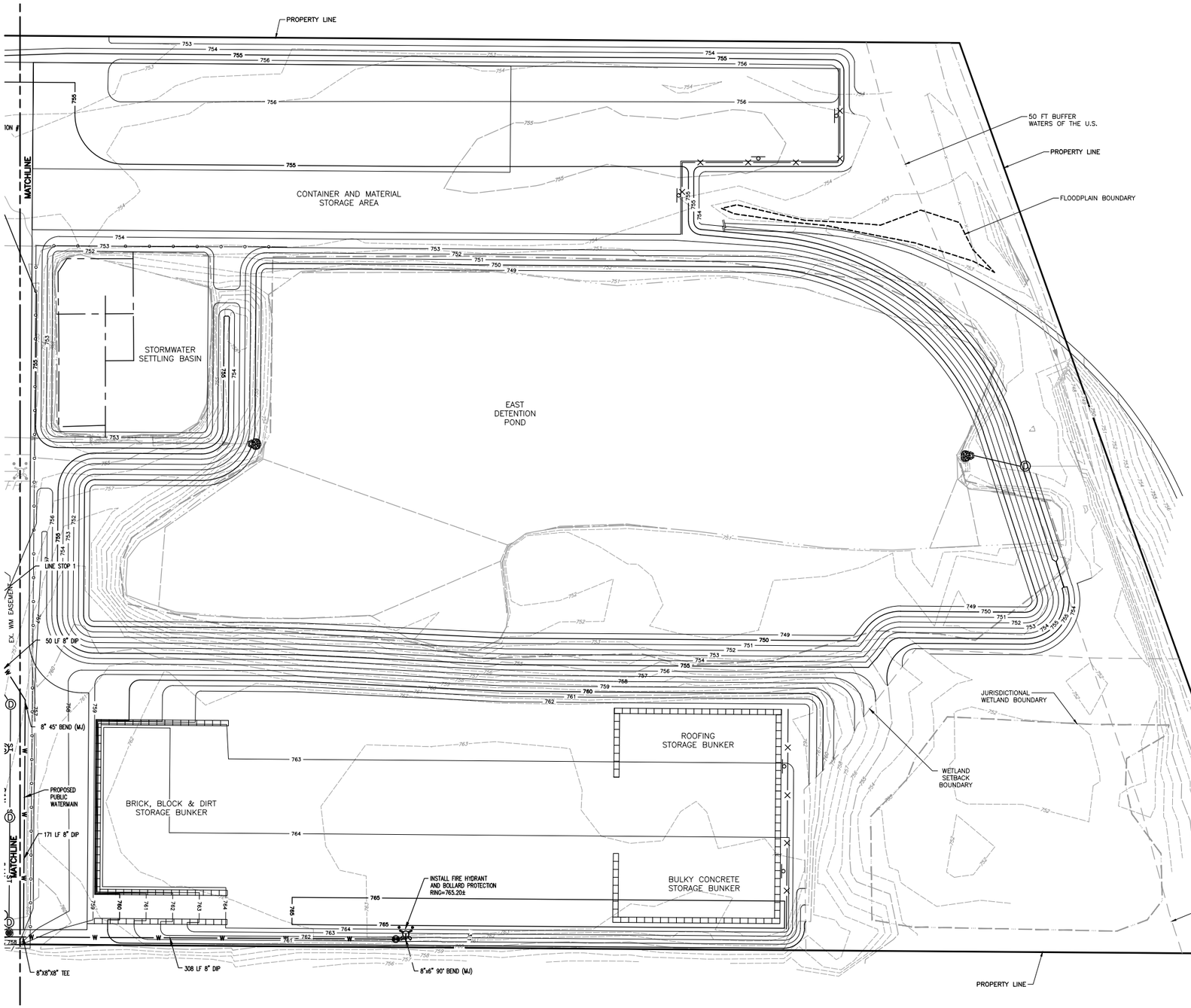
DRAWING NO.:
C108
SHEET 12 OF 26

AM 8:13, 8/1/2022, Uh, Drawing: P:\2016\163-899\CAD\Dwg\C108-C109-Amended PUD Utility Plans.dwg, 8/1/2022 8:13:51 AM, Uh

Electronic Filing: Received, Clerk's Office 04/19/2023

C000380

NORTH



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3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

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0 40 80

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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AMENDED P.U.D. UTILITIES EAST

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C109

SHEET 13 OF 26

P:\2016\163-899\~CAD\Dwg\C000-Local Siting Application\163899-C000-C168 thru C109-Amended PUD Utilities.dwg(C109) LS(9/9/2022 - mkemp) - LP: 9/13/2022 8:27 AM

C000381

NORTH

IMPERVIOUS SURFACE (TYP.)

PROPERTY LINE

72 BUSHES TOTAL

MAINTENANCE FACILITY

NORTH ENTRANCE (EXIT ONLY)

ROAD

POWIS

PROPOSED WATER SERVICE TO SPRINKLER ROOM AND YARD HYDRANT

184 LF 6" DIP WATERMAIN

"A" WOOD STORAGE BUNKER (10-FT HIGH)

VERMERR GRINDER

RED WOOD STORAGE BUNKER (10-FT HIGH)

BROWN WOOD STORAGE BUNKER (10-FT HIGH)

PROPOSED SPRINKLER ROOM

ELECTRICAL CONNECTION

72 LF 2" STEEL PIPE WATERMAIN

"B" WOOD STORAGE BUNKER (10-FT HIGH)

ROAD BASE STORAGE BUNKER (10-FT HIGH)

PROPOSED HYDRO EXCAVATION WASTE BUILDING

"8" STORAGE BUNKER

CONCRETE APRON

CRUMBO SHREDDER

EAST DETENTION POND

PROPERTY LINE

CONTAINER FOR E-WASTE

PROPOSED E-WASTE AND RECYCLABLES DROP-OFF AREA

CARDBOARD AND MIXED RECYCLABLES HOPPERS

PARKING FOR E-WASTE AND RECYCLABLES CUSTOMERS

HANDICAPPED PARKING SPACE FOR E-WASTE CUSTOMER

WATER SERVICE LOCATION TO SOLIDIFICATION BUILDING AND YARD HYDRANT TO BE ADJUSTED AS SHOWN

PROPOSED PAVEMENT EXPANSION

SOUTH ENTRANCE (ENTRANCE ONLY)

SCALES

COVER BUILDING

OFFICE

MAINTENANCE BUILDING

C&D TIPPING BUILDING

C&D SORTING LINE

MSW & SSR TRANSFER BUILDING (CONVERSION OF C&D BUILDING EXPANSION)

LOADING PIT

MATCHLINE

PROPOSED PAVEMENT EXPANSION

IMPERVIOUS SURFACE (TYP.)

PROPERTY LINE

REFERENCE:

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3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

LEGEND

- EXISTING PAVEMENT/PAVEMENT APPROVED IN AMENDED P.U.D.
- PROPOSED CONCRETE PAVEMENT

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

PROPOSED SITE PLAN WEST

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

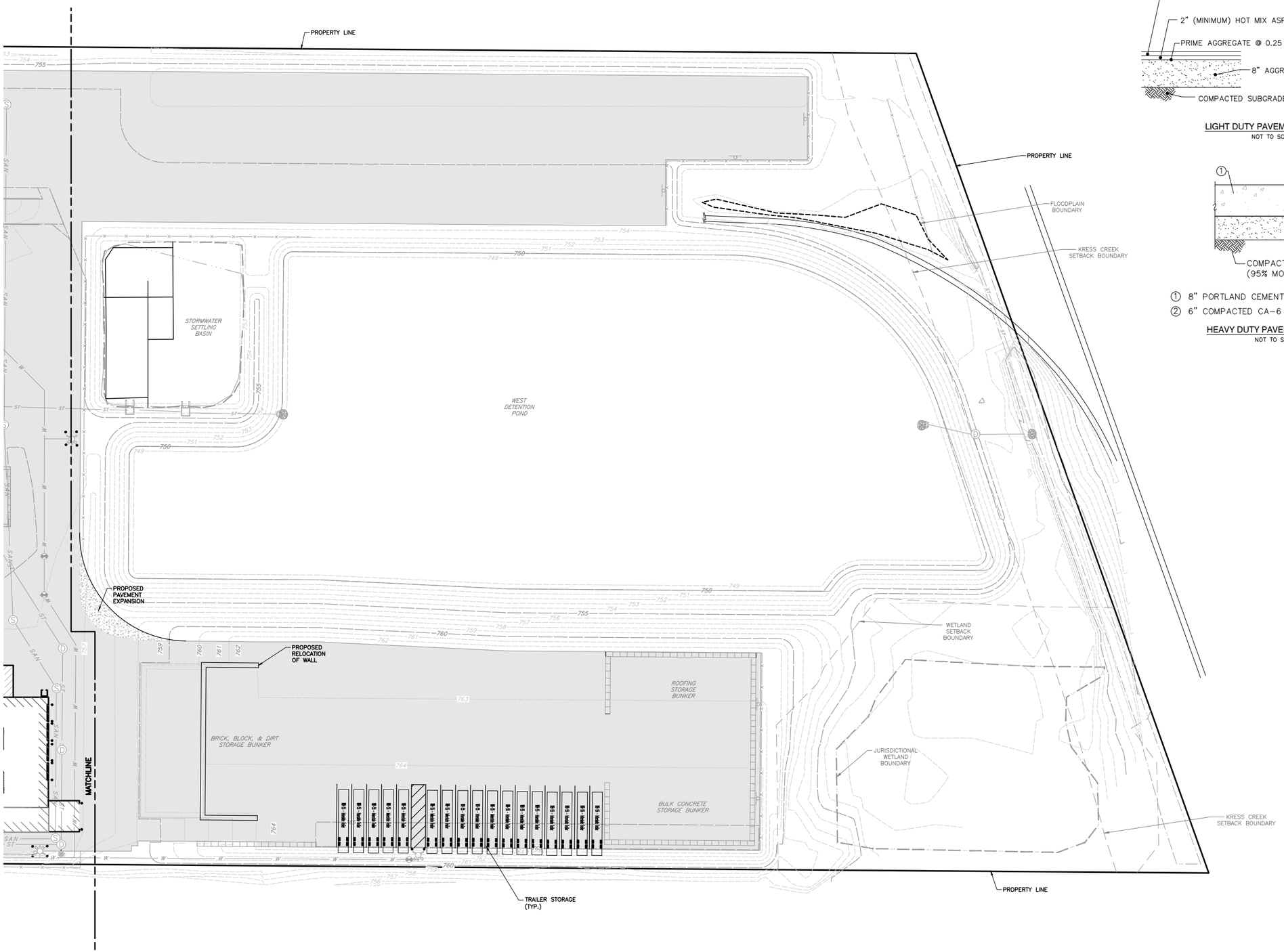
DRAWING NO.:
C200
SHEET 14 OF 26

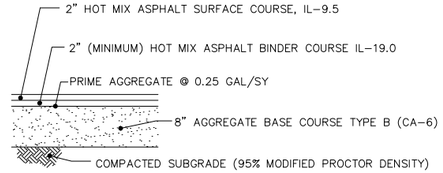
A:\2016\163-899\-CAD\[dwg]\C00-Local Siting Application\163899-C200 new c201-Proposed Site Plan.dwg[C200] 8/9/2022 - 1:57:53 PM

Electronic Filing: Received, Clerk's Office 04/19/2023

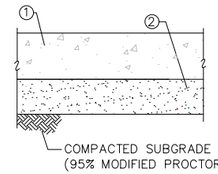
C000382

NORTH





LIGHT DUTY PAVEMENT SECTION
NOT TO SCALE



① 8" PORTLAND CEMENT CONCRETE, CLASS PV
② 6" COMPACTED CA-6 AGGREGATE BASE COURSE

HEAVY DUTY PAVEMENT SECTION
NOT TO SCALE

REFERENCE:

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3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

LEGEND

- EXISTING PAVEMENT/PAVEMENT APPROVED IN AMENDED P.U.D.
- PROPOSED CONCRETE PAVEMENT

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

PROPOSED SITE PLAN EAST

DATE:	AUGUST 2022	DRAWN BY: MMS
DWG SCALE:	1"=40'	CHECKED BY: DAK
PROJECT NO:		163-899.0005
APPROVED BY:		JEH*

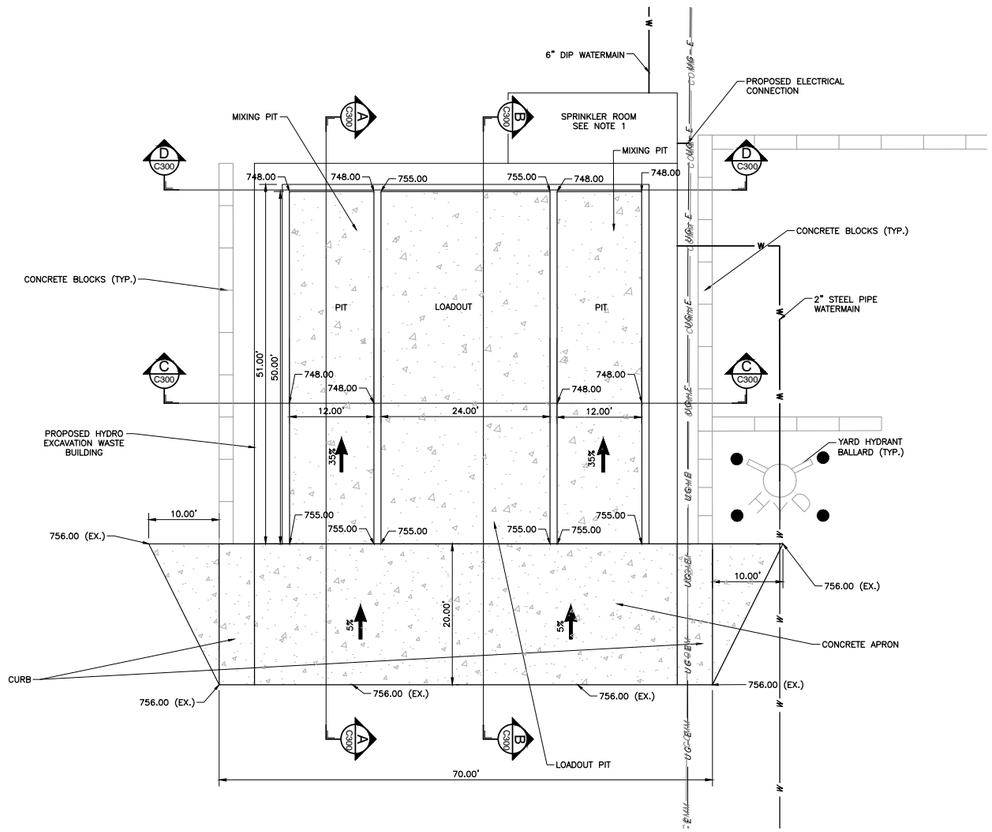
DRAWING NO.:
C201
SHEET 15 OF 26

P:\2016\163-899\~CADD\Civil\Local Siting Application\163899-CV01-Local Siting Application.dwg[C201 LS] 9/9/2022 - mstumpf LP: 9/13/2022 8:28 AM

Electronic Filing: Received, Clerk's Office 04/19/2023

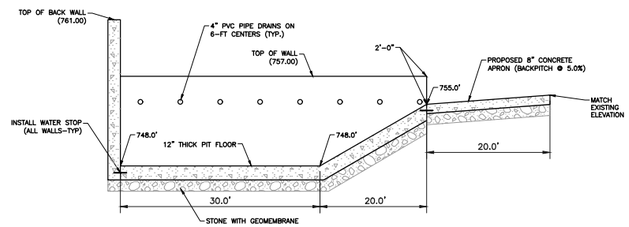
C000383

NORTH



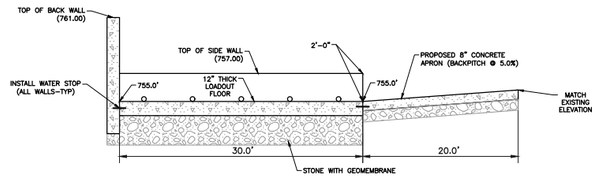
1 C300 **HYDRO EXCAVATION WASTE BUILDING PLAN**

SCALE: 1" = 10'



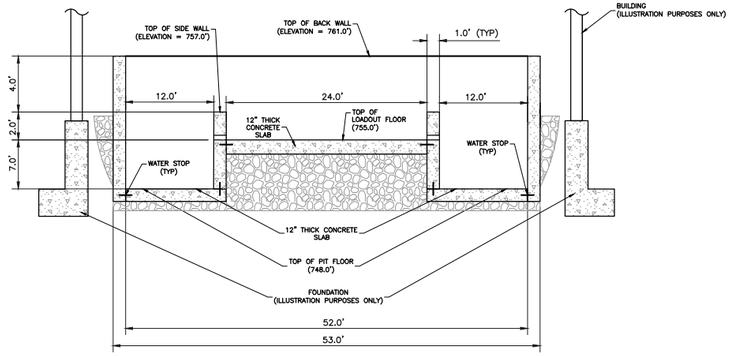
A C300 **SOLIDIFICATION PIT A-A**

NOT TO SCALE



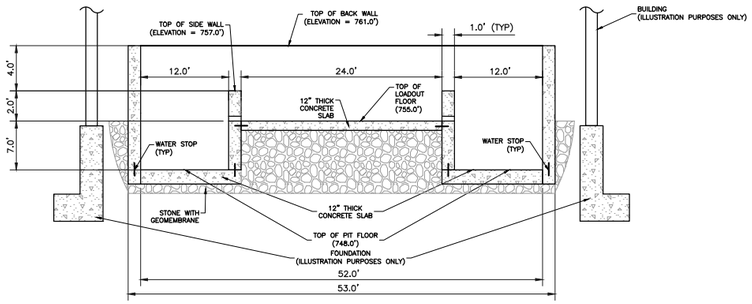
B C300 **SOLIDIFICATION PIT B-B**

NOT TO SCALE



C C300 **SOLIDIFICATION PIT C-C**

NOT TO SCALE



D C300 **SOLIDIFICATION PIT D-D**

NOT TO SCALE

REFERENCE

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

NOTES:

1. WATER METER AND BACKFLOW PREVENTER WILL BE LOCATED IN THE SPRINKLER ROOM. BOTH THE SPRINKLER SYSTEM AND YARD HYDRANT LEAD SHALL BE METERED/PROTECTED.
2. ALL ELEVATIONS SHOWN ARE PAVEMENT/SLAB ELEVATIONS UNLESS OTHERWISE NOTED.
3. WATERPROOFING PROTECTION ON EXTERIOR OF SOLIDIFICATION PIT TO BE DETERMINED.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 10 20

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

HYDRO EXCAVATION WASTE BUILDING PLAN

DATE:	AUGUST 2022
DWG SCALE:	1" = 10'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

DRAWING NO.:

C300

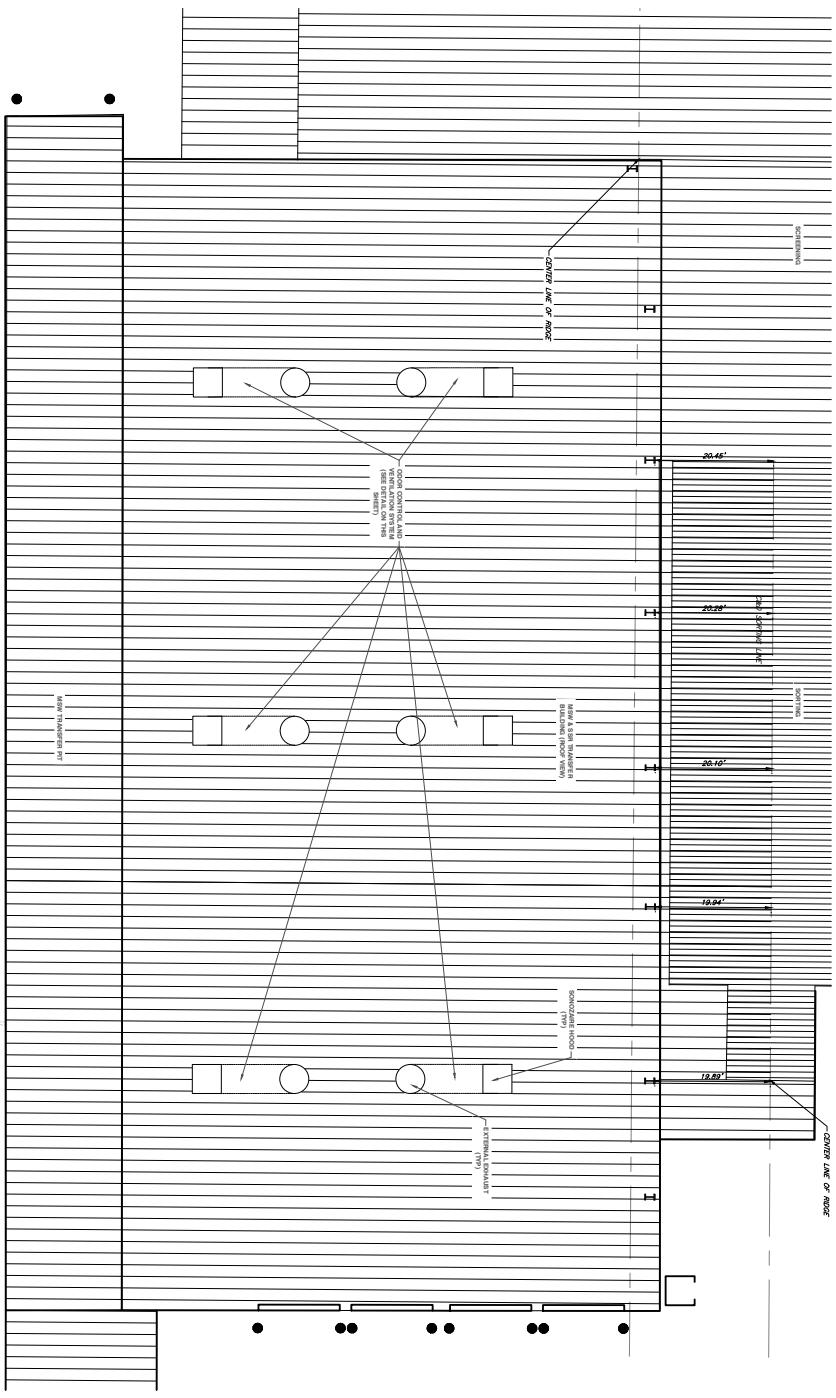
SHEET 16 OF 26

P:\2016\163-899 - CADD\Dwg\Civil\Local Siting Application\163899-Civil-C300 thru C307-Site Plan Area Details.dwg|C300| LS:9/9/2022 - mmerrill - LT: 9/12/2022 8:11 AM

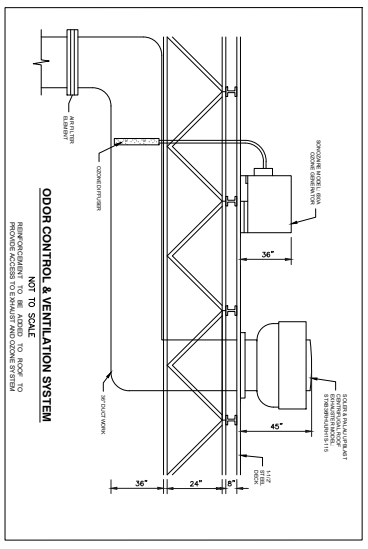
P:\2016\163-899\-CAD\Dwg\CIVIL-Local Siting Application\163899-CIVIL-C300 thru C301-Site Plan Area Details.dwg(C301) LS(8/9/2022 - mkorpi) - LP: 9/13/2022 8:32 AM

REFERENCE

1. ROOF PLAN VIEW TAKEN FROM DRAWINGS PROVIDED BY SANDMAN, INC. RECEIVED ON SEPTEMBER 29, 2020.



1 / C301
MSW AND SSR TRANSFER BUILDING PLAN
SCALE: 1" = 10'



ODOR CONTROL & VENTILATION SYSTEM
NOT TO SCALE

REINFORCEMENT TO BE ADDED TO ROOF TO PROVIDE ACCESS TO EXHAUST AND OZONE SYSTEM

0 10 20
SCALE IN FEET

*HAS BEEN SIGNED ON FILE

SHEET 17 OF 26

DRAWING NO. C301

MSW AND SSR TRANSFER BUILDING PLAN VIEW

DATE:	AUGUST 2022	DRAWN BY:	MMS
DWG SCALE:	1"=10'	CHECKED BY:	DAK
PROJECT NO:			163-899.0005
APPROVED BY:			JEH*

WEST DUPAGE RECYCLING AND TRANSFER STATION LOCAL SITING APPLICATION 1655 POWIS ROAD WEST CHICAGO, ILLINOIS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

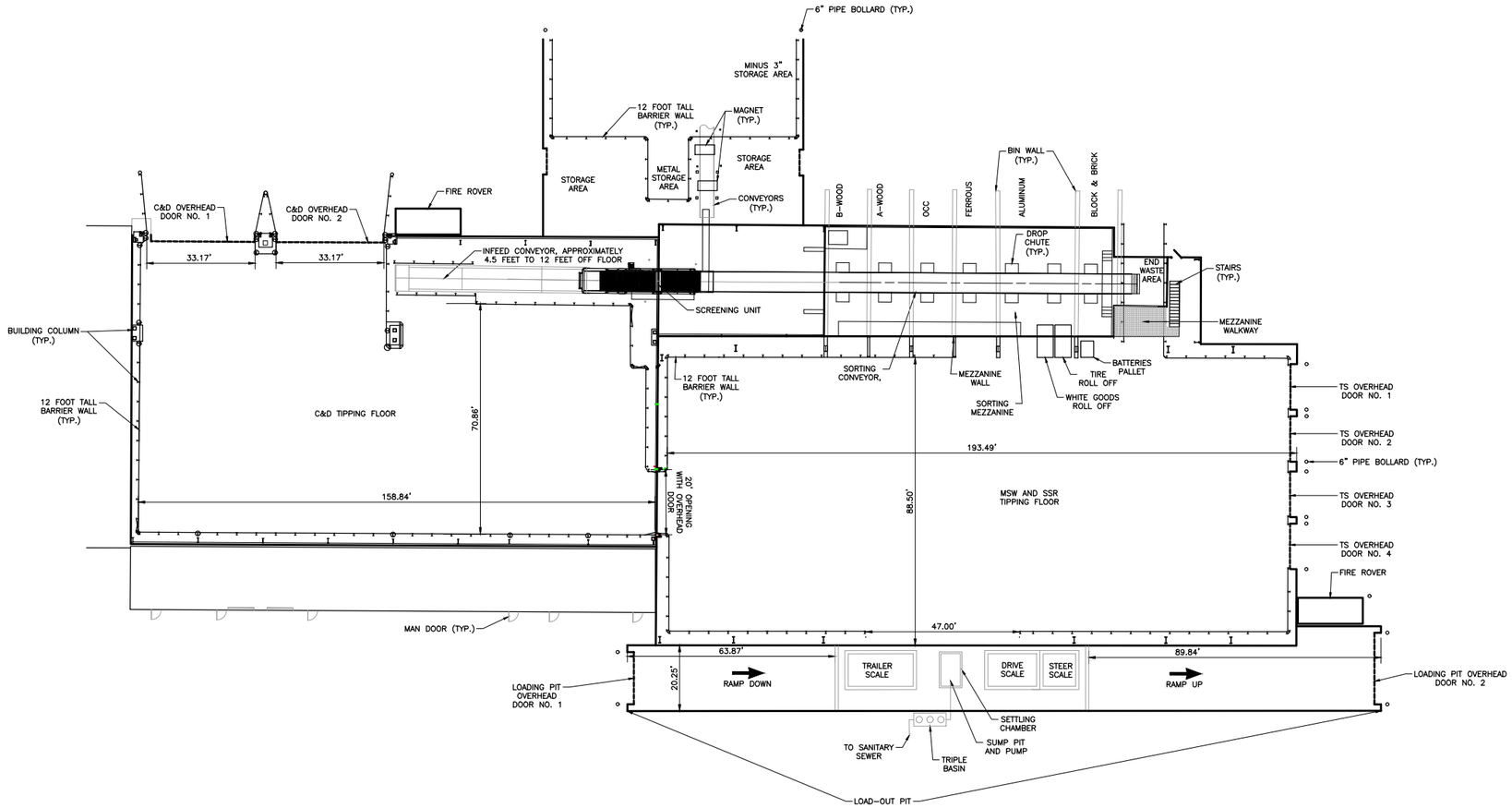
REVISION RECORD

NO	DATE	DESCRIPTION

Electronic Filing: Received, Clerk's Office 04/19/2023

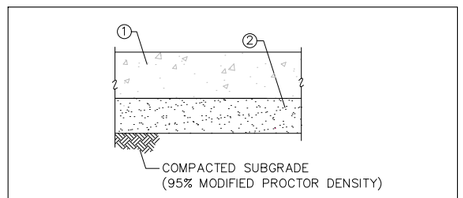
C000385

NORTH

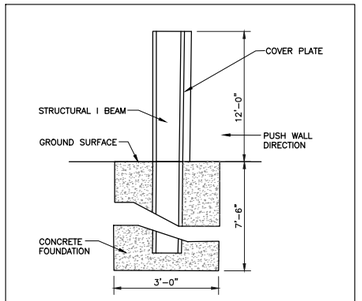


1 C302 COMBINED BUILDING PLAN

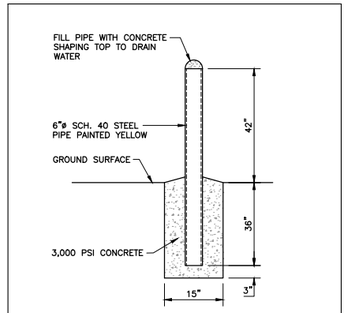
SCALE: 1" = 20'



MSW AND SSR TIPPING FLOOR - HEAVY DUTY PAVEMENT SECTION
NOT TO SCALE



BARRIER WALL
NOT TO SCALE



PIPE BOLLARD
NOT TO SCALE

REFERENCE

1. DRAWING BASE IS 8/9/2019 "BARRIER WALL & BOLLARD PLAN" BY SANDMAN, INC.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 20 40

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

COMBINED BUILDING PLAN

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1" = 20'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

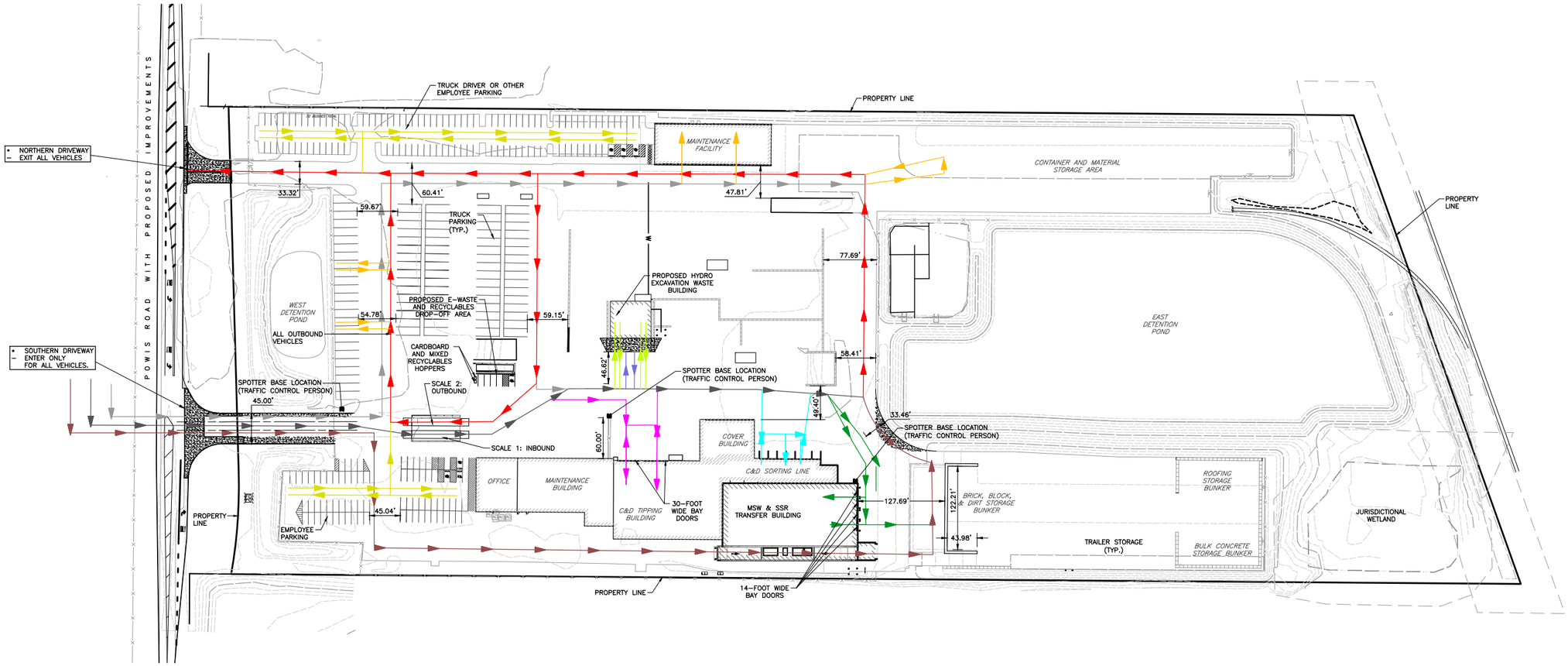
DRAWING NO.: C302

SHEET 18 OF 26

P:\2016\163-899\--CAD\Dwg\CV05-Local Siting Application\163899-CV05-C302-NEW Transfer Station Detail Plan.dwg[C302] LS(8/8/2022 - mikeyr) - LP: 9/13/2022 8:32 AM

C000386

NORTH



LEGEND:

1. COLLECTION TRUCKS (MSW & SSR)
2. TRANSFER TRAILER (MSW & SSR)
3. C&D COLLECTION TRUCKS
4. HYDRO EXCAVATION WASTES
5. RECYCLED C&D
6. SOLIDIFIED WASTE
7. STREET SWEEPERS & PORTABLE TOILET TRUCKS
8. PASSENGER VEHICLES
9. INBOUND VEHICLES TO CROSS SCALE
10. INBOUND VEHICLES TO TURN LEFT
11. ALL OUTBOUND VEHICLES

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 80 160

REVISION RECORD

NO	DATE	DESCRIPTION

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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

VEHICLE TRAFFIC FLOW PLAN

DATE: AUGUST 2022 | DRAWN BY: MMS
DWG SCALE: 1"=80' | CHECKED BY: DAK
PROJECT NO: 163-899.0005
APPROVED BY: JEH*

DRAWING NO.: C400

SHEET 19 OF 26

I:\2016\163-899\~CAD\Dwg\C400-Local Siting Application\163899-C400-Collection & Transfer Vehicle Flow Plan.dwg[C400] LS:9/9/2022 - mlang1 UT: 9/11/2022 9:53 AM

C000387

NORTH

WITH PROPOSED IMPROVEMENTS

POWIS ROAD

PROPERTY LINE

MAINTENANCE FACILITY

NORTH DRIVE ENTRANCE

STOP BAR

W/6"

OUTBOUND TICKET LANE

WEST DETENTION POND

PROPOSED HYDRO EXCAVATION WASTE BUILDING

EXTEND WALL

PROPOSED E-WASTE AND RECYCLABLES DROP-OFF AREA

CARDBOARD AND MIXED RECYCLABLES HOPPER

ADA STALL

PROPERTY LINE

SPOTTER BASE LOCATION

SOUTH DRIVE ENTRANCE

SCALES

PAINTED HATCH AREA

SPOTTER BASE LOCATION

COVER BUILDING

SPOTTER BASE LOCATION

MSW

MSW

C&D SORTING LINE

OFFICE

MAINTENANCE BUILDING

C&D TIPPING BUILDING

MSW & SSR TRANSFER BUILDING

LOADOUT PIT

ONE WAY

PROPERTY LINE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

VEHICLE TRACKING TURNING PLAN

DATE:	AUGUST 2022
DWG SCALE:	1"= 40'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

DRAWING NO.:

C401

SHEET 20 OF 26

P:\2016\163-899\--CAD\[Dwg]\C000-Local Siting Application\163899-C000-C401 thru C404-Traffic Details.dwg[C401] LS:9/8/2022 - mmsmp | LP: 9/12/2022 6:53 AM

C000388

NORTH

PROPERTY LINE

MAINTENANCE FACILITY

NORTH DRIVE ENTRANCE

STOP BAR

POWIS ROAD WITH PROPOSED IMPROVEMENTS

OUTBOUND TICKET LANE

WEST DETENTION POND

PROPOSED HYDRO EXCAVATION WASTE BUILDING

PROPOSED E-WASTE AND RECYCLABLES DROP-OFF AREA

EXTEND WALL

CARDBOARD AND MIXED RECYCLABLES HOPPER

ADA STALL

PROPERTY LINE

SPOTTER BASE LOCATION

SOUTH DRIVE ENTRANCE

SCALES

PAINTED HATCH AREA

SPOTTER BASE LOCATION

COVER BUILDING

SPOTTER BASE LOCATION

C&D SORTING LINE

OFFICE

MAINTENANCE BUILDING

C&D TIPPING BUILDING

MSW & SSR TRANSFER BUILDING

LOADOUT PIT

PROPERTY LINE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

QUEING/STACKING PLAN

DATE:	AUGUST 2022
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

DRAWING NO.: C402

SHEET 21 OF 26

P:\2016\163-899\...\C402(Dwg)(C402-Local Siting Application)(163899-C405-C407 thru C404-Traffic Details.dwg)(C402) LS(9/8/2022 - mwarp) - LP: 9/13/2022 8:33 AM

C000389

NORTH

PROPERTY LINE

MAINTENANCE FACILITY

NORTH DRIVE ENTRANCE

STOP

STOP BAR

55.41'

GATE

w/6"

17.68'

15.87'

SIGN
TO SCALES
EXIT

OUTBOUND TICKET LANE

WEST DETENTION POND

15' 15' 25'

197'

181'

PROPOSED HYDRO EXCAVATION WASTE BUILDING

SIGN
E-WASTE AND RECYCLING DROP-OFF AREA

"NO PEDESTRIAN" SIGN

EXTEND WALL

ALL TRUCKS

15.00' 15.00' 15.00'

PROPOSED E-WASTE AND RECYCLABLES DROP-OFF AREA

CARDBOARD AND MIXED RECYCLABLES HOPPER

ADA STALL

SIGN
TO SCALES
EXIT

SIGN
ALL TRAFFIC

PROPERTY LINE

SPOTTER BASE LOCATION

12.50'

20.00'

PAINTED ARROWS AND TEXT (TYP.)

PAINTED HATCH AREA

70.00'

SPOTTER BASE LOCATION

ALL TRUCKS

ALL TRUCKS

COVER BUILDING

SPOTTER BASE LOCATION

MSW

MSW

SOUTH DRIVE ENTRANCE

SCALES

SIGN
LOAD LANES
BYPASS | C&D | C&D

OFFICE

MAINTENANCE BUILDING

C&D TIPPING BUILDING

C&D SORTING LINE

MSW & SSR TRANSFER BUILDING

ALL TRUCKS

LOADOUT PIT

ONLY

PROPERTY LINE

POWIS ROAD WITH PROPOSED IMPROVEMENTS

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

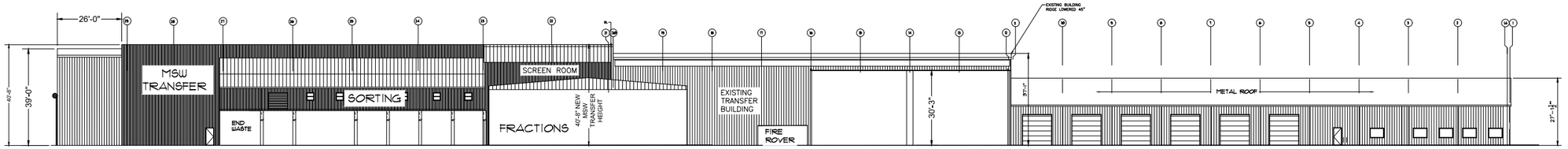
SIGNAGE AND PAVEMENT MARKING PLAN

DATE:	AUGUST 2022
DRAWN BY:	MMS
CHECKED BY:	DAK
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

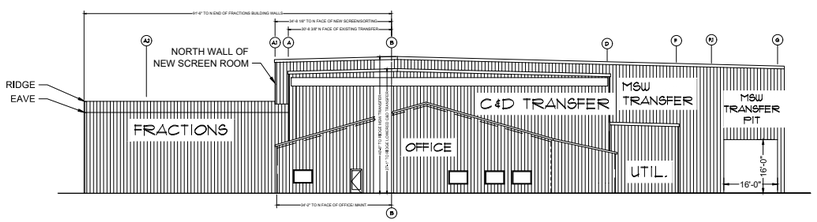
DRAWING NO.:
C403
SHEET 22 OF 26

P:\2016\163-899\-CAD\Dwg\CVDS-Local Siting Application\163899-CVDS-C401 thru C404-Traffic Details.dwg[C403] LS(8/8/2022 - mseyer) - LP(9/13/2022 8:33 AM

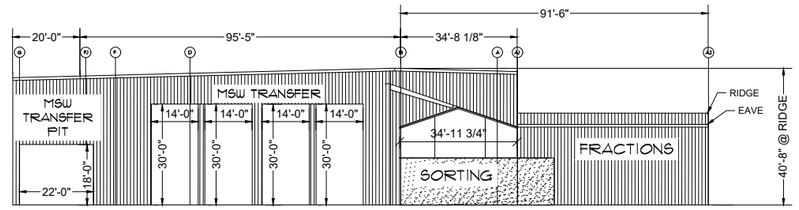
C000390



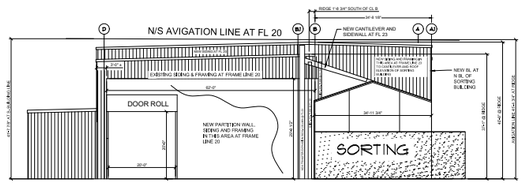
NORTH ELEVATION
NOT TO SCALE



WEST ELEVATION
NOT TO SCALE



EAST ELEVATION OPTION 1 AT FL 29
NOT TO SCALE



NEW BUILDING EAST WALL LINE AT FL 23 TO ROOF LINE OF SORTING BUILDING
NOT TO SCALE

REFERENCE

1. BUILDING ELEVATIONS SHOWN ABOVE WERE GENERATED BY SANDMAN INC. RECEIVED ON SEPTEMBER 29, 2020.

*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

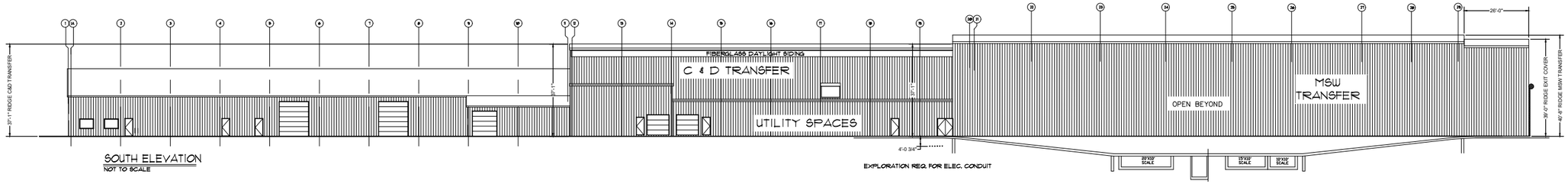
MSW AND SSR TRANSFER BUILDING
ELEVATION VIEWS 1

DATE:	AUGUST 2022
DWG SCALE:	NOT TO SCALE
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

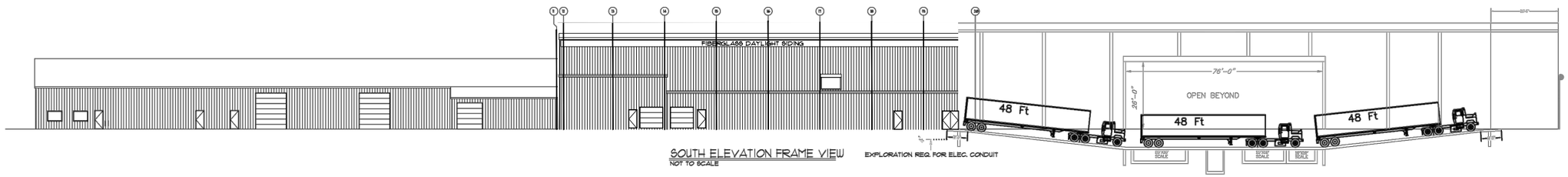
DRAWING NO.:
A1A
SHEET 23 OF 26

P:\2016\163-899\~CAD\~Local Siting Application\163899-CVDS-A1A thru A1B-elevationsheets.dwg(A1A) LS(8/8/2022 - mmay) - LP 9/13/2022 8:34 AM

C000391



SOUTH ELEVATION
NOT TO SCALE



SOUTH ELEVATION FRAME VIEW
NOT TO SCALE

REFERENCE

1. BUILDING ELEVATIONS SHOWN ABOVE WERE GENERATED BY SANDMAN INC. RECEIVED ON SEPTEMBER 29, 2020.

*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
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630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

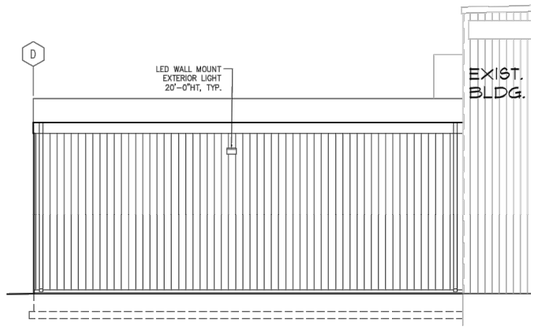
MSW AND SSR TRANSFER BUILDING ELEVATION VIEWS 2

DATE:	AUGUST 2022	DRAWN BY:	MMS
DWG SCALE:	NOT TO SCALE	CHECKED BY:	DAK
PROJECT NO:			163-899.0005
APPROVED BY:			JEH*

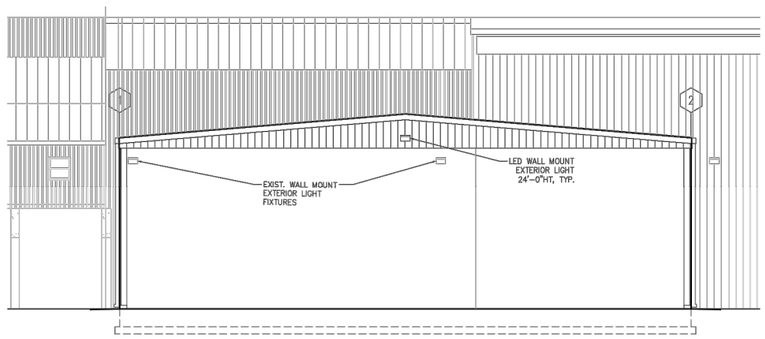
DRAWING NO.:
A1B
SHEET 24 OF 26

P:\2016\163-899\~CAD\Dwg\Civil\~Local Siting Application\163899-CVIL-A1A thru A1B-Architecture.dwg(A1B) 12/8/2022 - mkopf) - LP: 12/12/2022 6:34 AM

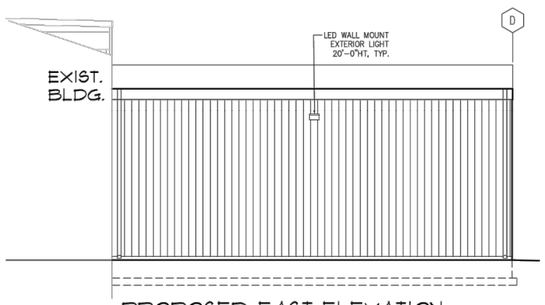
C000392



PROPOSED WEST ELEVATION
SCALE: 1/8" = 1'-0"



PROPOSED NORTH ELEVATION
SCALE: 1/8" = 1'-0"



PROPOSED EAST ELEVATION
SCALE: 1/8" = 1'-0"

10/4/19
LICENSED ARCHITECT
MICHAEL J. ROOT
01-006-0015
STATE OF ILLINOIS
11/30/20

Lakeshore Recycling Systems

FRACTIONS BUILDING

1655 POWIS RD. WEST CHICAGO, IL 60185

m.j.root • architect

324 center rd. frankfort, illinois 60423 815-464-0777

date: OCT. 4, 2019
revised:
drawing: 3 of

*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING
AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

MSW AND SSR TRANSFER BUILDING
ELEVATION VIEWS 3

DATE: AUGUST 2022 | DRAWN BY: MMS
DWG SCALE: NOT TO SCALE | CHECKED BY: DAK
PROJECT NO: 163-899.0005
APPROVED BY: JEH*

DRAWING NO.:
A2
SHEET 25 OF 26

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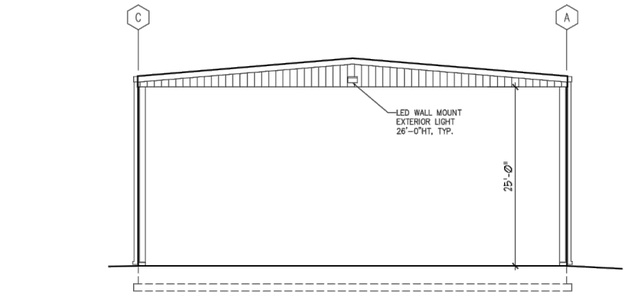
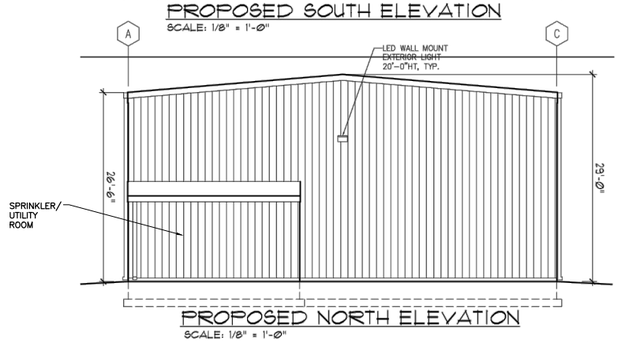


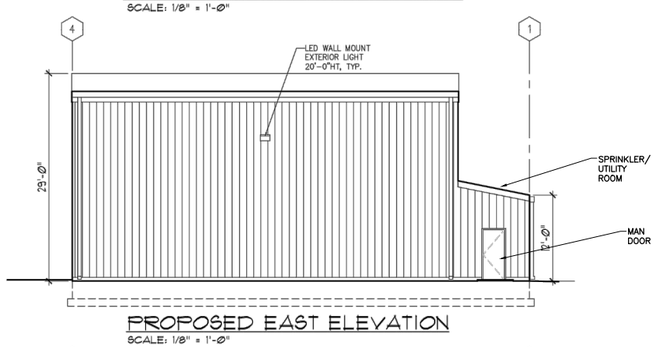
PROPOSED SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



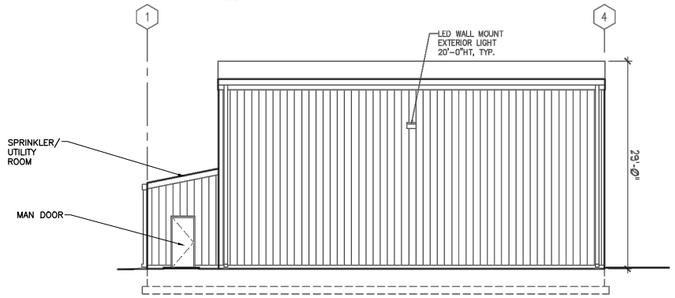
PROPOSED NORTH ELEVATION

SCALE: 1/8" = 1'-0"



PROPOSED EAST ELEVATION

SCALE: 1/8" = 1'-0"



PROPOSED WEST ELEVATION

SCALE: 1/8" = 1'-0"

10/4/19
LICENSED PROFESSIONAL ENGINEER
PAUL J. ROOT
062-060676
STATE OF ILLINOIS
11/30/20

Lakeshore Recycling Systems

SOLIDIFICATION BUILDING

1655 POWIS RD. WEST CHICAGO, IL 60185

m.j.root • architect

324 center rd. frankfort, illinois 60423 815-464-0777

date: OCT. 4, 2019

revised:

drawing: 3 of

*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING
AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

HYDRO EXCAVATION WASTE BUILDING
ELEVATION VIEW

DATE:	AUGUST 2022
DWG SCALE:	NOT TO SCALE
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

DRAWING NO.: A3

SHEET 26 OF 26

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APPENDIX 2-A

C&D RECYCLING PERMIT

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 · (217) 782-3397
JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

217/524-3301

CERTIFIED MAIL
RECIEPT REQUESTED
7015 0640 0002 6944 8110
7015 0640 0002 6944 8127

JUL 11 2019

Owner:
Oscar (IL) LLC
c/o W.P Carey Inc.
Attn: Peter Bates
50 Rockefeller Plaza
New York, NY 10020

Operator:
Lakeshore Recycling System, LLC
Attn: Richard Golf
6132 Oakton Street
Morton Grove, IL 60053

Re: 0430905942 – DuPage County
West DuPage Recycling & Transfer, Inc.
Permit No. 2015-124-OP
Log No. 2019-132-SP
Log 2019-132
Permit Storage/Treatment File
Permit Approval

Dear Mr. Bates and Mr. Golf:

Permit No. 2015-124-OP has been granted to West DuPage Recycling & Transfer, Inc. to operate a solid waste management site, known as West DuPage Recycling & Transfer, Inc., to receive and transfer construction or demolition debris, consisting of 6.11 acres, Section 32, Township 40 North, Range 9 East of the Third Principal Meridian and also described as 1655 Powis Rd. in the city of West Chicago, Illinois, pursuant to 35 Illinois Administrative Code (hereinafter IAC) Part 807 and the Illinois Environmental Protection Act (Act), and in accordance with the application and plans, as modified by the regulations and the Act. Final plans, specifications, application and supporting documents as submitted and approved shall constitute part of this permit and are identified on the records of the Illinois Environmental Protection Agency, Bureau of Land by the permit number(s) and log number(s) designated in the heading above.

Supplemental Permit No. 2019-132-SP is hereby granted to transfer ownership from West DuPage Recycling & Transfer, Inc, to Oscar (IL) LLC in accordance with the application submitted by Elizabeth S. Schwartz, Project Manager of Civil Environmental Consultants, Inc. The application was signed, dated and sealed on April 9, 2019 by John Hock, P.E, of Civil Environmental Consultants, Inc. Final plans, specifications, application and supporting documents as submitted and approved shall constitute part of this permit and are identified on the records of the Illinois Environmental Protection Agency, Bureau of Land, by the permit number and log number designated in the heading above.

The application approved by this permit consists of the following documents:

DOCUMENT	DATE	DATE RECEIVED
Original Application (Log No. 2019-132)	April 12, 2019	April 12, 2019
Addendum (PA1 & 39(i))	July 1, 2019	July 9, 2019

Except as noted below, the special conditions of the permit letter for Permit No. 2019-132 are essentially identical to the special conditions of Permit No. 2017-032. The following changes have been made to the permit conditions:

Condition in Permit No. 2019-132	Condition in Permit No. 2107-032	Changes
44	44	Updated to reflect changes in procedures.

Pursuant to Section 39(a) of the Illinois Environmental Protection Act (Act) and 35 Illinois Administrative Code 807.201, this permit is issued subject to the development, operating, and reporting requirements for non-hazardous waste management facilities in 35 Ill. Adm. Code, Part 807, the standard conditions attached hereto and incorporated herein by reference, and further subject to the following special conditions. In case of conflict between the application and plans submitted and these conditions, both standard and special, the conditions of this permit shall govern:

The site consists a material tipping and sorting area, single line C & D recycling processing system, front end loaders and skid steers, 18-wheel tractor trailers, sweeper, and street sweeper, grinder.

1. This permit approves the operation of a facility to process and treat construction and demolition debris, in accordance with section 22.38 of the Act and the application Log No. 2015-124 as modified by the conditions of this permit.

2. The permitee is authorized to operate the units described below in accordance with the application Log No. 2015-124:
   a. Concrete pad 90' X 160' in size.
   b. Sorting lines
   c. Storage bunkers

3. The facility may only receive general construction and demolition debris as described in Log No. 2015-124.

4. The operator shall limit management activities at the facility to the receipt and transfer of approximately 1250 tons per day of general construction and demolition debris.

5. The development permit does not authorize the development of a pollution control facility, as defined in Section 3.330 of the Illinois Environmental Protection Act.

6. The general construction and demolition debris recycling facility consists of 6.11 acres, in North Half of Section 32, Township 40 North, Range 9 East, in West Chicago, DuPage County, Illinois

7. The facility shall be designed and constructed with roads and traffic flow patterns adequate for the volume, type and weight of traffic using the facility including, but not limited to hauling vehicles, emergency vehicles, and on site equipment. Sufficient area shall be maintained to minimize traffic congestion, provide for safe operation, and allow for queuing waste hauling vehicles.

8. The operator shall provide adequate parking for all vehicles and equipment used at the facility and as necessary for queued hauling vehicles.

9. Roadways and parking areas on the facility premises shall be designed and constructed for use in all weather considering the volume, type and weight of traffic and equipment at the facility.

10. The facility shall be designed and constructed so that site surface drainage will be diverted around or away from the recycling and management areas. Surface drainage shall be designed and controlled so that adjacent property owners encounter no adverse effects during development, operation and after closure of the facility.

11. Run-off from roadways and parking areas shall be controlled using storm sewers or shall be compatible with natural drainage for the site. Best management practices (e.g., design features, operating procedures, maintenance procedures, prohibition of certain practices and treatment) shall be used to ensure that run-off from these areas does not carry wastes, debris or constituents thereof, fuel, oil or other residues to soil, surface water or groundwater.

12. The facility including, but not limited to, all structures, roads, parking and recycling areas, shall be designed and constructed to prevent malodors, noise, vibrations, dust and exhaust from creating a nuisance or health hazard during development, operation and closure of the facility. Facility features (e.g., berms, buffer areas, paving, grade reduction), best available technology (e.g., mufflers, machinery enclosures, sound-absorbent materials, odor neutralizing systems, air filtering systems, misting systems), and building features (e.g., enclosed structures, building orientation) shall be among the measures to be considered to achieve compliance.

13. The facility shall be designed and constructed to prevent litter and other debris from leaving the facility property. Facility features (e.g., windbreaks, fencing, netting, etc) shall be among the measures considered to ensure that the debris does not become wind strewn and that no other provisions of the Act are violated.

14. The permit is issued with the expressed understanding that no air emissions will occur from these facilities, except as authorized by a permit from the Bureau of Air (BOA). This permit is issued with the expressed understanding that no process discharge to Waters of the State or to a sanitary sewer will occur from these facilities, except as authorized by a permit from the Bureau of Water (BOW).

15. The facility shall be designed and constructed with a water supply of adequate volume, pressure, and in locations sufficient for cleaning, firefighting, personal sanitary facilities, and as otherwise necessary to satisfy operating requirements (e.g., dust suppression, wheel washing) and the contingency plan.

16. The facility shall be designed and constructed with exterior and interior lighting for roadways, and waste handling areas adequate to perform safely and effectively all necessary activities.

17. The facility shall be designed and constructed with truck wheel curbs, guard rails, bumpers, posts or equivalents to prevent backing into fuel storage tanks, equipment, and other structures.

18. The facility shall be designed and constructed with adequate shelter, sanitary facilities, and emergency communications for employees.

19. The facility operator shall install fences and gates, as necessary to limit entry. Except during operating hours, the gates shall be securely locked to prevent unauthorized entry.

20. The facility may receive general construction and demolition debris at the site Monday through Saturday, 24 hours a day. When the facility is operated before sunrise or after sunset, adequate lighting shall be provided. If it is required for the facility to be open beyond normal operating hours to respond to emergency situations, a written record of the date, time and reason the facility was open shall be maintained in facility operating records. The Illinois EPA's Regional Office and when applicable the county authority responsible for inspection of this facility, per a delegation agreement with the Illinois EPA, or Emergency Response Center must be notified and must grant approval each day that the operating hours need to be extended.

21. Fire safety equipment (fire extinguishers) shall be maintained in accordance with recommended practice.

22. Non recyclable waste may be left at the site overnight; however, it shall be in a covered container or waste collection vehicle.

23. Piles of general construction or demolition debris shall be covered or wetted to prevent air-borne dust.

24. The facility shall be designed and constructed to prevent unauthorized access to recycling areas, storage areas for unauthorized wastes, salvaged and recycled materials, and staging areas where loaded site equipment or vehicles may be parked. Facility features such as fences and gates shall be provided.

25. Waste handling areas shall be designed and constructed to prevent exposure of wastes and recyclable materials to run-on and flooding.

26. The sorting areas shall be properly graded and compacted to prevent ponding from forming leachate during storms.

27. Records shall be maintained on-site at the facility office for each operating day. The operator shall record operating hours, load ticket information, load inspections, daily processing time, volume processed per day, transfer load out and waste disposition details.

28. The operator shall, within 48 hours of receipt of the general construction or demolition debris at the facility, sort the general construction or demolition debris. The operator shall separate the recyclable general construction or demolition debris from non-recyclable general construction or demolition debris and dispose of the non-recyclable general construction or demolition debris, in accordance with Section 22.38(b)(1) of the Act.

29. The operator must place wood, tires, and other unacceptable materials in covered dumpsters or vehicles adequate to prevent the release of leachate.

30. The operator must separate and place all non-recyclable general construction or demolition debris and unacceptable materials in covered dumpsters, in accordance with Section 22.38(b)(2) of the Act. The operator shall transport all non-recyclable general construction or demolition debris, and unacceptable material offsite for disposal in accordance with all applicable federal, State, and local requirements within 72 hours of its receipt at the facility.

31. For each operating day, the operator shall limit the percentage of incoming non-recyclable general construction/demolition debris to 25% or less of the total incoming general construction/demolition debris, as calculated on a monthly basis, in accordance with Section 22.38(b)(3) of the Act.

32. The operator shall transport all non-putrescible recyclable general construction or demolition debris for recycling or disposal within 6 months of its receipt at the facility, in accordance with Section 22.38(b)(4) of the Act.

33. Within 45 days of its receipt at the facility the operator must separate and place all putrescible or combustible recyclable general construction or demolition debris in covered dumpsters for recycling or disposal, and transport offsite, in accordance with Section 22.38(b)(5) of the Act.

34. In accordance with Section 22.38(b)(6) of the Act, the operator shall employ tagging and record keeping procedures to (i) demonstrate compliance with Section 22.38, and (ii) identify the source and transporter of material accepted by the facility.

35. The operator shall use load tickets to control the site activities and comply with the tagging and record keeping procedures in condition 34 above. These load tickets shall identify the source of the material delivered to the site. The operator shall use these tickets to identify the location in the yard or in the covered dumpsters and the length of time stored at the site to achieve compliance.

36. The operator is prohibited from receiving hazardous and asbestos containing materials.

37. The operator may separate clean concrete and clean soil from the general construction or demolition debris as recyclable materials for use in construction. The operator is permitted to store recyclable concrete and clean soil for a maximum period of 3 months.

38. The operator may store the steel separated from concrete or other construction or demolition debris for a maximum period of 6 months. After six months, the steel must be sent offsite for disposal or recycling.

39. The operator shall notify the Illinois EPA of any changes from the information submitted to the Illinois EPA in its application for a Development and Operating permit for this site. The operator shall notify the Illinois EPA of any changes in the names or addresses of both beneficial and legal titleholders to the herein-permitted site. Such notification shall be made in writing within fifteen (15) days of such change and shall include the name or names of any parties in interest and the address of their place of abode; or, if a corporation, the name and address of its registered agent.

40. The operator shall ensure that site surface drainage, during development, during operation and after the site is closed, shall be such that no adverse effects are encountered by adjacent property owners.

41. The best available technology (mufflers, berms and other sound shielding devices) shall be employed to minimize equipment noise impacts on property adjacent to the site during both development, operation and during any applicable post-closure care period.

42. Management of Unauthorized Waste by the operator

    a. Landscape waste found to be mixed with general construction and demolition debris shall be removed the same day and transported to a facility that is operating in accordance with the Illinois Environmental Protection Act (Act), Title V, Sections 21 and 39 [415 ILCS 5/21 and 39].

    b. Lead-acid batteries mixed with general construction and demolition debris will be removed the same day and transported either to a drop-off center handling such waste, or to a lead-acid battery retailer.

    c. Special wastes including hazardous waste, non-hazardous special waste, and potentially infectious medical waste mixed with general construction and demolition debris shall be containerized separately and removed as soon as possible by a licensed special waste hauler. Special wastes shall be transported to a licensed special waste management facility that has obtained authorization to accept such waste. The operator shall maintain a contract with haulers so that the immediate removal is ensured. The operator shall develop an emergency response/action plan for such occurrences.

    d. Asbestos debris from general construction and demolition debris shall be managed in accordance with the National Emission Standards for Hazardous Air Pollutants (NESHAPS) regulations.

    e. Tires found to be mixed with general construction and demolition debris shall be removed and managed in accordance with Section 55 of the Act [415 ILCS 5/55].

f. White good components mixed with general construction and demolition debris shall be removed and managed in accordance with Section 22.28 of the Act [415 ILCS 5/22.28].

g. No person may knowingly mix liquid used oil with general construction and demolition debris.

h. After the unauthorized waste has been removed from the facility, a thorough cleanup of the affected area will be made according to the type of unauthorized waste managed. Records shall be kept for three years and will be made available to the Illinois EPA-BOL upon request.

43. Special wastes generated at the site for disposal, storage, incineration or further treatment elsewhere shall be transported by the operator to the receiving facility utilizing the Illinois EPA's Special Waste Authorization system and manifest system.

44. The permittee(s) shall submit a 39(i) certification with all permit applications.

45. The closure plan and cost estimates in Application Log No. 2015-124 are hereby approved in accordance with 35 Ill. Adm. Code, Subtitle G, Part 807, subject to the following conditions:

a. The operator shall notify the Illinois EPA within 30 days after receiving the final volume of waste.

b. The operator shall initiate implementation of the closure plan within 30 days after the site receives its final volume of waste.

c. The operator shall not file any application to modify the closure plan less than 180 days prior to receipt of the final volume of waste.

d. Upon completion of closure activities, the operator will notify the Illinois EPA that the site has been closed in accordance with the approved closure plan utilizing the Illinois EPA's "Affidavit for Certification of Completion of Closure of Non-Hazardous Waste Facilities." Financial assurance is not required for transfer facilities in accordance with 35 Ill. Adm. Code, Subtitle G, Part 807, Subpart F. The current cost estimate for closure is $17,625.00.

The original and two (2) copies of all certifications or reports, required to be submitted to the Illinois EPA by the permittee, shall be mailed to the following address:

Illinois EPA
Permit Section, Bureau of Land -- #33
Post Office Box 19276
Springfield, Illinois 62794-9276

The applicant may appeal this final decision to the Illinois Pollution Control Board pursuant to Section 40 of the Act by filing a petition for a hearing within 35 days after the date of issuance of the final decision. However, the 35-day period may be extended for a period of time not to exceed 90 days by written notice from the applicant and the Illinois EPA within the initial 35-day appeal period. If the owner or operator wishes to receive a 90-day extension, a written request that includes a statement of the date the final decision was received, along with a copy of this decision, must be sent to the Illinois EPA as soon as possible.

For information regarding the request for an extension, please contact:

Illinois Environmental Protection Agency
Division of Legal Counsel
1021 North Grand Avenue East
Post Office Box 19276
Springfield, IL 62794-9276
217/782-5544

For information regarding the filing of an appeal, please contact:

Illinois Pollution Control Board, Clerk
State of Illinois Center
100 West Randolph, Suite 11-500
Chicago, IL 60601
312/814-3620

Work required by this permit, your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This permit does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

Sincerely,

Kenneth E. Smith, P.E. Manager
Permit Section
Division of Land Pollution Control
Bureau of Land

SIS

KES:SIS: 0430905942-TRANS-2015124OP-2019132-Approval.doc

Attachment: Standard Conditions

cc: Beth Schwartz, Civil Environmental Consultants, Inc. (email)
John Hock, P.E., Civil Environmental Consultants, Inc. (email)

BCC: Bureau File
Des Plaines
Tom Hubbard
Kenn Smith
Sunil Suthar

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY BUREAU OF LAND

August 22, 2001

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) grants the Environmental Protection Agency authority to impose conditions on permits which it issues.

These standard conditions shall apply to all permits which the Agency issues for construction or development projects which require permits under the Bureau of Land. Special conditions may also be imposed in addition to these standard conditions.

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire two years after date of issuance unless construction or development on this project has started on or prior to that date.

2. The construction or development of facilities covered by this permit shall be done in compliance with applicable provisions of Federal laws and regulations, the Illinois Environmental Protection Act, and Rules and Regulations adopted by the Illinois Pollution Control Board.

3. There shall be no deviations from the approved plans and specifications unless a written request for modification of the project, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.

4. The permittee shall allow any agent duly authorized by the Agency upon the presentation of credentials:

    a. to enter at reasonable times the permittee's premises where actual or potential effluent, emissions or noise sources are located or where any activity is to be conducted pursuant to this permit.

    b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit.

    c. to inspect at reasonable times, including during any hours of operation of equipment constructed or operated under this permit, such equipment or monitoring methodology or equipment required to be kept, used, operated, calibrated and maintained under this permit.

    d. to obtain and remove at reasonable times samples of any discharge or emission of pollutants.

e. to enter at reasonable times and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:

   a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;

   b. does not release the permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the proposed facilities;

   c. does not release the permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;

   d. does not take into consideration or attest to the structural stability of any units or parts of the project;

   e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.

6. Unless a joint construction/operation permit has been issued, a permit for operating shall be obtained from the Agency before the facility or equipment covered by this permit is placed into operation.

7. These standard conditions shall prevail unless modified by special conditions.

8. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:

   a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed; or

   b. upon finding that any standard or special conditions have been violated; or

   c. upon any violation of the Environmental Protection Act or any Rule or Regulation effective thereunder as a result of the construction or development authorized by this permit.

APPENDIX 2-B1

2015 ORDINANCE GRANTING PLANNED UNIT DEVELOPMENT

CITY OF WEST CHICAGO

ORDINANCE NO. 15-O-0018

AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE CITY OF WEST CHICAGO – APPENDIX A ARTICLE 11.2 OF THE ZONING CODE

ADOPTED BY THE CITY COUNCIL OF THE CITY OF WEST CHICAGO May 18, 2015

Published in pamphlet form by the authority of the City Council of the City of West Chicago, DuPage County, Illinois, on the 19th day of May 2015.

15-16-22

ORDINANCE NO. 15-O-0018

AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE CITY OF WEST CHICAGO – APPENDIX A ARTICLE 11.2 OF THE ZONING CODE

WHEREAS, Ken Hoving of KKLK, L.L.C. (the "APPLICANT") proposes an amendment to Article 11.2 of the Zoning Code, which is Appendix A of the Code of Ordinances of the City of West Chicago to add the construction and demolition debris recycling use and use restrictions to the Manufacturing Zoning District regulations; and,

WHEREAS, Notice of Public Hearing on said application was published in the Daily Herald on or about April 20, 2015, all as required by the ordinances of the City of West Chicago and the statutes of the State of Illinois; and,

WHEREAS, a Public Hearing was conducted by the Plan Commission/Zoning Board of Appeals of the City of West Chicago, commencing on May 5, 2015, pursuant to said Notice; and,

WHEREAS, at the Public Hearing, the APPLICANT provided testimony in support of their application, and all interested parties had an opportunity to be heard; and,

WHEREAS, the corporate authorities of the City of West Chicago have received the recommendation of the Plan Commission/Zoning Board of Appeals which contains specific findings of fact, pursuant to Recommendation No. 15-RC-0006, a copy of which is attached hereto as Exhibit "A" which is, by this reference, made a part hereof.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of West Chicago, Du Page County, Illinois, in regular session assembled, as follows:

Section 1. That Appendix A, Article 11, Section 11.2-1 of the Code of Ordinances of the City of West Chicago entitled "Use restrictions" is hereby amended by adding the following language:

"(H) Construction and demolition debris recycling.
(1) Shall be located on a lot having a minimum lot area of three (3) acres.
(2) Shall be located in a zoning district having a minimum district area of three (3) acres.
(3) Shall be located on a lot that is contiguous to both a railroad right-of-way and property that is zoned Airport District."

Section 2. That Appendix A, Article 11, Section 11.2-4 of the Code of Ordinances of the City of West Chicago entitled "Special uses" is hereby amended by adding the following the following language:

"(FF) Construction and demolition debris recycling."

Section 3. That all ordinances and resolutions, or parts thereof, in conflict with the provisions of this Ordinance are, to the extent of such conflict, expressly repealed.

Section 4. That this Ordinance shall be in full force and effect after its passage, approval and publication in pamphlet form as provided by law.

PASSED this 18th day of May 2015.

Alderman L. Chassee	Aye	Alderman J. Beifuss	Nay
Alderman D. Earley	Passed	Alderman J. Sheahan	Aye
Alderman L. Grodoski	Absent	Alderman A. Hallett	Aye
Alderman S. Dimas	Aye	Alderman M. Birch	Aye
Alderman J.C. Smith, Jr.	Aye	Alderman K. Meissner	Aye
Alderman M. Edwalds	Absent	Alderman R. Stout	Aye
Alderman J.F. Banas	Aye	Alderman N. Ligino-Kubinski	Aye

APPROVED as to form: _____
City Attorney

APPROVED this 18th day of May 2015.

_____
Mayor, Ruben Pineda

ATTEST:

_____
City Clerk, Nancy M. Smith

PUBLISHED: 5/19/15

EXHIBIT "A"

RECOMMENDATION # 15-RC-0006

TO: The Honorable Mayor and City Council

SUBJECT: PC 15-03
Text Amendment
Construction and Demolition Debris Recycling

DATE: May 5, 2015

DECISION: The motion to approve the request was unanimously approved by a (5-0) vote.

After review of the proposed text amendment as presented, the Plan Commission/Zoning Board of Appeals finds that it does not pose a threat to the health, safety and welfare of the community. It is the Commission's opinion that the proposed construction and demolition debris recycling use as a special use with certain use restrictions in the Manufacturing Zoning District is beneficial to the City because it expands the allowable uses in the District with an industrial type use while regulating such a use in a way that will protect the health, safety and welfare of the community.

Respectfully submitted,

Robert Mireault
Vice Chairman

VOTE:

For	Against	Abstain	Absent
M. Schafer			E. Van-der-Mey
R. Mireault			D. Faught
C. Dettmann			
B. Laimins			
S. Hale			

STATE OF ILLINOIS)
COUNTY OF DU PAGE)

CERTIFICATE

I, Nancy Smith, Certify that I am the duly elected and acting City Clerk of the City of West Chicago, DuPage County, Illinois.

I further certify that on May 18, 2015 the Corporate Authorities of such municipality passed and approved Ordinance No. 15-O-0018 entitled:

AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE CITY OF WEST CHICAGO – APPENDIX A ARTICLE 11.2 OF THE ZONING CODE

Which provided by its terms that it should be published in pamphlet form.

The pamphlet form of Ordinance No. 15-O-0018 including the ordinance and a cover sheet hereof was prepared, and a copy of such ordinance posted in the municipal building, commencing on May 19, 2015 continuing for at least ten days thereafter. Copies of such ordinance were also available for public inspection upon request in the Office of the City Clerk.

Dated at West Chicago, Illinois, this 18th of May 2015.

SEAL

Nancy M. Smith

Nancy Smith, City Clerk

CITY OF WEST CHICAGO

ORDINANCE NO. 15-O-0019

AN ORDINANCE APPROVING SPECIAL USE PERMITS FOR A CONSTRUCTION AND DEMOLITION DEBRIS RECYCLYING FACILITY, FUEL SALES AND STORAGE, BUILDING MATERIAL SALES WITH OUTSIDE STORAGE, AND A PRELIMINARY AND FINAL PLANNED UNIT DEVELOPMENT AT 1655 POWIS ROAD

ADOPTED BY THE
CITY COUNCIL
OF THE
CITY OF WEST CHICAGO
May 18, 2015

Published in pamphlet form by the authority of the City Council of the City of West Chicago, DuPage County, Illinois, on the 19th day of May 2015.

ORDINANCE NO. 15-O-0019

AN ORDINANCE APPROVING SPECIAL USE PERMITS FOR A CONSTRUCTION AND DEMOLITION DEBRIS RECYCLYING FACILITY, FUEL SALES AND STORAGE, BUILDING MATERIAL SALES WITH OUTSIDE STORAGE, AND A PRELIMINARY AND FINAL PLANNED UNIT DEVELOPMENT AT 1655 POWIS ROAD

WHEREAS, on or about February 27, 2015, Ken Hoving of KKLK L.L.C. (the "APPLICANT"), filed a special use application for a construction and demolition debris recycling facility with outside activities, fuel sales and storage, and building material sales with outside storage in addition to filing an application for a preliminary and final planned unit development on the property legally described on Exhibit "A", which is attached hereto and incorporated herein as the "SUBJECT REALTY"; and,

WHEREAS, Notice of Public Hearing on said application was published in the Daily Herald on or about April 20, 2015, all as required by the ordinances of the City of West Chicago and the statutes of the State of Illinois; and,

WHEREAS, a Public Hearing was conducted by the Plan Commission/Zoning Board of Appeals of the City of West Chicago, commencing on May 5, 2015, pursuant to said Notice; and,

WHEREAS, at the Public Hearing, the APPLICANT provided testimony in support of his application, and all interested parties had an opportunity to be heard; and,

WHEREAS, the corporate authorities of the City of West Chicago have received the recommendation of the Plan Commission/Zoning Board of Appeals for a construction and demolition debris recycling facility with outside activities, fuel sales and storage, and building material sales with outside storage in addition to filing an application for a preliminary and final planned unit development, which contains specific findings of fact, pursuant to Recommendation No. 15-RC-0007, a copy of which is attached hereto as Exhibit "B" which is, by this reference, incorporated herein.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of West Chicago, DuPage County, Illinois, in regular session assembled, as follows:

Section 1. A special use permit for a construction and demolition debris recycling facility with outside activities in conformance with Sections 5.5 and 11.2-4(FF) is hereby granted for the SUBJECT REALTY.

Section 2. A special use permit for fuel sales and storage in conformance with Sections 5.5 and 11.2-4(M) is hereby granted for the SUBJECT REALTY.

Section 3. A special use permit for building material sales with outside storage in conformance with Sections 5.5 and 11.2-4(F) is hereby granted for the SUBJECT REALTY.

Section 1. A preliminary and final planned unit development in conformance with Sections 11.2-4(U) and 15 is hereby granted for the SUBJECT REALTY, subject to compliance with the following conditions:

1. The APPLICANT shall apply for a text amendment to delete the construction and demolition debris recycling use from the ORI zoning district regulations within six (6) months of obtaining a temporary or final certificate of occupancy for the SUBJECT REALTY.
2. The SUBJECT REALTY shall be developed in conformance with the Site Plan prepared by Tebrugge Engineering, dated January 20, 2015 with a last revision date of April 15, 2015, attached hereto and incorporated herein as Exhibit "C".
3. The SUBJECT REALTY shall be developed in conformance with the Landscape Plan prepared by Dowden Landscape Design, dated February 27, 2015 with a last revision date of April 3, 2015, attached hereto and incorporated herein as Exhibit "D".
4. The SUBJECT REALTY shall be developed in conformance with the Exterior Building Elevation Plan A3.0 prepared by Architect Steven W. Hansen, dated February 17, 2015, with a final revision date of February 26, 2015, attached hereto and incorporated herein as Exhibit "E".
5. The APPLICANT shall have all gravel surfaces on the SUBJECT REALTY either paved or restored to turf within four (4) years of City Council approval of the preliminary and final planned unit development.
6. All mulch piles on the SUBJECT REALTY shall not exceed twenty-five (25') feet in height and shall be contained within the designated mulch storage area, as depicted on the Site Plan by Trebrugge Engineering, dated January 20, 2015 with a last revision date of April 15, 2015, attached hereto and incorporated herein as Exhibit "C".

Section 5. This Ordinance shall also constitute the approval of the following deviations associated with the preliminary and final planned unit development and special use permits identified in Sections 1, 2, and 3 herein:

1. A deviation from Section 11.2-2(C)(2) of the Zoning Code to reduce the minimum required side yard parking setback from fifteen (15') feet to nine (9') feet along a portion of the north lot line of the SUBJECT REALTY, as depicted on the Site Plan by Trebrugge Engineering, dated January 20, 2015 with a last revision date of April 15, 2015, attached hereto and incorporated herein as Exhibit "C".
2. A deviation from Section 11.2-1(E) to allow the APPLICANT to construct and utilize multiple principal structures on the SUBJECT REALTY in compliance with all applicable building, fire and zoning and codes.

Section 6. That all ordinances and resolutions, or parts thereof, shall, to the extent not expressly modified by the terms and conditions of this Ordinance, remain in full force and effect as therein provided.

Section 7. That this Ordinance shall be in full force and effect ten (10) days from and after its passage, approval and publication in pamphlet form as provided by law.

PASSED this 18th day of May 2015.

Alderman L. Chassee	Aye	Alderman J. Beifuss	Nay
Alderman D. Earley	Present	Alderman J. Sheahan	Aye
Alderman L. Grodoski	Absent	Alderman A. Hallett	Aye
Alderman S. Dimas	Aye	Alderman M. Birch	Aye
Alderman J.C. Smith, Jr.	Aye	Alderman K. Meissner	Aye
Alderman M. Edwalds	Absent	Alderman R. Stout	Aye
Alderman J.F. Banas	Aye	Alderman N. Ligino-Kubinski	Aye

APPROVED as to form: Peter K. Bond
City Attorney

APPROVED this 18th day of May 2015.

Mayor, Ruben Pineda

ATTEST:

Nancy M. Smith
City Clerk, Nancy M. Smith

PUBLISHED: 5/19/15

EXHIBIT "A"

LEGAL DESCRIPTION

THAT PART OF THE NORTH HALF OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS, TO WIT: COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 32; THENCE NORTH 88 DEGREES 56 MINUTES 37 SECONDS EAST ALONG THE NORTH LINE OF SAID SECTION 32, A DISTANCE OF 1331.65 FEET TO THE NORTH AND SOUTH DIVIDING LINE OF THE NORTHWEST QUARTER OF SAID SECTION 32; THENCE SOUTH 00 DEGREES 36 MINUTES 17 SECONDS EAST ALONG SAID DIVIDING LINE, A DISTANCE OF 500.00 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81 IN THE OFFICE OF THE DUPAGE COUNTY RECORDER; THENCE CONTINUING SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 685.0 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND DESCRIBED IN A SPECIAL WARRANTY DEED RECORDED FEBRUARY 6, 2001 AS DOCUMENT NO. R2001-020758; THENCE NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST ALONG THE SOUTH LINE OF SAID TRACT, A DISTANCE OF 103.80 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST, ALONG SAID SOUTH LINE (SAID LINE BEING IN PARALLEL WITH THE SOUTH LINE OF SAID DEFENSE PLANT CORPORATION TRACT), A DISTANCE OF 1880.12 FEET TO THE WESTERLY RIGHT-OF-WAY LINE FOR THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 20 DEGREES 30 MINUTES 46 SECONDS WEST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 729.01 FEET TO THE SOUTHEAST CORNER OF SAID DEFENSE PLANT CORPORATION TRACT; THENCE SOUTH 89 DEGREES 32 MINUTES 15 SECONDS WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 1650.66 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE OF POWIS ROAD PER DOCUMENT NO. R2003-146376, SAID POINT ALSO BEING 81.96 FEET EAST OF THE SOUTHWEST CORNER OF SAID DEFENSE PLANT CORPORATION; THENCE SOUTH 02 DEGREES 29 MINUTES 05 SECONDS WEST, ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 536.49 FEET TO A POINT OF CURVATURE; THENCE SOUTHWESTERLY, ALONG SAID EASTERLY RIGHT-OF-WAY LINE BEING THE ARC OF A CURVE CONCAVE WESTERLY, HAVING A RADUIS OF 739.00 FEET AND WHOSE CHORD HAS A BEARING OF 04 DEGREES 02 MINUTES 22 SECONDS WEST, AN ARC DISTANCE OF 149.66 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS. P.I.N.s: 01-32-100-001 AND 01-32-101-004.

EXHIBIT "B"

RECOMMENDATION NO. 15-RC-0007

TO: The Honorable Mayor and City Council

SUBJECT: PC 15-03
Special uses for a construction and demolition debris recycling facility with outside activities, fuel sales and storage, and building material sales with outside storage in addition to a preliminary and final planned unit development
1655 Powis Road

DATE: May 5, 2015

DECISION: The motions to approve the special uses for a construction and demolition debris recycling facility with outside activities, fuel sales and storage, and building material sales with outside storage in addition to a preliminary and final planned unit development each unanimously passed with a (5-0) vote.

RECOMMENDATION

After review of the requested special uses for a construction and demolition debris recycling facility with outside activities, fuel sales and storage, and building material sales with outside storage in addition to a preliminary and final planned unit development, the Plan Commission/Zoning Board of Appeals (PC/ZBA) recommended approval of the special uses based on the flowing findings of fact and recommended approval of the preliminary and final planned unit development based on the following standards:

Special Use Findings of Fact:

(1) Is necessary for the public convenience at that location or, the case of existing nonconforming uses, a special use permit will make the use more compatible with its surroundings:

(This standard should be interpreted as indicating whether or not the proposed use is good for the public at that particular physical location, and not whether or not the use itself is needed there).

The proposed construction and demolition debris recycling facility with outside activities, fuel sales and storage, and building material sales and storage are uses that are best suited for an industrial area. The subject property is located within the City's primary industrial corridor and is compatible with the existing industrial uses that surround it.

(2) Is so designed, located and proposed to be operated that the public health, safety and welfare will be protected:

The use of the subject property is designed to protect the public health, safety and welfare by using berms, fencing and landscaping as a visual screen along the property's street frontage, stockpiling all of the bulk

materials in the central portion of the property, and enclosing the construction and demolition debris recycling sorting operations within the building.

(3) Will not cause substantial injury to the value of other property in the neighborhood in which it is located:

The proposed use of the subject property should not cause substantial injury to the value of other property in the neighborhood in which it is located because the uses are best suited for an industrial area and the subject property is located within the City's primary industrial corridor and is compatible with the existing industrial uses that surround it.

(4) The proposed special use is designated by this code as a listed special use in the zoning district in which the property in question is located:

The proposed construction and demolition debris recycling use will be listed as a special use per Section 11.2-4 (FF) of the Zoning Code, assuming the City Council approves the text amendment identified within this staff report.

PUD Standards:
Per Section 15.3 of the Zoning Ordinance: "...if the final plan and plat are, in the opinion of the Plan Commission, deemed to be sufficient in compliance with all applicable City ordinances and in substantial conformity with the approved preliminary plan and plat, they shall be approved by the Plan Commission and recommended to the City Council". The proposed final plan shows in detail the use of the subject property, landscaping and building elevations. Said use of the subject property is in compliance with all applicable City ordinances, subject to approval of the deviations requested in conjunction with the preliminary and final planned unit development.

Respectfully submitted,

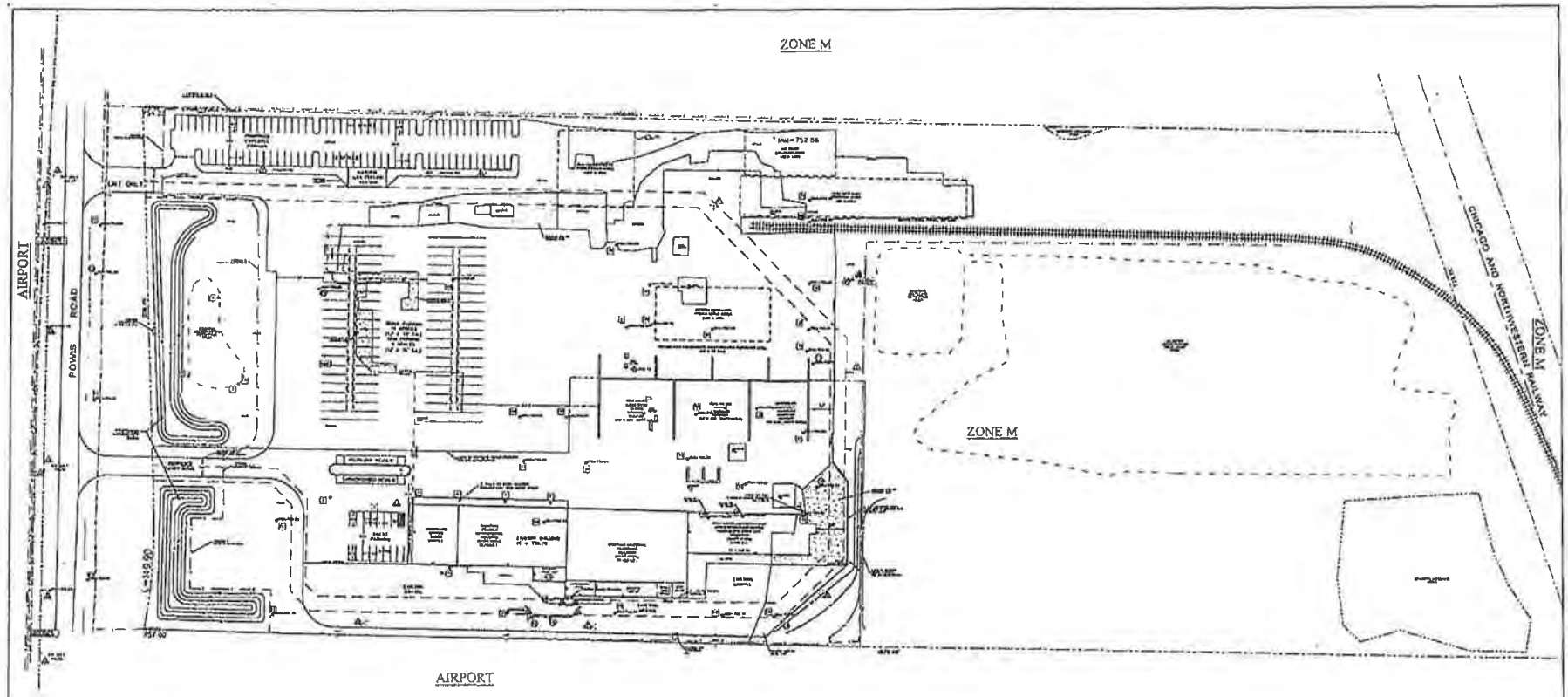
Robert Mireault
Vice Chairman

VOTE:

For	Against	Abstain	Absent
S. Hale			E. Van-der-Mey
B. Laimins			D. Faught
C. Dettmann			
M. Schafer			
R. Mireault			

EXHIBIT "C"

(insert the Site Plan here)



NOTES:
1. ALL GRAVEL AREAS WILL BE PAVED WITH ASPHALT OVER A MAXIMUM OF A 4 YEAR PERIOD.

PARKING SPACES		
EMPLOYEE	90 SPACES	
TRUCK	70 TRUCK	4 SEMI
GUEST	14 SPACES	1 HANDICAP

SCALE IN FEET

TEBRUGGE ENGINEERING

NO	DATE	NOTES
REVISIONS		

PREPARED FOR:
WEST DUPAGE RECYCLING & TRANSFER, INC
2351 POWIS RD, WEST CHICAGO

1655 POWIS ROAD SITE PLAN
FINAL PLAN

PROJECT NO 44 323 01
SCALE 1" = 40'
DATE

SHEET NO 1 OF 1 SHEETS

EXHIBIT "D"

(insert the Landscape Plan here)

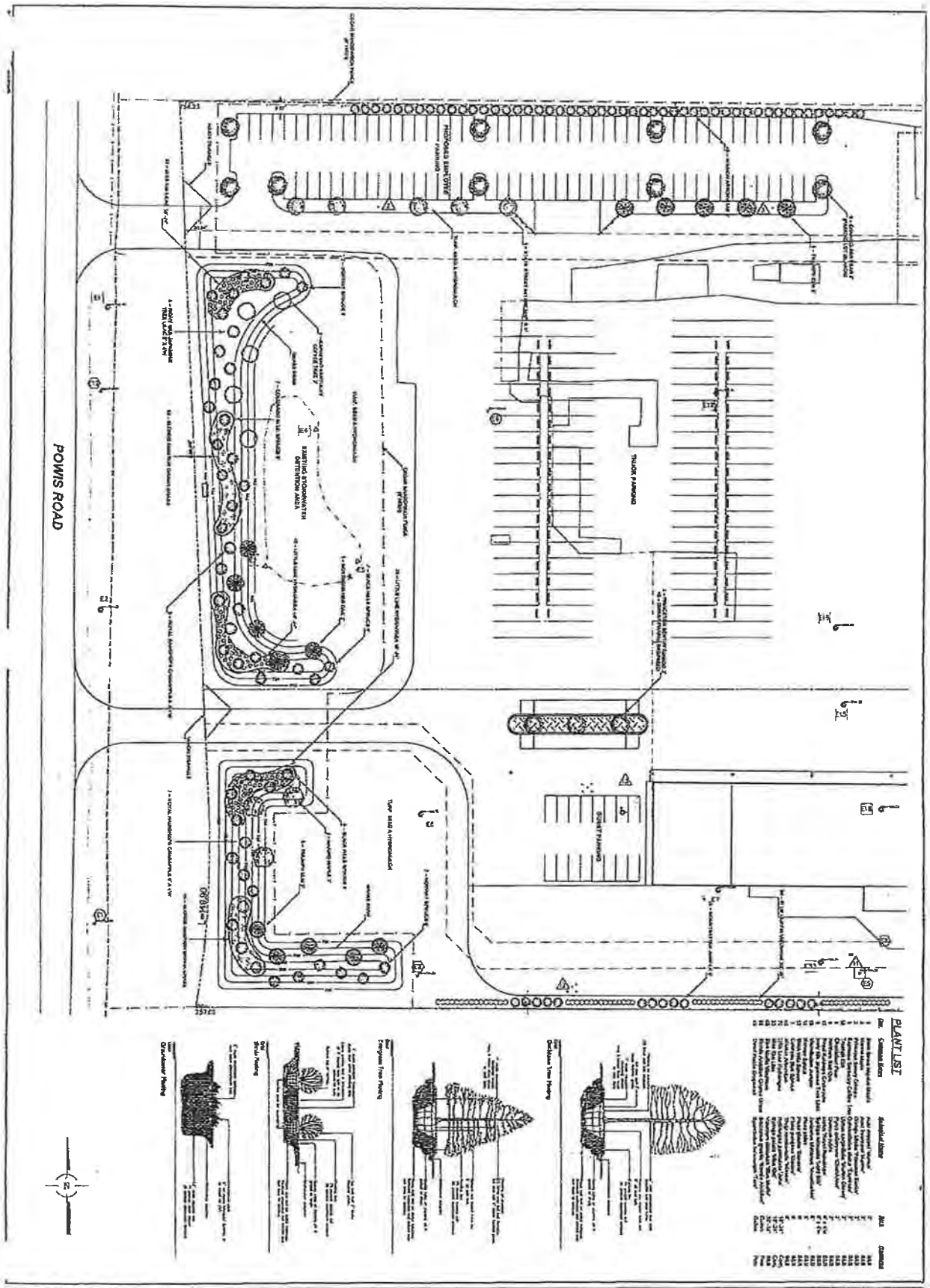
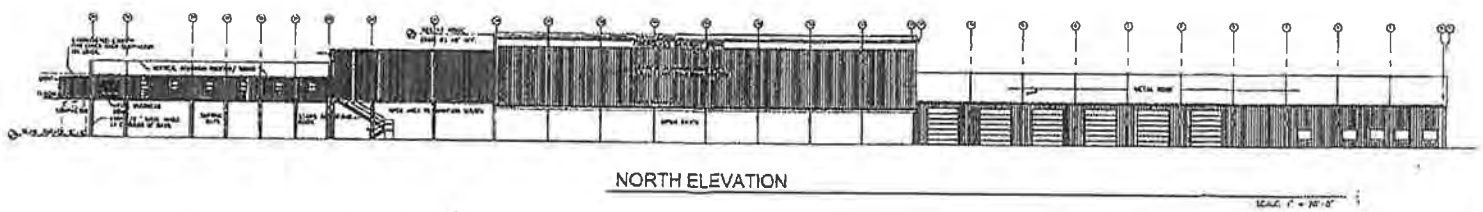
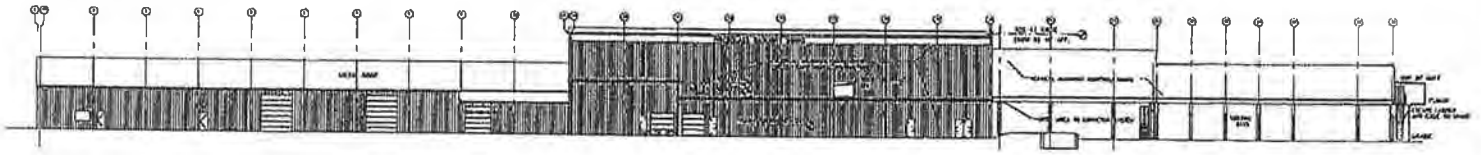

POWIS ROAD
PLANT LIST
K. HOVING RECYCLING & DISPOSAL, INC.
1855 POWIS ROAD
WEST CHICAGO, ILLINOIS
LANDSCAPE PLAN
Dowden Landscape Design
P.O.Box 415, Libertyville, IL 60048
Phone: (847) 322-1251
Email: dowdenassoc@sbcglobal.net

EXHIBIT "E"

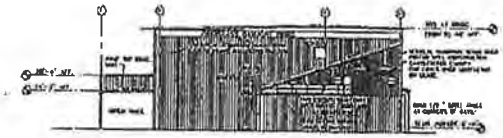
(insert the Exterior Building Elevation Plan here)



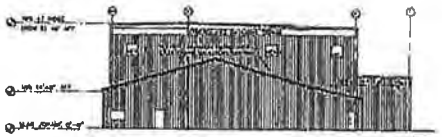
NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION

K. HOVING, INC
2352 POWIS RD
WEST CHICAGO IL

NEW FACILITY FOR:
K. HOVING, INC
2352 POWIS RD.
WEST CHICAGO IL

STEVEN W. HANSEN, ARCHITECT
43W732 US HIGHWAY 30
SUGAR GROVE, IL
630.466.8021 - 60554

A3.0

STATE OF ILLINOIS)
COUNTY OF DU PAGE)

CERTIFICATE

I, Nancy Smith, Certify that I am the duly elected and acting City Clerk of the City of West Chicago, DuPage County, Illinois.

I further certify that on May 18, 2015 the Corporate Authorities of such municipality passed and approved Ordinance No. 15-O-0019 entitled:

AN ORDINANCE APPROVING SPECIAL USE PERMITS FOR A CONSTRUCTION AND DEMOLITION DEBRIS RECYCLYING FACILITY, FUEL SALES AND STORAGE, BUILDING MATERIAL SALES WITH OUTSIDE STORAGE, AND A PRELIMINARY AND FINAL PLANNED UNIT DEVELOPMENT AT 1655 POWIS ROAD

Which provided by its terms that it should be published in pamphlet form.

The pamphlet form of Ordinance No. 15-O-0019 including the ordinance and a cover sheet hereof was prepared, and a copy of such ordinance posted in the municipal building, commencing on May 19, 2015 continuing for at least ten days thereafter. Copies of such ordinance were also available for public inspection upon request in the Office of the City Clerk.

Dated at West Chicago, Illinois, this 18th of May 2015.

SEAL

Nancy M. Smith

Nancy Smith, City Clerk

APPENDIX 2-B2

2020 ORDINANCE GRANTING AMENDED PLANNED UNIT DEVELOPMENT

CITY OF WEST CHICAGO

ORDINANCE NO. 20-O-0002

AN ORDINANCE APPROVING AN AMENDMENT TO THE PRELIMINARY AND FINAL PLANNED UNIT DEVELOPMENT FOR LAKESHORE RECYCLING SYSTEMS, LLC - 1655 POWIS ROAD

ADOPTED BY THE
CITY COUNCIL
OF THE
CITY OF WEST CHICAGO
June 15, 2020

Published in pamphlet form by the authority of the City Council of the City of West Chicago, DuPage County, Illinois, on the 16th day of June, 2020.

ORDINANCE NO. 20-O-0002

AN ORDINANCE APPROVING AN AMENDMENT TO THE PRELIMINARY AND FINAL PLANNED UNIT DEVELOPMENT FOR LAKESHORE RECYCLING SYSTEMS, LLC - 1655 POWIS ROAD

WHEREAS, on or about June 20, 2019, Lakeshore Recycling Systems, LLC (the "APPLICANT"), filed an application for amendment to the Preliminary and Final Planned Unit Development plan for 1655 Powis Road, with respect to the property legally described on Exhibit "A" attached hereto and incorporated herein (the "SUBJECT PROPERTY"); and

WHEREAS, the corporate authorities of the City of West Chicago (the "CITY") approved the Preliminary and Final Planned Unit Development plan for the SUBJECT PROPERTY on May 18, 2015 according to Ordinance 15-O-0019; and

WHEREAS, Notice of Public Hearing on the proposed amendment to the Preliminary and Final Planned Unit Development of the SUBJECT PROPERTY was published in the Daily Herald on or about February 17, 2020, all as required by the ordinances of the CITY and the statutes of the State of Illinois; and

WHEREAS, a Public Hearing was conducted by the Plan Commission/Zoning Board of Appeals of the CITY, commencing on March 3, 2020, pursuant to said Notice; and

WHEREAS, at the Public Hearing, the APPLICANT provided testimony in support of its application, and all interested parties had an opportunity to be heard; and

WHEREAS, the corporate authorities of the CITY have received the recommendation of the Plan Commission/Zoning Board of appeals which contains specific findings of fact, pursuant to Recommendation No. 2020-RC-0001, a copy of which is attached hereto as Exhibit "B" which is, by this reference, incorporated herein.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of West Chicago, DuPage County, Illinois, in regular session assembled, as follows:

Section 1. That this Ordinance shall constitute approval of the following documents with respect to the SUBJECT REALTY, copies of which are attached hereto as Exhibit "C", which are, by this reference, incorporated herein and consisting of:

A. The Final PUD Plan, consisting of one (1) sheet, prepared by CEC, Inc. dated April 2, 2019 with a final revision date of September 27, 2019.

B. The Site Plan (Sheets C201 and C202) prepared by CEC, Inc. dated April 2, 2019 with a final revision date of September 27, 2019.

C. The Final Landscape Plan (Sheets L1.0, L1.1, and L2.0) prepared by Kimley Horn and Associates dated May 1, 2019.

D. Building Elevations for Transfer Building Expansion, consisting of one (1) sheet, prepared by MJ Root Architects, dated October 4, 2018.

E. Building Elevation for Portable Toilet Building, consisting of one (1) sheet, prepared by MJ Root Architects, dated October 4, 2019.

F. Building Elevation for Fractions Building, consisting of one (1) sheet, prepared by MJ Roots Architects, dated October 4, 2019.

G. Bird Deterrent Wire Exhibit, consisting of one (1) sheet, prepared by CEC, Inc. dated February 27, 2020.

H. Bird Deterrent Wire Typical Section, consisting of one (1) sheet, dated stamped received February 27, 2020.

Section 2. That the documents referenced in Section 1 above shall supersede in all respects the documents approved in Section 4 of Ordinance 15-O-0019.

Section 3. All construction, use, operation, and maintenance of the SUBJECT PROPERTY shall be in substantial conformance with the documents listed above in Section 1 of this Ordinance, in addition to the terms and conditions set forth in Section 6 of this Ordinance.

Section 4. That the following deviations from the requirements of the City's Zoning Code previously approved by Ordinance 15-O-0019 are hereby reaffirmed and approved with respect to the SUBJECT PROPERTY:

A. A deviation from Section 11.2-2(C)(2) of the Zoning Code to reduce the minimum required side yard parking setback from fifteen (15) feet to nine (9) feet along the north lot line of the SUBJECT PROPERTY.

B. A deviation from Section 11.2-1(E) to allow the APPLICANT to construct and utilize multiple principal structures on the SUBJECT PROPERTY in compliance with all applicable building, fire and zoning and codes.

Section 5. That the following new deviations from the requirements of the City's Zoning Code of Ordinances are hereby granted with respect to the SUBJECT PROPERTY:

A. A deviation from Section 11.2-2(C)(6) to allow a transitional yard along the south property line as little as twenty-three (23) feet in lieu of the minimum required sixty (60) feet when adjacent to a business district.

B. A deviation from Section 14.9(A) to omit the two (2) required landscape islands on the east end of the two (2) proposed double parking rows located at the southwest corner of the property.

C. A deviation from Section 14.6(D) to omit the required curbing around the proposed parking area in the southwest corner of the property.

Section 6. That an amendment to the Preliminary and Final Planned Unit Development hereby granted subject to the following conditions, which are approved with respect to the SUBJECT PROPERTY:

A. The Conditions contained in Section 1 of Ordinance 05-O-0019 shall remain in full force and effect.

B. Bird deterrent wire shall be installed on the two detention ponds on the SUBJECT PROPERTY, in accordance with the plans attached hereto as Exhibit "C".

Section 7. That the recommendation and findings of fact of the Plan Commission/Zoning Board of Appeals previously incorporated herein as Exhibit "B" be and the same are hereby adopted as the findings of fact of the City Council.

Section 8. That all ordinances and resolutions, or parts thereof, shall, to the extend not expressly modified by the terms and conditions of this Ordinance, remain in full force and effect as therein provided.

Section 9. That this Ordinance shall be in full force and effect ten (10) days from and after its passage, approval and publication in pamphlet form as provided by law.

PASSED this 15th day of June, 2020.

Alderman Beifuss	Nay	Alderman Chassee	Aye
Alderman Sheehan	Aye	Alderman Brown	Aye
Alderman Hallett	Aye	Alderman Ferguson	Aye
Alderman Birch-Ferguson	Aye	Alderman Dimas	Aye
Alderman Swiatek	Aye	Alderman Garling	Nay
Alderman Stout	Aye	Alderman Short	Aye
Alderman Ligino-Kubinksi	Aye	Alderman Jakabcsin	Aye

APPROVED as to form: _____
City Attorney

APPROVED THIS 15th day of June, 2020.

_____
Mayor Ruben Pineda

ATTEST:

Nancy M. Smith
City Clerk Nancy M. Smith

EXHIBIT "A"

THAT PART OF THE NORTH 1/2 OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS, TO WIT.

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 32; THENCE NORTH 88 DEGREES 56 MINUTES 37 SECONDS EAST ALONG THE NORTH LINE OF SAID SECTION 32, A DISTANCE OF 1331.65 FEET TO THE NORTH AND SOUTH DIVIDING LINE OF THE NORTHWEST 1/4 OF SAID SECTION 32; THENCE SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 500.00 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81 IN THE OFFICE OF THE DUPAGE COUNTY RECORDER; THENCE CONTINUING SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 685.0 FEET TO THE SOUTHWEST CORNER OF THE TRACT OF LAND DESCRIBED IN A SPECIAL WARRANTY DEED RECORDED FEBRUARY 6, 2001 AS DOCUMENT NO. R2001-020758; THENCE NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST ALONG THE SOUTH LINE OF SAID TRACT, A DISTANCE OF 103.80 FEET FOR THE POINT OF BEGINNING; THENCE CONTINUING NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST, ALONG SAID SOUTH LINE (SAID LINE BEING PARALLEL WITH THE SOUTH LINE OF SAID DEFENSE PLANT CORPORATION TRACT), A DISTANCE OF 1880.12 FEET TO THE WESTERLY RIGHT OF WAY LINE FOR THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 20 DEGREES 30 MINUTES 46 SECONDS WEST, ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 729.01 FEET TO THE SOUTHEAST CORNER OF SAID DEFENSE PLANT CORPORATION TRACT, THENCE SOUTH 89 DEGREES 32 MINUTES 15 SECONDS WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 1650.66 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF POWIS ROAD PER DOCUMENT NO. R2003-146376, SAID POINT ALSO BEING 81.96 FEET EAST OF THE SOUTHWEST CORNER OF SAID DEFENSE PLANT CORPORATION; THENCE SOUTH 2 DEGREES 29 MINUTES 05 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 536.49 FEET TO A POINT OF CURVATURE; THENCE SOUTHWESTERLY, ALONG SAID EASTERLY RIGHT OF WAY LINE BEING THE ARC OF A CURVE CONCAVE WESTERLY, HAVING A RADIUS OF 739.00 FEET AND WHOSE CHORD HAS A BEARING OF SOUTH 3 DEGREES 47 MINUTES 33 SECONDS WEST, AN ARC DISTANCE OF 149.66 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

Tax ID Numbers: 01-32-101-004 and 01-32-200-001

EXHIBIT "B"

RECOMMENDATION NO. 2020-RC-0001

TO: Honorable Mayor and City Council

SUBJECT: PC 19-16
Amendment to the Preliminary and Final Planned Unit Development Plan of 1655 Powis Road for Lakeshore Recycling Systems, LLC

DATE: March 3, 2020

DECISION: The Plan Commission/Zoning Board of Appeals (4-0 vote) recommended approval of the request.

RECOMMENDATION:

After holding a public hearing and after review of the requested amendment to the preliminary and final PUD of 1655 Powis Road, the Plan Commission/Zoning Board of Appeals (PC/ZBA) recommended approval, subject to the following conditions:

1. The site shall be developed in substantial compliance with the following plans:
   A. The Final PUD Plan, consisting of one (1) sheet, prepared by CEC, Inc. dated April 2, 2019 with a final revision date of September 27, 2019.
   B. The Site Plan (Sheets C201 and C202) prepared by CEC, Inc. dated April 2, 2019 with a final revision date of September 27, 2019.
   C. The Final Landscape Plan (Sheets L1.0, L1.1, and L2.0) prepared by Kimely Horn and Associates dated May 1, 2019.
   D. Building Elevations for Transfer Building Expansion, consisting of one (1) sheet, prepared by MJ Root Architects, dated October 4, 2018.
   E. Building Elevation for Portable Toilet Building, consisting of one (1) sheet, prepared by MJ Root Architects, dated October 4, 2019.
   F. Building Elevation for Fractions Building, consisting of one (1) sheet, prepared by MJ Roots Architects, dated October 4, 2019.
   G. Bird Deterrent Wire Exhibit, consisting of one (1) sheet, prepared by CEC, Inc. dated February 27, 2020.
   H. Bird Deterrent Wire Typical Section, consisting of one (1) sheet, dated stamped received February 27, 2020.
2. The Conditions contained in Section 1 of Ordinance 05-O-0019 shall remain in full force and effect.
3. Bird deterrent wire shall be installed on the detention ponds in substantial compliance with the Bird Deterrent Wire Section Profile Plan.

The recommendation is based on the following findings of fact:

1. *In what respects the proposed plan is consistent with the comprehensive plan and the stated purpose and intent of the PUD regulations:*

   The proposed plan is designed to be compatible with the City's Comprehensive Plan which contemplates Industrial for this area. The amendment to the PUD for the construction of a additional structure, as well as additions to existing structure, is in keeping with the intent of the PUD to use the facility as a CCDD with outside storage.

2. *The extent to which the proposed plan meets the requirements and standards of the PUD regulations:*

   The petitioner has provided documentation indicating the proposed plan meets all of the necessary requirements and standards of the PUD regulations as defined in Section 15 of the West Chicago Zoning Ordinance. City staff has reviewed the plans and documents for the proposal and determined that it adequately addresses the standards.

3. *The extent to which the proposed plan departs from the zoning and subdivision regulations otherwise applicable to the subject property including, but not limited to, the density, dimension, area, bulk and use and the reasons why such departures are deemed to be in the public interest:*

   A limited number of zoning deviations are being sought and have little impact on the surrounding area. The deviations related to the parking lot islands and curbing around the parking area will not have a detrimental effect on either the subject property or the surrounding properties and are consistent with the previously approved plan from 2015. The reduction in the required transitional yard along the south property line will have little impact on the adjacent property. The property to the south is owned by the DuPage Airport Authority and is a decommissioned landfill with minimal potential uses.

4. *The method by which the proposed plan makes adequate provision for public services, provides adequate control over vehicular traffic, provides for and protects designated common open space and furthers amenities of light and air, recreation and visual enjoyment:*

   The proposed plan adequately addresses existing and proposed vehicular use areas and will not affect the existing access on Powis Road. The petitioner has taken steps to ensure the existing wetlands on the east portion of the property will not be impacted by the proposed changes. Required modifications will be made to the stormwater management area to accommodate the increase in the amount of hard surfaces on the property.

5. *The relationship and compatibility of the proposed plan to the adjacent properties and neighborhood:*

   The proposed plan is consistent with other uses and properties in the area. The Powis Road corridor is entirely industrial with manufacturing uses on the east side of the roadway and the DuPage Airport on the west side.

6. The desirability of the proposed plan as regards physical development, tax base and economic well-being of the City:

The proposed plan is designed to enhance the existing operation. This type of use is logical for a former brownfield site located on a roadway corridor consisting of industrial uses.

Respectfully submitted,

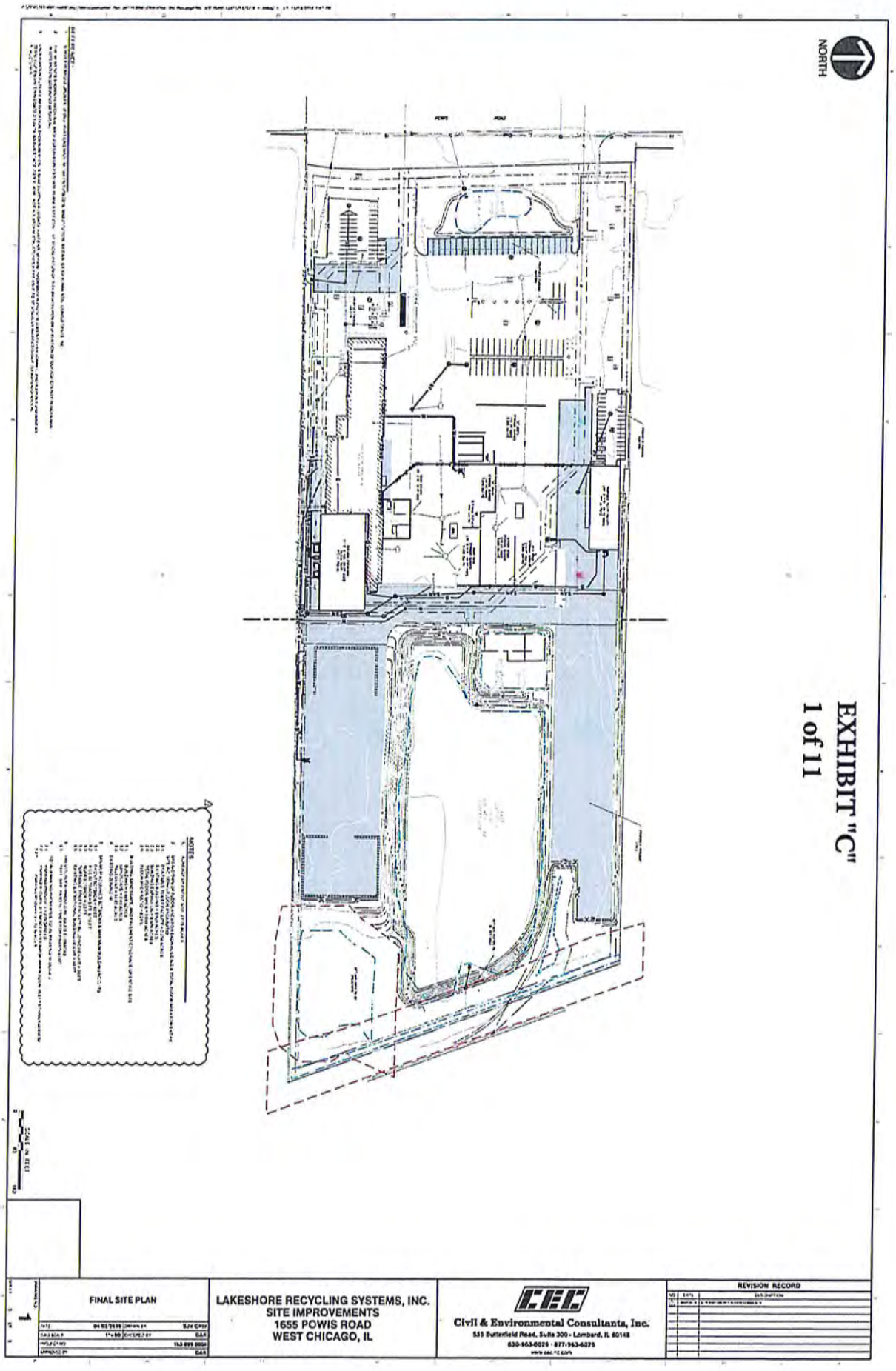
Steve Hale
Acting Chairperson

VOTE:

For	Against	Abstain	Absent
Hale			Devitt
Kasprak			Faught
Henkin			Laimins
Dettman			

EXHIBIT "C"

Final PUD Plan, Site Plan, Final Landscape Plan, Building Elevations, Bird Deterrent Wire Exhibit, Bird Deterrent Wire Typical Section


NORTH
EXHIBIT "C"
1 of 11
FINAL SITE PLAN
LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL
Civil & Environmental Consultants, Inc.
REVISION RECORD

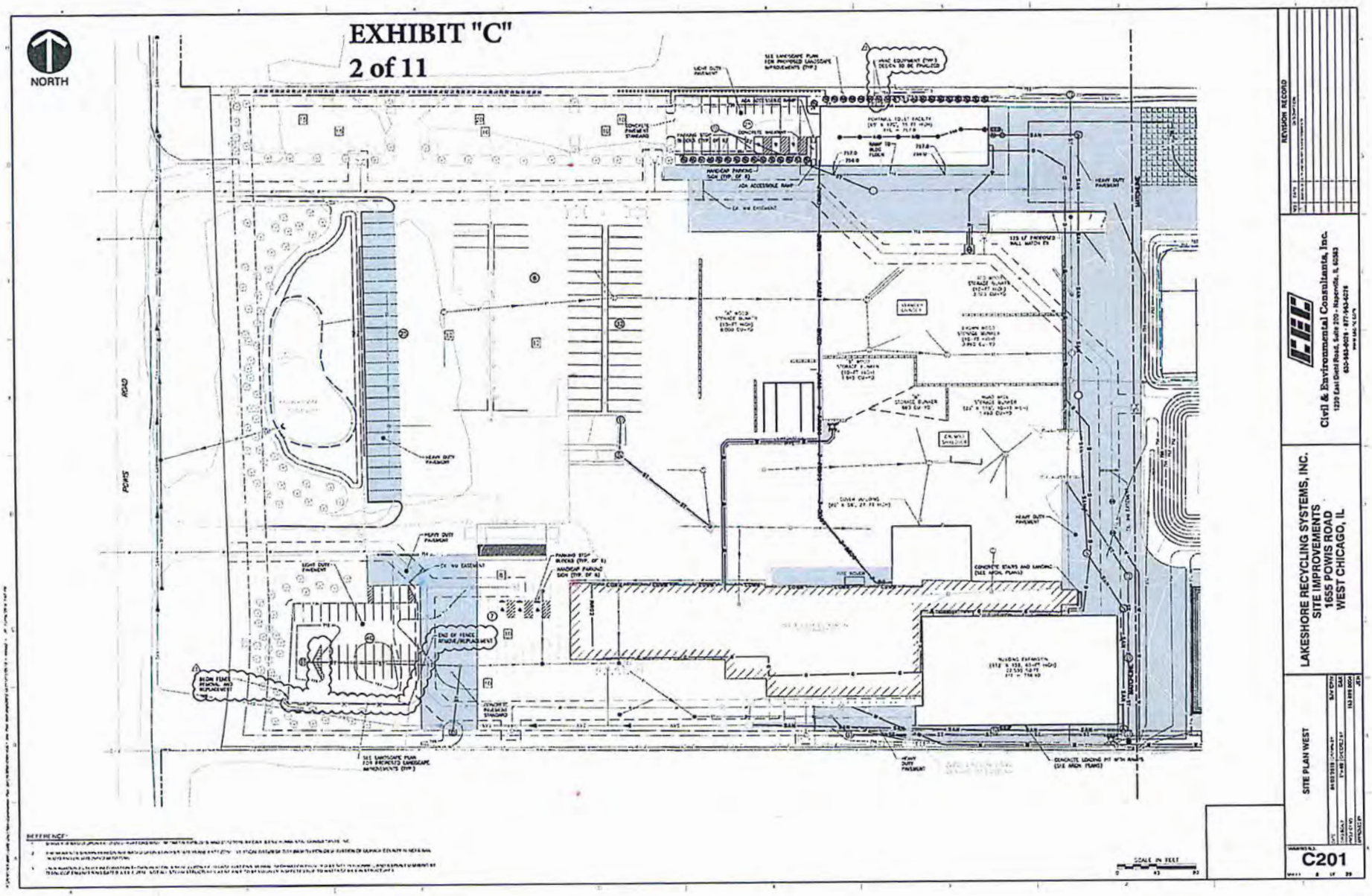
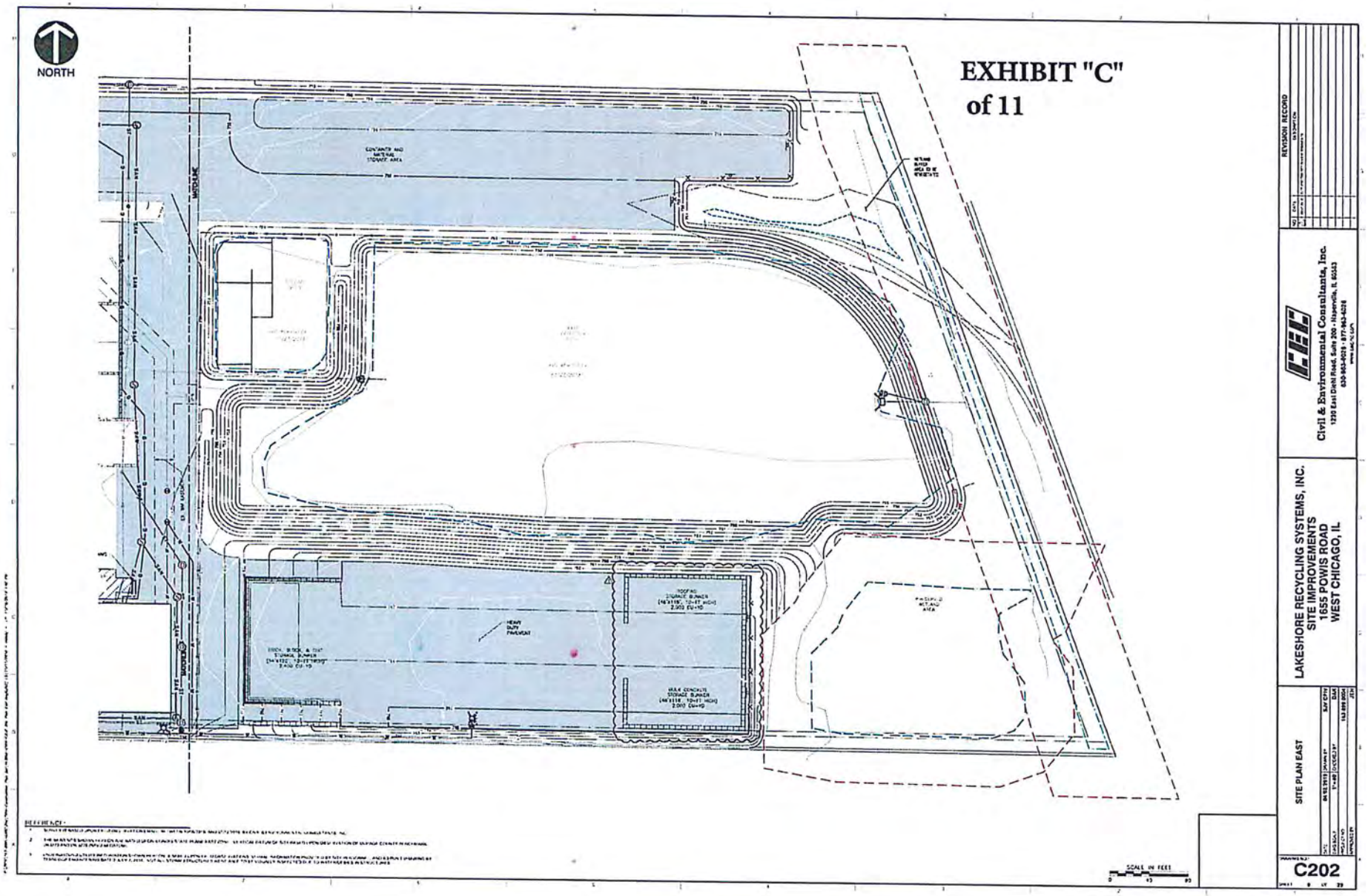


EXHIBIT "C"
2 of 11
NORTH
LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL
SITE PLAN WEST
C201
Civil & Environmental Consultants, Inc.


NORTH
EXHIBIT "C"
of 11
REVISION RECORD
Civil & Environmental Consultants, Inc.
LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL
SITE PLAN EAST
C202
SCALE IN FEET

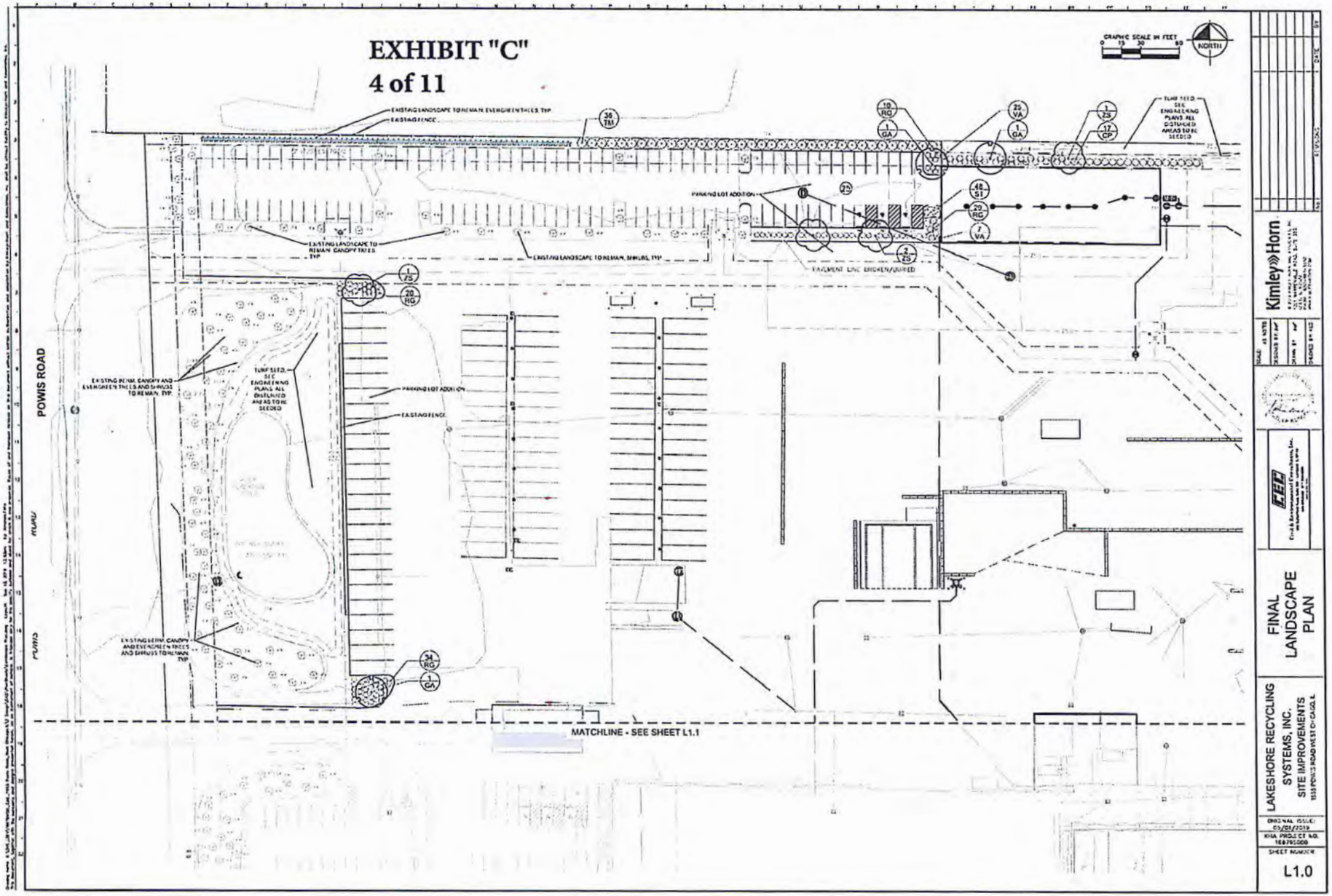
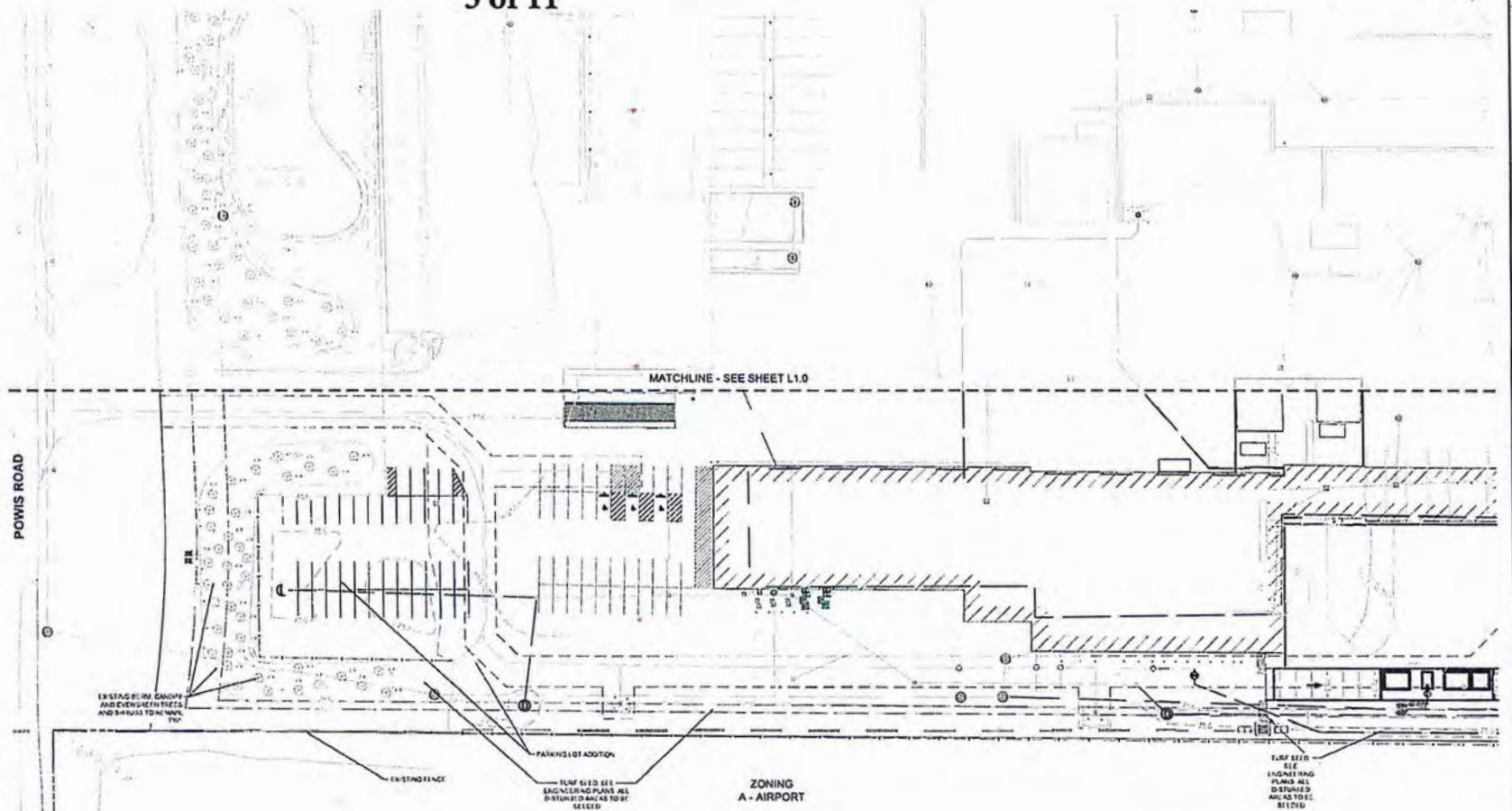


EXHIBIT "C"
4 of 11
GRAPHIC SCALE IN FEET
0 15 30 60
NORTH
POWIS ROAD
EXISTING LANDSCAPE TO REMAIN EVERGREEN TREES TYP
EXISTING FENCE
PARKING LOT ADDITION
EXISTING LANDSCAPE TO REMAIN CANOPY TREES TYP
EXISTING LANDSCAPE TO REMAIN, SHRUBS, TYP
EASEMENT LINE BROKEN/DASHED
EXISTING REMAIN. CANOPY AND EVERGREEN TREES AND SHRUBS TO REMAIN, TYP.
TURF SEED, SEE ENGINEERING PLANS. ALL DISTURBED AREAS TO BE SEEDED
EXISTING REMAIN. CANOPY AND EVERGREEN TREES AND SHRUBS TO REMAIN, TYP
MATCHLINE - SEE SHEET L1.1
Kimley»Horn
FINAL LANDSCAPE PLAN
LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1555 POWIS ROAD WILSTEIN CASCO IL
ORIGINAL ISSUE: 03/31/2023
KHA PROJECT NO. 168762000
SHEET NUMBER
L1.0

EXHIBIT "C"
5 of 11



Kimley»Horn

FINAL LANDSCAPE PLAN

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS

ORIGINAL ISSUE: 03/31/2023
KHA PROJECT NO. 168790000

SHEET NUMBER
L1.1

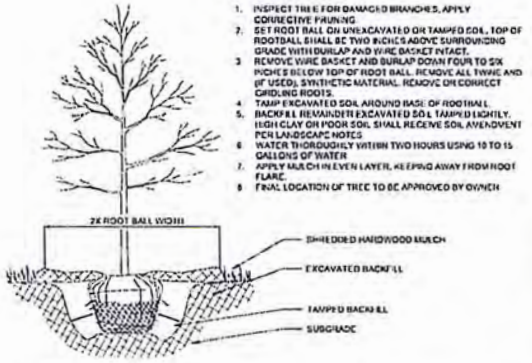
EXHIBIT "C"
6 of 11

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE
	GA	3	GINKGO BILOBA 'AUTUMN GOLD' TM	MAIDENHAIR TREE	B & B	3" CAL MIN	
	ZS	4	ZELKOVA SERRATA	SAWLEAF ZELKOVA	B & B	3" CAL MIN	
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE
	RG	53	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	-	SEE PLAN	18" HT MIN
	VA	32	VIBURNUM DENTATUM 'CHICAGO'	BLUE MUFFIN VIBURNUM		SEE PLAN	36" HT MIN
EVERGREEN	CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	SIZE
	CP	17	CHAMAECYPARIS PISIFERA 'BOULEVARD'	SWAMP BLUE CYPRESS	-	SEE PLAN	42" HT MIN
	TM	36	THUJA OCCIDENTALIS 'MISLON'	MISSION ARBORVITAE	B & B	SEE PLAN	6' HT MIN
GRASSES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SPACING		
	SI	48	SPOROBOLUS HETEROLEPIS 'TARA'	PRAIRIE DROPSEED	18" o.c.		

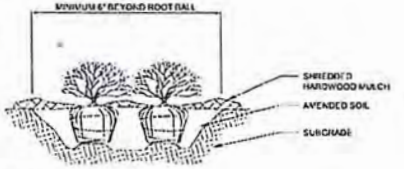
LANDSCAPE NOTES

1. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING MATERIALS AND PLANTS SHOWN ON THE LANDSCAPE PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT LANDSCAPE, PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTORS OPERATIONS DURING INSTALLATION OR DURING THE SPECIFIED MAINTENANCE PERIOD. CALL FOR UTILITY LOCATIONS PRIOR TO ANY EXCAVATION.
2. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY IN PLAN VS. FIELD CONDITIONS IMMEDIATELY TO THE LANDSCAPE ARCHITECT, PRIOR TO CONTINUING WITH THAT PORTION OF WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY OF THEIR TRENCHES OR EXCAVATIONS THAT SETTLE.
4. ALL NURSERY STOCK SHALL BE WELL BRANCHED, HEALTHY, FULL, PRE-INOCULATED AND FERTILIZED. DECIDUOUS TREES SHALL BE FREE OF FRESH SCARS. TRUNKS WILL BE WRAPPED IF NECESSARY TO PREVENT SUN SCALD AND INSECT DAMAGE. THE LANDSCAPE CONTRACTOR SHALL REMOVE THE WRAP AT THE PROPER TIME AS A PART OF THIS CONTRACT.
5. ALL NURSERY STOCK SHALL BE GUARANTEED, BY THE CONTRACTOR, FOR ONE YEAR FROM DATE OF FINAL INSPECTION.
6. AMENDED SOIL SHALL BE PROVIDED AND GRADED BY THE GENERAL CONTRACTOR UP TO 6 INCHES BELOW FINISHED GRADE IN TURF AREAS AND 18 INCHES IN PLANTING AREAS.
7. PLANTING AREA SOIL SHALL BE AMENDED WITH 25% SPHAGNUM PEATMOSS, 5% HUMUS AND 65% PULVERIZED SOIL FOR ALL SHRUB, ORNAMENTAL GRASS, PERENNIAL AND ANNUAL BEDS. AMENDED TURF AREA SOIL SHALL BE STANDARD TOPSOIL.
8. SEED/SOD LIMIT LINES ARE APPROXIMATE. CONTRACTOR SHALL SEED/SOD ALL AREAS WHICH ARE DISTURBED BY GRADING WITH THE SPECIFIED SEED/SOD MIXES.
9. CONTRACTOR SHALL INSTALL SHREDDED HARDWOOD MULCH AT A 3" DEPTH TO ALL TREES, SHRUB, PERENNIAL, AND GROUNDCOVER AREAS. TREES PLACED IN AREA COVERED BY TURF SHALL RECEIVE A 4 FT WIDE MAXIMUM TREE RING WITH 3" DEPTH SHREDDED HARDWOOD MULCH. A SPADED BED EDGE SHALL SEPARATE MULCH BEDS FROM TURF OR SEEDED AREAS. A SPADED EDGE IS NOT REQUIRED ALONG CURBED EDGES.
10. WEED FABRIC SHALL ONLY BE APPLIED UNDER DECORATIVE STONE APPLICATIONS.
11. INSTALLATION OF TREES WITHIN PARKWAYS SHALL BE COORDINATED IN THE FIELD WITH LOCATIONS OF UNDERGROUND UTILITIES. TREES SHALL NOT BE LOCATED CLOSER THAN 5' FROM UNDERGROUND UTILITY LINES AND NO CLOSER THAN 15' FROM UTILITY STRUCTURES. SHRUBS SHALL NOT BE LOCATED CLOSER THAN 10 FEET FROM UTILITY STRUCTURE. PERENNIALS SHALL NOT BE LOCATED CLOSER THAN 5 FEET FROM UTILITY STRUCTURE.
12. DO NOT DISTURB THE EXISTING PAVING, LIGHTING, OR LANDSCAPING THAT EXISTS ADJACENT TO THE SITE UNLESS OTHERWISE NOTED ON PLAN.
13. PLANT QUANTITIES SHOWN ARE FOR THE CONVENIENCE OF THE OWNER AND JURISDICTIONAL REVIEW AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES AS DRAWN.
14. THE OWNER'S REPRESENTATIVE MAY REJECT ANY PLANT MATERIALS THAT ARE DISEASED, DEFORMED, OR OTHERWISE NOT EXHIBITING SUPERIOR QUALITY.
15. THE CONTINUED MAINTENANCE OF ALL REQUIRED LANDSCAPING SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY ON WHICH SAID MATERIALS ARE REQUIRED. ALL PLANT MATERIALS REQUIRED BY THIS SECTION SHALL BE MAINTAINED AS LIVING VEGETATION AND SHALL BE PROMPTLY REPLACED IF THE PLANT MATERIAL HAS DIED PRIOR TO FINAL ACCEPTANCE. PLANTING AREAS SHALL BE KEPT FREE OF TRASH, LITTER, AND WEEDS AT ALL TIMES.
16. PLANTING INSTALLATION DETAILS AND ALL PLANT SIZES AND CONDITIONS SHALL CONFORM TO THE AMERICAN STANDARDS FOR NURSERY STOCK LATEST EDITION.



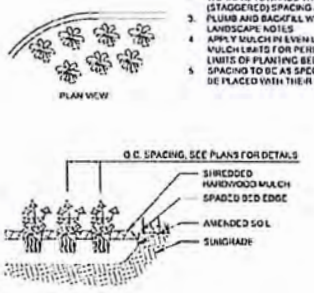
NOTES:
1. INSPECT TREE FOR DAMAGED BRANCHES, APPLY CORRECTIVE PRUNING.
2. SET ROOT BALL ON UNEXCAVATED OR TAMPED SOIL, TOP OF ROOTBALL SHALL BE TWO INCHES ABOVE SURROUNDING GRADE WITH BURLAP AND WIRE BASKET INTACT.
3. REMOVE WIRE BASKET AND BURLAP DOWN FOUR TO SIX INCHES BELOW TOP OF ROOT BALL. REMOVE ALL TWINE AND (IF USED), SYNTHETIC MATERIAL. REMOVE OR CORRECT GIRDLING ROOTS.
4. TAMP EXCAVATED SOIL AROUND BASE OF ROOTBALL.
5. BACKFILL REMAINDER EXCAVATED SOIL TAMPED LIGHTLY. HEAVY CLAY OR POOR SOIL SHALL RECEIVE SOIL AMENDMENT PER LANDSCAPE NOTES.
6. WATER THOROUGHLY WITHIN TWO HOURS USING 10 TO 15 GALLONS OF WATER.
7. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE.
8. FINAL LOCATION OF TREE TO BE APPROVED BY OWNER.

① TREE PLANTING NTS



NOTES:
1. APPLY CORRECTIVE PRUNING.
2. SET ROOT BALL OR CONTAINER ON UNEXCAVATED OR TAMPED SOIL. TOP OF ROOTBALL (CONTAINER) SHALL BE ONE INCH ABOVE SURROUNDING GRADE. FOR LARGER SHRUBS WITHIN PLANTING BED DIG A DEEPER PIT ONLY FOR THOSE SHRUBS.
3. REMOVE BURLAP FROM TOP HALF THE LENGTH OF ROOTBALL. TWINE AND (IF USED) SYNTHETIC MATERIAL SHALL BE REMOVED FROM PLANTING BED. FOR CONTAINER GROWN SHRUBS, REMOVE CONTAINER AND LOOSEN ROOTS PRIOR TO INSTALLATION.
4. REMOVE OR CORRECT GIRDLING ROOTS.
5. PLUMB AND BACKFILL WITH AMENDED SOIL PER LANDSCAPE NOTES. WATER THOROUGHLY WITHIN TWO HOURS.
6. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE. MULCH LIMITS FOR SHRUBS EXTEND TO ALL LIMITS OF PLANTING BED. SEE PLANS FOR BED LAYOUTS.

② SHRUB PLANTING NTS



NOTES
1. EXCAVATE PLANTING BED.
2. BED HEIGHT IS TO BE 2" ABOVE FINISH GRADE AND WELL DRAINED.
3. REMOVE CONTAINER, SCORE SOIL MASS TO REDIRECT AND PREVENT CIRCLING ROOTS. CORRECT CIRCLING ROOTS.
2. PLANT MATERIAL SHALL BE LAID OUT BY FOLLOWING THE BED EDGE, WORKING TOWARDS THE CENTER OF THE BED USING TRIANGULAR (STAGGERED) SPACING AS PLAUSIBLE.
3. PLUMB AND BACKFILL WITH PLANTING MIX AS SPECIFIED IN LANDSCAPE NOTES.
4. APPLY MULCH IN EVEN LAYER, KEEPING AWAY FROM ROOT FLARE. MULCH LIMITS FOR PERENNIALS/GROUNDCOVER EXTEND TO ALL LIMITS OF PLANTING BED, SEE PLANS FOR BED LAYOUTS.
5. SPACING TO BE AS SPECIFIED IN THE PLANT LIST. PERENNIALS SHALL BE PLACED WITH THEIR CENTER 24" FROM EDGE OF BED.

③ PERENNIAL PLANTING NTS

Kimley»Horn

LANDSCAPE NOTES AND DETAILS

LAKESHORE RECYCLING SYSTEMS, INC. SITE IMPROVEMENTS
1031 FOSS ROAD WEST OF EADS, IL

ORIGINAL ISSUE: 03/01/2019
KHA PROJECT NO. 168751000

SHEET NUMBER
L2.0

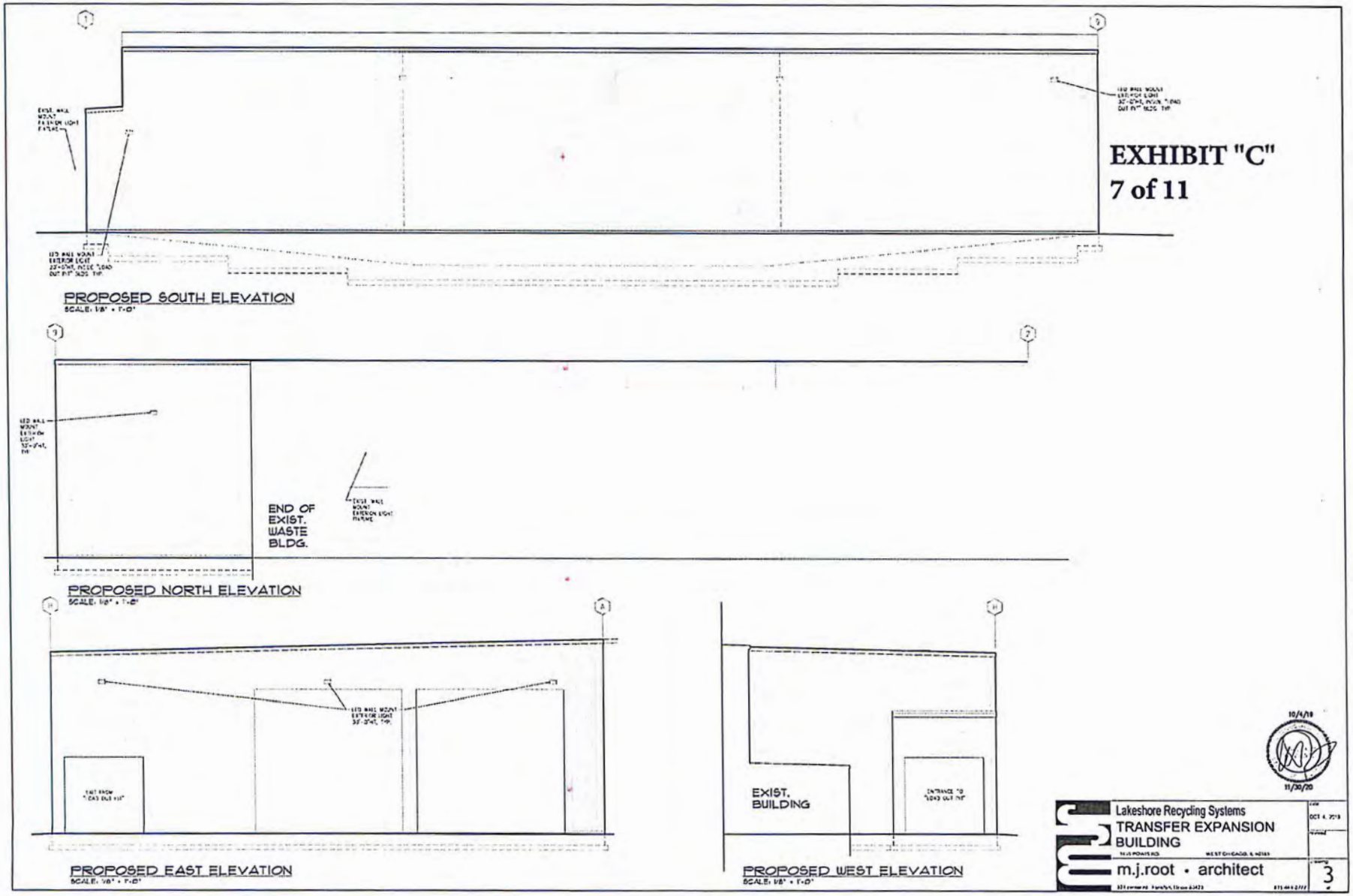
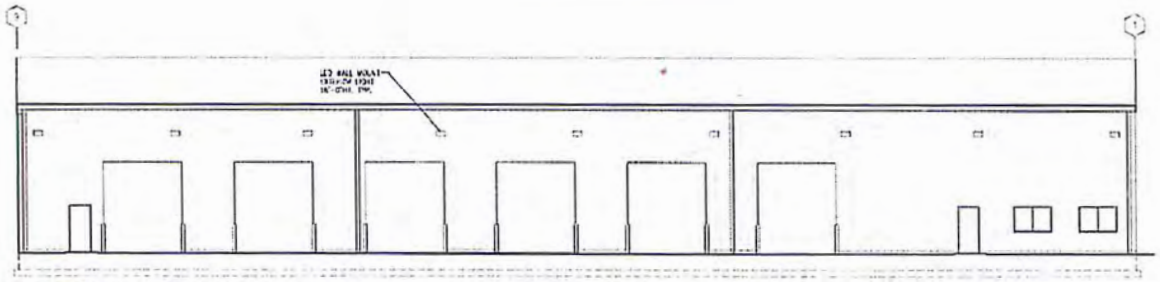


EXHIBIT "C"
7 of 11
PROPOSED SOUTH ELEVATION
END OF EXIST. WASTE BLDG.
PROPOSED NORTH ELEVATION
PROPOSED EAST ELEVATION
EXIST. BUILDING
PROPOSED WEST ELEVATION
10/4/19
11/30/20
Lakeshore Recycling Systems
TRANSFER EXPANSION BUILDING
m.j.root • architect
OCT 4, 2019
3

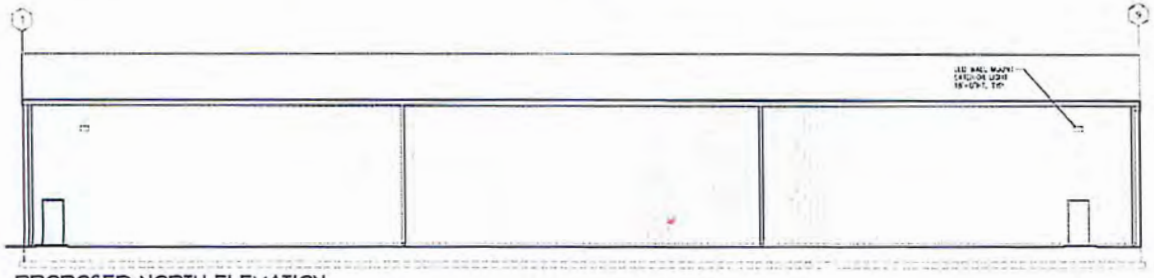
EXHIBIT "C"
8 of 11



PROPOSED SOUTH ELEVATION

PROPOSED EAST ELEVATION

PROPOSED WEST ELEVATION



PROPOSED NORTH ELEVATION

10/4/19

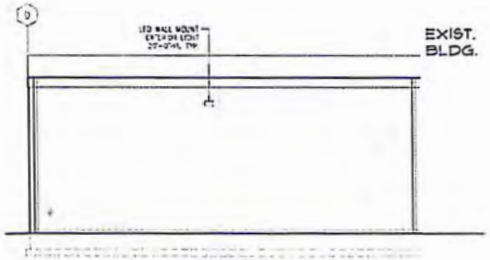
11/30/20

Lakeshore Recycling Systems
PORTABLE TOILET BUILDING
m.j.root • architect

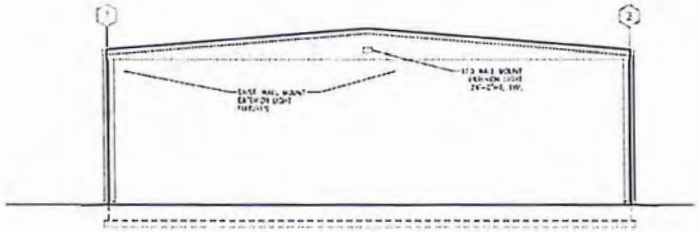
OCT. 4, 2019

3

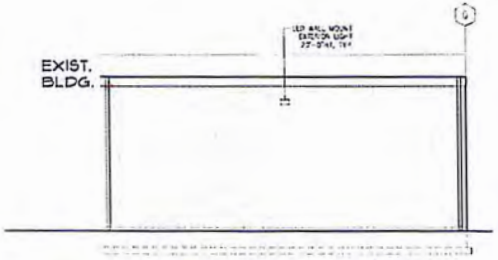
EXHIBIT "C"
9 of 11



PROPOSED WEST ELEVATION



PROPOSED NORTH ELEVATION



PROPOSED EAST ELEVATION

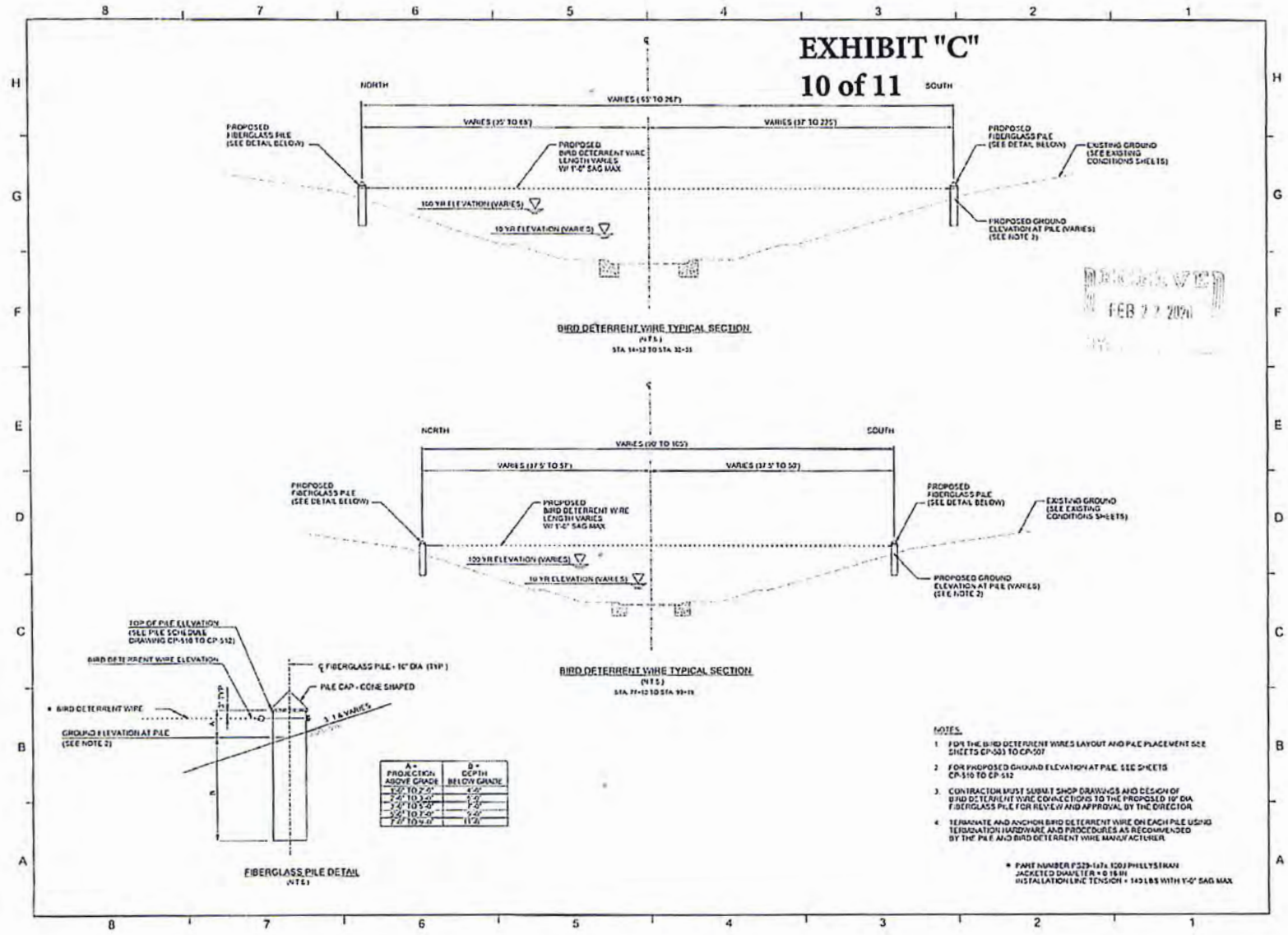
10/4/19
11/20/20

Lakeshore Recycling Systems
FRACTIONS BUILDING
m.j.root • architect

3

EXHIBIT "C"

10 of 11



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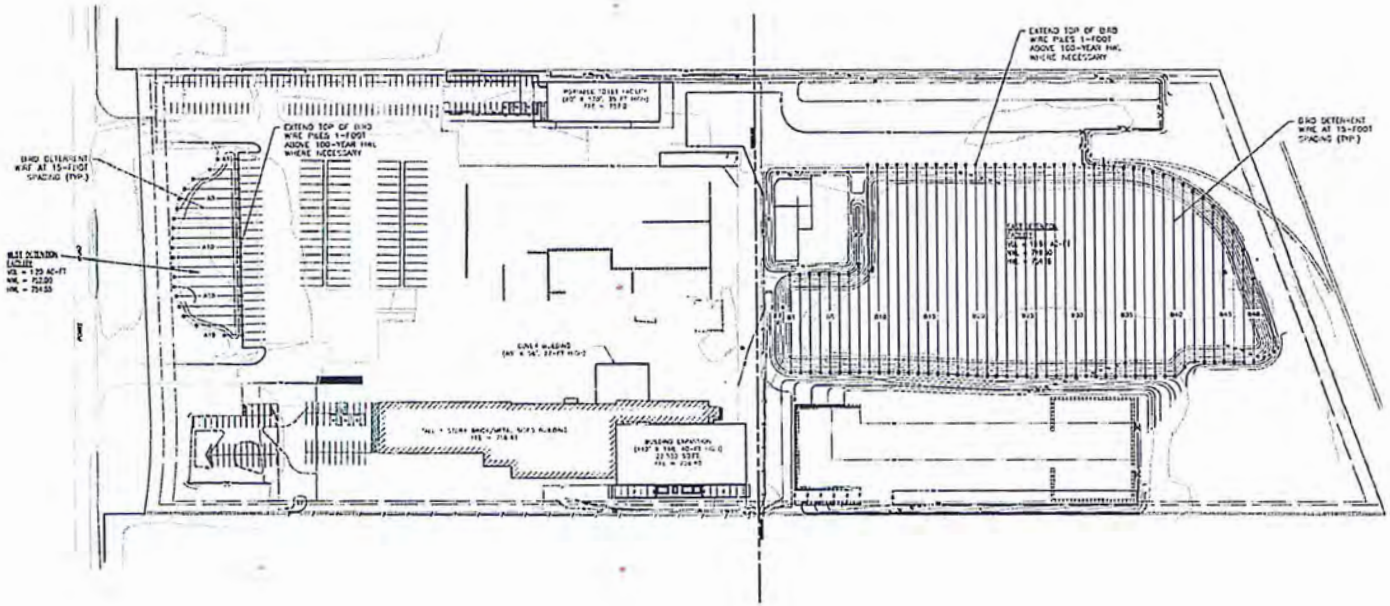
FEB 22 2021

EXHIBIT "C"
11 of 11



REVISION RECORD

Civil & Environmental Consultants, Inc.
1220 East Diehl Road, Suite 200 - Naperville, IL 60563
630/961-4026 - 877/863-4026

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

BIRD DETERRENT WIRE EXHIBIT

EX01

STATE OF ILLINOIS)
COUNTY OF DU PAGE)

CERTIFICATE

I, Nancy Smith, Certify that I am the duly elected and acting City Clerk of the City of West Chicago, DuPage County, Illinois.

I further certify that on June 15, 2020 the Corporate Authorities of such municipality passed and approved Ordinance No. 20-O-0002 entitled:

AN ORDINANCE APPROVING AN AMENDMENT TO THE PRELIMINARY AND FINAL PLANNED UNIT DEVELOPMENT FOR LAKESHORE RECYCLING SYSTEMS, LLC – 1655 POWIS ROAD

Which provided by its terms that it should be published in pamphlet form.

The pamphlet form of Ordinance No. 20-O-0002 including the ordinance and a cover sheet hereof was prepared, and a copy of such ordinance posted in the municipal building, commencing on June 16, 2020 continuing for at least ten days thereafter. Copies of such ordinance were also available for public inspection upon request in the Office of the City Clerk.

Dated at West Chicago, Illinois, this 15th of June, 2020.

SEAL

Nancy M. Smith
Nancy Smith, City Clerk

APPENDIX 2-C1

CERTIFICATE OF GOOD STANDING

File Number 0408708-9

STATE OF ILLINOIS
OFFICE OF THE SECRETARY OF STATE

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

LAKESHORE RECYCLING SYSTEMS, LLC, A DELAWARE LIMITED LIABILITY COMPANY HAVING OBTAINED ADMISSION TO TRANSACT BUSINESS IN ILLINOIS ON NOVEMBER 05, 2012, APPEARS TO HAVE COMPLIED WITH ALL PROVISIONS OF THE LIMITED LIABILITY COMPANY ACT OF THIS STATE, AND AS OF THIS DATE IS IN GOOD STANDING AS A FOREIGN LIMITED LIABILITY COMPANY ADMITTED TO TRANSACT BUSINESS IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 16TH *day of* MARCH *A.D.* 2022 .

Authentication #: 2207502132 verifiable until 03/16/2023

Authenticate at: http://www.ilsos.gov

Jesse White

SECRETARY OF STATE

APPENDIX 2-C2

SOLID WASTE MANAGEMENT EXPERIENCE

Civil & Environmental Consultants, Inc.

Lakeshore Recycling Systems, LLC and Related Entities
Solid Waste Management Operating Experience

Property	Facility Type	Alleged Violations
Heartland Recycling, 6201 West Canal Bank Road, Forest View, Illinois 60402	MSW Transfer Station; C&D Recycling and Transfer Facility	None.
C&D Recycling, 2300 Carlson Drive, Northbrook, Illinois 60062	C&D Recycling and Transfer Facility	None.
Exchange Recycling and Transfer, 1300 South Exchange Avenue, Chicago, Illinois 60609	C&D Recycling and Transfer Facility	None.
West DuPage Recycling and Transfer, 1655 Powis Road, West Chicago, Illinois 60185	C&D Recycling and Transfer Facility	None.
41st Street Recycling Facility, 4055 South Packers Avenue, Chicago, Illinois 60609	Class V Recycling Facility (non-operational)	None.
34th Street Transfer Station/Material Recovery and Recycling Facility, 34th Street, Chicago, Illinois	MSW Transfer Station	None.
Eco Hill, 137 Commercial Drive, Atkinson, Illinois 61235	MSW Landfill	Ecology Solutions LLC is party to a consent order that requires various activities to be completed at Eco Hill in Atkinson, Illinois. The consent order was the result of alleged violations from the previous owner/operator. Ecology Solutions LLC agreed to the stipulations of the consent order as part of its acquisition of the landfill.
Royal Recycling Service, 4197 Reardon Road De Forest, Dane County, Wisconsin 53532	C&D Recycling and Transfer Facility	An August 16, 2019 notice of non-compliance was received from the Wisconsin DNR indicating that construction and demolition (C&D) fines have been disposed of in the Norway Grove Park quarry pit, and that the disposal at that location should cease [NR 502.08(6)(n), Wis. Admin. Code]. The previous owner/operator had been using this dipsosal location. Royal Recycling Service responded that the C&D fines are no longer disposed at the Norway Grove Park quarry pit. As of June 26, 2019, the C&D fines are now being taken to the Orchard Hills Landfill in Davis Junction, Illinois. No fines were issued.
Lakeshore Reycling Systems, 3152 South California Avenue, Chicago 60623	MSW Transfer Station; C&D Recycling and Transfer Facility	None.
Mayflower 43 White City Road, Mayflower, Arkansas 72106	C&D Landfill	None.
DC Recycling 1N138 Linlar Drive, Elburn, Illinois 60119	MSW Transfer Station	None.
Maywood 1301 Greenwood Avenue, Maywood, Illinois 60153	MSW Transfer Station	None.
Monmouth 836 186th Avenue, Monmouth, Illinois 61462	MSW Transfer Station	None.
Northbrook 2750 Shermer Road, Northbrook, Illinois 60062	MSW Transfer Station	None.
River Bend 1258 East 138th Avenue, Chicago, Illinois 60827	MSW Transfer Station	None.
Rolling Meadows 3851 Berdnick Street, Rolling Meadows, Illinois 60008	MSW Transfer Station	None.
Broadway Resource Recovery 111 22nd Avenue N, Minneapolis, Minnesota 55411	C&D Recycling and Transfer Facility	None.
Rolling Hills Landfill 175 County Road 37 NE, Buffalo, Minnesota 55313	Closed MSW Landfill and open Industrial Landfill with limited capacity	None.
Rochester 4245 Highway 14 East, Rochester, Minnesota 55904	Recyclables Materials Transfer Facility	None.
Dane County 7102 US Highway 12 and 18, Madison, Wisconsin 53718	MSW Transfer Station	None.
Milwaukee 2431 North 30th Street, Milwaukee, Wisconsin 53210	MSW Transfer Station	None.
Junoll 1020 Webster Street, South Bend, Indiana 46619	MSW Transfer Station	None.
Sunshine 943 2nd Avenue Southwest, Stewartville, Minnesota 55976	MSW Transfer Station	None.

APPENDIX 2-C3

DEED FOR OSCAR IL LLC

Tx:40004625

This document was prepared by:

Harold S. Dembo, Esq.
Much Shelist, P.C.
191 North Wacker Drive, Suite 1800
Chicago, Illinois 60606

FRED BUCHOLZ, RECORDER
DUPAGE COUNTY ILLINOIS
12/20/2018 01:53 PM
RHSP
COUNTY TAX STAMP FEE 3,828.75
STATE TAX STAMP FEE 7,657.50

DOCUMENT # R2018-116700

~~After recording mail to:~~

OSCAR (IL) LLC
c/o W. P. Carey Inc.
50 Rockefeller Plaza, 2nd Floor
New York, NY 10020
Attention: Legal Transactions Department

Return to:
Stewart Title NTS- Chicago
10 S. Riverside Plaza, Suite 1450
Chicago, IL 60606
PH: 312-849-4400
File NO: R2018/5088 IS A
3 of 4

SPECIAL WARRANTY DEED

THIS INDENTURE is made as of the 14th day of December, 2018 between KKLK LLC, a Colorado limited liability company ("**Grantor**"), and OSCAR (IL) LLC, a Delaware limited liability company ("**Grantee**"). For and in consideration of the sum of Ten and No/100 Dollars, and other good and valuable consideration in hand paid by Grantee, the receipt of which is hereby acknowledged, Grantor REMISES, RELEASES, ALIENS AND CONVEYS to Grantee and to its successors and assigns, FOREVER, all of the following described real estate (the "**Property**"), situated in DuPage County in the State of Illinois, known and described as follows:

See attached **Exhibit A** for legal description

PINS: 01-32-200-001; 01-32-101-004

Common Address: 1655 Powis Road, West Chicago, Illinois 60185

Together with all and singular the hereditaments and appurtenances thereunto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and all the estate, right, title, interest, claim or demand whatsoever, of the Grantor, either in law or equity, of, in and to the Property with the hereditaments and appurtenances; TO HAVE AND TO HOLD the Property as above described, with the appurtenances, unto the Grantee and its successors and assigns forever.

And the Grantor, for itself, and its successors, does covenant, promise and agree, to and with the Grantee, its successors and assigns, that it has not done or suffered to be done, anything whereby the Property hereby granted is, or may be, in any manner encumbered or charged, except as herein recited; and that the said Grantor will warrant and defend the Property against all persons lawfully claiming, or to claim the same, by, through or under it, subject to those exceptions set forth on the attached **Exhibit B** and **Exhibit C**.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK; SIGNATURE PAGE TO FOLLOW.]

IN WITNESS WHEREOF, Grantor has caused its name to be signed to this Special Warranty Deed the day and year first above written.

KKLK LLC,
a Colorado limited liability company

By: _____
Name: Kenneth A. Hovnanian
Its: Manager

STATE OF Illinois)
) SS
COUNTY OF DuPage)

I, the undersigned, a Notary Public in and for said County and State, do hereby certify that Kenneth A. Hovnanian as Manager of KKLK LLC, a Colorado limited liability company, and personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that s/he signed and delivered the said instrument as his/her own free and voluntary act and as the free and voluntary act of said company, for the uses and purposes set forth.

Given under my hand and notarial seal this 7th day of December, 2018.

SEAL

_____
Notary Public

MICHAEL J DEBOER
Official Seal
Notary Public – State of Illinois
My Commission Expires Feb 11, 2021

Send subsequent tax bills to:

Lakeshore Recycling Systems, LLC
6132 Oakton Street
Morton Grove, Illinois 60053

CITY OF WEST CHICAGO
DEED CERTIFICATION

Date 12-6-18
Initials YMS
$ -0-
Cert. No. 15379

9381322

EXHIBIT A

LEGAL DESCRIPTION

THAT PART OF THE NORTH 1/2 OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS, TO WIT:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 32; THENCE NORTH 88 DEGREES 56 MINUTES 37 SECONDS EAST ALONG THE NORTH LINE OF SAID SECTION 32, A DISTANCE OF 1331.65 FEET TO THE NORTH AND SOUTH DIVIDING LINE OF THE NORTHWEST 1/4 OF SAID SECTION 32; THENCE SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 500.00 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81 IN THE OFFICE OF THE DUPAGE COUNTY RECORDER; THENCE CONTINUING SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 685.0 FEET TO THE SOUTHWEST CORNER OF THE TRACT OF LAND DESCRIBED IN A SPECIAL WARRANTY DEED RECORDED FEBRUARY 6, 2001 AS DOCUMENT NO. R2001-020758; THENCE NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST ALONG THE SOUTH LINE OF SAID TRACT, A DISTANCE OF 103.80 FEET FOR THE POINT OF BEGINNING; THENCE CONTINUING NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST, ALONG SAID SOUTH LINE (SAID LINE BEING PARALLEL WITH THE SOUTH LINE OF SAID DEFENSE PLANT CORPORATION TRACT), A DISTANCE OF 1880.12 FEET TO THE WESTERLY RIGHT OF WAY LINE FOR THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 20 DEGREES 30 MINUTES 46 SECONDS WEST, ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 729.01 FEET TO THE SOUTHEAST CORNER OF SAID DEFENSE PLANT CORPORATION TRACT; THENCE SOUTH 89 DEGREES 32 MINUTES 15 SECONDS WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 1650.66 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF POWIS ROAD PER DOCUMENT NO. R2003-146376, SAID POINT ALSO BEING 81.96 FEET EAST OF THE SOUTHWEST CORNER OF SAID DEFENSE PLANT CORPORATION; THENCE SOUTH 2 DEGREES 29 MINUTES 05 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 536.49 FEET TO A POINT OF CURVATURE; THENCE SOUTHWESTERLY, ALONG SAID EASTERLY RIGHT OF WAY LINE BEING THE ARC OF A CURVE CONCAVE WESTERLY, HAVING A RADIUS OF 739.00 FEET AND WHOSE CHORD HAS A BEARING OF SOUTH 3 DEGREES 47 MINUTES 33 SECONDS WEST, AN ARC DISTANCE OF 149.66 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

EXHIBIT B

SUBJECT TO THE FOLLOWING EXCEPTIONS:

1. GENERAL REAL ESTATE TAXES AND SPECIAL ASSESSMENTS FOR THE YEAR 2018 AND SUBSEQUENT YEARS, NOT YET DUE AND PAYABLE;

2. ACTS OF TENANT AND THOSE PARTIES ACTING BY, THROUGH OR FOR TENANT; AND

3. ALL MATTERS CURRENTLY ENCUMBERING TITLE TO THE PREMISES WHICH ARE LISTED ON **EXHIBIT C**, OTHER THAN MATTERS PERTAINING TO LIENS OR ENCUMBRANCES OF A DEFINITE OR ASCERTAINABLE AMOUNT CAUSED SOLELY BY LANDLORD WHICH MAY BE REMOVED BY THE PAYMENT OF MONEY.

EXHIBIT C

PERMITTED EXCEPTIONS

1. CLEAR ZONE AVIGATION EASEMENT RECORDED MARCH 24,1959 AS DOCUMENT 916606 MADE BY KAWNEER CO, A CORP OF DELAWARE, OWNER OF THE LAND, WHICH TRACT OF LAND IS IDENTIFIED AS CLEAR ZONE AREA, TRACT G ON PLAT DATED FEBRUARY 2, 1959. THE COUNTY OF DUPAGE IS THE OWNER AND OPERATOR OF THE DU PAGE COUNTY AIRPORT, SITUATED IN THE COUNTY OF DU PAGE, STATE OF ILLINOIS IN CLOSE PROXIMITY TO THE LAND, AND WHEREAS IT IS DEEMED NECESSARY THAT SAID LAND, IDENTIFIED AS CLEAR ZONE AREA, TRACT G, BE AND REMAIN FREE AND CLEAR OF ANY STRUCTURE, TREE OR OTHER OBJECT WHICH IS OR WOULD CONSTITUTE AN OBSTRUCTION OR HAZARD TO THE FLIGHT OF AIRCRAFT IN THE LANDING AND TAKING OFF AT DU PAGE COUNTY AIRPORT. NOW THEREFORE, THE GRANTOR, FOR ITSELF, ITS SUCCESSORS AND OR ASSIGNS, DOES THEREBY COVENANT AND AGREE WITH THE GRANTEE, THAT, FOR THE BENEFIT OF THE PUBLIC IN ITS USE OF THE AIRPORT, IT WILL NOT THEREAFTER ERECT OR PERMIT THE ERECTION OR GROWTH OF ANY STRUCTURE, TREE OR OTHER OBJECT WITHIN SAID CLEAR ZONE APPROACH AREA, (TRACT G) (WHICH AREA IS IDENTIFIED ON THE SAID PLAT ATTACHED THERETO) TO A HEIGHT ABOVE THE CLEAR ZONE APPROACH SURFACE FOR THE APPROACH AREA AS AN INCLINED PLANS WITH A SLOPE OF 50.1 (ONE FOOT OF ELEVATION FOR EACH FIFTY FEET OF HORIZONTAL DISTRICT) LOCATED DIRECTLY ABOVE THE CLEAR ZONE APPROACH AREA. GRANTOR, FOR ITSELF, ITS SUCCESSORS AND OR ASSIGNS, DOES HEREBY GRANT AND CONVEY TO THE GRANTEE, ITS AGENTS, SERVANTS AND EMPLOYEES, A CONTINUING RIGHT AND EASEMENT, AT THE GRANTEE'S SOLD EXPENSE, TO TAKE ANY ACTION NECESSARY TO PREVENT THE ERECTION OR GROWTH OF ANY STRUCTURE, TREE OR OTHER OBJECTS INTO THE AIR SPACE ABOVE THAT PART OF SAID APPROACH SURFACE WHICH IS DIRECTLY OVER SAID APPROACH AREA, TRACT G, EXCEPTING THE PRESENTLY EXISTING STRUCTURES AS SHOWN ON THE PLAT ATTACHED THERETO, AND AT GRANTEE'S SOLD EXPENSE, TO REMOVE FROM SUCH AIR SPACE OR MARK AND LIGHT AS OBSTRUCTIONS TO AIR NAVIGATION, ANY AND ALL STRUCTURES AND OTHER OBJECT THAT MAY AT ANY TIME PROJECT OR EXTEND ABOVE SAID APPROACH SURFACE.

2. TERMS, PROVISIONS AND CONDITIONS CONTAINED IN ORDINANCE RECORDED MARCH 10, 1993 AS DOCUMENT R93-046010, RELATING TO THE RECAPTURE OF COSTS FOR THE CONSTRUCTION OF WATER MAIN AND SANITARY SEWER LINES ALONG POWIS ROAD AND NORTH AVENUE.

   NOTE: THERE ARE NO ASSESSMENTS, USER FEES OR RECAPTURE COSTS DUE OR DELINQUENT AT THE DATE OF THE POLICY.

3. RESTRICTIONS CONTAINED IN SPECIAL WARRANTY DEEDS RECORDED FEBRUARY 6, 2001 AS DOCUMENT R2001-020758, AND RECORDED MAY 15, 2002 AS DOCUMENT R2002-130084 WHEREIN BUYER WILL NOT DISTURB THAT PORTION OF THE PROPERTY IN QUESTION DESIGNATED "SLUDGE IMPOUNDMENT AREA" DESCRIBED IN THE SURVEY ATTACHED AS EXHIBIT A, AND BUYER WILL KEEP THE PROPERTY IN QUESTION ZONED AS INDUSTRIAL PROPERTY, FORMER SLUDGE IMPOUNDMENT AREA, AND AS SHOWN ON THE PLAT OF SURVEY PREPARED BY JLH LAND SURVEYING, INC. FOR THE EDGE GROUP LLC DATED DECEMBER 4, 2018, LAST REVISED DECEMBER 5, 2018 AS ORDER NUMBER 20180191-5.

4. TERMS, CONDITIONS AND LIMITATIONS CONTAINED IN THE NO FURTHER REMEDIATION LETTER ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND RECORDED SEPTEMBER 23, 2004 AS DOCUMENT NUMBER R2004-249272.

5. TERMS, CONDITIONS AND LIMITATIONS CONTAINED IN THE NO FURTHER REMEDIATION LETTER ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY AND RECORDED JUNE 25, 2007 AS DOCUMENT R2007-117131.

6. EASEMENT FOR WATERMAIN AND DRAINAGE/DETENTION AND NATURAL AREA, AND THE EASEMENT PROVISIONS AND GRANTEES AS SET FORTH ON THE PLAT PREPARED BY AND DATED NOVEMBER 23, 2016, AND LAST DATED DECEMBER 8, 2016, MADE BY WENDLER ENGINEERING SERVICES, INC., #2160284 AFFECTING THE LAND UNDER PLAT OF EASEMENT RECORDED DECEMBER 29, 2016 AS DOCUMENT NUMBER R2016-144354, AND AS SHOWN ON THE PLAT OF SURVEY PREPARED BY JLH LAND SURVEYING, INC. FOR THE EDGE GROUP LLC DATED DECEMBER 4, 2018, LAST REVISED DECEMBER 5, 2018 AS ORDER NUMBER 20180191-5.

7. RIGHTS OF WAY FOR RAILROADS, SWITCH TRACKS OR SPUR TRACKS, IF ANY, AND RIGHT OF THE RAILROAD COMPANY TO THE USE, OPERATION, MAINTENANCE AND REPAIR OF SAME, AND AS SHOWN ON THE PLAT OF SURVEY PREPARED BY JLH LAND SURVEYING, INC. FOR THE EDGE GROUP LLC DATED DECEMBER 4, 2018, LAST REVISED DECEMBER 5, 2018 AS ORDER NUMBER 20180191-5.

8. RIGHTS OF WAY FOR DRAINAGE DITCHES, TILES, FEEDERS AND LATERALS, AND OTHER DRAINAGE EASEMENTS, IF ANY.

9. RIGHTS OF THE OWNERS OF LAND BORDERING ON THE KRESS CREEK TO THE UNINTERRUPTED FLOW OF THE WATERS THEREOF, AND AS SHOWN ON THE PLAT OF SURVEY PREPARED BY JLH LAND SURVEYING, INC. FOR THE EDGE GROUP LLC DATED DECEMBER 4, 2018, LAST REVISED DECEMBER 5, 2018 AS ORDER NUMBER 20180191-5.

10. MATTERS AS DISCLOSED BY THE PLAT OF SURVEY PREPARED BY JLH LAND SURVEYING, INC. FOR THE EDGE GROUP LLC DATED DECEMBER 4, 2018, LAST REVISED DECEMBER 5, 2018 AS ORDER NUMBER 20180191-5, AS FOLLOWS:

    A) ENCROACHMENT OF STOCKADE FENCE OVER THE SOUTH LINE OF THE LAND AND ONTO THE PROPERTY SOUTH BY A DISTANCE UP TO 2.50 FEET.

    B) ENCROACHMENT OF STOCKADE FENCE OVER THE NORTH LINE OF THE LAND AND ONTO THE PROPERTY NORTH BY A DISTANCE UP TO 1.62 FEET.

    C) ENCROACHMENT OF CHAIN LINK FENCE LOCATED ON THE PROPERTY TO THE NORTH AND ONTO THE LAND BY A DISTANCE UP TO 1.61 FEET.

Stewart Title Guaranty Co.
Commercial Services
10 S. Riverside Plaza, Suite 1450
Chicago, IL 60606
Phone: 800-261-9800
Fax: 312-849-4410

PLAT ACT AFFIDAVIT OF METES AND BOUNDS

STATE OF Illinois)
) SS
COUNTY OF DuPage)

Kenneth A. Hoving, Manager of KKLK LLC, a Colorado limited liability company, being duly sworn on oath, states that affiant resides at 363 Trinity Lane, Oak Brook, Illinois 60523.

And further states that: (please check the appropriate box)

A. [X] That the attached deed is not in violation of 765 ILCS 205/1(a), in that the sale or exchange is of an entire tract of land not being a part of a larger tract of land; or

B. [ ] That the attached deed is not in violation of 765 ILCS 205/1(b) for one of the following reasons: (please circle the appropriate number)

1. The division or subdivision of land into parcels or tracts of 5.0 acres or more in size which does not involve any new streets or easements of access;
2. The division of lots or blocks of less than one (1) acre in any recorded subdivision which does not involve any new streets or easements of access;
3. The sale or exchange of parcels of land between owners of adjoining and contiguous land;
4. The conveyance of parcels of land or interests therein for use as right of way for railroads or other public utility facilities and other pipe lines which does not involve any new streets or easements of access;
5. The conveyance of land owned by a railroad or other public utility which does not involve any new streets or easements of access;
6. The conveyance of land for highway or other public purposes or grants or conveyances relating to the dedication of land for public use or instruments relating to the vacation of land impressed with a public use;
7. Conveyances made to correct descriptions in prior conveyances;
8. The sale or exchange of parcels or tracts of land following the division into no more than two (2) parts of a particular parcel or tract of land existing on July 17, 1959 and not involving any new streets or easements of access;
9. The sale of a single lot of less than 5.0 acres from a larger tract when a survey is made by an Illinois Registered Land Surveyor; provided, that this exemption shall not apply to the sale of any subsequent lots from the same larger tract of land, as determined by the dimensions and configuration of the larger tract on October 1, 1973, and provided also that this exemption does not invalidate any local requirements applicable to the subdivision of land;
10. This conveyance is of land described in the same manner as title was taken by grantor(s).

AFFIANT further states that he makes this affidavit for the purpose of inducing the Recorder of Deeds of DuPage County, Illinois, to accept the attached deed for recording.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK; SIGNATURE PAGE TO FOLLOW.]

Stewart Title Guaranty Co
Commercial Services
10 S. Riverside Plaza, Suite 1450
Chicago, IL 60606
Phone: 800-261-9800
Fax: 312-849-4410

KKLK LLC,
a Colorado limited liability company

By: _____
Name: Kenneth A. Hovins
Its: Manager

SUBSCRIBED AND SWORN TO BEFORE ME
this 7th day of December, 2018.

_____
Signature of Notary Public

MICHAEL J DEBOER
Official Seal
Notary Public – State of Illinois
My Commission Expires Feb 11, 2021

APPENDIX 2-D1

RAILROAD PROPERTY PHOTO LOG

Photograph Number: 1

Description:

Canadian National Railway looking northwest.

Photograph Number: 2

Description:

Canadian National Railway looking southeast.

Civil & Environmental Consultants, Inc.
Naperville, Illinois
Ph: 630-963-6026 Toll Free: 877-963-6026

West DuPage Recycling and Transfer Station
1655 Powis Road, West Chicago, Illinois

Client Name:	Lakeshore Recycling Systems, LLC
CEC Project:	163-899
Author:	Scott Dawson
Photographs Taken On:	August 31, 2022

Photograph Number: 3

Description:

Union Pacific Railroad looking northwest.

Photograph Number: 4

Description:

Union Pacific Railroad looking southeast.

Civil & Environmental Consultants, Inc.
Naperville, Illinois
Ph: 630-963-6026 Toll Free: 877-963-6026

West DuPage Recycling and Transfer Station
1655 Powis Road, West Chicago, Illinois

Client Name:	Lakeshore Recycling Systems, LLC
CEC Project:	163-899
Author:	Scott Dawson
Photographs Taken On:	August 31, 2022

APPENDIX 2-D2

LETTER FROM WEST CHICAGO

CITY OF
WEST CHICAGO

WHERE HISTORY & PROGRESS MEET

August 24, 2022

RE: Residential-zoned property located east of 1655 Powis Road, West Chicago, Illinois

To Whom It May Concern:

Both the Union Pacific Railroad and the Canadian National Railroad operate parallel tracks on land running northwest to southeast, east of and adjacent to the subject property. The right-of-way for these rail lines carries a remnant zoning classification of Estate Residential, which is the classification assigned upon annexation. No effort was made to reclassify the property.

As an active rail corridor, there can be no residential development. Furthermore, there is insufficient room to construct homes on one-acre minimum lots and no convenient way to access what would be a narrow string of properties. Residential development on this property is physically impossible.

As such, the City concludes that the 1,000-foot setback requirement in 415 ILCS 5/22.14(a) is not applicable.

Please contact me if you have any questions.

Sincerely,

Tom Dabareiner AICP
Community Development Director and Zoning Administrator

475 Main Street
West Chicago, Illinois
60185

T (630) 293-2200
F (630) 293-3028
www.westchicago.org

Ruben Pineda
MAYOR

Nancy M. Smith
CITY CLERK

Michael L. Guttman
CITY ADMINISTRATOR

APPENDIX 2-E1

REQUEST FOR STATE HISTORIC PRESERVATION OFFICE REVIEW

Civil & Environmental Consultants, Inc.

September 8, 2020

Illinois Department of Natural Resources
Illinois State Historic Preservation Office
1 Natural Resources Way
Springfield, Illinois 62702
Attn: Review and Compliance/Old State Capitol

Subject: **Request for Illinois State Historic Preservation Office Review**
1655 Powis Road, West Chicago, Illinois
CEC Project 163-899

Dear Sir/Madam:

Civil & Environmental Consultants, Inc. (CEC) is hereby requesting a review by the Illinois State Historic Preservation Office (SHPO) of the property located at 1655 Powis Road, West Chicago, Illinois. We are preparing a local siting application for this property, and a SHPO review is requested to be included in the application. The property is currently operated by Lakeshore Recycling Systems, LLC as a construction or demolition debris recycling facility including ancillary operations. The previous SHPO review (SHPO Log #008082718) for the property dated September 21, 2018 is attached as reference, and indicates the clearance will remain in effect until September 21, 2020. We are requesting an additional review since the local siting application will not be submitted until after the expiration. There are three permanent buildings on-site that house the recycling operation tipping floor, recycling equipment, and equipment maintenance garage. A site location map is attached as Figure 1, and the current layout of the buildings on the property is shown on the site diagram in Figure 2. The current owner plans to make some upgrades to the property, such as paved roads, parking spaces, and additional buildings. Historically, the property was formally the location for Alumax Extrusions, Inc., ALCOA Extrusions Inc., K Hoving Recycling & Disposal, and West DuPage Recycling and Transfer facility. Adjacent properties to the north and east historically have been zoned for manufacturing use, the closed DuPage County Landfill #2 is located to the south, and the DuPage Airport Authority is located west of the property.

Please feel free to contact us at (630) 963-6026 if you have any questions regarding this review. We appreciate your assistance on this project.

Sincerely,

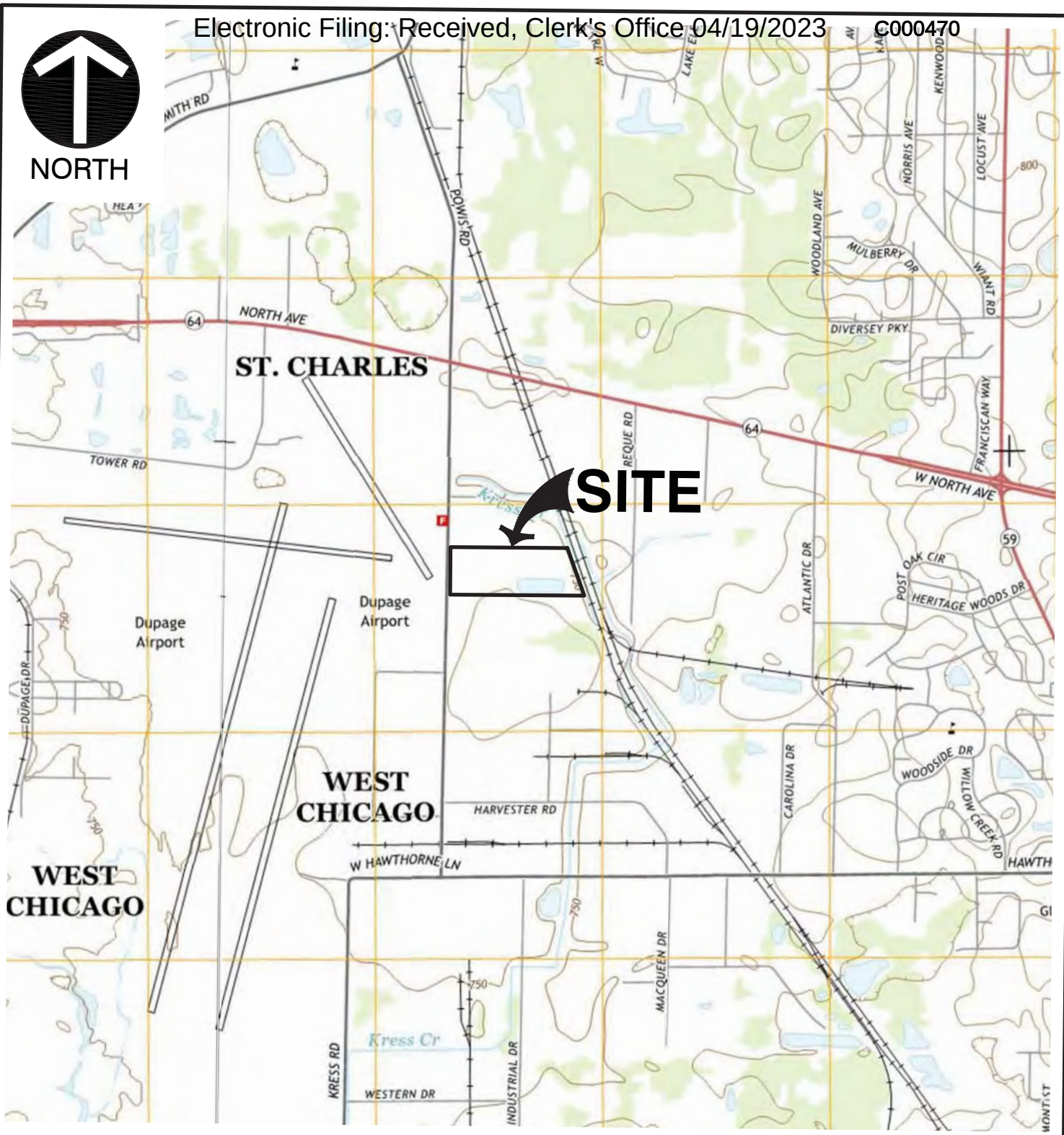
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Chastity Montalvo Lee, P.E.
Project Manager

John Hock, P.E.
Vice President

Enclosures: Figure 1 - Site Location Map
Figure 2 - Site Layout
Attachment 1 - 2018 SHPO Review

FIGURES



REFERENCE

1. U.S.G.S. 7.5' TOPOGRAPHIC MAP, WEST CHICAGO QUADRANGLE, ILLINOIS DATED: 2015.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 2000 4000

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

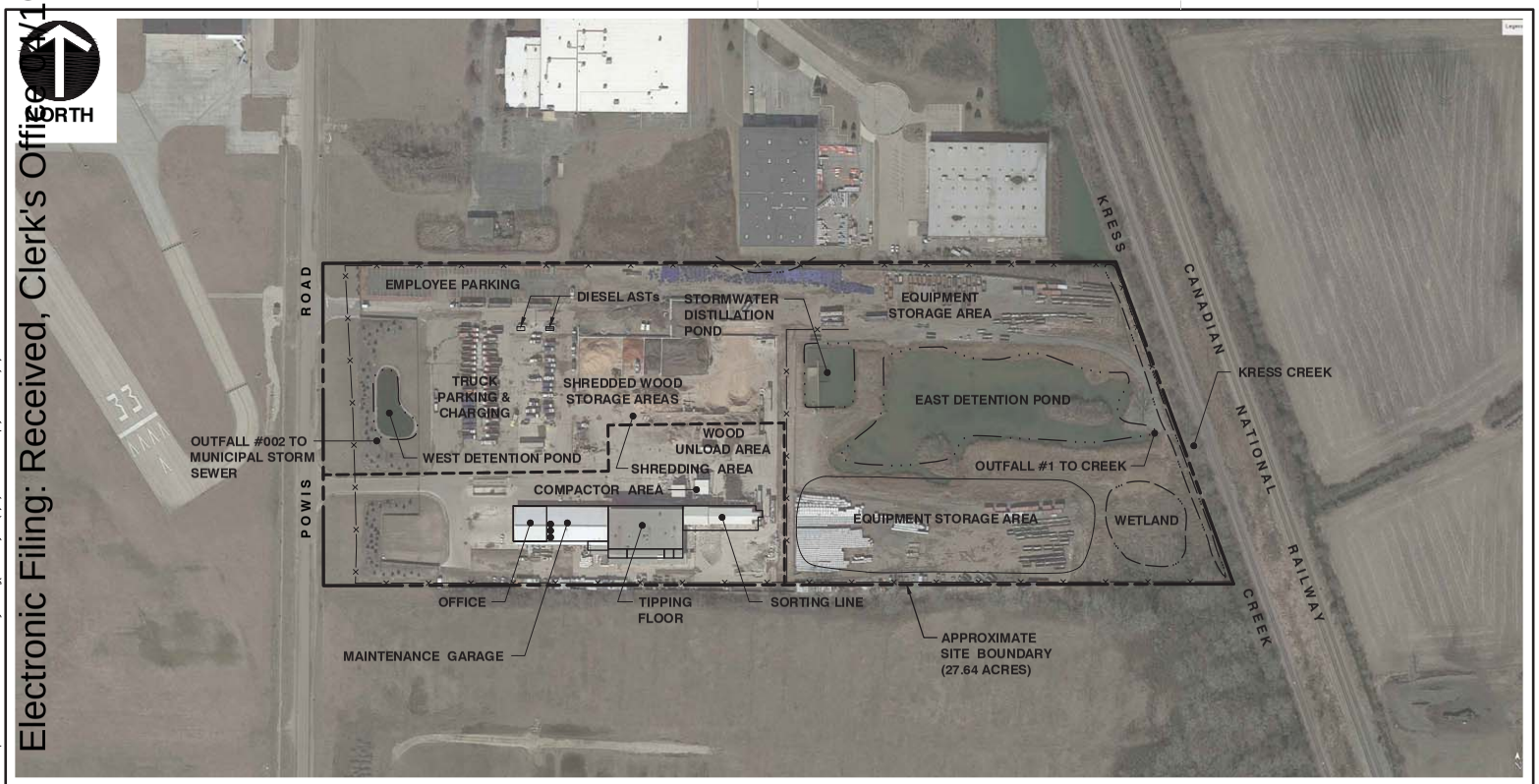
WEST DUPAGE RECYCLING AND TRANSFER FACILITY
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

SITE LOCATION MAP

DRAWN BY:	MSK	CHECKED BY:	CML	APPROVED BY:	JEH*	FIGURE NO.:
DATE:	09/08/2020	DWG SCALE:	1"=2000'	PROJECT NO:	163-899.0005	1

P:\2016\163-899\-CADD\Dwg\CV06-Siting Application\163899-SW05-S101-Site Location Map.dwg{LAYOUT1} LS:(9/8/2020 - mkarpf) - LP: 9/8/2020 6:46 AM

Electronic Filing: Received, Clerk's Office 4/19/2023



LEGEND

- WETLAND AREAS
- LIMIT OF PERMITTED C&D FACILITY
- FENCE LINE

REFERENCE

1. IMAGE PROVIDED BY GOOGLE EARTH. DATE OF IMAGE: MARCH 17, 2018.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 200 400

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER FACILITY
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

SITE LAYOUT

DRAWN BY:	MSK	CHECKED BY:	CML	APPROVED BY:	JEH*	FIGURE NO.:
DATE:	09/08/2020	DWG SCALE:	1"=200'	PROJECT NO:	163-899.0005	2

P:\2016\163-899\--CAD\Dwg\CV06--Siting Application\163899-SW05-S102--Site Layout.dwg[LAYOUT1] LS(9/8/2020 - mkropf) - LP: 9/8/2020 6:46 AM

ATTACHMENT 1

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Bruce Rauner, Governor
Wayne A. Rosenthal, Director

DuPage County PLEASE REFER TO: SHPO LOG #008082718
West Chicago
1655 Powis Road - dba: West DuPage Recycling & Transfer, Inc.
CECI-163-899, IEPA
General Permit to discharge storm water - PERMIT ONLY - Lakeshore Recycling Systems, LLC

September 21, 2018

Elizabeth S. Schwartz
Civil & Environmental Consultants, Inc.
555 Butterfield Road, Suite 300
Lombard, IL 60148

Dear Ms. Schwartz:

The Illinois State Historic Preservation Office is required by the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420, as amended, 17 IAC 4180) to review all state funded, permitted or licensed undertakings for their effect on cultural resources. Pursuant to this, we have received information regarding the referenced project for our comment.

Our staff has reviewed the specifications under the state law and assessed the impact of the project as submitted by your office. We have determined, based on the available information, that no significant historic, architectural or archaeological resources are located within the proposed project area.

According to the information you have provided concerning your proposed project, apparently there is no federal involvement in your project. However, please note that the state law is less restrictive than the federal cultural resource laws concerning archaeology. If your project will use federal loans or grants, need federal agency permits, use federal property, or involve assistance from a federal agency, then your project must be reviewed under the National Historic Preservation Act of 1966, as amended. Please notify us immediately if such is the case.

This clearance remains in effect for two (2) years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the IL Human Skeletal Remains Protection Act (20 ILCS 3440).

Please retain this letter in your files as evidence of compliance with the Illinois State Agency Historic Resources Preservation Act.

If further assistance is needed please contact Jeff Kruchten, Chief Archaeologist at 217/785-1279 or Jeffery.kruchten@illinois.gov.

Sincerely,

Robert F. Appleman
Deputy State Historic
Preservation Officer

APPENDIX 2-E2

RESPONSE FROM STATE HISTORIC PRESERVATION OFFICE

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Illinois Department of Natural Resources

JB Pritzker, Governor
Colleen Callahan, Director

www.dnr.illinois.gov

Mailing address: State Historic Preservation Office, 1 Old State Capitol Plaza, Springfield, IL 62701

DuPage County
West Chicago
1655 Powis Road
IEPA
New construction, additional buildings, parking, roadways - Lakeshore Recycling Systems

PLEASE REFER TO: SHPO LOG #009090920

September 30, 2020

Chastity Montalvo Lee
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200
Naperville, IL 60563

Dear Ms. Lee:

The Illinois State Historic Preservation Office is required by the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420, as amended, 17 IAC 4180) to review all state funded, permitted or licensed undertakings for their effect on cultural resources. Pursuant to this, we have received information regarding the referenced project for our comment.

Our staff has reviewed the specifications under the state law and assessed the impact of the project as submitted by your office. We have determined, based on the available information, that no significant historic, architectural or archaeological resources are located within the proposed project area.

According to the information you have provided concerning your proposed project, apparently there is no federal involvement in your project. However, please note that the state law is less restrictive than the federal cultural resource laws concerning archaeology. If your project will use federal loans or grants, need federal agency permits, use federal property, or involve assistance from a federal agency, then your project must be reviewed under the National Historic Preservation Act of 1966, as amended. Please notify us immediately if such is the case.

This clearance remains in effect for two (2) years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the IL Human Skeletal Remains Protection Act (20 ILCS 3440).

Please retain this letter in your files as evidence of compliance with the Illinois State Agency Historic Resources Preservation Act.

If further assistance is needed please contact Jeff Kruchten, Chief Archaeologist at 217/785-1279 or Jeffery.kruchten@illinois.gov.

Sincerely,

Robert F. Appleman
Deputy State Historic
Preservation Officer

APPENDIX 2-E3

ECOCAT INFORMATION

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant:	Civil & Environmental Consultants, Inc	*IDNR Project Number:*	2106248
Contact:	Chastity Montalvo Lee	*Date:*	10/01/2020
Address:	1230 East Diehl Road Suite 200 Naperville, IL 60563	*Alternate Number:*	1907683
Project:	West DuPage Recycling & Transfer Station		
Address:	1655 Powis Road, West Chicago		

Description: Development of a recycling and waste transfer facility

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

Consultation is terminated. This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Termination does not imply IDNR's authorization or endorsement.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: DuPage

Township, Range, Section:
40N, 9E, 32

IL Department of Natural Resources Contact
Brian Willard
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
IL Environmental Protection Agency
Kenn Smith
1021 North Grand Ave East
Springfield, Illinois 62794 -9276

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

Security

EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

APPENDIX 2-F1

STORMWATER REPORT NOV 2019

STORMWATER REPORT

WEST DUPAGE RECYCLING & TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS, 60185

Prepared For:

LAKESHORE RECYCLING SYSTEMS, LLC
6132 OAKTON STREET
MORTON GROVE, ILLINOIS 60053

Prepared By:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
NAPERVILLE, ILLINOIS

CEC Project 163-899

JUNE 2019

(REVISED SEPTEMBER 2019)
(REVISED NOVEMBER 2019)

FORM

DUPAGE COUNTY STORMWATER MANAGEMENT CERTIFICATION APPLICATION (1/2)

1. Community and Status	2. Date of Application	3. Stormwater Application No. (to be assigned by community)	4. DuPage County Tracking No.
West Chicago ☐ Non ☑ Partial ☐ Complete		1 9 3 4 0 0 0 3	

5. Applicant:
Name: Richard Golf
Company Name: Lakeshore Recycling Systems, Inc.
Address: 6132 West Oakton Street
City, ST, Zip: Morton Grove, IL, 60053
Phone: 708-774-9301
Email: RGolf@LRSRecycles.com

6. Owner:
Name: Peter Bates
Company Name: Oscar (IL) LLC
Address: c/o W.P. Carey Inc., 50 Rockefeller Plaza
City, ST, Zip: New York, NY, 10020-1607
Phone: 212-492-1129
Email: PBates@WPCarey.com

7. Description of Proposed Development: Improve the existing construction and demolition debris recycling facility by reconfiguring outside storage and operational areas, paving outside storage and operational areas, adding and improving existing parking, expanding the main sorting building eastward (including the addition of a loading pit and weigh scales), the addition of a previously approved second scale adjacent to the existing scale, and the addition of a new porta-potty cleaning and maintenance building.

8. Location of Development:
Address: 1655 Powis Road
Municipality: West Chicago
Watershed Planning Area & Trib: DuPage River/Kress Creek

9. Legal Description
32 (¼ Section) 40N (Township) 9E (Range)
PIN 01 . 32 . 101 . 004
PIN 01 . 32 . 200 . 001

10. Check all of the conditions which apply:
☑ Flood Plain ☑ Stormwater Detention ☑ Best Management Practices ☑ Soil Erosion & Sediment Control
☑ Wetland ☑ Wetland Buffer ☐ Riparian Buffer

11. Acknowledgement of On-Site Infiltration PCBMPs
I acknowledge that I have used my best effort to identify zones for which on-site infiltration are prohibited for Post Construction Best Management Practices (PCBMPs) in accordance with the Ordinance (15-63.B)

Signature of Applicant — Richard Golf (Print Name) — 4/19/19 (Date)

12. Freedom of Information Act (FOIA)
I acknowledge that all architects' drawings, engineers' technical submissions and other construction-related technical documents containing stormwater management information submitted with this application may be made available for inspection or copying by the County, notwithstanding 5 ILCS 140/7(1)(k), upon the written request for such materials. Such productions will be restricted to the following parties: i) the Applicant ii) any subsequent owner of the subject property; or iii) any governmental unit having planning or drainage jurisdiction within 1 and ½ mile of the subject property.

Signature of Applicant — Richard Golf (Print Name) — 4/19/19 (Date)
Signature of Owner — Peter Bates (Print Name) — 6/14/19 (Date)

13. Statement of Opinion for Minimum Criteria for Stormwater Management
I am a Professional Engineer under the employment of the Applicant. It is my professional opinion that the development meets the minimum criteria for stormwater management in accordance with the Ordinance (15-36)

Signature of Professional Engineer — David A. Kamano, P.E., LEED AP (Print Name) — 4/19/19 (Date)

____ Community Copy ____ DuPage County SM Copy ____ Applicant Copy

DUPAGE COUNTY STORMWATER MANAGEMENT CERTIFICATION APPLICATION (2/2)

Community Tracking No: 1 9 3 4 0 0 0 3 | **DuPage County Tracking No:**

14. Statement of Opinion for Presence of Flood Plain, Wetlands, and Buffers (15-47-A.5)

☑ I acknowledge the presence of flood plain ☐ I deny the presence of flood plain.	☑ I acknowledge the presence of wetlands. ☐ I deny the presence of wetlands.	☑ I acknowledge the presence of buffers ☐ I deny the presence of buffers.
Signature of Qualified Professional — Date: 4/19/19	Signature of Qualified Professional — Date: 4/19/19	Signature of Qualified Professional — Date: 4/19/19
David A. Kamano, P.E., LEED AP	David A. Kamano, P E., LEED AP	David A. Kamano, P.E., LEED AP
Printed Name	Printed Name	Printed Name

15. Soil Erosion & Sediment Control Submittal Requirements (15-50.B)
(For developments with less than 1 acre of land disturbance that are not part of a larger common plan)

I certify that the development meets the soil erosion and sediment control design criteria found in Article VII have been met.

Signature of Qualified Designer | David A. Kamano, P.E., LEED AP (Print Name) | Date

16. Soil Erosion & Sediment Control Requirements (15-59.W) **(For developments with land disturbing activities greater than 1 acre)**

I acknowledge that the site complies with the IEPA NPDES ILR10 Permit.

Signature of Applicant | Richard Golf (Print Name) | Date: 4/19/19

17. Acknowledgement of Required As-Built Plans (15-47 B)

I acknowledge that a record drawing signed by either a Professional Engineer or a Professional Land Surveyor depicting the as-constructed size rim, and invert elevations of pipes, stormwater structures and culverts, and contours and flood storage volumes of all required basins of the major stormwater systems and minor stormwater systems shall be submitted for review and approval upon completion of the stormwater facilities.

Signature of Owner | Peter Bates (Print Name) | Date: 6/17/19

18. Intentional Misrepresentation Under Penalty of Perjury

I declare that I have examined and/or made this application and rider, and it is true and correct to the best of my knowledge and belief. I realize that the information that I have affirmed hereon forms a basis for the issuance of the stormwater management certification(s) herein applied for and approval of plans in connection therewith shall not be construed to permit any construction upon said premises or use thereof in violation of any provision of any applicable ordinance or to excuse the owner or his successors in title from complying therewith. The Owner and Applicant each understand and agree to construct said improvement n compliance with all provisions of the applicable ordinances.

Signature of Applicant | Richard Golf (Print Name) | Date: 4/19/19

Signature of Owner | Peter Bates (Print Name) | Date: 6/14/19

DO NOTWRITE BELOW THIS LINE

19. Security (15-54)

Stormwater Facilities	$
Wetlands/Natural Area	$
SE/SC	$
Total	$

20. Stormwater Fees

Community Review	$
DCSM Review	$
Fee-in-Lieu	$ (Wetland) $ (BMP)

Seal/Stamp
Certifications expire December 31st of the third year of Certification or Authorization, whichever is earlier

21. Final Approvals (See Certification letter for special conditions and general conditions.)

Community Certification — Date — Approved by/title

County Authorization — Date — Approved by/title

____ Community Copy ____ DuPage County SM Copy ____ Applicant Copy

TAB 1

PROJECT NARRATIVE

Electronic Filing: Received, Clerk's Office 04/19/2023

Master Table of Contents | 9/30/2015

Wetland and/or Wetland Buffer Present
15.30.A.1 | 15.30.B

YES → 15.30.A.1 Waterway Buffer

NO

Waterway Buffer
15.30.A.1 | 15.30.B

YES → Flood Plain
15.30.A.1

NO

Flood Plain
15.30.A.1 | 15.30.B

YES → Was all development affecting a Wetland, Buffer, or Flood Plain covered under one or more General Certifications?
15.32 | 15.40.

NO

≥ 2,500 SF Net New Impervious
15.30.A.2

YES → ≥ 2,500 SF Net New Impervious
15.30.A.2

NO

≥ 5,000 SF Disturbance
15.30.A.3

NO → 15.30. Stormwater Certification NOT required. SESC standards apply.

YES

Consists Solely of Cultivation, etc 15-30.B.1

YES → 15.40. | 15.47.A | 15.30. Submit all appropriate GC documents for Wetland, Waterway Buffer, and Flood Plain to Stormwater Administrator

NO

Consists Solely of Septic/Water 15-30.B.2

YES → 15.40. | 15.47.A | 15.30. Submit all appropriate GC documents for Wetland, Waterway Buffer, and Flood Plain to Stormwater Administrator

NO

Consists Solely of Utility Removal 15-30.B.3

YES → 15.40. | 15.47.A | 15.30. Submit all appropriate GC documents for Wetland, Waterway Buffer, and Flood Plain to Stormwater Administrator

NO

Consists Solely of Maintenance/Repair 15-30.B.4

YES → 15.40. | 15.47.A | 15.30. Submit all appropriate GC documents for Wetland, Waterway Buffer, and Flood Plain to Stormwater Administrator

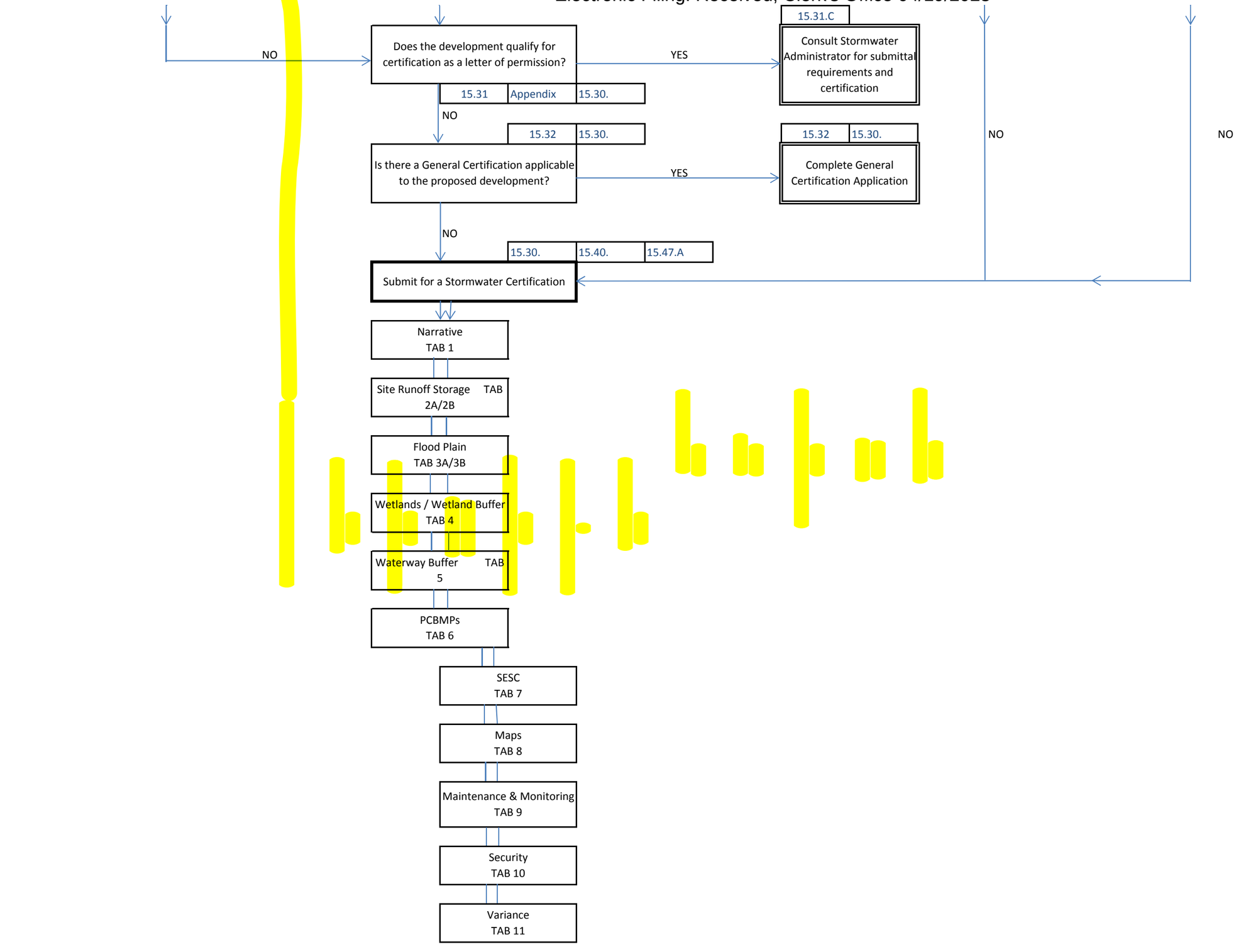
NO

Is there a GC applicable to the proposed development?

YES → 15.40. | 15.47.A | 15.30. Submit all appropriate GC documentation to Stormwater Administrator

NO → 15.32 | 15.30.

NO


NO
Does the development qualify for certification as a letter of permission?
YES
15.31.C
Consult Stormwater Administrator for submittal requirements and certification
15.31
Appendix
15.30.
NO
15.32
15.30.
Is there a General Certification applicable to the proposed development?
YES
15.32
15.30.
Complete General Certification Application
NO
NO
NO
15.30.
15.40.
15.47.A
Submit for a Stormwater Certification
Narrative
TAB 1
Site Runoff Storage
TAB 2A/2B
Flood Plain
TAB 3A/3B
Wetlands / Wetland Buffer
TAB 4
Waterway Buffer
TAB 5
PCBMPs
TAB 6
SESC
TAB 7
Maps
TAB 8
Maintenance & Monitoring
TAB 9
Security
TAB 10
Variance
TAB 11

TAB 1. PROJECT NARRATIVE

The following Stormwater Report has been prepared by Civil & Environmental Consultants, Inc. (CEC) for Lakeshore Recycling System, LLC's (LRS) West DuPage Recycling & Transfer Facility (Facility) located at 1655 Powis Road in West Chicago, DuPage County, Illinois. The report has been prepared in accordance with the requirements of Chapter 14, Article III, Stormwater Control, of the City of West Chicago (City) Code of Ordinances, and the DuPage County (County) Countywide Stormwater & Flood Plain Ordinance (Ordinances). The format of the submittal is in accordance with DuPage County Stormwater Management Certification Application (Application) requirements.

The Facility is situated on approximately 27.6 acres of property comprised of two existing parcels (Property Index Numbers 01-31-101-0004 and 01-32-100-001). A single industrial building is currently being used for offices, vehicle maintenance, and sorting of construction and demolition (C&D) debris on the west half of the site. The remainder of the west side consists of concrete paved surfaces, gravel and recycled asphalt-covered surfaces and parking lots, vegetated landscaping, and a west detention pond. On the east side of the property, the site is comprised of an existing (east) detention pond (including stilling basin), designated wetland areas in the northeast and southeast corners, and open land that is to be paved and repurposed for material/equipment storage. The southeast area of the site is a closed sludge impoundment area.

The existing site history is complex. Current site use as a C&D recycling facility was approved by the City through Ordinance No. 15-O-0018 on May 18, 2015, in favor of previous site owner Ken Hoving of KKLK, LLC (KKLK). Prior to this approval in 2015, the site was a brownfield and unused since 1999. Prior to 1999, the site was an aluminum extraction and painting facility owned and operated by Alcoa.

Both the west and east detention ponds existed during the period of operation by Alcoa. It is understood that the initial primary use of the east pond was as an industrial treatment pond (though also functioned as a stormwater pond). The east pond was then, and is still now, comprised of a forebay (stilling basin) where industrial wastewater and/or stormwater would circulate through settling areas before outletting to the larger pond area further east. It is assumed the west pond has only ever been used for stormwater management purposes. No historical design information for either pond is available.

A substantial portion of the west half of the site was covered with an Alcoa building until most of the building was demolished sometime between 2002 and 2005. A portion of the building on the south side (west half) of the site remained following demo and was later repurposed for the current C&D use.

As part of the approval process for KKLK in 2015, Tebrugge Engineering (Tebrugge) prepared site improvement plans and a stormwater management report. The final engineering plans were issued for construction on September 15, 2015, and an "as-built plan for grade & utilities" was issued on July 7, 2016. The Stormwater Management Report was issued on December 9, 2016. Both the drawings and stormwater report are provided as Attachments 1-1 and 1-2, respectively.

Based on CEC's review of these documents, the following conclusions are made:

- Tebrugge recognized the function of both the west and east ponds as existing stormwater management facilities. The proposed improvements for KKLK were small enough to not trigger additional detention requirements.
- Tebrugge analyzed tributary areas and developed hydrographs for both the east and west ponds; however, did not offer any opinion relative to adequacy of pond volume. An allowable release calculation was provided for the east and west ponds. East release rate was 1.74 cubic feet per second (cfs) and west was 0.34 cfs, both based on 0.10 cfs/tributary acre.
- Tebrugge noted the east pond had a 6-inch restrictor at the outlet, and the west pond had a 4-inch outlet. No opinion was provided as to the adequacy of these outlets. The outlets appear to have been existing outlet pipe/restrictor sizes based on the Tebrugge "Existing Conditions & Demolition Plan" included in the as-builts.
- No improvements were proposed to either the east or west pond on the plans; however, an "Outfall Structure With Restrictor" detail dated November 29, 2016 was included in the stormwater report and indicated a "proposed 6" restrictor" (see page 23 of 26 of the Tebrugee stormwater report). This detail was not included in the as-builts, however; and no information is provided that would indicate this restrictor was installed.**
- Site improvements focused only on the west half of the Facility; therefore, the special management areas (i.e. floodplain and wetland) on the east side of the Facility were not impacted or evaluated.
- A 2.5-foot wide infiltration trench was installed at the edge of existing pavement directly east of the west pond as a water quality post-construction best management practice. The limits of the installed infiltration trench are not provided on the as-built plans.

**Note, a subsequent survey completed by CEC of the east pond outlet indicates an existing 8-inch steel pipe restrictor with at elevation 750.54. The existing pipe condition is rusted/worn, suggesting it has been in use since Alcoa operated the site.

LRS is proposing to improve the existing C&D recycling facility by reconfiguring outside storage and operational areas, paving outside storage and operational areas, adding and improving existing parking, expanding the main sorting building eastward and northward (including the addition of a loading pit and weigh scales), adding a previously approved second scale adjacent to the existing scale, and adding a new port-o-let cleaning and maintenance building. The project includes site utility modifications, improvements to the existing stormwater management ponds, re-establishment of a prior-disturbed wetland buffer, and other appurtenant improvements.

The site redevelopment engineering is complicated by the layered history of improvements - none of which include a holistic analysis of the site stormwater features. There is no information available that discusses the original design of the two ponds. The Tebrugge stormwater report identified tributary areas and recommended a restrictor size for each pond, but as communicated above, did not offer an opinion as to the adequacy of existing pond volume. No modifications were made to the existing ponds during the KKLK project approval; however, an infiltration trench was added to the west pond.

Based on the foregoing, two approaches are available for this current analysis:

1) Design drainage features and stormwater detention for only the proposed site disturbance and new impervious areas. Similar to Tebrugge, this approach would assume that existing east and west pond volume is adequate to accommodate the needs of the rest of the undisturbed site.
2) Assume that existing and proposed impervious areas tributary to the ponds are “new” and to evaluate/resize the detention ponds based on current Ordinances.

After preliminary internal analysis by CEC, both approaches resulted in the need for more detention volume. Given the additional complications that would arise from trying to separate existing detention volume from proposed, and given that there is no record of a comprehensive site stormwater analysis, it was determined that “starting from scratch” and looking at the whole site was a more straightforward approach to the design.

The site also includes a portion of floodplain from the influence of Kress Creek and several wetlands. Issues relative to these two special management areas are addressed in detail in their respective tabs.

The bearings shown on the project Site Improvement Plans are based upon Illinois State Plan, East Zone. Vertical datum is based upon observation of DuPage County benchmark DK3273. Signed and sealed surveyor notes from the level loop tying in to the established source benchmark (DuPage County PID DK 3273, aka West Chicago WC105) are provided at the end of this tab.

ATTACHMENT 1-1

TEBRUGGE AS-BUILT DRAWINGS, JULY 7, 2016

AS-BUILT ENGINEERING PLANS

FOR

1655 POWIS ROAD SITE PLAN

APPROVED CONSTRUCTION SET
ISSUED:
SEPTEMBER 15, 2015

AS-BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

SECTION 32, TOWNSHIP 40 NORTH , RANGE 9 EAST

1655 POWIS ROAD
WEST CHICAGO, IL 60185
DU PAGE COUNTY
SEPTEMBER, 2015

LEGEND

- PROPERTY BOUNDARY
- 600 EXISTING CONTOUR LINE
- STM STM EXISTING STORM SEWER
- SAN SAN SAN EXISTING SANITARY SEWER LINE
- W W W EXISTING WATERMAIN
- UE UE UE EXISTING UNDERGROUND ELECTRIC
- OHE OHE EXISTING OVERHEAD ELECTRIC
- GAS GAS GAS EXISTING GAS SERVICE
- T T T EXISTING TELEPHONE
- 673 PROPOSED CONTOUR LINE
- W W W PROPOSED WATERMAIN
- STM STM PROPOSED STORM SEWER
- SAN SAN SAN PROPOSED SANITARY SEWER LINE
- GREASE GREASE PROPOSED GREASE SERVICE LINE
- VENT VENT VENT PROPOSED VENT LINE
- F F F EXISTING FENCELINE
- SF SF SF PROPOSED SILT FENCE
- x 686.00 EXISTING SPOT SHOT
- x 686.00 PROPOSED SPOT GRADE

	EXIST	PROP	
WATER:			B-BOX
			HYDRANT
			VALVE
			VALVE VAULT
STORM:			INLET-CURB
			INLET OR MANHOLE
			FLARED END SECTION
SANITARY:			CLEANOUT
			MANHOLE

- R.O.W. MONUMENT
- PROPERTY PIN
- P.K. NAIL
- CHISELED MARK
- BENCHMARK
- HUB & TACK
- SOIL BORING
- OVERLAND RELIEF
- FLOW DIRECTION
- UTILITY POLE
- GUY WIRE LOC.
- UTIL CABINET
- UTIL PEDESTAL
- LIGHT POLE
- TRAFFIC SIGNAL
- ELECTRIC VAULT
- GAS GAS VALVE

INDEX TO SHEETS

1. COVER SHEET
2. EXISTING CONDITIONS & DEMOLITION PLAN
3. STORMWATER POLLUTION & PREVENTION PLAN 1
4. STORMWATER POLLUTION & PREVENTION PLAN 2
5. CIVIL SITE PLAN
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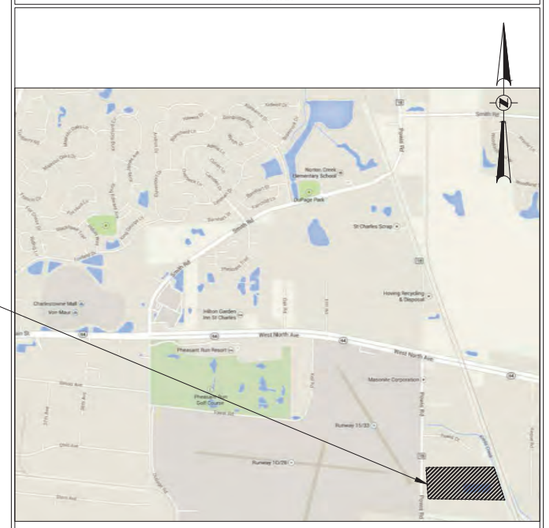
7. WATER MAIN PLAN & PROFILE II
8. WATER MAIN PLAN & PROFILE III
9. WATER MAIN PLAN & PROFILE IV
10. GENERAL NOTES & DETAILS
11. GENERAL NOTES & DETAILS II
12. GENERAL NOTES & DETAILS III
13. ROADWAY CROSS SECTIONS
14. ROADWAY CROSS SECTIONS II
15. TRUCK TURNING TEMPLATE

LOCATION MAP
N.T.S.



BENCHMARKS:

1) WEST CHICAGO SURVEY MONUMENT #105, LOCATED ON THE NORTHEAST CORNER OF POWIS RD & POWIS CT

ELEVATION = 757.37

WARNING
IN ILLINOIS
(OUTSIDE CHICAGO)
CALL J.U.L.I.E TOLL FREE
1-800-892-0123
CALL BEFORE YOU DIG

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM VISIBLE FIELD EVIDENCE AND EXISTING DRAWINGS, MAPS AND RECORDS SUPPLIED TO THE ENGINEER. THE ENGINEER MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM AVAILABLE INFORMATION. THE ENGINEER HAS PHYSICALLY LOCATED VISIBLE STRUCTURES; HOWEVER, HE HAS NOT PHYSICALLY LOCATED THE UNDERGROUND LINES.

PROFESSIONAL ENGINEER'S CERTIFICATION
STATE OF ILLINOIS, COUNTY OF KENDALL

I JOHN J. TEBRUGGE, A LICENSED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED UNDER MY PERSONAL DIRECTION BASED ON AVAILABLE DOCUMENTS AND FIELD MEASUREMENTS FOR THE EXCLUSIVE USE OF THE CLIENT NOTED HEREON.

GIVEN UNDER MY HAND & SEAL THIS **8TH** DAY OF **AUGUST, 2016**

JOHN J. TEBRUGGE 041828 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS

ILLINOIS REGISTERED PROFESSIONAL ENGINEER
NO. 0062-041828 EXPIRES NOV. 30, 2017

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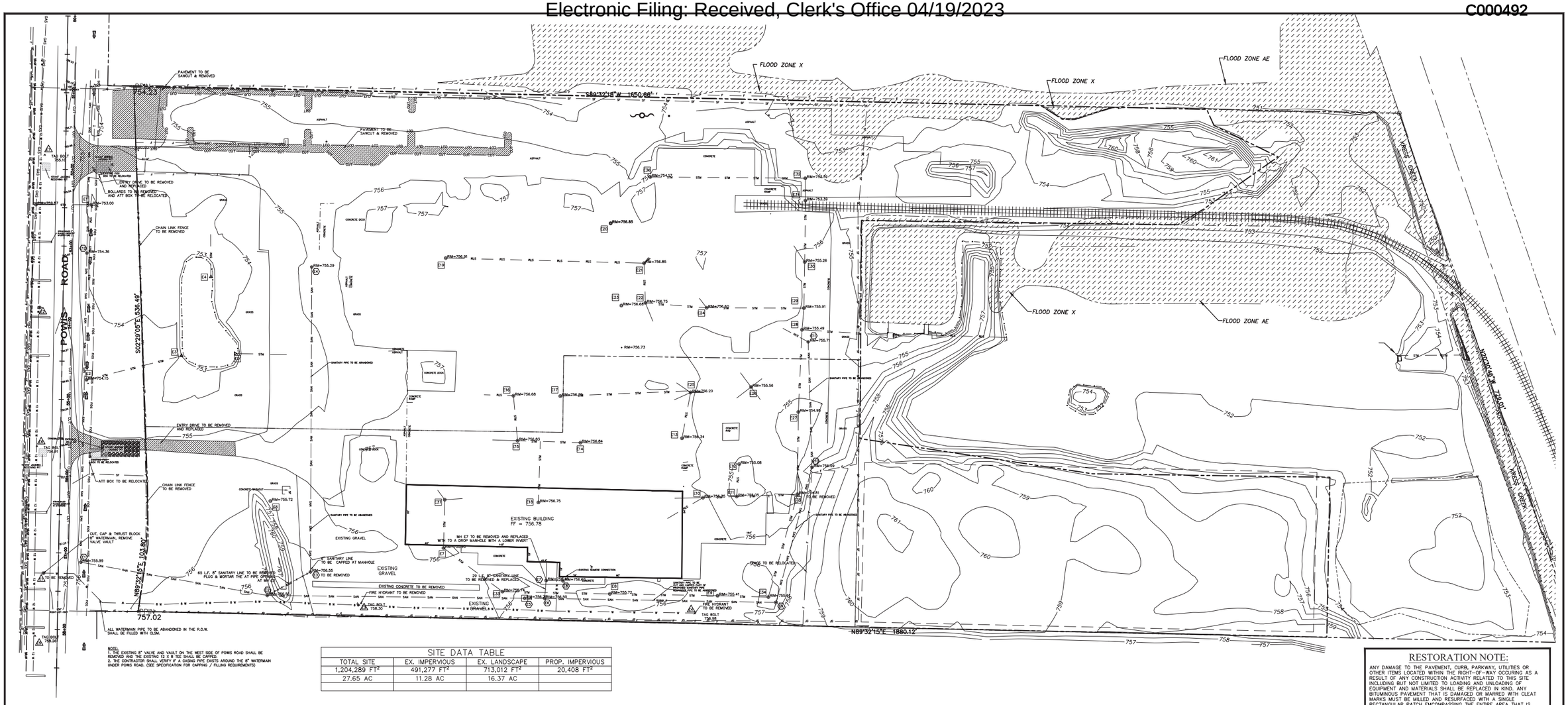
ALL RIGHTS RESERVED. NO PART OF THESE CIVIL ENGINEERING PLANS MAY BE REPRODUCED, DISTRIBUTED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, INCLUDING PHOTOCOPYING, RECORDING, OR OTHER ELECTRONIC OR MECHANICAL METHODS, WITHOUT THE PRIOR WRITTEN PERMISSION OF TEBRUGGE ENGINEERING.

REVISIONS

NO.	DATE	REVIEW
1	4.15.15	CITY OF WEST CHICAGO REVIEW LETTER 3.30.15
2	6.16.15	GAS, WATER, SANITARY REVISIONS
3	6.24.15	CITY OF WEST CHICAGO REVIEW LETTER 6.18.15
4	7.29.15	DUPAGE COUNTY REVIEW LETTER 7.27.15
5	7.31.15	IEPA WTR REVIEW LETTER 7.31.15
6	8.19.15	DUPAGE COUNTY REVIEW EMAIL 8.14.15
7	9.2.15	DUPAGE COUNTY REVIEW EMAIL 9.1.15
	9.14.15	APPROVED SET - ISSUED FOR CONSTRUCTION
8	10.26.15	DIESEL TANK ADDITION
9	11.19.15	DIESEL TANK REVISIONS
10	12.11.15	ENTRY DRIVE GRADE REVISIONS

PLANS PREPARED FOR:
WEST DUPAGE RECYCLING & TRANSFER, INC.
2351 POWIS ROAD
WEST CHICAGO, IL 60185
PHONE: (630) 377-7000

CIVIL ENGINEER:
TEBRUGGE ENGINEERING
410 E. CHURCH ST - SUITE A
SANDWICH, IL 60548
(815) 786.0195
INFO@TEBRUGGEENGINEERING.COM
WWW.TEBRUGGEENGINEERING.NET



SITE DATA TABLE			
TOTAL SITE	EX. IMPERVIOUS	EX. LANDSCAPE	PROP. IMPERVIOUS
1,204,289 FT²	491,277 FT²	713,012 FT²	20,408 FT²
27.65 AC	11.28 AC	16.37 AC	

RESTORATION NOTE:

ANY DAMAGE TO THE PAVEMENT, CURB, PARKWAY, UTILITIES OR OTHER ITEMS LOCATED WITHIN THE RIGHT-OF-WAY OCCURING AS A RESULT OF ANY CONSTRUCTION ACTIVITY RELATED TO THIS SITE INCLUDING BUT NOT LIMITED TO LOADING AND UNLOADING OF EQUIPMENT AND MATERIALS SHALL BE REPLACED IN KIND. ANY BITUMINOUS PAVEMENT THAT IS DAMAGED OR MARRED WITH CLEAT MARKS MUST BE MILLED AND RESURFACED WITH A SINGLE RECTANGULAR PATCH EMCOMPASSING THE ENTIRE AREA THAT IS DAMAGED FOR A MINIMUM DEPTH OF TWO (2) INCHES.

EXISTING SANITARY STRUCTURES

- E1 EXISTING SANITARY MANHOLE RIM = 755.99 12" N INV = 744.74 8" E INV = 744.74
- E2 EXISTING SANITARY MANHOLE RIM = 756.56 8" E INV = 745.36 8" W INV = 745.36 8" NE INV = 746.91
- E3 EXISTING SANITARY MANHOLE RIM = 756.55 6" N INV = 751.22 8" SW INV = 750.83 **TO BE REMOVED**
- E4 EXISTING SANITARY MANHOLE RIM = 755.29 6" S INV = 753.50 **TO BE ABANDONED**
- E5 EXISTING SANITARY MANHOLE RIM = 756.75 8" E INV = 746.57 8" W INV = 746.57
- E6 EXISTING SANITARY MANHOLE RIM = 756.50 8" E INV = 746.50 8" W INV = 746.50 8" N INV = 746.50
- E7 EXISTING SANITARY MANHOLE **TO BE REMOVED & REPLACED** RIM = 756.46 8" E INV = 6" N INV = 751.84 8" S INV = 750.21 **TO BE LOWERED**
- E8 EXISTING SANITARY BOX RIM = 756.60 XX" W INV = XX" N INV = **TO BE REMOVED**
- E9 EXISTING SANITARY MANHOLE RIM = INV = 747.96± UNABLE TO LOCATE **TO BE ABANDONED**
- E10 EXISTING SANITARY MANHOLE RIM = 756.59 8" N INV = 748.84 8" S INV = 748.84 6" W INV = 749.59 **TO BE ABANDONED**
- E11 EXISTING SANITARY MANHOLE RIM = 755.71 8" NW INV = 749.52 8" S INV = 749.46 **TO BE ABANDONED**
- E12 EXISTING SANITARY MANHOLE RIM = 754.36 12" N INV = 743.80 12" S INV = 743.80

EXISTING STORM SEWER STRUCTURES

- E1 EXIST. 2' TYPE A INLET RIM = 753.00 12" CMP W INV = 750.00 12" CMP S INV = 750.17
- E2 EXIST. 2' TYPE A INLET RIM = 754.15 12" CMP N INV = 751.23 4" PVC E INV = 752.11
- E3 EXIST. 4" PVC PIPE INV = 755.33
- E4 EXIST. 6" PVC PIPE INV = 752.75
- E5 EXIST. 8" PVC PIPE INV = 752.46
- E6 EXIST. 4' MANHOLE RIM = 755.72 FILLED WITH WATER / NO PIPES VISIBLE
- E7 EXIST. 2' TYPE A INLET RIM = 755.90 12" DIP N INV = 753.75 12" PVC SE INV = 753.23
- E8 EXIST. 2' TYPE A INLET RIM = 755.72 12" PVC E INV = 752.26 12" PVC W INV = 752.22
- E9 EXIST. 2' TYPE A INLET RIM = 755.41 12" PVC E INV = 752.03 12" PVC W INV = 752.08
- E10 EXIST. 4' MANHOLE RIM = 756.35 15" RCP E INV = 751.85 12" RCP NW INV = 751.93 8" DIP W INV = 752.10 6" ADS W INV = 753.02
- E11 EXIST. 4' MANHOLE RIM = 755.05 15" RCP W INV = 751.55 15" TURN DOWN E T/P = 752.80 10" CMP E INV = 751.92
- E12 EXIST. 4' MANHOLE RIM = 755.09 12" CMP W INV = 752.71
- E13 EXIST. BOX RIM = 756.34 UNKNOWN PIPES / FILLED WITH WATER
- E14 EXIST. 4' MANHOLE RIM = 756.84 12" CLAY E INV = 752.09 12" CLAY W INV = 752.09
- E15 EXIST. 4' MANHOLE RIM = 756.83 12" CLAY N INV = 753.83 12" RCP W INV = 752.66 12" RCP E INV = 754.25
- E16 EXIST. 2' TYPE A INLET RIM = 756.68 12" CLAY S INV = 753.93 10" CLAY W INV = 754.18 6" CLAY N INV = 754.60
- E17 EXIST. 2' TYPE A INLET NO FRAME OR GRATE RIM = 756.79
- E18 EXIST. SUMP PUMP MANHOLE RIM = 756.75 6" PVC N INV = 755.75
- E19 EXIST. 2' TYPE A INLET RIM = 756.75 8" CLAY E INV = 753.66 4" CLAY N INV = 754.08 6" CLAY SW INV = 753.58
- E20 EXIST. STORM STRUCTURE RIM = 756.85 BOLTED
- E21 EXIST. 4' MANHOLE RIM = 756.85 2" NE INV = 753.60 4" NE INV = 753.35 6" CLAY INV = 752.10 6" NE INV = 752.10 8" CLAY W INV = 751.85 10" CLAY S INV = 751.93
- E22 EXIST. 4' MANHOLE RIM = 756.75 10" CLAY N INV = 751.58 12" PVC W INV = 754.75 18" PVC SE INV = 752.17 12" PVC E INV = 754.75
- E23 EXIST. 4' MANHOLE RIM = 756.68 BOLTED LID
- E24 EXIST. 4' MANHOLE RIM = 756.60 8" PVC NW INV = 754.02 18" PVC E INV = 751.27 18" PVC W INV = 751.27
- E25 EXIST. 4' MANHOLE RIM = 756.20 15" E INV = 751.78 10" CMP E INV = 752.37 8" CLAY S INV = 752.37 6" CLAY SW INV = 753.20 10" CMP NW INV = 752.37 6" DIP NW INV = 753.62
- E26 EXIST. 4' MANHOLE RIM = 755.56 12" CLAY NW INV = 750.23 12" CLAY SE INV = 750.23 12" CLAY SW INV = 751.39 18" TURN DOWN NE T/P = 751.56
- E27 EXIST. 2' TYPE A INLET RIM = 754.95 18" RCP N INV = 751.28 18" RCP S INV = 751.28
- E28 EXIST. BOX GRATE STORM RIM = 755.49 18" RCP S INV = 750.99 48" RCP E INV = 748.74 24" RCP N INV = 750.99
- E29 EXIST. 4' MANHOLE RIM = 755.91 15" RCP N INV = 749.83 24" RCP S INV = 750.33 18" PVC W INV = 750.49
- E30 EXIST. 4' MANHOLE RIM = 755.26 8" PVC NW INV = 752.47 8" DIP NW INV = 750.76 15" RCP S INV = 750.01
- E31 EXIST. 4' MANHOLE RIM = 753.39 2" PVC S INV = 752.14 2" PVC S INV = 752.14 8" CMP W INV = 750.72 8" CMP N INV = 747.97
- E32 EXIST. 3' INLET RIM = 753.39 8" CMP W INV = 750.81 8" CMP S INV = 750.72
- E33 EXIST. 2' TYPE A INLET RIM = 755.74 12" PVC NW INV = 752.57 12" PVC E INV = 752.57
- E34 EXIST. 4' MANHOLE RIM = 755.61 12" PVC NE INV = 751.98 12" PVC W INV = 751.98
- E35 EXIST. 4' MANHOLE RIM = 754.81 12" PVC S INV = 752.06 18" RCP N INV = 751.73 15" RCP E INV = 751.89 **TO BE RELOCATED**
- E36 EXIST. 2' TYPE A INLET RIM = 754.17 12" PVC E INV = 752.57
- E37 EXIST. 2' TYPE A INLET RIM = 754.17 12" PVC E INV = 752.57

EXISTING WATER STRUCTURES

- W1 EXISTING VALVE VAULT RIM = 756.34 **TO BE REMOVED**
- W2 EXISTING VALVE VAULT RIM = 754.48
- W3 EXISTING FIRE HYDRANT RIM = 758.30 **TO BE REMOVED**
- W4 EXISTING FIRE HYDRANT RIM = 756.98 **TO BE REMOVED**
- W5 EXISTING FIRE HYDRANT RIM = 758.26
- W6 EXISTING FIRE HYDRANT RIM = 756.91
- W7 EXISTING FIRE HYDRANT RIM = 755.10

DEMOLITION NOTES:

1. EXISTING WATERMAIN SHALL BE DISCONNECTED FROM THE MAIN AND CAPPED.

AS-BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

GENERAL NOTES:

1. DISTURBED AREAS OF THE COUNTY'S RIGHT-OF-WAY SHALL BE REGRADED AND RESTORED WITH TOPSOIL AND CLASS 2A SALT TOLERANT SEED (WITH EROSION CONTROL BLANKET OR HYDRO SEEDING) OR SOD (SALT TOLERANT AND STAKED IN PLACE).
2. CONTACT DUPAGE COUNTY DOT (630) 407-6900 A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE FOR INSPECTION OF AND AT THE COMPLETION OF THE DESCRIBED WORK WITHIN THE COUNTY'S RIGHT-OF-WAY.
3. THE PROPOSED COMMERCIAL ACCESS DRIVEWAYS SHALL BE INSTALLED ADJACENT TO THE FULL DEPTH PAVEMENT OF POWIS ROAD. THE H.M.A. OVERRUN ON POWIS ROAD IS REQUIRED TO BE SAWCUT AND REMOVED AS NECESSARY TO ACHIEVE FULL DEPTH PAVEMENT.
4. REINSTALL THE 4" YELLOW EDGE LINE AFTER DRIVEWAYS HAVE BEEN INSTALLED.
5. THERMOPLASTIC PAVEMENT MARKING IS REQUIRED WITHIN THE POWIS RD RIGHT-OF-WAY.

DEMOLITION PAVEMENT

-60 0 60 120
SCALE IN FEET

TEBRUGGE ENGINEERING
410 E. CHURCH STREET - SUITE A SANDWICH, IL 60548
PHONE: (815) 786-0195 TEBRUGGEENGINEERING.COM

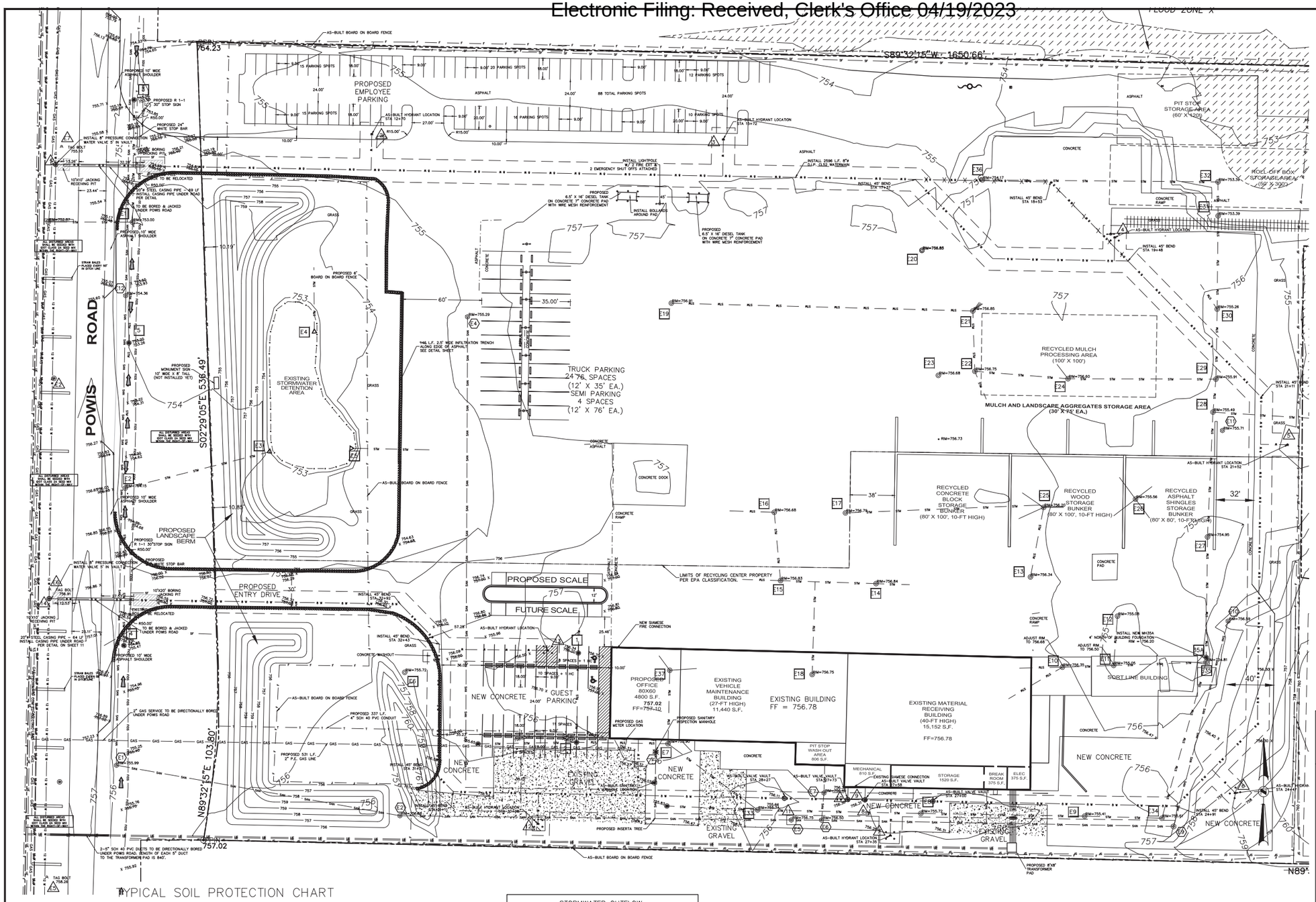
REVISIONS	NO.	DATE	NOTES
	7	9.2.15	DUPAGE COUNTY REVIEW EMAIL 9.1.15
		9.14.15	APPROVED SET - ISSUED FOR CONSTRUCTION
	8	10.26.15	DIESEL TANK ADDITION
	9	11.19.15	DIESEL TANK REVISIONS
	10	12.11.15	ENTRY DRIVE GRADE REVISIONS

PREPARED FOR:
WEST DUPAGE RECYCLING & TRANSFER, INC
2351 POWIS RD, WEST CHICAGO, IL

1655 POWIS ROAD SITE PLAN
EXISTING CONDITIONS & DEMOLITION PLAN

PROJECT NO. 14 325 02
SCALE: 1" = 60'
DATE: 1.20.15

SHEET NO. 2 OF 15 SHEETS


POWIS ROAD
S89°32'15"W 1650.66'
S0229'05"E 536.49'
N89°32'15"E 1035.80'
PROPOSED EMPLOYEE PARKING
88 TOTAL PARKING SPOTS
PROPOSED ENTRY DRIVE
PROPOSED LANDSCAPE BERM
EXISTING STORMWATER DETENTION AREA
TRUCK PARKING
24 76' SPACES
(12' X 35' EA.)
SEMI PARKING
4 SPACES
(12' X 76' EA.)
RECYCLED MULCH PROCESSING AREA
(100' X 100')
MULCH AND LANDSCAPE AGGREGATES STORAGE AREA
(30' X 75' EA.)
RECYCLED CONCRETE BLOCK STORAGE BUNKER
(80' X 100', 10-FT HIGH)
RECYCLED WOOD STORAGE BUNKER
(80' X 100', 10-FT HIGH)
RECYCLED ASPHALT SHINGLES STORAGE BUNKER
(80' X 80', 10-FT HIGH)
PIT STOP STORAGE AREA
(60' X 120')
ROLL OFF BOX STORAGE AREA
(50' X 300')
PROPOSED OFFICE
80X60
4800 S.F.
757.02
FF=757.10
EXISTING VEHICLE MAINTENANCE BUILDING
(27-FT HIGH)
11,440 S.F.
EXISTING BUILDING
FF = 756.78
EXISTING MATERIAL RECEIVING BUILDING
(40-FT HIGH)
15,152 S.F.
FF=756.78
SORT LINE BUILDING
NEW CONCRETE
EXISTING GRAVEL
PROPOSED SCALE
1" = 50'
FUTURE SCALE
LIMITS OF RECYCLING CENTER PROPERTY PER EPA CLASSIFICATION.
PROPOSED 8'X8' TRANSFORMER PAD
PROPOSED 337 L.F. 4" SCH 40 PVC CONDUIT
PROPOSED 531 L.F. 2" P.E. GAS LINE
2-5" SCH 40 PVC DUCTS TO BE DIRECTIONALLY BORED UNDER POWIS ROAD. LENGTH OF EACH 5" DUCT TO THE TRANSFORMER PAD IS 845'.
446 L.F. 2.5' WIDE INFILTRATION TRENCH ALONG EDGE OF ASPHALT SEE DETAIL SHEET
PROPOSED 6.5' X 16' DIESEL TANK ON CONCRETE 7" CONCRETE PAD WITH WIRE MESH REINFORCEMENT
PROPOSED 6.5' X 16' DIESEL TANK ON CONCRETE 7" CONCRETE PAD WITH WIRE MESH REINFORCEMENT
INSTALL LIGHTPOLE W/ 7 FIX EXT & 2 EMERGENCY SHUT OFFS ATTACHED
INSTALL 2596 L.F. 8"ø D.I.P. CL52 WATERMAIN
PROPOSED GAS METER LOCATION
PROPOSED SANITARY INSPECTION MANHOLE
AS-BUILT HYDRANT LOCATION STA 12+70
AS-BUILT HYDRANT LOCATION STA 18+72
AS-BUILT HYDRANT LOCATION STA 21+52
AS-BUILT HYDRANT LOCATION STA 27+35
AS-BUILT VALVE VAULT STA 24+27
AS-BUILT VALVE VAULT STA 27+00
AS-BUILT VALVE VAULT STA 27+73
EXISTING SIAMESE CONNECTION STA 27+58
AS-BUILT SANITARY MANHOLE STA 24+91
AS-BUILT MANHOLE STA 24+91
INSTALL 45° BEND STA 12+70
INSTALL 45° BEND STA 18+53
INSTALL 45° BEND STA 18+48
INSTALL 45° BEND STA 21+11
INSTALL 45° BEND STA 24+91
INSTALL NEW MH35A 4' NORTH OF BUILDING FOUNDATION RIM = 756.20
PROPOSED 10' WIDE ASPHALT SHOULDER
PROPOSED R 1-1 (30" STOP SIGN
PROPOSED 24' STOP BAR
PROPOSED 10' WIDE ASPHALT SHOULDER
PROPOSED MONUMENT SIGN 10' WIDE X 8' TALL (NOT INSTALLED YET)
PROPOSED 10' WIDE ASPHALT SHOULDER
PROPOSED R 1-1 30"STOP SIGN R50.00'
PROPOSED STOP BAR
PROPOSED 10' WIDE ASPHALT SHOULDER
PROPOSED 10' WIDE ASPHALT SHOULDER
PROPOSED 6' BOARD ON BOARD FENCE
AS-BUILT BOARD ON BOARD FENCE
10'X20' BORING JACKING PIT
10'X10' JACKING RECEIVING PIT
25" STEEL CASING PIPE = 64 LF INSTALL CASING PIPE UNDER ROAD PER DETAIL ON SHEET 11
TO BE BORED & JACKED UNDER POWIS ROAD
2" GAS SERVICE TO BE DIRECTIONALLY BORED UNDER POWIS ROAD
INSTALL 8" PRESSURE CONNECTION WATER VALVE 5' IN VAULT
TAG BOLT 755.10
TAG BOLT 756.91
TAG BOLT 758.26
STRAW BALES
SILT FENCE
CONCRETE WASHOUT
PROPOSED 6' BOARD ON BOARD FENCE
PROPOSED INSERTA TREE
NEW SIAMESE FIRE CONNECTION
PIT STOP WASH OUT AREA 806 S.F.
MECHANICAL 810 S.F.
STORAGE 1520 S.F.
BREAK ROOM 375 S.F.
ELEC 375 S.F.
CONCRETE PAD
CONCRETE RAMP
ADJUST RIM TO 756.68
ADJUST RIM TO 756.50
ADJUST RIM TO 756.35
ASPHALT
CONCRETE
GRASS
10 SPACES + 1 HC
18 SPACES + 1 HC
GUEST PARKING
15 PARKING SPOTS
16 PARKING SPOTS
10 PARKING SPOTS
12 PARKING SPOTS
20 PARKING SPOTS
CONCRETE DOCK
PROPOSED 42" ø CONCRETE STORM SEWER
PROPOSED 36" ø CONCRETE STORM SEWER
PROPOSED 30" ø CONCRETE STORM SEWER
PROPOSED 24" ø CONCRETE STORM SEWER
PROPOSED 18" ø CONCRETE STORM SEWER
PROPOSED 12" ø CONCRETE STORM SEWER
PROPOSED 8" ø CONCRETE STORM SEWER
PROPOSED 6" ø CONCRETE STORM SEWER
PROPOSED 4" ø CONCRETE STORM SEWER
PROPOSED 12" ø D.I.P. STORM SEWER
PROPOSED 8" ø D.I.P. STORM SEWER
PROPOSED 6" ø D.I.P. STORM SEWER
PROPOSED 4" ø D.I.P. STORM SEWER
PROPOSED 8" ø P.V.C. STORM SEWER
PROPOSED 6" ø P.V.C. STORM SEWER
PROPOSED 4" ø P.V.C. STORM SEWER
PROPOSED 8" ø P.E. STORM SEWER
PROPOSED 6" ø P.E. STORM SEWER
PROPOSED 4" ø P.E. STORM SEWER
PROPOSED 8" ø P.E. SANITARY SEWER
PROPOSED 6" ø P.E. SANITARY SEWER
PROPOSED 4" ø P.E. SANITARY SEWER
PROPOSED 8" ø P.E. WATERMAIN
PROPOSED 6" ø P.E. WATERMAIN
PROPOSED 4" ø P.E. WATERMAIN
PROPOSED 2" ø P.E. GAS LINE
PROPOSED 4" ø SCH 40 PVC CONDUIT
PROPOSED 2" ø SCH 40 PVC CONDUIT
PROPOSED 1" ø SCH 40 PVC CONDUIT

Electronic Filing: Received, Clerk's Office 04/19/2023

1. GENERAL NOTES & DESCRIPTIONS

THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INCLUDES, BUT IS NOT LIMITED TO THE EROSION AND DEMOLITION PLAN INCLUDED IN THE ENGINEERING PLANS WITH THE DETAIL SHEET, THE NOTICE OF INTENT, PERMIT AUTHORIZATION, GENERAL PERMIT, NOTICE OF TERMINATION. ALL RECORDS OF INSPECTION AND ACTIVITIES WHICH ARE CREATED DURING THE COURSE OF THE PROJECT, AND OTHER DOCUMENTS AS MAY BE INCLUDED BY REFERENCE TO THIS SWPPP, CHANGES, MODIFICATIONS, REVISIONS, ADDITIONS, OR DELETIONS SHALL BECOME PART OF THIS SWPPP AS THEY OCCUR.

- ALL CONTRACTORS AND SUB-CONTRACTORS THAT ARE RESPONSIBLE FOR IMPLEMENTING AND MEASURE OF THE SWPPP MUST BE IDENTIFIED AND MUST CERTIFY THIS SWPPP BY SIGNING THE SWPPP CERTIFICATION IN ACCORDANCE WITH PART VI.G (SIGNATORY REQUIREMENTS) OF THE ILR10 PERMIT.

ALL SIGNED CERTIFICATIONS MUST BE KEPT WITH THE SWPPP DOCUMENTS AND BE AVAILABLE FOR INSPECTION.

THE CONTRACTOR AND ALL SUB-CONTRACTORS INVOLVED WITH CONSTRUCTION ACTIVITY THAT DISTURBS SITE SOIL OR WHO IMPLEMENT A POLLUTANT CONTROL MEASURE IDENTIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN MUST COMPLY WITH THE FOLLOWING REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT, THE NPDES PERMIT NO. ILR10 FOR THE STATE OF ILLINOIS AND ANY LOCAL GOVERNING AGENCY HAVING JURISDICTION CONCERNING EROSION AND SEDIMENT CONTROL.

A. GENERAL PERMIT INFORMATION
ALL CONSTRUCTION SITES THAT WILL RESULT IN THE DISTURBANCE OF ONE ACRE OR MORE MUST BE PERMITTED UNDER THE ILLINOIS GENERAL NPDES PERMIT. THE NOTICE OF INTENT (NOI) HAS BEEN SUBMITTED AT THE ADDRESS BELOW. THE NOI IS FOR THE ONSITE AND OFFSITE IMPROVEMENTS. THE NPDES PERMIT WILL BE ISSUED 30 DAYS AFTER THE POSTMARK DATE OF THE SUBMITTAL OF THE NOI AND INITIAL YEARLY FEE.

PERMIT INFORMATION: THE OWNER HAS MAILED THE OWNER-SIGNED NOI FORM AND THE INITIAL YEARLY FEE OF $500 TO THE ADDRESS LISTED BELOW. THE CONTRACTOR WILL BE RESPONSIBLE FOR SUBMITTING EACH SUBSEQUENT $500 YEARLY FEE, IF APPLICABLE. A COPY OF THE SIGNED NOI FORM WILL BE SUPPLIED TO THE CONTRACTOR.

UNLESS NOTIFIED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA) TO THE CONTRARY, CONSTRUCTION ACTIVITIES MAY BEGIN IN ACCORDANCE WITH THIS SWPPP AND THE ILR10 IN 30 DAYS FOLLOWING THE POST MARK DATE OF THE NOI.

TRANSFER INFORMATION: IF A PORTION OF THE PROPERTY IS SOLD, THAT NEW OWNER MAY OBTAIN THEIR OWN GENERAL PERMIT BY SUBMITTING A SEPARATE NOI. THE ORIGINAL NOI MAY THEN BE MODIFIED BY RE-SUBMITTING THE NOI WITH UPDATE ACREAGE AND CHECKING THE BOX "CHANGE OF INFORMATION". ALSO INCLUDE DOCUMENTATION EXPLAINING THAT A LOT HAS BEEN SOLD, THE ACREAGE DIFFERENCE AND THE DATE OF SALE. THERE IS NO FEE INVOLVED WITH MODIFYING THE NOI.

THERE ARE NO REQUIREMENTS FOR A PRE-CONSTRUCTION MEETING FROM ANY OF THE REVIEWING AGENCIES.

AGENCY INFORMATION:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF WATER POLLUTION CONTROL 1021 NORTH GRAND AVENUE EAST SPRINGFIELD, ILLINOIS 62794-9276 PHONE: (217) 782-0610	CITY OF WEST CHICAGO ENGINEERING DEPARTMENT 475 MAIN STREET WEST CHICAGO, ILLINOIS 60185 PHONE: (630) 293-2200

B. PUBLIC POSTING
THE FOLLOWING DOCUMENTS WILL BE SUPPLIED TO THE CONTRACTOR AND MUST BE POSTED ON THE ENTRANCE SIGN IN A PROMINENT PLACE FOR PUBLIC VIEWING UNTIL TERMINATION OF PERMIT COVERAGE HAS BEEN OBTAINED BY FILING THE NOTICE OF TERMINATION (NOT).

1. NOTICE OF INTENT SIGNED IN ACCORDANCE WITH ILR10.
2. PERMIT AUTHORIZATION FROM THE ILLINOIS ENVIRONMENTAL AGENCY (IEPA).
3. CONSTRUCTION SITE NOTICE.

THE LOCATION OF THE SWPPP MUST BE CLEARLY VISIBLE.

C. RETENTION OF RECORDS
A COMPLETE COPY OF THE SWPPP, INCLUDING COPIES OF ALL INSPECTION REPORTS, PLAN REVISIONS, ETC., MUST BE RETAINED AT THE PROJECT SITE AT ALL TIMES DURING THE DURATION OF THE PROJECT (UNTIL NOT IS FILED) AND KEPT IN THE PERMANENT PROJECT RECORDS OF THE CONTRACTOR FOR AT LEAST THREE YEARS FOLLOWING SUBMITTAL OF THE NOTICE OF TERMINATION (NOT).

D. CONTRACTOR/SUB-CONTRACTOR LIST
THE CONTRACTOR MUST PROVIDE NAMES AND ADDRESSES OF ALL SUB-CONTRACTORS WORKING ON THIS PROJECT WHO WILL BE INVOLVED WITH THE MAJOR CONSTRUCTION ACTIVITIES THAT DISTURB SITE SOIL. THIS INFORMATION MUST BE KEPT WITH THE SWPPP.

E. CONTRACTOR/SUB-CONTRACTOR CERTIFICATION FORM
THE CONTRACTOR AND ALL SUB-CONTRACTORS INVOLVED WITH GROUND DISTURBING OR INSTALLATION AND MAINTENANCE OF ANY BEST MANAGEMENT PRACTICE (BMP) ON THE SITE MUST SIGN A COPY OF THE CONTRACTOR CERTIFICATION THAT WILL BE SUPPLIED TO THE CONTRACTOR. THIS INFORMATION MUST BE KEPT WITH THE SWPPP.

F. INSPECTIONS
AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITH 24 HOURS OF A 0.5 IN RAINFALL EVENT, INSPECTIONS BY DOCUMENTED CONTRACTOR COMPLIANCE OFFICER MUST BE MADE TO DETERMINE THE EFFECTIVENESS OF THE SWPPP. IF THE STATE OR LOCAL AGENCIES HAVE A REQUIRED INSPECTION FORM, THE BOTH FORMS MUST BE COMPLETED. THE SWPPP, INCLUDING THE BEST MANAGEMENT PRACTICES IMPLEMENTED ON THE JOBSITE, SHALL BE MODIFIED AS NEEDED TO REDUCE OR PREVENT POLLUTANTS FROM DISCHARGING FROM THE SITE.

AN EXAMPLE BMP INSPECTION FORM WILL BE SUPPLIED TO THE CONTRACTOR.

A DELEGATION OF AUTHORITY LETTER AUTHORIZING THE CONTRACTOR COMPLIANCE OFFICER TO SIGN THE INSPECTION FORMS WILL ALSO BE SUPPLIED TO THE CONTRACTOR.

THE INSPECTOR MUST BE A PERSON FAMILIAR WITH THE SITE, THE NATURE OF MAJOR CONSTRUCTION ACTIVITIES, AND QUALIFIED TO EVALUATE BOTH OVERALL SYSTEM PERFORMANCE AND INDIVIDUAL COMPONENT PERFORMANCE. THE INSPECTOR MUST EITHER BE SOMEONE EMPOWERED TO IMPLEMENT MODIFICATIONS TO THIS SWPPP AND THE POLLUTANT CONTROL DEVICES, IF NEEDED, IN ORDER TO INCREASE EFFECTIVENESS TO AN ACCEPTABLE LEVEL, OR SOMEONE WITH THE AUTHORITY TO CAUSE SUCH THINGS TO HAPPEN. ADDITIONALLY, THE INSPECTOR SHALL BE PROPERLY AUTHORIZED IN ACCORDANCE WITH THE APPLICABLE GENERAL PERMIT TO CONDUCT THE CERTIFIED SITE STORM WATER INSPECTIONS.

SEE SECTION VII ON THIS SHEET FOR FURTHER REPORTING REQUIREMENTS.

G. SWPPP UPDATES & AMENDMENTS
THIS SWPPP MUST BE UPDATED EACH TIME THERE ARE SIGNIFICANT MODIFICATIONS TO THE POLLUTION PREVENTION SYSTEM OR A CHANGE OF CONTRACTORS WORKING ON THE PROJECT THAT DISTURB SITE SOILS. THE SWPPP MUST BE AMENDED AS NECESSARY DURING THE COURSE OF CONSTRUCTION IN ORDER TO KEEP IT CURRENT WITH THE POLLUTANT CONTROL MEASURES UTILIZED ON THE SITE. AMENDING THE SWPPP DOES NOT MEAN THAT IT HAS TO BE REPRINTED. IT IS ACCEPTABLE TO ADD ADDENDA, SKETCHES, NEW SECTIONS, AND/OR REVISED DRAWINGS. THE SITE MAP SHOWING THE LOCATIONS OF ALL STORM WATER CONTROLS MUST BE POSTED ON THE SITE AND UPDATED TO REFLECT THE PROGRESS OF CONSTRUCTION AND CHANGES TO THE SWPPP. ANY CONTROL MEASURE THAT HAS A HYDROLOGIC DESIGN COMPONENT MUST BE UPDATED OR AMENDED BY THE ENGINEER. SUBSTITUTION OF SEDIMENT CONTROL BMPS BEYOND THOSE SPECIFIED IN THE SWPPP IS CONSIDERED A HYDROLOGIC DESIGN COMPONENT.

H. DISCHARGE OF PETROLEUM PRODUCTS OR HAZARDOUS SUBSTANCES
DISCHARGE OF PETROLEUM PRODUCTS OR OTHER HAZARDOUS SUBSTANCES INTO STORM WATER OR THE STORM WATER (STORM SEWER) SYSTEM IS SUBJECT TO REPORTING AND CLEAN UP REQUIREMENTS. SEE SECTION VI.B & OF THIS SWPPP FOR STATE AND LOCAL INFORMATION ON REPORTING SPILLS. REFER TO THE GENERAL PERMIT FOR ADDITIONAL INFORMATION.

I. NOTICE OF TERMINATION
ONCE THE SITE REACHES FINAL STABILIZATION AS DEFINED IN THE GENERAL PERMIT, WITH ALL PERMANENT EROSION AND SEDIMENTATION CONTROLS INSTALLED AND ALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS REMOVED, THE CONTRACTOR AND OWNER'S REPRESENTATIVE MUST COMPLETE A FINAL INSPECTION, UPON APPROVAL BY THE OWNER'S REPRESENTATIVE, THE OWNER AND CONTRACTOR, AS APPLICABLE, MUST COMPLETE AND SUBMIT A NOT.

J. CONTRACTORS RESPONSIBILITY
THIS SWPPP INTENDS TO CONTROL WATER-BOURNE AND LIQUID POLLUTANT DISCHARGES BY SOME COMBINATION OF INTERCEPTION, SEDIMENTATION, FILTRATION, AND CONTAINMENT. THE CONTRACTOR AND SUB-CONTRACTORS IMPLEMENTING THIS SWPPP MUST REMAIN ALERT TO THE NEED TO PERIODICALLY REFINE AND UPDATE THE SWPPP IN ORDER TO ACCOMPLISH THE INTENDED GOALS. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR ALL SITE CONDITIONS AND PERMIT COMPLIANCE.

K. LOG OF CONSTRUCTION ACTIVITY
A RECORD OF DATES WHEN MAJOR GROUND-DISTURBING ACTIVITIES OCCUR, WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES ARE INITIATED OR COMPLETED MUST BE MAINTAINED UNTIL THE NOT IS FILED. A LOG FOR KEEPING SUCH RECORDS IS INCLUDED. CONTROLS MUST BE IN PLACE DOWN GRADIENT OF ANY GROUND-DISTURBING ACTIVITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND NOTED ON THE SITE MAP AND RECORD OF STABILIZATION AND CONSTRUCTION ACTIVITY DATES.

2. INTRODUCTION

THIS SWPPP INCLUDES THE ELEMENTS NECESSARY TO COMPLY WITH THE NATURAL BASELINE GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES ADMINISTERED BY THE US ENVIRONMENTAL PROTECTION AGENCY (EPA) UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM, THE NPDES PERMIT NO. ILR10 FOR THE STATE OF ILLINOIS, AND ALL LOCAL GOVERNING AGENCY REQUIREMENTS. THIS SWPPP MUST BE IMPLEMENTED AT THE START OF CONSTRUCTION.

CONSTRUCTION PHASE POLLUTANT SOURCES ANTICIPATED AT THE SITE ARE DISTURBED (BARE) SOIL, VEHICLE FUELS AND LUBRICANTS, CHEMICALS ASSOCIATED WITH BUILDING CONSTRUCTION, AND BUILDING MATERIALS. WITHOUT ADEQUATE CONTROL THERE IS A POTENTIAL FOR EACH TYPE OF POLLUTANT TO BE TRANSPORTED BY STORM WATER. PROJECT CONSTRUCTION WILL CONSIST PRIMARILY OF SITE GRADING, UTILITY SERVICE CONNECTIONS, AND SITE PAVING TO FACILITATE CONSTRUCTION.

A. PURPOSE
A MAJOR GOAL OF POLLUTION PREVENTION EFFORTS DURING PROJECT CONSTRUCTION IS TO CONTROL SOIL AND POLLUTANTS THAT ORIGINATE ON THE SITE AND PREVENT THEM FROM FLOWING TO SURFACE WATERS. THE PURPOSE OF THIS SWPPP IS TO PROVIDE GUIDELINES FOR ACHIEVING THAT GOAL. A SUCCESSFUL POLLUTION PREVENTION PROGRAM ALSO RELIES UPON CAREFUL INSPECTION AND ADJUSTMENTS DURING THE CONSTRUCTION PROCESS IN ORDER TO ENHANCE ITS EFFECTIVENESS.

B. SCOPE
THIS SWPPP MUST BE IMPLEMENTED BEFORE CONSTRUCTION BEGINS ON THE SITE IT PRIMARILY ADDRESSES THE IMPACT OF STORM RAINFALL AND RUNOFF ON AREAS OF THE GROUND SURFACE DISTURBED DURING THE CONSTRUCTION PROCESS. IN ADDITION, THERE ARE RECOMMENDATIONS FOR CONTROLLING OTHER SOURCES OF POLLUTION THAT COULD ACCOMPANY THE MAJOR CONSTRUCTION ACTIVITIES. THE SWPPP MUST TERMINATE WHEN DISTURBED AREAS ARE STABILIZED, PERMANENT EROSION AND SEDIMENTATION CONTROLS ARE INSTALLED, TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE REMOVED, CONSTRUCTION ACTIVITIES COVERED HEREIN HAVE CEASED, AND A COMPLETED NOTICE OF TERMINATION (NOT) IS TRANSMITTED TO THE GOVERNING AGENCY.

3. PROJECT DESCRIPTION

DESCRIBED BELOW ARE THE MAJOR CONSTRUCTION ACTIVITIES THAT ARE SUBJECT OF THIS SWPPP. ALSO INCLUDED IN THE SEQUENCE ARE BMP INSTALLATION ACTIVITIES THAT MUST TAKE PLACE PRIOR TO CONSTRUCTION ACTIVITIES. NOTE: DOWN SLOPE PROTECTIVE MEASURES MUST ALWAYS BE IN PLACE BEFORE SOIL IS DISTURBED. ACTIVITIES ARE PRESENTED IN THE ORDER (SEQUENCE) THEY ARE EXPECTED TO BE COMPLETED.

ALL ACTIVITIES AND TIME FRAMES (BEGINNING AND ENDING DATES) SHALL BE NOTED ON THE SITE MAP. THE SEQUENCE OF CONSTRUCTION IS AS FOLLOWS:

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILERS, PARKING, LAY DOWN, PORTA-POTY, WHEEL WASH, CONCRETE WASHOUT, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

TYPICAL STAGE OF CONSTRUCTION, ITEMS SHALL BE ADDED OR DELETED AS NEEDED FOR EACH INDIVIDUAL PROJECT.

PHASE I
1. INSTALL SILT FENCE(S) ON THE SITE (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL SILT FENCE).
2. INSTALL AND STABILIZE HYDRAULIC CONTROL STRUCTURES (DIKES, SWALES, CHECK DAMS, INLET PROTECTION, ETC.).
3. BEGIN ROUGH BORING & INSTALLING PITS FOR CASING PIPE INSTALLATION AND WILL BE SERVICED BY A COMMERCIAL OPERATOR.
4. START CONSTRUCTION OF CASING PIPE UNDER ROADWAY AND FIRE SUPPRESSION ROOM IN SORTING BUILDING.

PHASE II
5. TEMPORARILY SEED, THROUGHOUT CONSTRUCTION, DENUDED AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE.
6. EXCAVATE FOR OFFICE BUILDING ADDITION & NEW SCALES.
7. INSTALL FIRE SUPPRESSION LINE, HYDRANT LINES & DOMESTIC SERVICE LINES.
8. PERMANENTLY STABILIZE AREAS TO BE ARTIFICIALLY DRAINAGE; ROUTINE MAINTENANCE; AND WHICH DOES NOT USE DETERGENTS; PAVEMENT WASHDOWNS WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED (UNLESS ALL SPILLED MATERIAL HAS BEEN REMOVED) AND WHERE DETERGENTS ARE NOT USED; AIR CONDITIONING CONDENSATE; SPRINGS, UNCONTAMINATED GROUND WATER; AND FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS SUCH AS SOLVENTS.
9. PREPARE PIPE TRENCHES FOR PAVING.
10. PAVE PIPE TRENCHES & PARKING SPACES NEXT TO OFFICE BUILDING & ENTRY DRIVE.
11. COMPLETE GRADING AND INSTALLATION OR PERMANENT STABILIZATION OVER ALL AREAS.
12. CALL ENGINEER AFTER THE SITE APPEARS TO BE FULLY STABILIZED FOR INSPECTION.
13. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER APPROVAL OF THE ENGINEER AND STABILIZE ANY AREAS DISTURBED BY THE REMOVAL OF THE BMP.

NOTE: THE CONTRACTOR MAY COMPLETE CONSTRUCTION-RELATED ACTIVITIES CONCURRENTLY ONLY IF ALL PRECEDING BMPS HAVE BEEN CORRECTLY INSTALLED.

THE ACTUAL SCHEDULE FOR IMPLEMENTING POLLUTANT CONTROL MEASURES WILL BE DETERMINED BY PROJECT CONSTRUCTION PROGRESS AND RECORDED BY THE CONTRACTOR ON THE SOIL EROSION/SEDIMENT CONTROL OPERATION TIME SCHEDULE ON THE EROSION AND SEDIMENT CONTROL PLANS. DOWN SLOPE PROTECTIVE MEASURES MUST ALWAYS BE IN PLACE BEFORE SOIL IS DISTURBED.

4. SITE DESCRIPTION

1. SITE DESCRIPTION
SITE CONSTRUCTION ACTIVITIES CONSIST OF BORING AND JACKING A WATER MAIN UNDER POWS ROAD. DIRECTIONAL BORING 2 ELECTRICAL CONDUITS, INSTALLATION OF WATER MAIN, FIRE HYDRANTS, AND SIAMESE CONNECTION PIPING.

2. CONSTRUCTION SEQUENCE OF WORK SHALL BE:
a. DIGGING PITS & JACKING PITS
b. WATERMAIN INSTALLATION
c. BUILDING PAD CONSTRUCTION
d. ASPHALT PAVEMENT, INSTALLATION AND TOPSOIL PLACEMENT AND SEEDING

3. TOTAL AREA OF SITE = 27.65 ACRES
TOTAL DISTURBED AREA ON SITE = 0.38 ACRES

4. SITE DRAINAGE IS RECEIVED BY KRESS CREEK LOCATED EAST OF THE PROJECT.

5. STORM WATER POLLUTION PREVENTION MEASURES AND CONTROLS

A VARIETY OF STORM WATER POLLUTANT CONTROLS ARE RECOMMENDED FOR THIS PROJECT. SOME CONTROLS ARE INTENDED FOR FUNCTION TEMPORARILY AND WILL BE USED AS NEEDED FOR POLLUTANT CONTROL DURING THE CONSTRUCTION PERIOD. THESE INCLUDE TEMPORARY SEDIMENT BARRIERS AND PERMANENT STORM RETENTION PONDS (WHICH CAN ALSO FUNCTION AS TEMPORARY SEDIMENT BASINS). PERMANENT STABILIZATION WILL BE ACCOMPLISHED IN ALL DISTURBED AREAS BY COVERING THE SOIL WITH PAVEMENT, BUILDING FOUNDATION, VEGETATION, OR OTHER FORMS OF SOIL STABILIZATION.

A. EROSION AND SEDIMENT CONTROLS

1. SOIL STABILIZATION
THE PURPOSE OF SOIL STABILIZATION IS TO PREVENT SOIL FROM ERODING AND LEAVING THE SITE. IN THE NATURAL CONDITION, SOIL IS STABILIZED BY NATIVE VEGETATION. THE PRIMARY TECHNIQUE TO BE USED AT THIS PROJECT FOR STABILIZING SITE SOILS WILL BE TO PROVIDE A PROTECTIVE COVER OF GRASS, PAVEMENT, OR BUILDING STRUCTURE.

A) TEMPORARY SEEDING OR STABILIZATION – ALL DENUDED AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE, MUST BE STABILIZED TEMPORARILY WITH THE USE OF FAST-GERMINATING ANNUAL GRASS/GRAIN VARIETIES, STRAW/HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING OR BLANKETS.

B) PERMANENT SEEDING OR SODDING – ALL AREAS AT FINAL GRADE MUST BE SEEDED OR SODDED WITHIN 14 DAYS AFTER COMPLETION OF WORK IN ANY AREA. THE ENTIRE SITE MUST HAVE PERMANENT VEGETATIVE COVER ESTABLISHED IN ALL AREAS NOT COVERED BY HARDSCAPE AT THE COMPLETION OF ALL SOIL DISTURBING ACTIVITIES ON SITE. EXCEPT FOR SMALL LEVEL SPOTS, SEEDED AREAS SHOULD GENERALLY BE PROTECTED WITH MULCH OR A ROLLED EROSION CONTROL PRODUCT. ALL AREAS TO BE SEALED WILL HAVE TOPSOIL AND OTHER SOIL AMENDMENTS AS SPECIFIED ON THE LANDSCAPE PLAN.

2. STRUCTURAL CONTROLS
A) SILT FENCE – SILT FENCE IS A SYNTHETIC PERMEABLE WOVEN OR NON-WOVEN GEOTEXTILE FABRIC INCORPORATING METAL SUPPORT STAKES AT INTERVALS SUFFICIENT TO SUPPORT THE FENCE (5-FEET MAXIMUM DISTANCE BETWEEN POSTS), WATER, AND SEDIMENT RETAINED BY THE FENCE. THE FENCE IS DESIGNED TO RETAIN SEDIMENT-LADEN STORM WATER AND ALLOW SETTLEMENT OF SUSPENDED SOILS BEFORE THE STORM WATER FLOWS THROUGH THE FABRIC AND DISCHARGES OFF-SITE. SILT FENCE SHALL BE LOCATED ON THE CONTOUR TO CAPTURE OVERLAND, LOW-VELOCITY SHEET FLOWS. THE CONTRACTOR MAY UTILIZE TRIANGULAR SILT DIKE AND/OR NON-WIRE BACKED SILT FENCE AS INTERMEDIATE BMPS. INSTALL SILT FENCE AT A FAIRLY LEVEL GRADE ALONG THE CONTOUR WITH THE ENDS CURVED UPHILL TO PROVIDE SUFFICIENT UPSTREAM STORAGE VOLUME FOR THE ANTICIPATED RUNOFF. DRAINAGE AREAS SHALL NOT EXCEED ½ ACRE PER 100 FEET OF SILT FENCE FOR SLOPES LESS THAN 2 PERCENT.

B) CONSTRUCTION EXIT – ALL ACCESS POINTS FROM THE PUBIC STREET INTO THE CONSTRUCTION SITE SHALL INCLUDE A CONSTRUCTION EXIT COMPOSED OF COURSE STONE TO THE DIMENSIONS SHOWN ON THE EXISTING CONDITIONS AND DEMOLITION PLAN. THE ROUGH TEXTURE OF THE STONE HELPS TO REMOVE CLUMPS OF SOIL ADHERING TO THE CONSTRUCTION VEHICLES TIRES THROUGH THE ACTION OF VIBRATION AND JARRING OVER THE ROUGH SURFACE AND THE FRICTION OF THE STONE MATRIX AGAINST SOILS ATTACHED TO VEHICLE TIRES.

IN ADDITION TO THE STONE AT THE CONSTRUCTION EXIT, IT MAY BE NECESSARY TO INSTALL DEVICES SUCH AS PIPES (CATTLE GUARDS) OR GRATES TO INCREASE THE VIBRATIVE AND JARRING ACTION AND MAY ALSO BE NECESSARY TO INSTALL A WHEEL WASH SYSTEM. IF THIS IS DONE, A SEDIMENT TRAP CONTROL MUST BE INSTALLED TO TREAT THE WASH WATER BEFORE IT DISCHARGES FROM THE SITE.

ALL SITE ACCESS MUST BE CONFINED TO THE CONSTRUCTION EXIT(S). BARRICADE, SUFFICIENT TO PREVENT USE, ANY LOCATIONS OTHER THAN CONSTRUCTION EXIT(S) WHERE VEHICLES OR EQUIPMENT MAY ACCESS THE SITE.

C) STORM SEWER INLET PROTECTION – CURB AND GRATED INLETS ARE PROTECTED FROM THE INTRUSION OF SEDIMENT THROUGH A VARIETY OF MEASURES AS SHOWN ON THE DETAILS INCLUDED IN THE CONSTRUCTION DRAWINGS. THE PRIMARY MECHANISM IS TO PLACE CONTROLS IN THE PATH OF FLOW SUFFICIENT TO SLOW THE SEDIMENT-LADEN WATER TO ALLOW SETTLEMENT OF SUSPENDED SOILS BEFORE DISCHARGING INTO THE STORM SEWER. IT IS POSSIBLE THAT AS CONSTRUCTION PROGRESSES FROM STORM SEWER INSTALLATION THROUGH PAVING THAT THE INLET PROTECTION DEVICES SHOULD CHANGE. ALL INLET PROTECTION DEVICES CREATE PONDING OF STORM WATER. THIS SHOULD BE TAKEN INTO CONSIDERATION WHEN DECIDING ON WHICH DEVICE OR DEVICES SHOULD BE USED.

SOIL EROSION / SEDIMENT CONTROL OPERATION TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
TEMPORARY CONSTRUCTION EXITS																			
TEMPORARY CONTROL MEASURES																			
SEDIMENT CONTROL BASINS																			
STRIP & STOCKPILE TOPSOIL																			
ROUGH GRADE																			
STORM FACILITIES																			
SITE CONSTRUCTION																			
PERMANENT CONTROL STRUCTURES																			
FOUNDATION / BUILDING CONSTRUCTION																			
FINISH GRADING																			
LANDSCAPING / SEED / FINAL STABILIZATION																			

1) CONTRACTOR SHALL UPDATE THE TABLE BY SHADING OR DATING THE APPLICABLE ACTIVITIES AS PROJECT PROGRESSES.

2) TIME SCHEDULE MUST COINCIDE WITH SEQUENCE OF CONSTRUCTION.

AS-BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

DESCRIPTION AND ANY NECESSARY CLEANING OF THE UNDERGROUND DETENTION SYSTEM SHALL BE INCLUDED AS PART OF THIS SWPPP.

FINAL SITE STABILIZATION IS ACHIEVED WHEN PERENNIAL VEGETATIVE COVER PROVIDES PERMANENT STABILIZATION WITH A DENSITY GREATER THAN 70 PERCENT OVER THE ENTIRE AREA TO BE STABILIZED BY VEGETATIVE COVER. THIS IS EXCLUSIVE OF AREAS PAVED, ROCKED, OR HAVING A BUILDING ON THEM.

B. OTHER POLLUTANT CONTROLS
THIS SECTION INCLUDES THE CONTROLS OF POLLUTANTS OTHER THAN SEDIMENT AND ADDITIONAL REQUIREMENTS OF THE GENERAL PERMIT.

1. DUST CONTROL
CONSTRUCTION TRAFFIC MUST ENTER AND EXIT THE SITE AT THE STABILIZED CONSTRUCTION EXIT. WATER TRUCKS OR OTHER DUST CONTROL AGENTS WILL BE USED AS NEEDED DURING CONSTRUCTION TO REDUCE DUST GENERATED ON THE SITE. DUST CONTROL MUST BE PROVIDED BY THE CONTRACTOR TO A DEGREE THAT IS IN COMPLIANCE WITH APPLICABLE LOCAL AND STATE DUST CONTROL REGULATIONS.

2. SOLID WASTE DISPOSAL
NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORM WATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE MAJOR CONSTRUCTION ACTIVITIES, MUST BE COLLECTED AND PLACED IN CONTAINERS. THE CONTAINERS WILL BE EMPTIED AS NECESSARY BY A CONTRACT TRASH DISPOSAL SERVICE AND HAULED AWAY FROM THE SITE. COVERS FOR THE CONTAINERS WILL BE PROVIDED AS NECESSARY TO MEET STATE AND LOCAL REQUIREMENTS. THE LOCATION OF SOLID WASTE RECEPTACLES SHALL BE SHOWN ON THE SITE MAPS.

SUBSTANCES THAT HAVE THE POTENTIAL FOR POLLUTING SURFACE AND/OR GROUNDWATER MUST BE CONTROLLED BY WHATEVER MEANS NECESSARY IN ORDER TO ENSURE THAT THEY DO NOT DISCHARGE FROM THE SITE. AS AN EXAMPLE, SPECIAL CARE MUST BE EXERCISED DURING EQUIPMENT FUELING AND SERVICING OPERATIONS. IF A SPILL OCCURS, IT MUST BE CONTAINED AND DISPOSED OF SO THAT IT WILL NOT FLOW FROM THE SITE OR ENTER GROUNDWATER, EVEN IF THIS REQUIRES REMOVAL, TREATMENT, AND DISPOSAL OF SOIL. IN THIS REGARD, POTENTIALLY POLLUTING SUBSTANCES SHOULD BE HANDLED IN A MANNER CONSISTENT WITH THE IMPACT THEY REPRESENT.

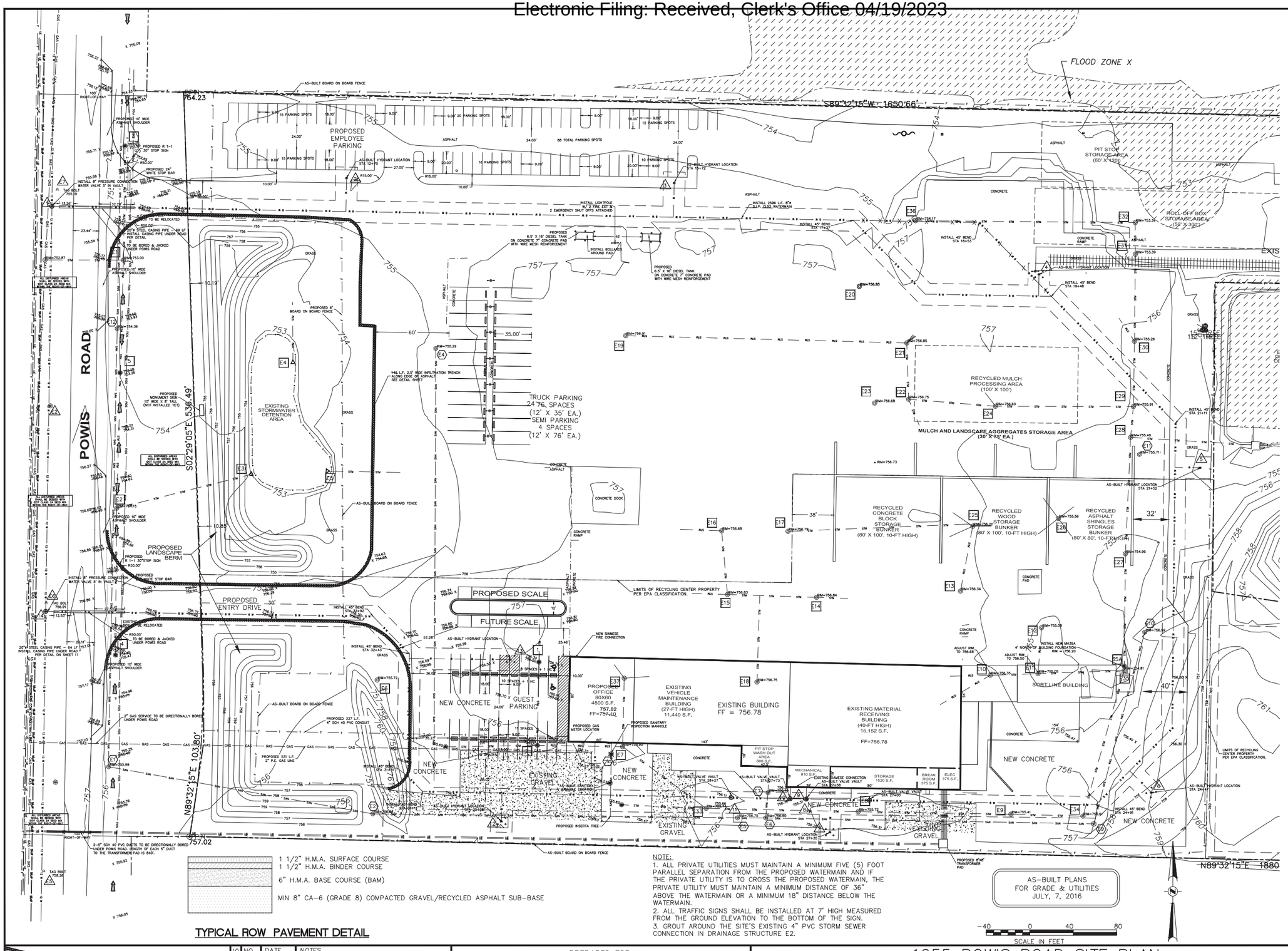
3. SANITARY FACILITIES
ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC REGULATIONS. TEMPORARY SANITARY FACILITIES WILL BE PROVIDED AT THE SITE THROUGHOUT THE CONSTRUCTION PHASE. THEY MUST BE UTILIZED BY ALL CONSTRUCTION PERSONNEL AND WILL BE SERVICED BY A COMMERCIAL OPERATOR. THE LOCATION OF SANITARY FACILITIES SHALL BE SHOWN ON THE SITE MAP.

4. NON-STORM WATER DISCHARGE
NON-STORM WATER COMPONENTS OF SITE DISCHARGES ARE NOT PERMITTED UNDER ILR10 EXCEPT AS FOLLOWS: DISCHARGES FROM FIRE FIGHTING ACTIVITIES; FIRE HYDRANT FLUSHINGS; WATER USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED; WATERS USED TO CONTROL DUST; POTABLE WATER SOURCES INCLUDING UNCONTAMINATED WATERLINE FLUSHINGS; IRRIGATION DRAINAGE; ROUTINE EXTERNAL BUILDING WASHDOWN WHICH DOES NOT USE DETERGENTS;

5. CONCRETE WASTE FROM CONCRETE READY-MIX TRUCKS
DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS WILL BE ALLOWED ON THE CONSTRUCTION SITE, BUT ONLY IN SPECIFICALLY DESIGNATED DIKED AREAS PREPARED TO PREVENT CONTACT BETWEEN THE CONCRETE AND RUNOFF AND WATER THAT WILL BE DISCHARGED FROM THE SITE. ALTERNATELY, CONCRETE WASTE CONCRETE CAN BE PLACED INTO FORMS TO MAKE RIP RAP OR OTHER USEFUL CONCRETE PRODUCTS. THE CURED RESIDUE FROM THE CONCRETE WASHOUT DIKED AREAS SHALL BE DISPOSED IN ACCORDANCE WITH APPLICABLE STATE AND FEDERAL REGULATIONS. THE JOBSITE SUPERINTENDENT IS RESPONSIBLE FOR ASSURING THAT THESE PROCEDURES ARE FOLLOWED. THE LOCATION OF CONCRETE WASHOUT AREAS SHALL BE SHOWN ON THE SITE MAPS.

6. MASON'S AREA
CONTRACTOR SHALL IDENTIFY MASON'S AREA ON THE SITE AND INDICATE LOCATION ON THE SITE MAP. TO THE EXTENT PRACTICAL, ALL MASONRY TOOLS, MATERIAL, INCLUDING SAND AND SACKED CEMENT OR MORTAR MATERIALS, AND EQUIPMENT SHALL BE LOCATED WITHIN THE AREA DENOTED. RUNOFF CONTROL SUCH AS BERMS OR DIVERSION DITCHES, SILT FENCE, STRAW WATTLES, OR OTHER MEANS OF CONTAINMENT SHALL BE PROVIDED TO PREVENT THE MIGRATION OF STORM WATER POLLUTANTS IN RUNOFF FROM THE MASON'S AREA. RECEPTACLES FOR DEBRIS AND TRASH DISPOSAL SHALL ALSO BE PROVIDED.

7.



PROPOSED STORM SEWER STRUCTURES

1 PROP 2' TYPE A INLET
RIM = 756.20 756.34
8" S INV = 754.10 753.66
76 L.F. 8" PVC SDR 26 PIPE @ 0.50% 0.20%

2 PROP 2' TYPE A INLET
RIM = 756.10 756.01
8" E INV = 753.72 753.51
78 L.F. 8" PVC SDR 26 PIPE @ 0.60% 0.88%

3 PROP 2' TYPE A INLET W/TYPE 8 GRATE
RIM = 753.70 753.55
12" S INV = 750.80 750.72
105 L.F. 12" CL IV RCP PIPE @ 0.60% 0.61%

4 PROP 2' TYPE A INLET W/TYPE 8 GRATE
RIM = 754.80 755.47
12" N INV = 751.90 751.97
135 L.F. 12" CL IV RCP PIPE @ 0.63% 0.48%

5 PROP 2' TYPE A INLET W/TYPE 8 GRATE
RIM = 753.20 753.26
EXIST. 12" N INV = 750.60 750.59

E1 EXIST. 2' TYPE A INLET
RIM = 753.00
12" CMP W INV = 750.00
12" CMP S INV = 750.17
PROPOSED 12" N INV = 750.17 750.08

E2 EXIST. 2' TYPE A INLET
RIM = 754.15
12" CMP N INV = 751.23
4" PVC E INV = 752.11
PROPOSED 12" S INV = 751.23 751.32

E7 EXIST. 2' TYPE A INLET
RIM = 755.90
12" DIP N INV = 753.75
12" PVC SE INV = 753.23 752.65
PROPOSED 8" W INV = 753.33 752.82

E5A RELOCATE MH 35 SOUTH
PROPOSED RIM = 756.70
RELAY 15" RCP (±40') TO NEW MH LOCATION

PROPOSED WATER STRUCTURES

1 PROPOSED 5' VALVE VAULT
RIM = 755.00 754.81

2 PROPOSED FIRE HYDRANT

3 PROPOSED FIRE HYDRANT

4 PROPOSED FIRE HYDRANT

5 PROPOSED FIRE HYDRANT

6 PROPOSED FIRE HYDRANT

7 PROPOSED FIRE HYDRANT

8 PROPOSED 8" VALVE IN 4' VALVE VAULT
RIM = 756.15 756.20

9 PROPOSED 6" VALVE IN 4' VALVE VAULT
RIM = 756.62 756.31

10 PROPOSED 8" VALVE IN 4' VALVE VAULT
RIM = 756.62 756.48

11 PROPOSED 8" VALVE IN 4' VALVE VAULT
RIM = 755.40 755.92

12 PROPOSED FIRE HYDRANT

13 PROPOSED FIRE HYDRANT

14 PROPOSED 5' VALVE VAULT
RIM = 754.90 756.30

PROPOSED SANITARY STRUCTURES

1 PROPOSED SANITARY MANHOLE
RIM = 756.40 756.03
6" N INV = 750.00 747.20
6" S INV = 747.42 747.20

E6 EXISTING SANITARY MANHOLE
RIM = 756.50 756.30
8" E INV = 746.50
8" W INV = 746.50
8" N INV = 746.50 748.30

E7 REPLACED SANITARY DROP MANHOLE
RIM = 756.46 756.30
6" N INV = 751.84 751.72
8" S INV = 747.10 750.13

1 1/2" H.M.A. SURFACE COURSE
1 1/2" H.M.A. BINDER COURSE
6" H.M.A. BASE COURSE (BAM)
MIN 8" CA-6 (GRADE 8) COMPACTED GRAVEL/RECYCLED ASPHALT SUB-BASE

TYPICAL ROW PAVEMENT DETAIL

NOTE:
1. ALL PRIVATE UTILITIES MUST MAINTAIN A MINIMUM FIVE (5) FOOT PARALLEL SEPARATION FROM THE PROPOSED WATERMAIN AND IF THE PRIVATE UTILITY IS TO CROSS THE PROPOSED WATERMAIN, THE PRIVATE UTILITY MUST MAINTAIN A MINIMUM DISTANCE OF 36" ABOVE THE WATERMAIN OR A MINIMUM 18" DISTANCE BELOW THE WATERMAIN.
2. ALL TRAFFIC SIGNS SHALL BE INSTALLED AT 7' HIGH MEASURED FROM THE GROUND ELEVATION TO THE BOTTOM OF THE SIGN.
3. GROUT AROUND THE SITE'S EXISTING 4" PVC STORM SEWER CONNECTION IN DRAINAGE STRUCTURE E2.

AS-BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

TEBRUGGE ENGINEERING
410 E. CHURCH STREET - SUITE A SANDWICH, IL 60548
PHONE: (815) 786-0195 TEBRUGGEENGINEERING.COM

REVISIONS

NO.	DATE	NOTES
7	9.2.15	DUPAGE COUNTY REVIEW EMAIL 9.1.15
	9.14.15	APPROVED SET – ISSUED FOR CONSTRUCTION
8	10.26.15	DIESEL TANK ADDITION
9	11.19.15	DIESEL TANK REVISIONS
10	12.11.15	ENTRY DRIVE GRADE REVISIONS

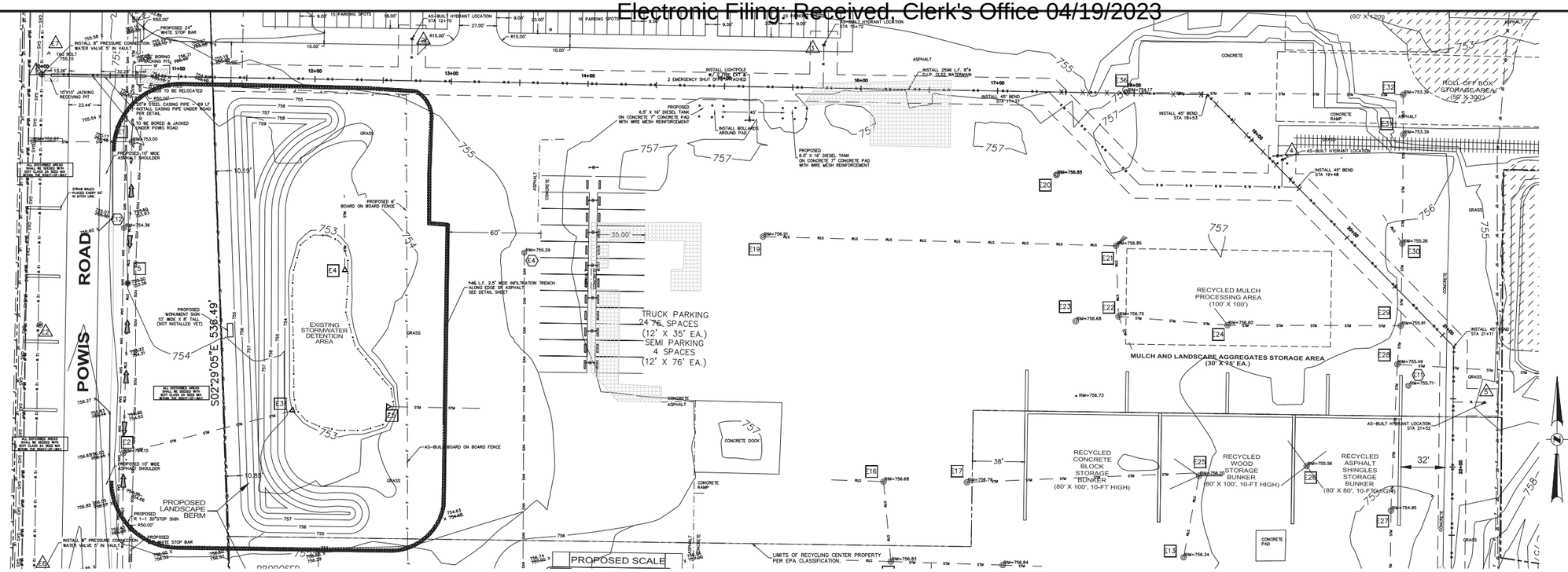
PREPARED FOR:
WEST DUPAGE RECYCLING & TRANSFER, INC
2351 POWIS RD, WEST CHICAGO, IL

1655 POWIS ROAD SITE PLAN
CIVIL SITE PLAN

PROJECT NO. 14 325 02
SCALE: 1" = 40'
DATE: 1.20.15

SHEET NO. 5 OF 15 SHEETS

Electronic Filing: Received, Clerk's Office 04/19/2023



AS-BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

WATERMAIN NOTE:

1. ALL PIPE CONFLICTS WHERE THE WATERMAIN TRAVELS UNDER THE STORM/SANITARY PIPE SHALL HAVE THE TRENCH FILLED WITH CLSM/FLOWABLE FILL FROM THE TOP OF THE WATERMAIN TO THE SPRINGLINE OF THE STORM/SANITARY PIPE.

PIPE CONFLICT STATIONS

STA 20+57 STORM OVER WATERMAIN

STA 21+27 STORM OVER WATERMAIN

STA 25+02 STORM OVER WATERMAIN

STA 26+54 SANITARY OVER WATERMAIN

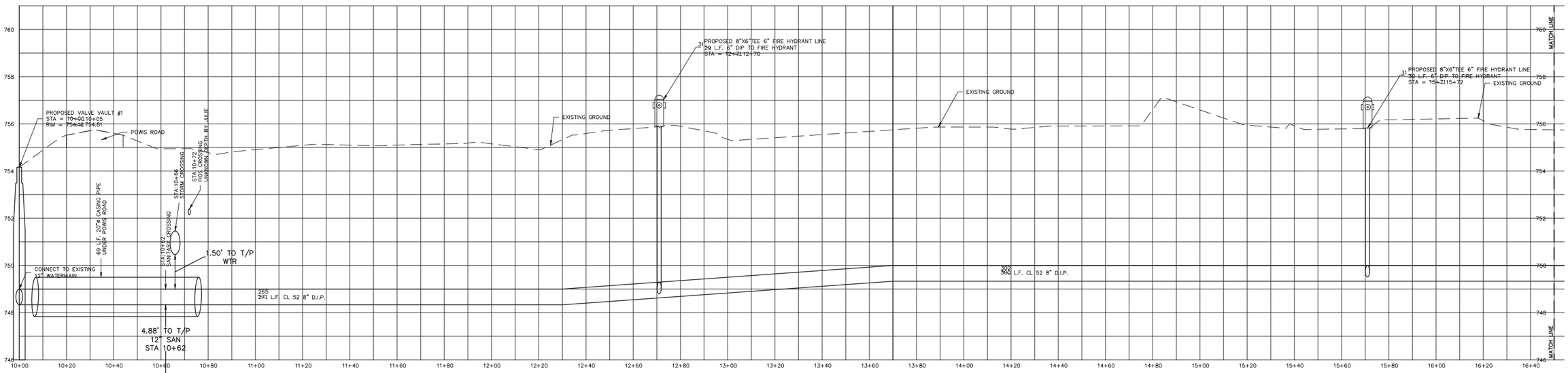
STA 28+59 STORM OVER WATERMAIN

AT EACH STATION THE THE PROPOSED WATERMAIN SHALL HAVE A CASING PIPE INSTALLED A MINIMUM OF 10' ON EITHER SIDE OF THE CROSSING. THE SANITARY PIPE SHALL BE CONSTRUCTED WITH WATERMAIN GRADE PIPE AT THE CROSSING A MINIMUM OF 10' EITHER SIDE.

2. ALL PRIVATE UTILITIES MUST MAINTAIN A MINIMUM FIVE (5) FOOT PARALLEL SEPARATION FROM THE PROPOSED WATERMAIN AND IF THE PRIVATE UTILITY IS TO CROSS THE PROPOSED WATERMAIN, THE PRIVATE UTILITY MUST MAINTAIN A MINIMUM DISTANCE OF 36" ABOVE THE WATERMAIN OR A MINIMUM 18" DISTANCE BELOW THE WATERMAIN.

3. CONTRACTOR SHALL SUPPORT STORM/SANITARY PIPE DURING CONSTRUCTION TO PREVENT ANY SETTLEMENT AND INSTALL CLSM BETWEEN THE WATERMAIN AND SEWER FOR THE WIDTH OF THE TRENCH.

PLAN VIEW



8" WATERMAIN EXTENSION PROFILE

HORZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 2'

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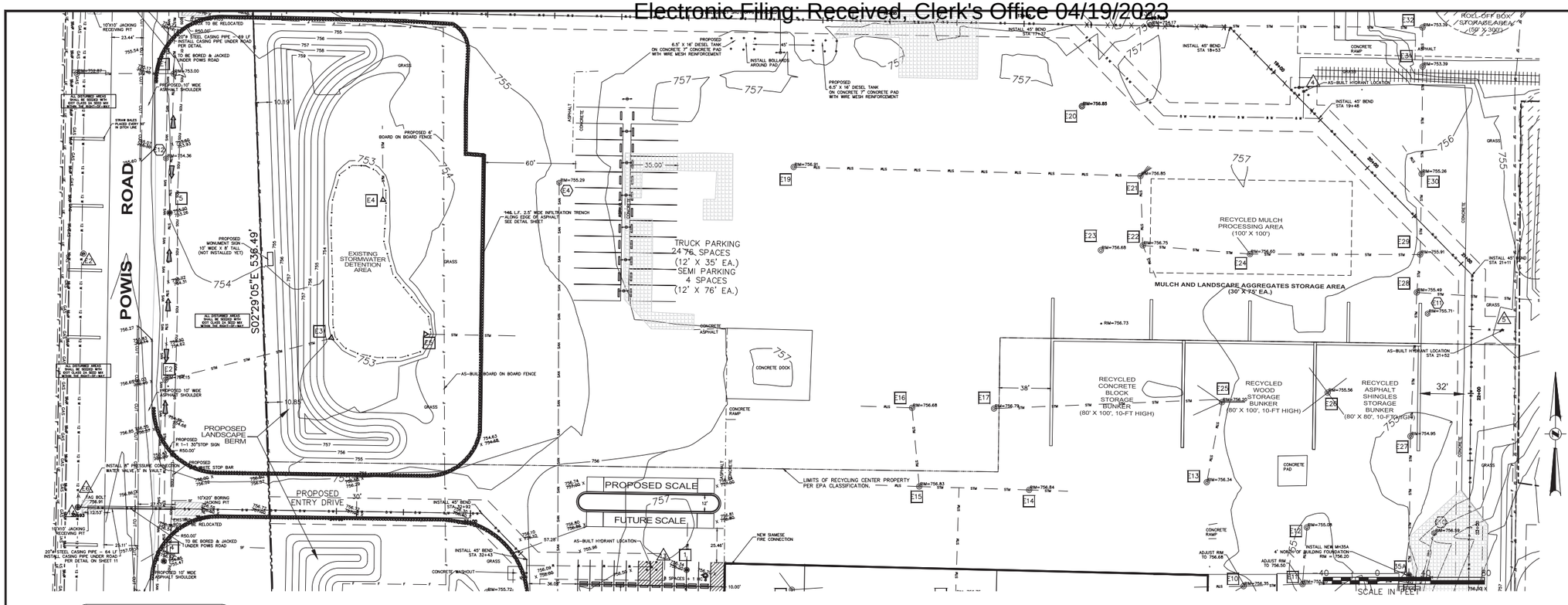
2351 POWIS RD, WEST CHICAGO, IL

1655 POWIS ROAD SITE PLAN
WATER MAIN PLAN & PROFILE

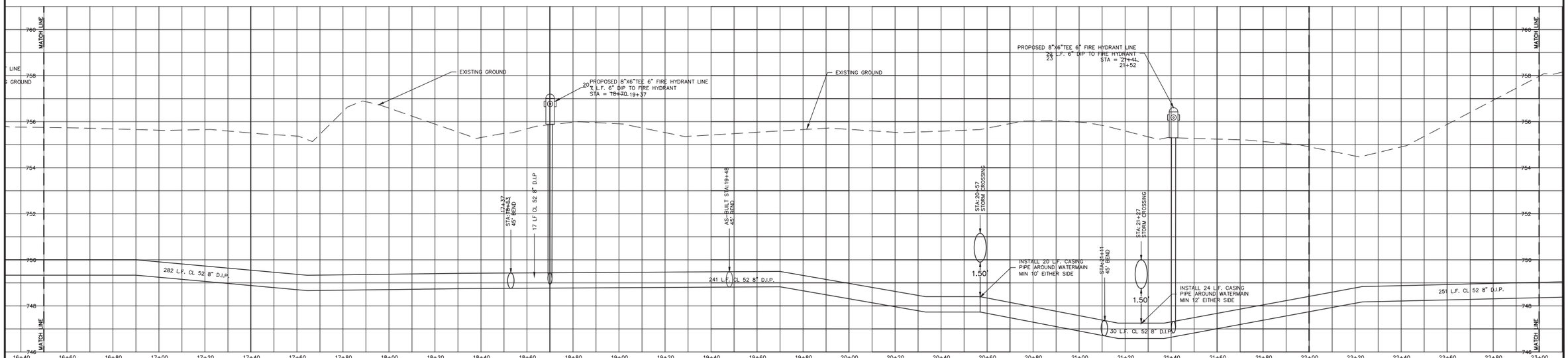
PROJECT NO. 14 325 02
SCALE: 1" = 40'
DATE: 1.20.15

SHEET NO. 6 OF 15 SHEETS



AS-BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

PLAN VIEW



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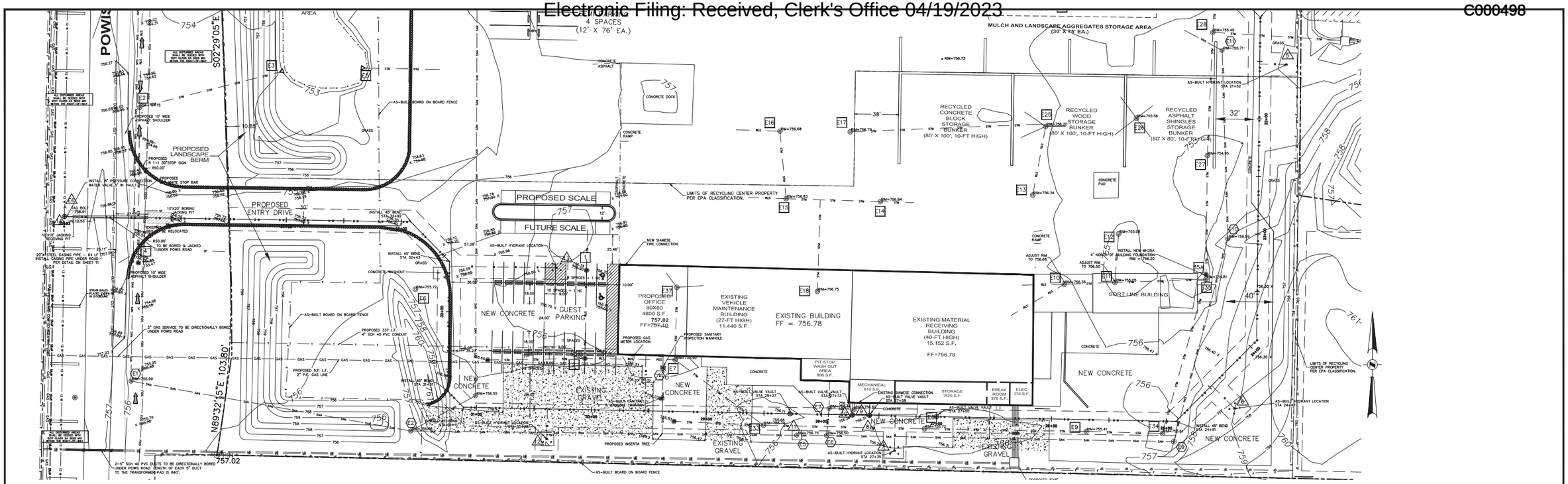

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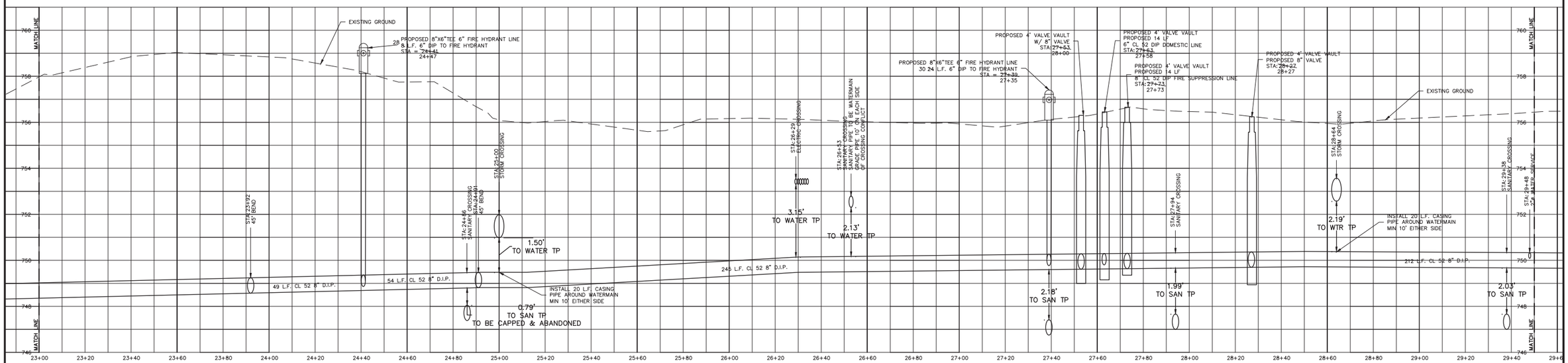

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SHEET NO. 8 OF 15 SHEETS

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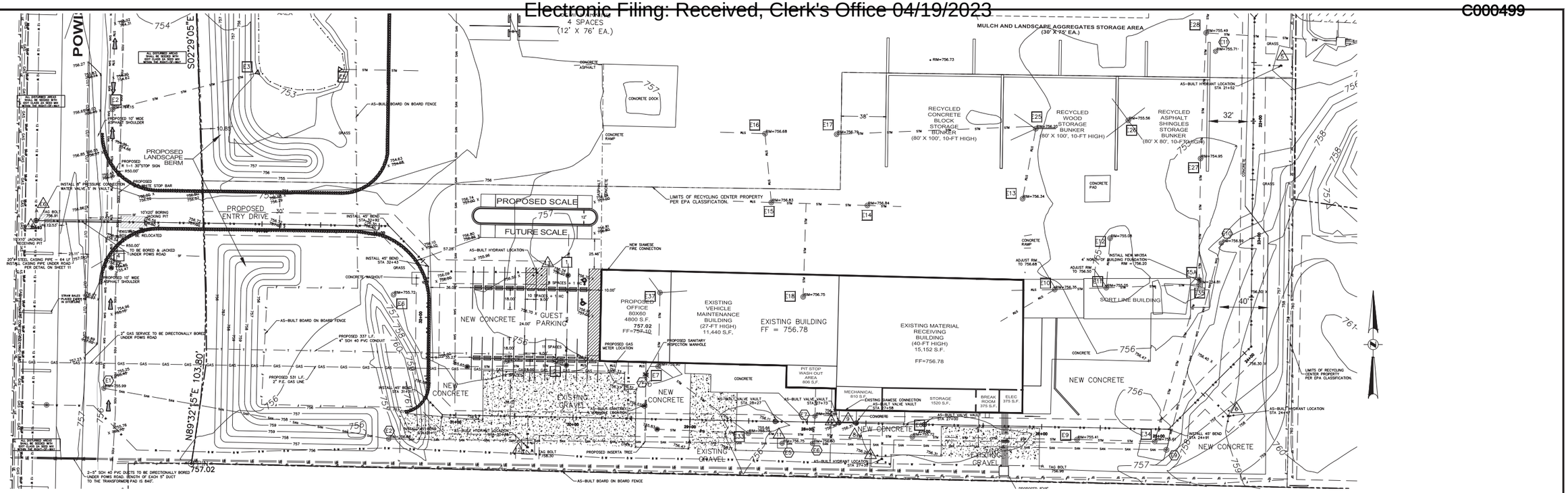
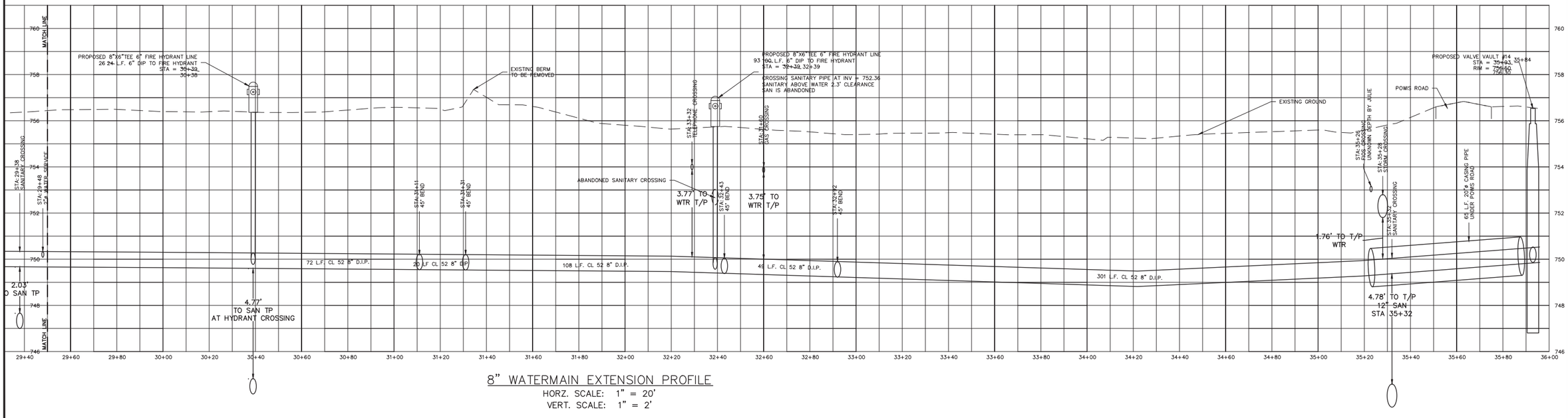


AS-BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

PLAN VIEW



8" WATERMAIN EXTENSION PROFILE
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PROJECT NO. 14 325 02
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SHEET NO. 9 OF 15 SHEETS

Electronic Filing: Received, Clerk's Office 04/19/2023 C000500

CITY OF WEST CHICAGO
PUBLIC IMPROVEMENT MATERIALS LIST

UPDATED MARCH 21, 2013

WATER

1. PIPE
CLASS 52 DUCTILE IRON, CEMENT LINED ASPHALTIC COATING OR PAINT, PUSH ON JOINTS, POLYETHYLENE ENCASED WITH TAPED JOINTS. ALL PVC PIPE SHALL CONFORM TO AWWA C-900 SPECS, AND ONLY BE USED UPON CITY APPROVAL. ALL POLYETHYLENE PIPE SHALL CONFORM TO AWWA C-906 SPECS AND ONLY BE USED UPON CITY APPROVAL.

2. MAIN LINE VALVE
VALVES – SHALL BE RESILIENT WEDGE TYPE, RATED FOR 250 PSI WORKING PRESSURE AND MEET AWWA C-509 AND C-515 SPECS. VALVES SHALL HAVE FACTORY INSTALLED 304 STAINLESS STEEL EXTERIOR BOLTING. ALL INTERNAL AND EXTERNAL SURFACES SHALL HAVE A FUSION BONDED EPOXY COATING. VALVES SHALL BE AMERICAN FLOW CONTROL, CLOW, EAST JORDAN, OR MUELLER. SPECIAL STRUCTURES MAY BE REQUIRED FOR LARGER VALVES.

BUTTERFLY VALVES – REQUIRE SPECIAL APPROVAL BY CITY ENGINEER – SHALL BE EITHER CLOW SERIES 4500 MJ OR HENRY PRATT GROUND HOG. ALL VALVES SHALL HAVE 'OPTIONAL' EPOXY COATING CONFORMED TO AWWA C-550 SPECS, AND BE SUPPLIED WITH 2" OPERATING NUT. ALL EXTERIOR BOLTS WILL BE FACTORY INSTALLED 304 STAINLESS STEEL.

VALVE OPERATING NUTS DEEPER THAN 7" – MAY REQUIRE VALVE OPERATING ROD EXTENSIONS.

3.INSERTION VALVES
UNITED STATES PIPE AND FOUNDRY COMPANY INSERTION VALVE WITH SLEEVE AND RETAINER RINGS.
PART NUMBER 910314

TEAM VALVE, WITH 304 STAINLESS STEEL TRIM.

4. LINE STOP FITTINGS
UP TO AND INCLUDING 12"

JCM 440 – ALL 304 STAINLESS BODY – BRANCH OR NOZZLE AND FLANGES. ALL BOLT TRIM SHALL ALSO BE 304 STAINLESS INCLUDING NUTS AND WASHERS. BUNA-N OR SBR RUBBER GASKET MATERIAL IS ACCEPTED.

SMITH BLAIR – 685 SERIES – ALL 304 STAINLESS BODY – BRANCH OR NOZZLE AND FLANGES. ALL BOLT TRIM SHALL ALSO BE 304 STAINLESS INCLUDING NUTS AND WASHERS. BUNA-N OR SBR RUBBER GASKET MATERIAL IS ACCEPTED.

HYDRA-STOP-PREMIER SERIES – ALL 304 STAINLESS BODY, BRANCH OR NOZZLE AND FLANGES.
ALL BOLT TRIM SHALL ALSO BE 304 STAINLESS INCLUDING NUTS AND WASHERS. BUNA-N OR SBR RUBBER GASKET MATERIAL IS ACCEPTED.

LINE STOPS LARGER THAN 12" WILL REQUIRE SUBMITTAL AND APPROVAL OF THE CITY ENGINEER. ONLY ALL STAINLESS FITTINGS WILL BE DIRECT BURY, ALL OTHERS WILL REQUIRE A PRE-CAST STRUCTURE.

5. VALVE VAULTS
PRE-CAST CONCRETE, NEENAH R 1772 TYPE 'B' LID OR EJW 1022-1 HD
'WATER' AND 'CITY OF WEST CHICAGO' TO BE CAST INTO LID
EZ-STICK GASKET OR EQUAL SHALL BE INSTALLED AT ALL JOINTS
4" DIAMETER FOR VALVES 8" AND LESS
5' DIAMETER FOR VALVES 10" AND LARGER
5' DIAMETER FOR ALL PRESSURE CONNECTIONS UP TO 12"
5' DIAMETER FOR ALL INSERTION VALVES UP TO 12"
NO STEPS
CONCRETE ADJUSTING RINGS NOT TO EXCEED 12" IN HEIGHT AND 3 IN NUMBER. RUBBER MASTIC SHALL BE INSTALLED BETWEEN EACH JOINT.

6. FIRE HYDRANTS
WATEROUS PACER 250 OR EAST JORDAN 5-BR WITH 304 STAINLESS STEEL TRIM AND BREAKAWAY TRAFFIC FLANGE. ASSEMBLY SHALL BE FACTORY PAINTED WITH CHROME YELLOW PRIMER. HYDRANTS MAY BE FLANGED OR MJ. ALL HYDRANTS INSTALLED ON 12" OR LARGER WATER MAIN MUST BE INSTALLED ON LOCKING HYDRANT TEES WHERE AVAILABLE. ALL MJ FITTINGS WILL REQUIRE MEGALUGS. PAINT COATING FOR FIRE HYDRANTS SHALL BE SHERWIN WILLIAMS BRAND, INDUSTRIAL URETHANE ALKYD ENAMEL, SERIES B54-150. COLOR FOR HYDRANTS ON POTABLE DISTRIBUTION MAINS SHALL BE SAFETY YELLOW. COLOR FOR HYDRANTS ON RAW WATERMAINS SHALL BE SAFETY GREEN.

7. AUXILIARY VALVE BOXES
EAST JORDAN SERIES 8550 OR TYLER 6850 SERIES ADJUSTABLE CAST IRON WITH 'WATER' CAST INTO LID. VALVE BOX STABILIZERS WILL BE EAST JORDAN NO. 98725 OR ADAPTER INC. RUBBER DOUGHNUTS.

8. FITTINGS
AMERICAN DUCTILE IRON C153, TYLER OR US PIPE CLASS 350 MECHANICAL JOINT. ALL FITTINGS SHALL HAVE MEGALUG RETAINER GLANDS. SLEEVES SHALL BE DUCTILE OR CAST IRON MJ. CUTTING IN SLEEVES SHALL BE MUELLER, CLOW, AMERICAN FLOW CONTROL OR TYLER MECHANICAL JOINT. WHERE APPLICABLE, ALL HYDRANT TEES ON 12" OR LARGER WATER MAIN SHALL BE 'LOCKING.' NO BELL REPAIR CLAMPS WILL BE ALLOWED.

BOLTS FOR MJ FITTINGS – FLUOROCARBON COATED COR-TEN STEEL. T-BOLTS AND NUTS.

9. TAPPING TEE FOR DUCTILE IRON PIPE
MUELLER CAST IRON MJ #H615, AMERICAN FLOW CONTROL DUCTILE IRON SERIES 2800, TYLER/UNION DUCTILE IRON, US PIPE DUCTILE IRON T-9

TAPPING TEE FOR PVC PIPE
ROMAC INDUSTRY, INC. SST III WITH 304 STAINLESS STEEL FLANGE, CASCADE CST-EX

10. CASINGS
OF NECESSARY DIAMETER, THICKNESS, AND LENGTH TO MEET ALL APPLICABLE REQUIREMENTS OF THE SPECIFIC AGENCY – CITY, COUNTY, STATE OR RAILWAY. CASING SPACERS TO BE CASCADE MODEL CSS OR APPROVED EQUAL. MATCHING CASING SIZE TO PIPE SIZE. CASING END SEALS TO BE CASCADE MODEL CCES OR APPROVED EQUAL, MORTARING OF CASING ENDS SUBJECT ONLY TO PRE-APPROVAL. ALL PUSH JOINTS IN CASING SHALL HAVE 'FIELD LOCK GASKETS.' ANNULAR SPACE WITHIN CASING MAY REQUIRE FILLING BY SPECIFIC AGENCY. MINIMUM CASING WALL THICKNESS – ¼ INCH.

11. LOCATING WIRE
SHALL BE USED ON ANY PVC LINE. 8 GAUGE COPPER WIRE TAPED TO PIPE WITH TEST HOOKUPS IN VALVE BOXES EVERY 400 FEET AND AT ALL ALIGNMENT CHANGES.
WARNING TAPE – DETECTABLE METALLIC UNDERGROUND TAPE (BURIED WATER LINE).

12. WATER SERVICE
TYPE 'K' COPPER 2" AND LESS, INSTALLED AS ONE CONTINUOUS PIECE FROM MAIN TO B-BOX.
DUCTILE IRON 3" AND LARGER.

13. B-BOX
¾", 1", & 1 ¼ " – TYLER NO. 6500 WITH VITELLI OR EQUIVALENT CONCRETE B-BOX PAD

1 ½"& 2" – TYLER 6500 WITH TYLER 6500 ENLARGED BASE OR MUELLER NO. E2032 FOOTPIECE. FOR ENLARGED FOOT, A BRICK MAY BE USED FOR LEG BASE.

14. CORPORATION STOP
¾" AND 1" – FORD F-600 SERIES OR MUELLER H 15000. BOTH SHALL HAVE FLARED COPPER OUTLET AND AWWA/CC THREAD INLET.

1 ¼" – FORD F-600 OR F-1000 SERIES OR MUELLER 15000 SERIES BOTH SHALL HAVE AWWA/CC THREAD INLET BUT MAY HAVE A FLARE OR COMPRESSION OUTLET.

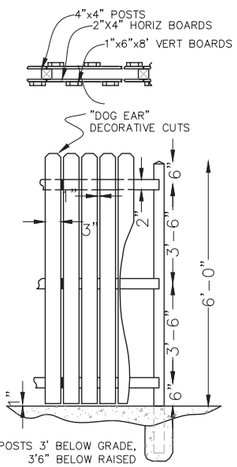
1 ½" AND 2" – FORD FB-600 SERIES OR MUELLER 300 SERIES. BOTH SHALL HAVE AWWA/CC THREAD INLET BUT MAY HAVE A FLARE OR COMPRESSION OUTLET

15. ROUNDWAY-CURB STOP
¾" AND 1" – FORD B-22 SERIES OR MUELLER H-15204

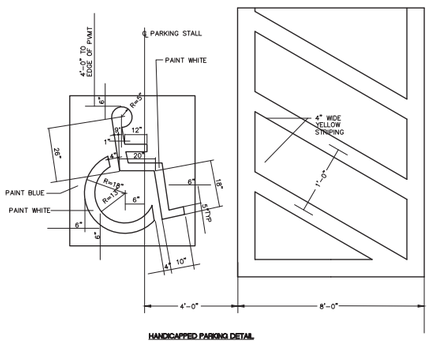
1 ¼", 1 ½" AND 2" – FORD 'B' SERIES OR MUELLER 300 SERIES. FLARED OR COMPRESSION ARE ACCEPTABLE.

16. PACK FITTINGS-BRASS
ONLY FORD OR MUELLER PACK FITTINGS ACCEPTABLE.

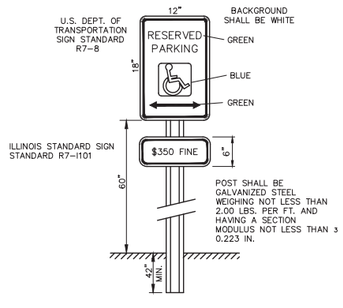
17. SERVICE SADDLES
ALL NON-DIRECT TAPS 1 ½ AND 2" SHALL USE SMITH BLAIR #372, CASCADE #CSC2, OR FORD FS313.
ONLY 1 ½ AND 2" TAPS CAN BE MADE INDIRECT.



WOOD FENCING DETAIL
N.T.S.



HANDICAPPED PARKING DETAIL
N.T.S.



LOCATE SIGN AT EACH END OF HANDICAP PARKING AREA, 2 FT. FROM EDGE OF PAVEMENT

HANDICAP PARKING SIGN

GENERAL CONDITIONS

1. ALL EARTHWORK, ROADWAY WORK, DRAINAGE WORK OR STORM SEWER WORK SHALL BE PERFORMED UTILIZING MATERIALS AND METHODS IN STRICT ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION, AS WELL AS THE STANDARD DETAIL SHEETS ATTACHED TO THESE PLANS. ALL MUNICIPAL, COUNTY, STATE AND FEDERAL REQUIREMENTS AND STANDARDS SHALL BE STRICTLY ADHERED TO IN WORK PERFORMED UNDER THIS CONTRACT.

2. ALL SANITARY SEWER AND WATER MAIN WORK SHALL BE PERFORMED USING METHODS AND MATERIALS IN STRICT ACCORDANCE WITH THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", LATEST EDITION, AS WELL AS THE STANDARD DETAIL SHEETS ATTACHED TO THESE PLANS. ALL MUNICIPAL, COUNTY, STATE AND FEDERAL REQUIREMENTS AND STANDARDS SHALL BE STRICTLY ADHERED TO IN WORK PERFORMED UNDER THIS CONTRACT.

3. ANY SPECIFICATIONS WHICH ARE SUPPLIED ALONG WITH THE PLANS SHALL TAKE PRECEDENCE IN THE CASE OF A CONFLICT WITH THE STANDARD SPECIFICATIONS NOTED IN ITEMS NO. 1 AND 2 ABOVE. THE ABOVE STANDARD SPECIFICATIONS & THE CONSTRUCTION PLANS ARE TO BE CONSIDERED AS PART OF THE CONTRACT DOCUMENTS. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.

4. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT SAME TO THE ENGINEER BEFORE DOING ANY WORK, OTHERWISE THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.

5. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED AGAINST ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE BY THE CONTRACTOR AND HIS SURETY FOR A PERIOD OF 12 MONTHS FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK BY THE GOVERNING MUNICIPALITY, OTHER APPLICABLE GOVERNMENTAL AGENCIES, AND THE OWNER.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR CONSTRUCTION ALONG OR ACROSS EXISTING STREETS OR HIGHWAYS. HE SHALL MAKE ARRANGEMENTS FOR THE PROPER BRACING, SHORING AND OTHER REQUIRED PROTECTION OF ALL ROADWAYS BEFORE CONSTRUCTION BEGINS, ALONG WITH ADEQUATE TRAFFIC CONTROL MEASURES. HE SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE STREETS OR ROADWAYS AND ASSOCIATED STRUCTURES AND SHALL MAKE REPAIRS AS NECESSARY TO THE SATISFACTION OF THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

7. THE UTILITY LOCATIONS, AND THE DEPTHS SHOWN ON THESE PLANS ARE APPROXIMATE ONLY, AND SHALL BE VERIFIED BY THE CONTRACTOR WITH ALL AFFECTED UTILITY COMPANIES PRIOR TO INITIATING CONSTRUCTION OPERATIONS. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY FOR THE ADEQUACY, SUFFICIENCY OR EXACTNESS OF THESE UTILITY REPRESENTATIONS.
8. PRIOR TO STARTING CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE OFFICE OF J.U.L.I.E. AT 1-800-892-0123 FOR EXACT FIELD LOCATION OF ALL UNDERGROUND UTILITIES IN THE PROXIMITY OF, AND ON, THE PROJECT SITE; IF THERE ARE ANY UTILITIES WHICH ARE NOT MEMBERS OF THE J.U.L.I.E. SYSTEM, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THIS AND MAKE ARRANGEMENTS TO HAVE THESE UTILITIES FIELD LOCATED.

9. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION ACTIVITIES. IN CASES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR RELOCATING THESE FACILITIES AT HIS EXPENSE TO ACCOMMODATE THE NEW CONSTRUCTION.

10. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER OR EXTENDED TO OUTLET INTO A PROPOSED DRAINAGE WAY. IF THIS CANNOT BE ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH NEW PIPE OF SIMILAR SIZE AND MATERIAL TO THE ORIGINAL LINE AND PUT IN ACCEPTABLE OPERATIONAL CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE FOR ONSITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT. THE COST OF THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

11. IT SHALL BE THE RESPONSIBILITY OF EACH RESPECTIVE CONTRACTOR TO REMOVE FROM THIS SITE ANY AND ALL MATERIALS AND DEBRIS WHICH RESULT FROM HIS CONSTRUCTION OPERATIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.

12. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS OF FOR ANY SAFETY PRECAUTIONS USED BY THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.

13. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND FEDERAL SAFETY REGULATIONS AS OUTLINED IN THE LATEST REVISIONS OF THE FEDERAL CONSTRUCTION SAFETY STANDARDS (SERIES 1926) AND WITH APPLICABLE PROVISIONS AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS OF THE WILLIAMS STELGER OCCUPATIONAL HEALTH STATE SAFETY ACT OF 1970(REVISED). THE CONTRACTOR, ENGINEERS, AND OWNER SHALL EACH BE RESPONSIBLE FOR HIS OWN RESPECTIVE EMPLOYEES.

14. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, AND ALL GOVERNING AUTHORITIES, THEIR AGENTS SUCCESSORS AND ASSIGNS FROM ANY AND ALL LIABILITY WITH RESPECT TO THE CONSTRUCTION, INSTALLATION AND TESTING OF THE WORK REQUIRED ON THIS PROJECT. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM THE WORK OF THIS CONTRACT IN A MANNER WHICH STRICTLY COMPLIES WITH ANY AND ALL PERTINENT LOCAL, STATE OR NATIONAL CONSTRUCTION AND SAFETY CODES; THE ENGINEER, OWNER, AND GOVERNING AUTHORITIES ARE NOT RESPONSIBLE FOR ENSURING COMPLIANCE BY THE CONTRACTOR WITH SAID CODES AND ASSUME NO LIABILITY FOR ACCIDENTS, INJURIES, OR DEATHS, OR CLAIMS RELATING THERETO WHICH MAY RESULT FROM LACK OF ADHERENCE TO SAID CODES.

UNDERGROUND UTILITIES

1. ALL UTILITY TRENCHES BENEATH PROPOSED OR EXISTING UTILITIES, PROPOSED OR EXISTING PAVEMENT, DRIVEWAYS, SIDEWALKS AND FOR A DISTANCE OF TWO FEET ON EITHER SIDE OF SAME, AND/OR WHEREVER ELSE SHOWN ON THE CONSTRUCTION PLANS SHALL BE BACKFILLED WITH SELECT GRANULAR BACKFILL (CA-6 OR CA-7) AND THOROUGHLY COMPACTED IN ACCORDANCE WITH THE EARTHWORK SPECIFICATIONS.

2. STRUCTURES FOR SANITARY AND STORM SEWERS AND VALVE VAULTS FOR WATER SHALL BE IN ACCORDANCE WITH THESE IMPROVEMENT PLANS AND THE APPLICABLE STANDARD SPECIFICATIONS. WHERE GRANULAR TRENCH BACKFILL IS REQUIRED AROUND THESE STRUCTURES THE COST SHALL BE CONSIDERED AS INCIDENTAL AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE STRUCTURE.

3. ALL WATERMAINS SHALL HAVE COMPACTED CA-7 GRANULAR BEDDING, A MINIMUM OF 4" BELOW THE BOTTOM OF THE PIPE FOR THE FULL LENGTH. BEDDING SHALL EXTEND TO THE SPRING LINE OF THE PIPE. COST FOR THE BEDDING SHALL BE INCLUDED WITH THE UNIT PRICE BID FOR THE PIPE.

4. THE UNDERGROUND CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING ANY EXCAVATION FOR THE INSTALLATION OF THE SEWER OR WATER SYSTEMS. ANY DEWATERING ENCOUNTERED SHALL BE INCIDENTAL TO THE RESPECTIVE UNDERGROUND UTILITY.

5. ALL STRUCTURES SHALL HAVE A MAXIMUM OF 8" OF ADJUSTING RINGS, UNLESS OTHERWISE NOTED.

6. ALL TOP FRAMES FOR VALVE VAULT COVERS AND B-BOXES ARE TO BE ADJUSTED TO MEET FINAL FINISH GRADE UPON COMPLETION OF FINISHED GRADING AND FINAL INSPECTIONS. THIS ADJUSTMENT IS TO BE MADE BY THE UNDERGROUND CONTRACTOR AND THE COST IS TO BE INCIDENTAL. THE UNDERGROUND CONTRACTOR SHALL INSURE THAT ALL ROAD AND PAVEMENT INLETS OR STRUCTURES ARE AT FINISHED GRADE. ANY ADJUSTMENTS NECESSITATED BY THE CURB OR PAVING CONTRACTOR TO ACHIEVE FINAL RIM GRADE, RESULTING IN AN EXTRA FOR SAID ADJUSTMENTS, WILL BE CHARGED TO THE UNDERGROUND CONTRACTOR.

7. ANY ANTICIPATED COST OF SHEETING SHALL BE REFLECTED IN THE CONTRACT AMOUNTS. NO ADDITIONAL COST WILL BE ALLOWED FOR SHEETING OR BRACING.

8. IT SHALL BE THE RESPONSIBILITY OF THE UNDERGROUND CONTRACTOR TO REMOVE FROM THE SITE ANY AND ALL MATERIALS AND DEBRIS WHICH RESULT FROM HIS CONSTRUCTION OPERATIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.

9. CONTRACTOR SHALL VERIFY DEPTH OF BURY OF THE 12" WELL COLLECTOR LINE PRIOR TO STARTING BORING AND JACKING.

10. ALL EXISTING WELLS ON SITE SHALL BE ABANDONED AND CAPPED PER STATE OF ILLINOIS REQUIREMENTS.

EARTHWORK

1. ALL EARTHWORK OPERATIONS SHALL BE IN ACCORDANCE WITH SECTION 200 OF THE I.D.O.T. SPECIFICATIONS.

2. THE CONTRACTOR SHALL PROTECT ALL PROPERTY PINS AND SURVEY MONUMENTS AND SHALL RESTORE ANY WHICH ARE DISTURBED BY HIS OPERATIONS AT NO ADDITIONAL COST TO THE CONTRACT.

3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL MATERIAL QUANTITIES AND APPRISE HIMSELF OF ALL SITE CONDITIONS. THE CONTRACT PRICE SUBMITTED BY THE CONTRACTOR SHALL BE CONSIDERED AS LUMP SUM FOR THE COMPLETE PROJECT. NO CLAIMS FOR EXTRA WORK WILL BE RECOGNIZED UNLESS ORDERED IN WRITING BY THE OWNER.

4. THE GRADING AND CONSTRUCTION OF THE SITE IMPROVEMENTS SHALL NOT CAUSE PONDING OF STORM WATER. ALL AREAS ADJACENT TO THESE IMPROVEMENTS SHALL BE GRADED TO ALLOW POSITIVE DRAINAGE.

5. THE PROPOSED GRADING ELEVATIONS SHOWN ON THE PLANS ARE FINISH GRADE. A MINIMUM OF SIX INCHES (6") OF TOPSOIL IS TO BE PLACED BEFORE FINISH GRADE ELEVATIONS ARE ACHIEVED.

6. EMBANKMENT MATERIAL WITHIN ROADWAY, PARKING LOT, AND OTHER STRUCTURAL CLAY FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF NINETY-FIVE PERCENT (95%) OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D-1557 (MODIFIED PROCTOR METHOD), OR TO SUCH OTHER DENSITY AS MAY BE DETERMINED APPROPRIATE BY THE SOILS ENGINEER. EMBANKMENT MATERIAL FOR BUILDING PADS SHALL BE COMPACTED TO A MINIMUM OF NINETY-FIVE (95%) OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM DESIGNATION D-1557 (MODIFIED PROCTOR METHOD) OR TO SUCH OTHER DENSITY AS MAY BE DETERMINED APPROPRIATE BY THE SOIL ENGINEER.

7. EMBANKMENT MATERIAL (RANDOM FILL) WITHIN NON-STRUCTURAL FILL AREAS SHALL BE COMPACTED TO A MINIMUM OF NINETY PERCENT (90%) OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM SPECIFICATION D-157 (MODIFIED PROCTOR METHOD).

8. THE SUB GRADE FOR PROPOSED STREET AND PAVEMENT AREAS SHALL BE PROOF-ROLLED BY THE CONTRACTOR AND ANY UNSTABLE AREAS ENCOUNTERED SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE SOILS ENGINEER.

9. IT SHALL BE THE RESPONSIBILITY OF THE EXCAVATION CONTRACTOR TO REMOVE FROM THE SITE ANY AND ALL MATERIALS AND DEBRIS WHICH RESULT FROM HIS CONSTRUCTION OPERATIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.

PAVING & WALKS

1. WORK UNDER THIS SECTION SHALL INCLUDE FINAL SUBGRADE SHAPING AND PREPARATION: FORMING, JOINTING, PLACEMENT OF ROADWAY AND PAVEMENT BASE COURSE MATERIALS AND SUBSEQUENT BINDER AND/OR SURFACE COURSES; PLACEMENT, FINISHING AND CURING OF CONCRETE; FINAL CLEAN-UP; AND ALL RELATED WORK.

2. ALL PAVING WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS (I.D.O.T.) AND PER LOCAL REGULATIONS.

3. SUBGRADE FOR PROPOSED PAVEMENT SHALL BE FINISHED BY THE EXCAVATION CONTRACTOR TO WITHIN 0.1 FOOT, PLUS OR MINUS, OF THE PLAN ELEVATION. THE PAVING CONTRACTOR SHALL SATISFY HIMSELF THAT THE SUBGRADE HAS BEEN PROPERLY PREPARED AND THAT THE FINISH TOP SUBGRADE ELEVATION HAS BEEN GRADED WITHIN TOLERANCES ALLOWED IN THESE SPECIFICATIONS. UNLESS THE PAVING CONTRACTOR ADVISES THE OWNER AND ENGINEER IN WRITING PRIOR TO FINE GRADING FOR BASE COURSE CONSTRUCTION, IT IS UNDERSTOOD THAT HE HAS APPROVED AND ACCEPTS THE RESPONSIBILITY FOR THE SUBGRADE. PRIOR TO PLACEMENT OF PAVEMENT BASE MATERIALS, THE PAVING CONTRACTOR SHALL FINE GRADE THE SUBGRADE SO AS TO INSURE THE PROPER THICKNESS OF PAVEMENT COURSES. NO CLAIMS FOR EXCESS BASE MATERIALS DUE TO IMPROPER SUBGRADE PREPARATION WILL BE HONORED.

4. THE PROPOSED PAVEMENT SHALL CONSIST OF THE SUB-BASE COURSE, BITUMINOUS AGGREGATE BASE COURSE, BITUMINOUS BINDER COURSE, AND BITUMINOUS SURFACE COURSE, OF THE THICKNESS AND MATERIALS AS SPECIFIED ON THE CONSTRUCTION PLANS. PRIME COAT SHALL BE APPLIED TO THE SUB-BASE COURSE AT A RATE OF 0.5 GALLONS PER SQUARE YARD. UNLESS SHOWN AS A BID ITEM, PRIME COAT SHALL BE CONSIDERED AS INCIDENTAL TO THE COST OF THE CONTRACT. ALL PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," CURRENT EDITION.

5. AFTER THE INSTALLATION OF THE BASE COURSE, ALL TRAFFIC SHALL BE KEPT OFF THE BASE UNTIL THE BINDER COURSE IS LAID. AFTER INSTALLATION OF THE BINDER COURSE AND UPON INSPECTION AND APPROVAL BY GOVERNING AUTHORITY, THE PAVEMENT SHALL BE CLEANED, PRIMED AND THE SURFACE COURSE LAID. ALL DAMAGED AREAS IN THE BINDER, BASE OR CURB AND GUTTER SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER PRIOR TO LAYING THE SURFACE COURSE. THE PAVING CONTRACTOR SHALL PROVIDE WHATEVER EQUIPMENT AND MANPOWER IS NECESSARY, INCLUDING THE USE OF POWER BROOMS TO PREPARE THE PAVEMENT FOR APPLICATION OF THE SURFACE COURSE. EQUIPMENT AND MANPOWER TO CLEAN PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT. PRIME COAT ON THE BINDER COARSE SHALL BE CONSIDERED AS INCIDENTAL TO THE COST OF THE CONTRACT AND SHALL BE APPLIED TO THE BINDER AT A RATE OF 0.5 GALLONS PER SQUARE YARD.

6. BACKFILLING ALONG PAVEMENT SHALL BE THE RESPONSIBILITY OF THE EARTHWORK CONTRACTOR.

7. IT SHALL BE THE RESPONSIBILITY OF THE PAVING CONTRACTOR TO REMOVE FROM THE SITE ANY AND ALL MATERIAL AND DEBRIS, WHICH RESULTS FROM HIS CONSTRUCTION OPERATIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.

8. TESTING OF THE SUB-BASE, BASE COURSE, BINDER COURSES AND SURFACE COURSE WORK SHALL BE REQUIRED IN ACCORDANCE WITH THE "I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" CURRENT EDITION, AND IN ACCORDANCE WITH THE SPECIFIC REQUIREMENTS OF THE GOVERNING MUNICIPALITY. A QUALIFIED TESTING FIRM SHALL BE EMPLOYED BY THE OWNER TO PERFORM THE REQUIRED TESTS.

TRAFFIC CONTROL NOTES:

1. CONTRACTOR SHALL SUPPLY TRAFFIC CONTROL AS REQUIRED ALONG THE EDGE OF POWIS ROAD WHILE COMPLETING WORK IN THE RIGHT OF WAY. THE TRAFFIC CONTROL SHALL INCLUDE ALL WORK, EQUIPMENT AND LABOR NECESSARY TO INSTALL AND MAINTAIN THE TRAFFIC PROTECTION UNTIL THE WORK IS COMPLETED WITH IN THE RIGHT OF WAY.

2. THE TRAFFIC CONTOL PLAN SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS, THE SUPPLEMENTAL SPECIFICATIONS AND THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".

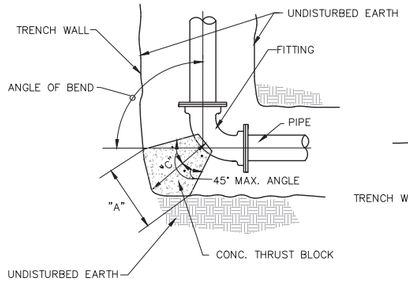
3. CONTRACTOR TO SUPPLY TRAFFIC CONTROL AND FLAGMEN AS REQUIRED TO KEEP BOTH LANES OF POWIS ROAD OPEN TO TRAFFIC DURING WORKING HOURS.

4. ALL DRUMS AND BARRICADES IMMEDIATELY ADJACENT TO THE EDGE OF TRAVELED WAY SHALL BE EQUIPPED WITH STEADY-BURN MONO-DIRECTIONAL LIGHTS.

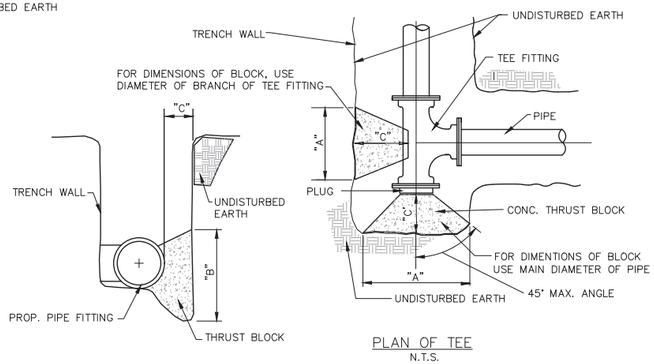
5. ANY MODIFICATIONS TO THE TRAFFIC CONTROL SHALL BE SUBMITTED TO THE ENGINEER AND THE CITY OF WEST CHICAGO FOR REVIEW.

CITY OF WEST CHICAGO STANDARD WATER NOTES

1. PIPE
CLASS 52 DUCTILE IRON, CEMENT LINED ASPHALTIC COATING OR PAINT, PUSH ON JOINTS, POLYETHYLENE ENCASED WITH TAPED JOINTS. ALL PVC PIPE SHALL CONFORM TO AWWA C-900 SPECS, AND ONLY BE USED UPON CITY APPROVAL. ALL POLYETHYLENE PIPE SHALL CONFORM TO AWWA C-906 SPECS AND ONLY BE USED UPON CITY APPROVAL.
2. MAIN LINE VALVE
VALVES 16" AND SMALLER – SHALL BE RESILIENT WEDGE TYPE, RATED FOR 250 PSI WORKING PRESSURE AND MEET AWWA C-509 AND C-515 SPECS. VALVES SHALL HAVE FACTORY INSTALLED 304 STAINLESS STEEL EXTERIOR BOLTING. ALL INTERNAL AND EXTERNAL SURFACES SHALL HAVE A FUSION BONDED EPOXY COATING. VALVES SHALL BE AMERICAN FLOW CONTROL, CLOW, EAST JORDAN, OR MUELLER.
VALVES LARGER THAN 16" – SHALL BE BUTTERFLY STYLE, EITHER CLOW SERIES 4500 MJ OR HENRY PRATT GROUND HOG. ALL VALVES SHALL HAVE 'OPTIONAL' EPOXY COATING CONFORMED TO AWWA C-550 SPECS, AND BE SUPPLIED WITH 2" OPERATING NUT. ALL EXTERIOR BOLTS WILL BE FACTORY INSTALLED 304 STAINLESS STEEL.
VALVE OPERATING NUTS DEEPER THAN 7" – MAY REQUIRE VALVE OPERATING ROD EXTENSIONS.
3. INSERTION VALVES
UNITED STATES PIPE AND FOUNDRY COMPANY INSERTION VALVE WITH SLEEVE AND RETAINER RINGS.
PART NUMBER 910314
4. LINE STOP FITTINGS
UP TO AND



PLAN OF BEND
N.T.S.

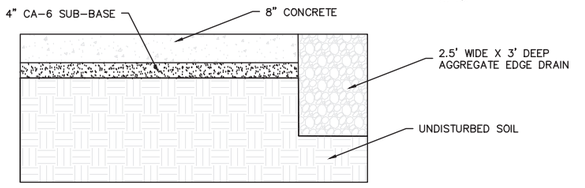


PLAN OF TEE
N.T.S.

SIZE	90° BEND			45° BEND			22-1/2° BEND			11-1/4° BEND			TEE OR PLUG		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
4"& 6"	1'-4"	1'-0"	6"	1'-1"	0'-8"	6"	0'-9"	0'-6"	6"	0'-6"	0'-6"	6"	1'-8"	1'-2"	7"
8"	2'-0"	1'-2"	8"	1'-3"	1'-0"	8"	1'-0"	0'-8"	8"	0'-8"	0'-8"	8"	2'-6"	1'-4"	11"
10"	2'-5"	1'-7"	10"	1'-9"	1'-2"	8"	1'-3"	0'-10"	8"	0'-11"	0'-10"	8"	2'-10"	1'-10"	1'-0"
12"															
14"															
16"															
18"	5'-0"	2'-8"	1'-9"	3'-6"	2'-0"	1'-6"	2'-5"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6"	6'-0"	3'-1"	2'-3"

NOTES:
1. ALL BENDS, TEES, PLUGS, FITTINGS OR OTHER SIGNIFICANT CHANGES IN ALIGNMENT SHALL BE BRACED WITH POURED CONCRETE THRUST BLOCKS FITTINGS WITH RETAINING GLANDS WILL NOT BE ALLOWED.
2. "C" DIMENSION SHALL BE AS REQUIRED TO REACH UNDISTURBED EARTH BUT NOT LESS THAN VALUE LISTED IN TABLE BELOW.
3. DIMENSIONS "A" AND "B" ARE BASED ON INTERNAL PIPE PRESSURE OF 50 P.S.I. AND BEARING ON THE UNDISTURBED SOIL OF 1500 P.S.F.
4. "B"= HEIGHT OF THRUST BLOCK

THRUST BLOCK DETAILS
N.T.S.



PARKING LOT EDGE DRAIN DETAIL
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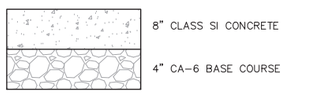
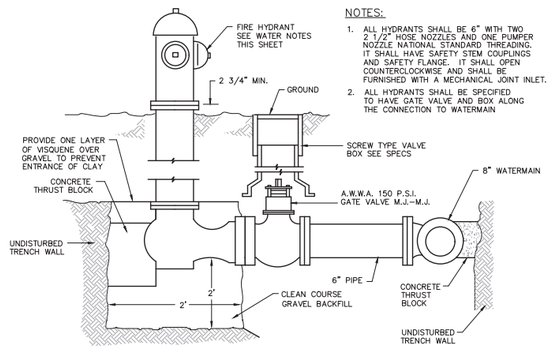


TYPICAL CONCRETE PAVEMENT DETAIL



FIRE HYDRANT DETAIL
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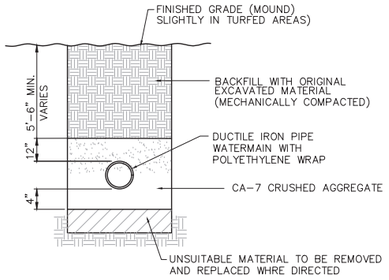
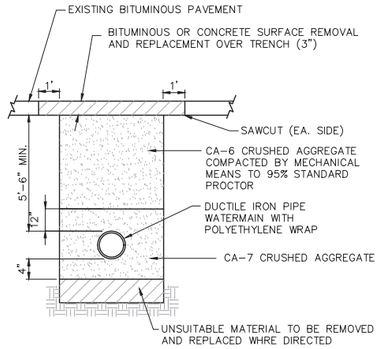
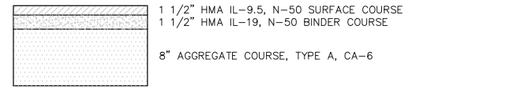


WATERMAIN
NON-PAVED AREA TRENCH DETAIL

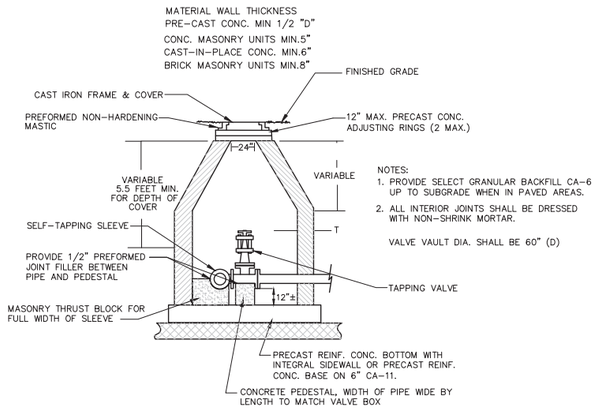
TRENCH PAY WIDTH	
DIAMETER	WIDTH
6"	2'6"
8"	2'8"
10"	2'10"
12"	2'10"



WATERMAIN
CONCRETE AND ASPHALT PAVEMENT AREA TRENCH DETAIL
DEFINED AS: UNDER OR WITHIN 2' OF ANY PAVEMENT, CURB, GUTTER OR WITHIN 1' OF ANY SIDEWALK



TYPICAL PAVEMENT DETAIL



SELF-TAPPING VALVE VAULT DETAIL
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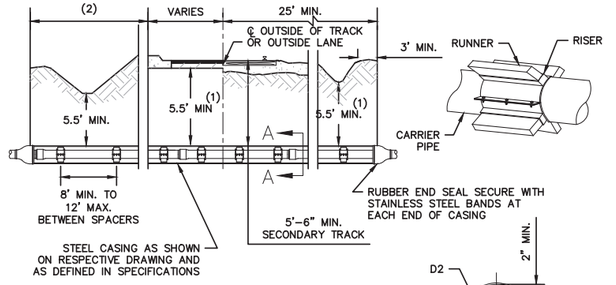


SECTION A-A

NOTES:
(1) VERTICAL DIMENSIONS TYPICAL FOR CASINGS
(2) WITH CURB: 6' STATE & 2' CITY ROADS MINIMUM WITHOUT CURB: 8' STATE & 4' CITY ROADS MINIMUM
(3) STEEL CASING PIPE SHALL CONFORM TO THE REQUIREMENTS OF AWWA C-200 AND ASTMA-139, GRADE B.
(4) WHEN CASING IS INSTALLED WITHOUT BENEFIT OF A PROTECTIVE COATING, AND SAID CASING IS NOT CATHODICALLY PROTECTED, THE WALL THICKNESS SHOWN SHALL BE INCREASED TO THE NEAREST STANDARD SIZE WHICH IS A MINIMUM OF 0.063" GREATER THAN THE THICKNESS SHOWN EXCEPT FOR DIAMETERS LESS THAN 12.75".
(5) ALL ANNULAR SPACE BETWEEN THE CASING PIPE AND THE CARRIER PIPE IS TO BE FILLED WITH SAND OR PEA GRAVEL.
(6) CASCADE SPACERS ARE TO BE USED AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS FOR SPACING.
(7) CASING PIPE SHALL BE SIZED TO ALLOW 2" FILL TUBE TO BE INSERTED BETWEEN CASING PIPE AND D.I. BELL SECTION..

PRESSURE MAIN TO BE RESTRAINED WITH MANUFACTURERS RESTRAINED JOINTS THROUGH CASING. USE (3) SS CASING SPACER CENTERED ON EACH PIPE LENGTH.

MINIMUM CASING SIZE AND THICKNESS																		
D.I.P.-M.J.	—	—	—	4"	6"	—	8"	10"	12"	14"	16"	18"	20"	—	24"	30"	36"	42"	48"
D.I.P.-P.O.	—	—	4"	—	6"	8"	10"	12"	—	14"	16"	18"	20"	24"	—	30"	36"	42"	48"
P.V.C.	—	—	4"	6"	—	8"	10"	12"	—	—	—	—	—	—	—	—	—	—	—
(3) STEEL CASING PIPE (D2)	8"(5)	10"	12"	14"	16"	18"	20"	24"	24"	30"	30"	30"	36"	36"	42"	48"	54"	60"	66"
WALL THICKNESS (T) ROADS	.188	.188	.188	.250	.250	.375	.375	.375	.375	.375	.375	.375	.375	.375	.500	.500	.500	.500	.500
(4) WALL THICKNESS (T) R.R.	.188	.188	.188	.219	.219	.250	.281	.344	.344	.406	.406	.406	.469	.469	.500	—	—	—	—

BORE & JACK DETAIL

AS-BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

TEBRUGGE ENGINEERING
410 E. CHURCH STREET - SUITE A SANDWICH, IL 60548
PHONE: (815) 786-0195 TEBRUGGEENGINEERING.COM

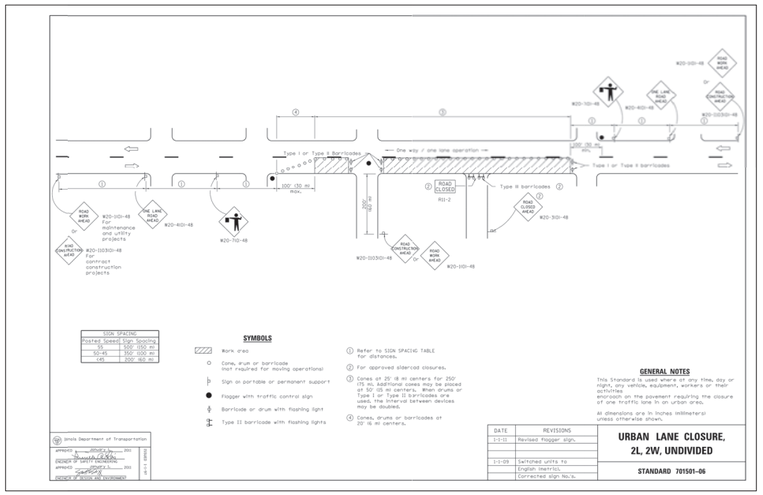
REVISIONS	NO.	DATE	NOTES
	7	9.2.15	DUPAGE COUNTY REVIEW EMAIL 9.1.15
		9.14.15	APPROVED SET – ISSUED FOR CONSTRUCTION
	8	10.26.15	DIESEL TANK ADDITION
	9	11.19.15	DIESEL TANK REVISIONS
	10	12.11.15	ENTRY DRIVE GRADE REVISIONS

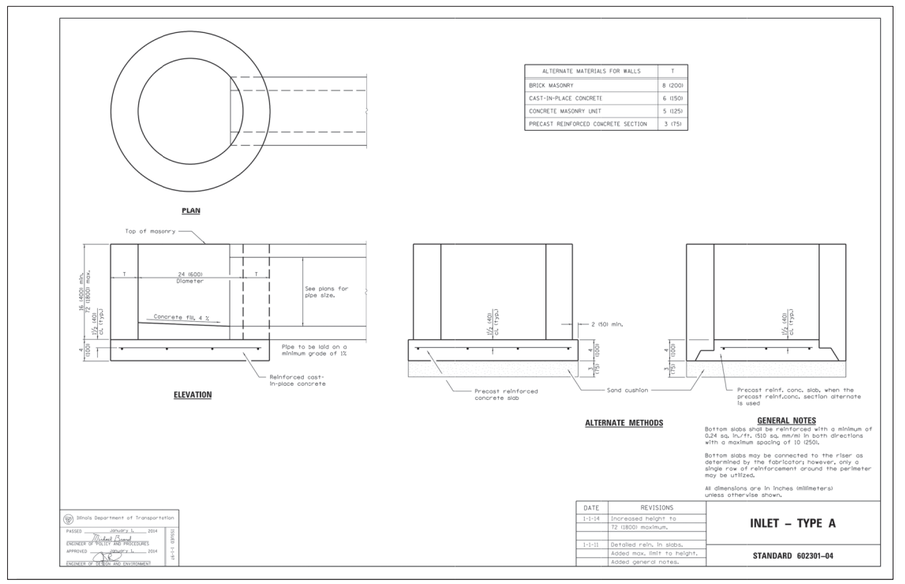
PREPARED FOR:
WEST DUPAGE RECYCLING & TRANSFER, INC.
2351 POWIS RD, WEST CHICAGO, IL

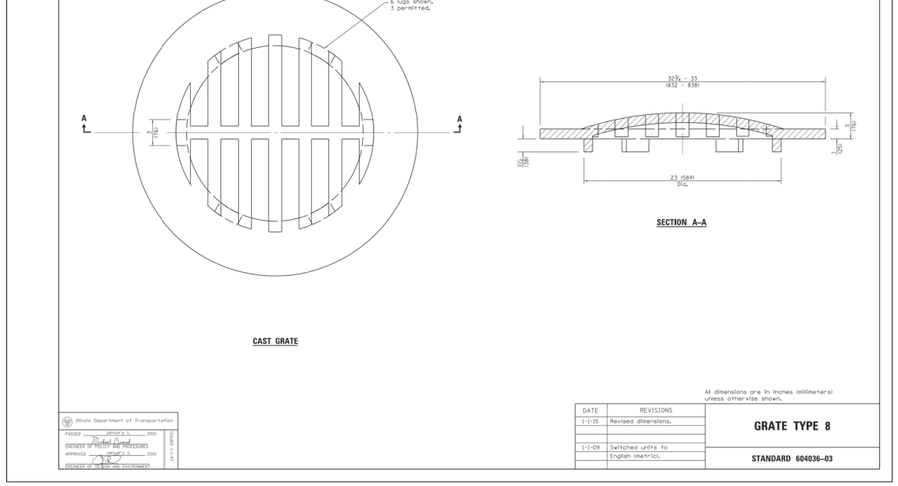
1655 POWIS ROAD SITE PLAN
GENERAL NOTES & DETAILS

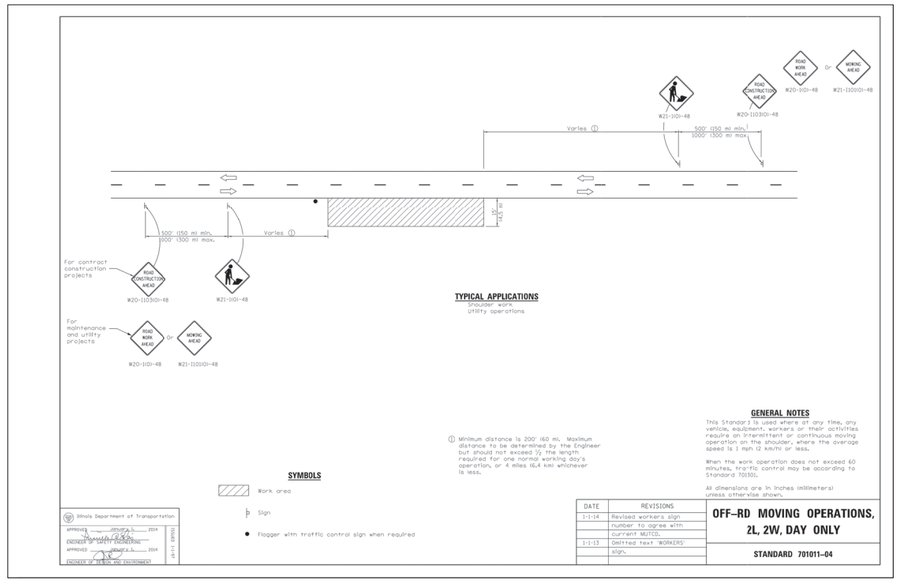
PROJECT NO. 14 325 02
SCALE: NTS
DATE: 1.20.15

SHEET NO. 11 OF 15 SHEETS









AS–BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

TEBRUGGE ENGINEERING
410 E. CHURCH STREET - SUITE A SANDWICH, IL 60548
PHONE: (815) 786-0195 TEBRUGGEENGINEERING.COM

REVISIONS

NO.	DATE	NOTES
7	9.2.15	DUPAGE COUNTY REVIEW EMAIL 9.1.15
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9	11.19.15	DIESEL TANK REVISIONS
10	12.11.15	ENTRY DRIVE GRADE REVISIONS

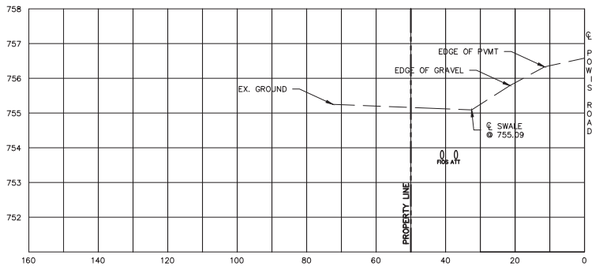
PREPARED FOR:
WEST DUPAGE RECYCLING & TRANSFER, INC.
2351 POWIS RD, WEST CHICAGO, IL

1655 POWIS ROAD SITE PLAN
GENERAL NOTES & DETAILS

PROJECT NO. 14 325 02
SCALE: NTS
DATE: 1.20.15

SHEET NO. 12 OF 15 SHEETS

STA 50+00



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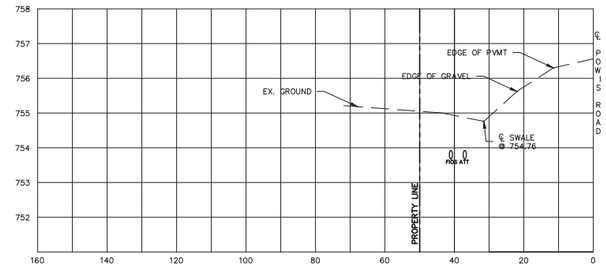

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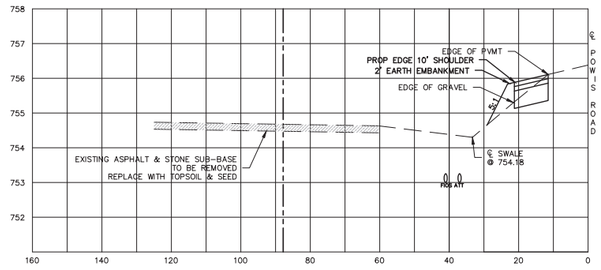

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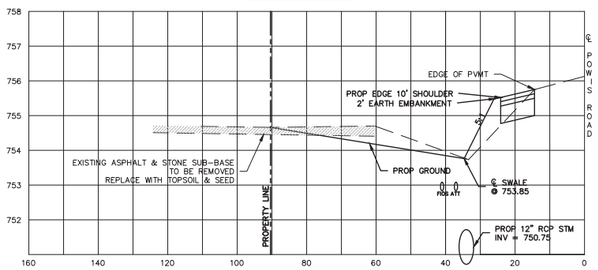

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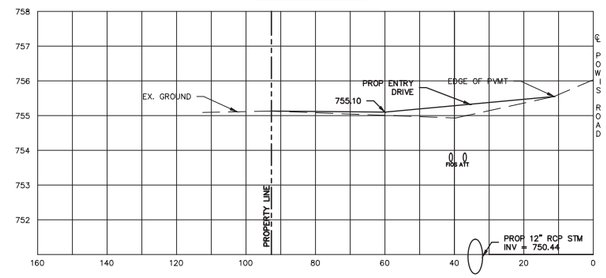

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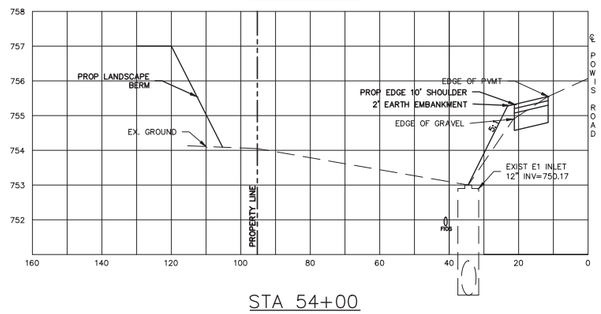

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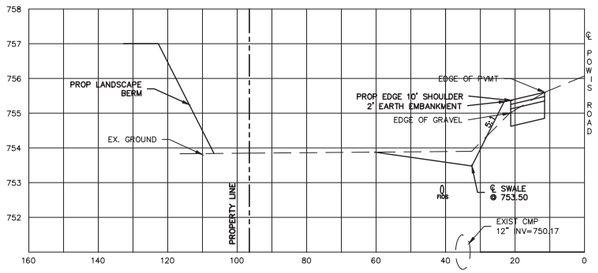

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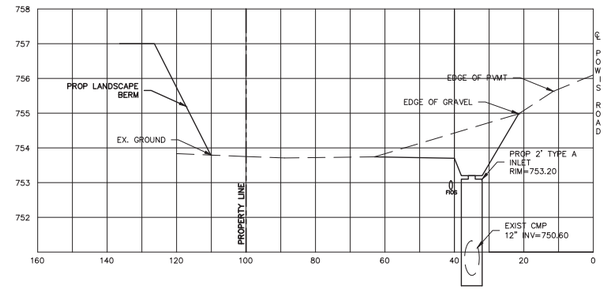

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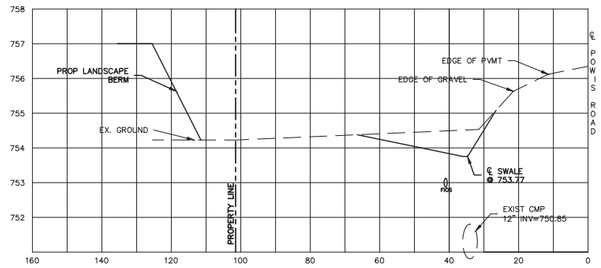

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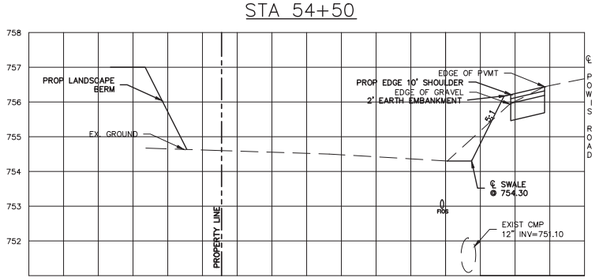

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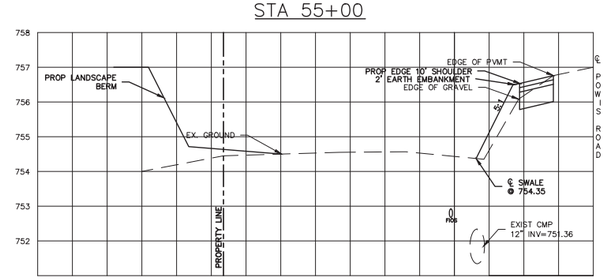

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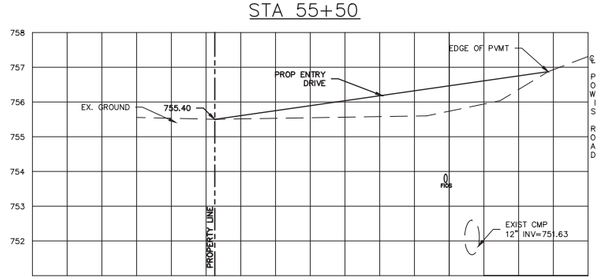

NOTES
1. TOPSOIL SHALL BE REMOVED WITHIN AREAS OF EARTH EMBANKMENT AND SHOULDER EXTENSIONS.
2. A MINIMUM OF 4" TOPSOIL SHALL BE PLACED OVER EMBANKMENTS AND DISTURBED AREAS.

AS-BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

TEBRUGGE ENGINEERING
410 E. CHURCH STREET - SUITE A SANDWICH, IL 60548
PHONE: (815) 786-0195 TEBRUGGEENGINEERING.COM

REVISIONS

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7	9.2.15	DUPAGE COUNTY REVIEW EMAIL 9.1.15
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10	12.11.15	ENTRY DRIVE GRADE REVISIONS

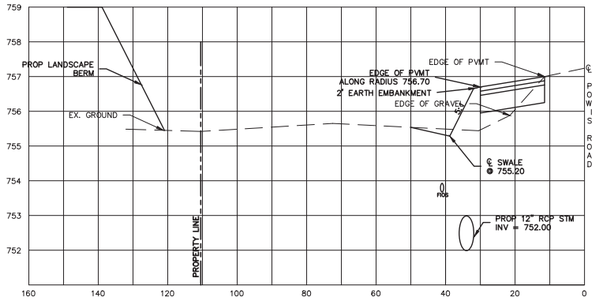
PREPARED FOR:
WEST DUPAGE RECYCLING & TRANSFER, INC
2351 POWIS RD, WEST CHICAGO, IL

1655 POWIS ROAD SITE PLAN
POWIS ROAD CROSS SECTIONS

PROJECT NO. 14 325 02
SCALE: 1" = 20'
DATE: 1.20.15

SHEET NO. 13 OF 15 SHEETS

STA 56+00



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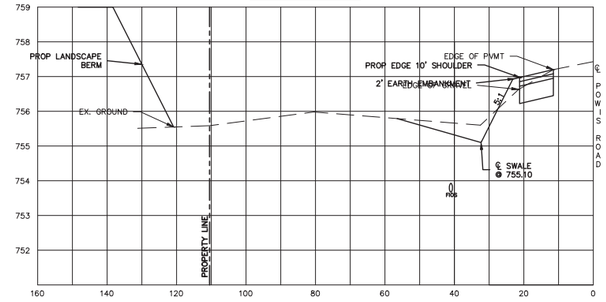

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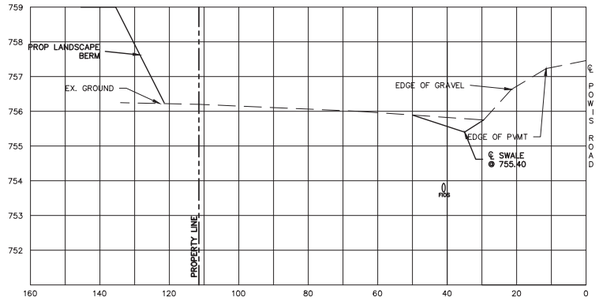

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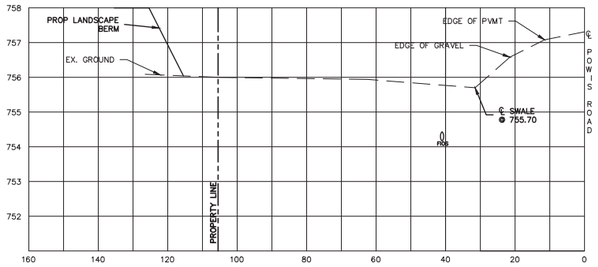

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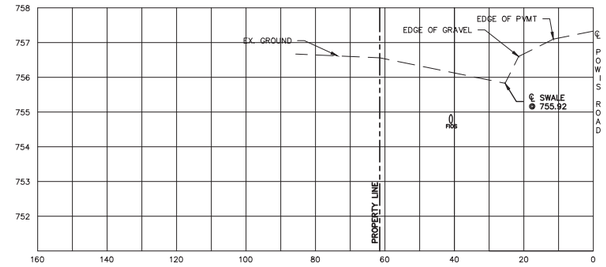

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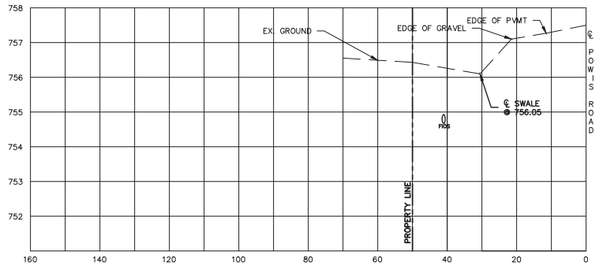

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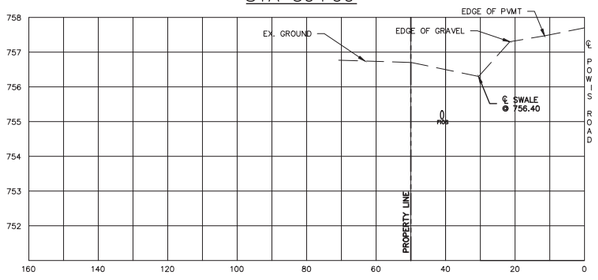

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AS-BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

TEBRUGGE ENGINEERING
410 E. CHURCH STREET - SUITE A SANDWICH, IL 60548
PHONE: (815) 786-0195 TEBRUGGEENGINEERING.COM

REVISIONS NO.	DATE	NOTES
7	9.2.15	DUPAGE COUNTY REVIEW EMAIL 9.1.15
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PREPARED FOR:
WEST DUPAGE RECYCLING & TRANSFER, INC.
2351 POWIS RD, WEST CHICAGO, IL

1655 POWIS ROAD SITE PLAN
POWIS ROAD CROSS SECTIONS

PROJECT NO. 14 325 02
SCALE: 1" = 20'
DATE: 1.20.15

SHEET NO. 14 OF 15 SHEETS

Electronic Filing: Received, Clerk's Office 04/19/2023

FLOOD ZONE X

POWIS ROAD

S89°32'15"W 1650.66'

N89°32'15"E 1880.12'

S02°29'05"E 536.49'

N89°32'15"E 1031.80'

AS-BUILT PLANS
FOR GRADE & UTILITIES
JULY, 7, 2016

SCALE IN FEET
-40 0 40 80

TEBRUGGE ENGINEERING
P.O. BOX 38, PLANO, IL 60545
PHONE: (630) 552-4390 FAX: (630) 552-4392

REVISIONS	NO.	DATE	NOTES
	1	4.15.15	CITY OF WEST CHICAGO REVIEW LETTER 3.30.15

PREPARED FOR:
WEST DUPAGE RECYCLING & TRANSFER, INC
2351 POWIS RD, WEST CHICAGO, IL

1655 POWIS ROAD SITE PLAN
TRUCK TURNING EXHIBIT

PROJECT NO. 14 325 01
SCALE: 1" = 40'
DATE: 7.29.15

SHEET NO. 15 OF 15 SHEETS

ATTACHMENT 1-2

TEBRUGGE STORM WATER MANAGEMENT REPORT, DECEMBER 9, 2016

ctronic Filing: Received, Clerk's Office 04/19/20

TEBRUGGE ENGINEERING
P. O. BOX 38 · 146 HUNTSMAN DRIVE
PLANO, IL. 60545 PHONE: (630) 552-4390 FAX: (630) 552-4392

STORM WATER MANAGEMENT REPORT

FOR

HOVING-WEST DUPAGE RECYCLING & TRANSFER, LLC

1655 POWIS ROAD

IN WEST CHICAGO, IL

DECEMBER 9, 2016

PREPARED BY

JOHN J. TEBRUGGE, P.E.

TEBRUGGE ENGINEERING

410 EAST CHURCH STREET

SANDWICH, IL 60548

ctronic Filing: Received, Clerk's Office 04/19/20

STORMWATER MANAGEMENT
DETENTION DESIGN COMPUTATIONS
FOR HOVING- WEST DUPAGE RECYCLING & TRANSFER, LLC
IN WEST CHICAGO, IL
BY
TEBRUGGE ENGINEERING
410 E. CHURCH ST. SUITE A
SANDWICH, IL

WEST DUPAGE RECYCLING IS COMPLETING SITE RENOVATIONS, BUILDING EXPANSIONS AND PARKING LOT IMPROVEMENTS FOR THEIR RECYCLING BUSINESS LOCATED AT 1655 POWIS ROAD IN WEST CHICAGO,IL. THE SITE COVERS 27.64 ACRES AND THERE CURRENTLY EXISTS A WEST AND EAST DETENTION POND. REVIEW OF THE SITE GRADES SHOWS 3.39 ACRES TRIBUTARY TO THE WEST POND AND 17.38 ACRES TRIBUTARY TO THE EAST POND. THERE IS 6.87 ACRES CONSISTING OF WETLANDS, LAND ADJACENT TO KRESS CREEK AND PORTIONS OF THE NORTH AND WEST PROPERTY WHICH DRAIN AWAY FROM THE PONDS.

WEST POND ANALYSIS: TRIBUTARTY AREA = 3.39 AC
SUMMARY OF AREAS – PAVEMENT AREA = 1.73AC & GRASS= 1.40 AC & POND = 0.26 AC

CALCULATION OF PROPOSED SITE CURVE NUMBER (CN)

IMPERVIOUS (PARKING LOT):	96 X 1.70 AC = 163.20
PERVIOUS (GREEN AREAS):	65 X 1.44 AC = 93.60
DETENTION POND :	90 X 0.25 AC = 22.50
TOTAL:	3.39 AC = 279.3

CN (WEIGHTED) = 279.3/3.39 AC. = 82.3 USE CN = 82

EAST POND ANALYSIS: TRIBUTARTY AREA = 17.38 AC
SUMMARY OF AREAS – PAVEMENT/BUILDING AREA = 8.78 AC & GRASS = 1.58 AC
POND = 3.85 AC & GRAVEL AREAS= 3.17

CALCULATION OF PROPOSED SITE CURVE NUMBER (CN)

IMPERVIOUS (BUILDING & PARKING LOT):	96 X 8.78 AC = 842.88
PERVIOUS (GREEN AREAS):	65 X 1.58 AC = 102.70
DETENTION POND :	90 X 3.85 AC = 346.50
GRAVEL AREAS :	82 X 3.17 AC = 259.94
TOTAL:	17.38 AC = 1552.02

CN (WEIGHTED) = 1552.02/17.38 AC. = 89.2 USE CN = 89

RESTRICTOR SIZING: Q = CA (2GH) 1/2

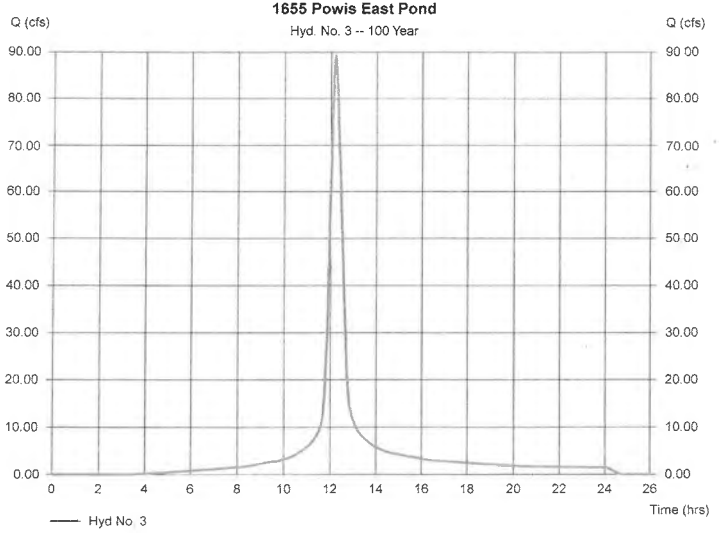
West Pond -100 yr Q allow = 0.10 * 3.39 AC. = 0.34 cfs West Pond has 4" restrictor
East Pond - 100 yr Q allow = 0.10 * 17.38 AC = 1.74 cfs East Pond has 6" restrictor

ectronic Filing: Received, Clerk's Office 04/19/202

Hyd. No. 3

1655 Powis East Pond

Hydrograph type	= SCS Runoff	Peak discharge	= 89.24 cfs
Storm frequency	= 100 yrs	Time to peak	= 732 min
Time interval	= 2 min	Hyd. volume	= 400,843 cuft
Drainage area	= 17.380 ac	Curve number	= 89
Basin Slope	= 0.8 %	Hydraulic length	= 1350 ft
Tc method	= LAG	Time of conc. (Tc)	= 33.07 min
Total precip.	= 7.58 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



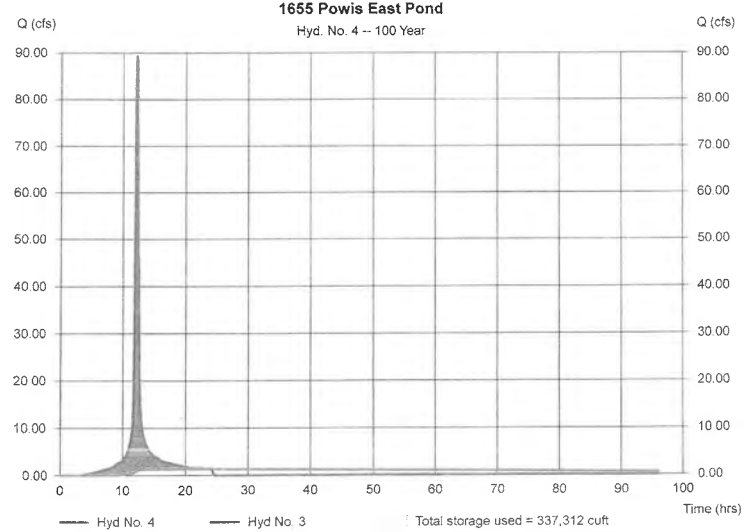
Electronic Filing: Received, Clerk's Office 04/19/202

Hyd. No. 4

1655 Powis East Pond

Hydrograph type	= Reservoir	Peak discharge	= 1.378 cfs
Storm frequency	= 100 yrs	Time to peak	= 1448 min
Time interval	= 2 min	Hyd. volume	= 327,874 cuft
Inflow hyd. No.	= 3 - 1655 Powis East Pond	Max. Elevation	= 752.98 ft
Reservoir name	= East Pond	Max. Storage	= 337,312 cuft

Storage Indication method used.



Electronic Filing: Received, Clerk's Office 04/19/2023

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 — Tuesday, Nov 15, 2016

Hyd. No. 4

1655 Powis East Pond

Hydrograph type	= Reservoir	Peak discharge	= 1.378 cfs
Storm frequency	= 100 yrs	Time to peak	= 1448 min
Time interval	= 2 min	Hyd. volume	= 327,874 cuft
Inflow hyd. No.	= 3 - 1655 Powis East Pond	Max. Elevation	= 752.98 ft
Reservoir name	= East Pond	Max. Storage	= 337,312 cuft

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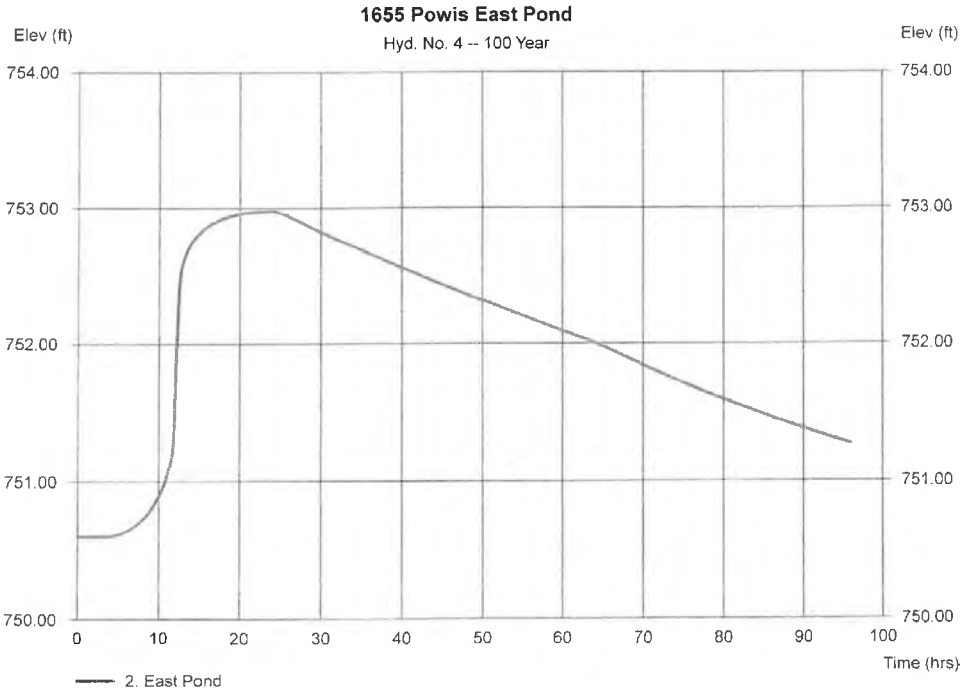


Electronic Filing: Received, Clerk's Office 04/5/2023

Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 — Tuesday, Nov 15, 2016

Pond No. 2 - East Pond

Pond Data

Contours - User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 750.60 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	750.60	89,395	0	0
0.40	751.00	103,754	38,593	38,593
1.40	752.00	152,893	127,519	166,112
2.40	753.00	198,704	175,281	341,394
3.00	753.60	203,810	120,734	462,128

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 6.00	0.00	0.00	0.00
Span (in)	= 6.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 750.60	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

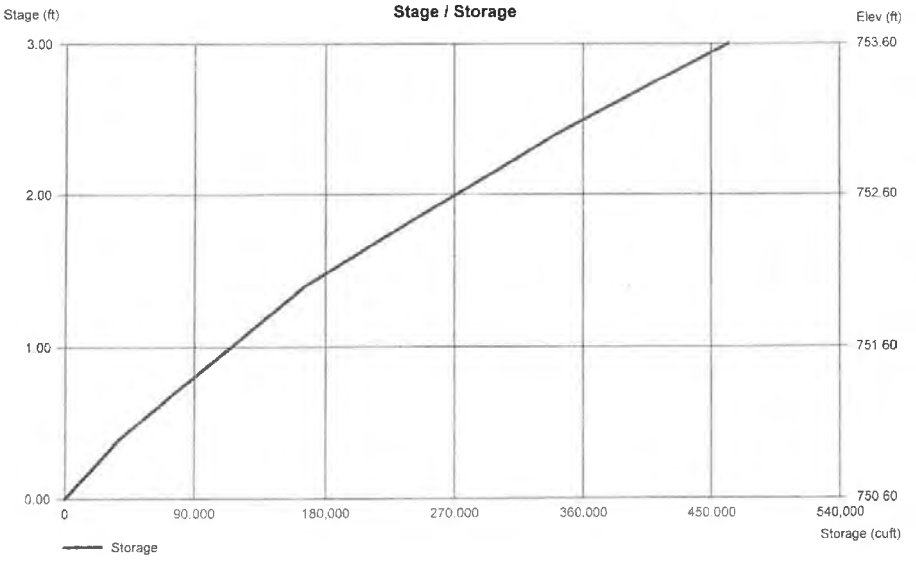
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Electronic Filing: Received, Clerk's Office 04/13/2023

Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 — Tuesday, Nov 15, 2016

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Rise (in)	= 6.00	0.00	0.00	0.00
Span (in)	= 6.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 750.60	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	750.60	0.00	---	---	---	---	---	---	---	---	---	0.000
0.04	3,859	750.64	0.01 ic	---	---	---	---	---	---	---	---	---	0.005
0.08	7,719	750.68	0.02 ic	---	---	---	---	---	---	---	---	---	0.020
0.12	11,578	750.72	0.04 ic	---	---	---	---	---	---	---	---	---	0.043
0.16	15,437	750.76	0.07 ic	---	---	---	---	---	---	---	---	---	0.074
0.20	19,296	750.80	0.11 ic	---	---	---	---	---	---	---	---	---	0.112
0.24	23,156	750.84	0.16 ic	---	---	---	---	---	---	---	---	---	0.156
0.28	27,015	750.88	0.20 ic	---	---	---	---	---	---	---	---	---	0.204
0.32	30,874	750.92	0.26 ic	---	---	---	---	---	---	---	---	---	0.256
0.36	34,733	750.96	0.31 ic	---	---	---	---	---	---	---	---	---	0.309
0.40	38,593	751.00	0.36 ic	---	---	---	---	---	---	---	---	---	0.363
0.50	51,345	751.10	0.47 ic	---	---	---	---	---	---	---	---	---	0.473
0.60	64,097	751.20	0.56 ic	---	---	---	---	---	---	---	---	---	0.559
0.70	76,848	751.30	0.63 ic	---	---	---	---	---	---	---	---	---	0.634
0.80	89,600	751.40	0.70 ic	---	---	---	---	---	---	---	---	---	0.701
0.90	102,352	751.50	0.76 ic	---	---	---	---	---	---	---	---	---	0.762
1.00	115,104	751.60	0.82 ic	---	---	---	---	---	---	---	---	---	0.819
1.10	127,856	751.70	0.87 ic	---	---	---	---	---	---	---	---	---	0.871
1.20	140,608	751.80	0.92 ic	---	---	---	---	---	---	---	---	---	0.921
1.30	153,360	751.90	0.97 ic	---	---	---	---	---	---	---	---	---	0.969
1.40	166,112	752.00	1.01 ic	---	---	---	---	---	---	---	---	---	1.014
1.50	183,640	752.10	1.06 ic	---	---	---	---	---	---	---	---	---	1.057
1.60	201,168	752.20	1.10 ic	---	---	---	---	---	---	---	---	---	1.098
1.70	218,697	752.30	1.14 ic	---	---	---	---	---	---	---	---	---	1.138
1.80	236,225	752.40	1.18 ic	---	---	---	---	---	---	---	---	---	1.177
1.90	253,753	752.50	1.21 ic	---	---	---	---	---	---	---	---	---	1.214
2.00	271,281	752.60	1.25 ic	---	---	---	---	---	---	---	---	---	1.250
2.10	288,809	752.70	1.29 ic	---	---	---	---	---	---	---	---	---	1.286
2.20	306,337	752.80	1.32 ic	---	---	---	---	---	---	---	---	---	1.320
2.30	323,865	752.90	1.35 ic	---	---	---	---	---	---	---	---	---	1.353
2.40	341,394	753.00	1.39 ic	---	---	---	---	---	---	---	---	---	1.386
2.46	353,467	753.06	1.41 ic	---	---	---	---	---	---	---	---	---	1.405
2.52	365,540	753.12	1.42 ic	---	---	---	---	---	---	---	---	---	1.424
2.58	377,614	753.18	1.44 ic	---	---	---	---	---	---	---	---	---	1.443
2.64	389,687	753.24	1.46 ic	---	---	---	---	---	---	---	---	---	1.461
2.70	401,761	753.30	1.48 ic	---	---	---	---	---	---	---	---	---	1.480
2.76	413,834	753.36	1.50 ic	---	---	---	---	---	---	---	---	---	1.498

Continues on next page ...

East Pond

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
2.82	425,907	753.42	1.52 ic	---	---	---	---	---	---	---	---	---	1.515
2.88	437,981	753.48	1.53 ic	---	---	---	---	---	---	---	---	---	1.533
2.94	450,054	753.54	1.55 ic	---	---	---	---	---	---	---	---	---	1.550
3.00	462,128	753.60	1.57 ic	---	---	---	---	---	---	---	---	---	1.568

End

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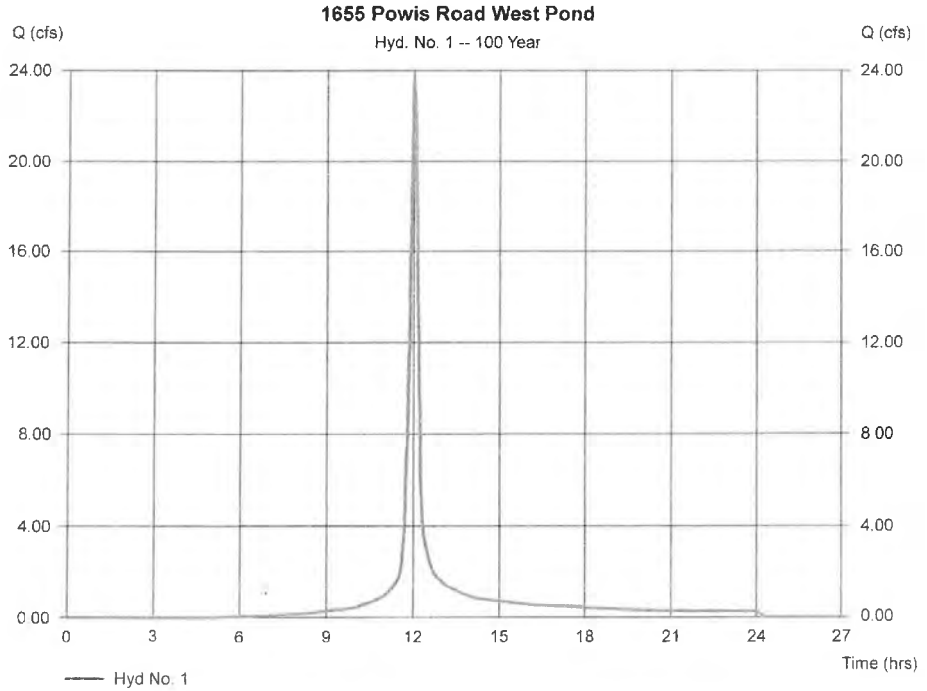
Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 — Tuesday, Nov 15, 2016

Hyd. No. 1

1655 Powis Road West Pond

Hydrograph type	= SCS Runoff	Peak discharge	= 23.60 cfs
Storm frequency	= 100 yrs	Time to peak	= 720 min
Time interval	= 3 min	Hyd. volume	= 65,231 cuft
Drainage area	= 3.290 ac	Curve number	= 82
Basin Slope	= 0.9 %	Hydraulic length	= 350 ft
Tc method	= LAG	Time of conc. (Tc)	= 13.60 min
Total precip.	= 7.58 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



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Hydrograph Report

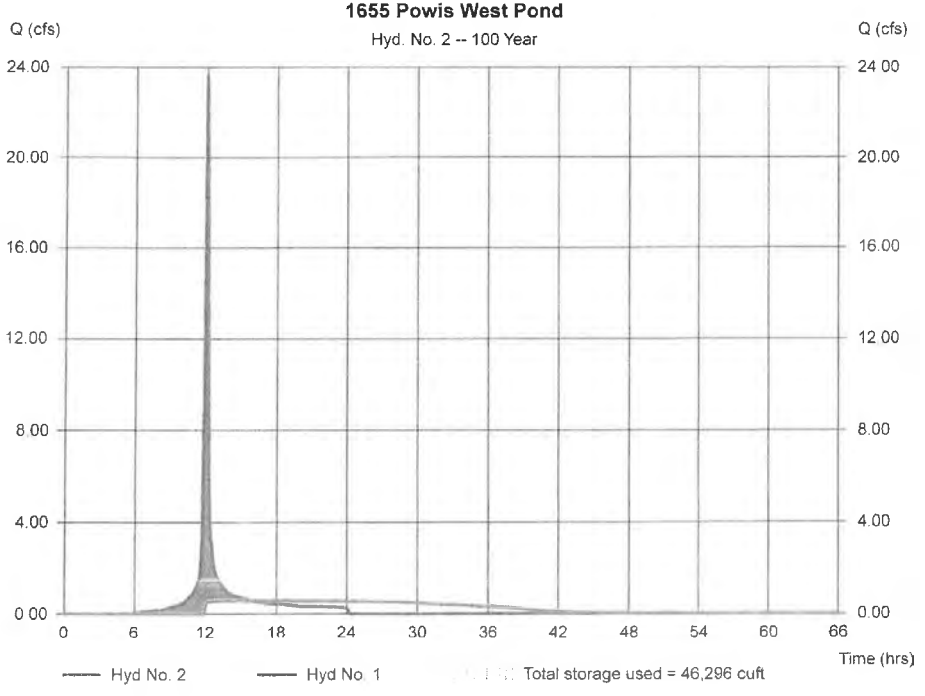
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 — Tuesday, Nov 15, 2016

Hyd. No. 2

1655 Powis West Pond

Hydrograph type	= Reservoir	Peak discharge	= 0.589 cfs
Storm frequency	= 100 yrs	Time to peak	= 951 min
Time interval	= 3 min	Hyd. volume	= 51,337 cuft
Inflow hyd. No.	= 1 - 1655 Powis Road West Pond	Max. Elevation	= 754.47 ft
Reservoir name	= west pond	Max. Storage	= 46,296 cuft

Storage Indication method used.



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Hydrograph Report

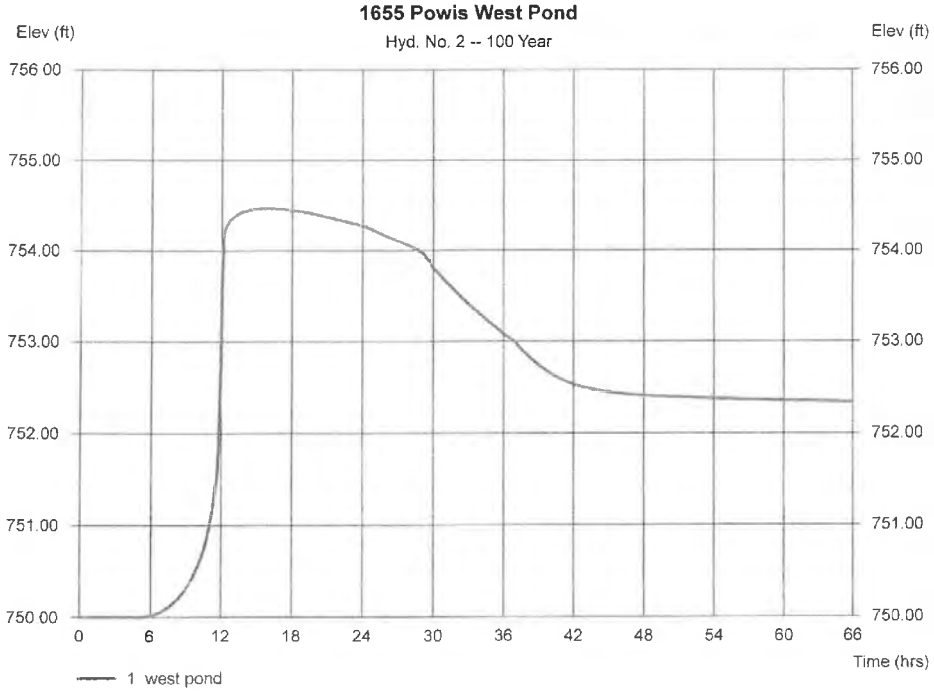
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 — Tuesday, Nov 15, 2016

Hyd. No. 2

1655 Powis West Pond

Hydrograph type	= Reservoir	Peak discharge	= 0.589 cfs
Storm frequency	= 100 yrs	Time to peak	= 951 min
Time interval	= 3 min	Hyd. volume	= 51,337 cuft
Inflow hyd. No.	= 1 - 1655 Powis Road West Pond	Max. Elevation	= 754.47 ft
Reservoir name	= west pond	Max. Storage	= 46,296 cuft

Storage Indication method used.



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Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 — Tuesday, Nov 15, 2016

Pond No. 1 - west pond

Pond Data

Contours - User-defined contour areas Conic method used for volume calculation Begining Elevation = 750.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	750.00	5,200	0	0
1.00	751.00	5,600	5,398	5,398
2.00	752.00	6,800	6,190	11,588
3.00	753.00	8,180	7,479	19,067
4.00	754.00	16,120	11,927	30,993
5.00	755.00	53,268	32,894	63,887

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 4.00	0.00	0.00	0.00
Span (in)	= 4.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 752.33	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

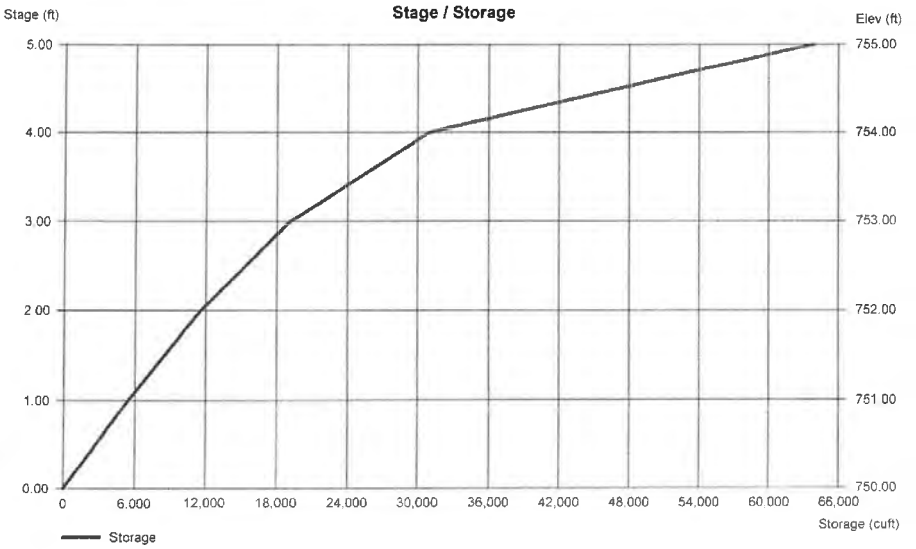
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Contour)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Electronic Filing: Received, Clerk's Office 04/19/2023

Pond Report

Pond No. 1 - west pond

Pond Data

Contours - User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 750.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	750.00	5,200	0	0
1.00	751.00	5,600	5,398	5,398
2.00	752.00	6,800	6,190	11,588
3.00	753.00	8,180	7,479	19,067
4.00	754.00	16,120	11,927	30,993
5.00	755.00	53,268	32,894	63,887

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 4.00	0.00	0.00	0.00
Span (in)	= 4.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 752.33	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Contour)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	750.00	0.00	---	---	---	---	---	---	---	---	---	0.000
0.10	540	750.10	0.00	---	---	---	---	---	---	---	---	---	0.000
0.20	1,080	750.20	0.00	---	---	---	---	---	---	---	---	---	0.000
0.30	1,619	750.30	0.00	---	---	---	---	---	---	---	---	---	0.000
0.40	2,159	750.40	0.00	---	---	---	---	---	---	---	---	---	0.000
0.50	2,699	750.50	0.00	---	---	---	---	---	---	---	---	---	0.000
0.60	3,239	750.60	0.00	---	---	---	---	---	---	---	---	---	0.000
0.70	3,779	750.70	0.00	---	---	---	---	---	---	---	---	---	0.000
0.80	4,319	750.80	0.00	---	---	---	---	---	---	---	---	---	0.000
0.90	4,858	750.90	0.00	---	---	---	---	---	---	---	---	---	0.000
1.00	5,398	751.00	0.00	---	---	---	---	---	---	---	---	---	0.000
1.10	6,017	751.10	0.00	---	---	---	---	---	---	---	---	---	0.000
1.20	6,636	751.20	0.00	---	---	---	---	---	---	---	---	---	0.000
1.30	7,255	751.30	0.00	---	---	---	---	---	---	---	---	---	0.000
1.40	7,874	751.40	0.00	---	---	---	---	---	---	---	---	---	0.000
1.50	8,493	751.50	0.00	---	---	---	---	---	---	---	---	---	0.000
1.60	9,112	751.60	0.00	---	---	---	---	---	---	---	---	---	0.000
1.70	9,731	751.70	0.00	---	---	---	---	---	---	---	---	---	0.000
1.80	10,350	751.80	0.00	---	---	---	---	---	---	---	---	---	0.000
1.90	10,969	751.90	0.00	---	---	---	---	---	---	---	---	---	0.000
2.00	11,588	752.00	0.00	---	---	---	---	---	---	---	---	---	0.000
2.10	12,336	752.10	0.00	---	---	---	---	---	---	---	---	---	0.000
2.20	13,084	752.20	0.00	---	---	---	---	---	---	---	---	---	0.000
2.30	13,832	752.30	0.00	---	---	---	---	---	---	---	---	---	0.000
2.40	14,579	752.40	0.01 ic	---	---	---	---	---	---	---	---	---	0.012
2.50	15,327	752.50	0.06 ic	---	---	---	---	---	---	---	---	---	0.063
2.60	16,075	752.60	0.13 ic	---	---	---	---	---	---	---	---	---	0.134
2.70	16,823	752.70	0.19 ic	---	---	---	---	---	---	---	---	---	0.189
2.80	17,571	752.80	0.23 ic	---	---	---	---	---	---	---	---	---	0.231
2.90	18,319	752.90	0.27 ic	---	---	---	---	---	---	---	---	---	0.267
3.00	19,067	753.00	0.30 ic	---	---	---	---	---	---	---	---	---	0.298
3.10	20,259	753.10	0.33 ic	---	---	---	---	---	---	---	---	---	0.326
3.20	21,452	753.20	0.35 ic	---	---	---	---	---	---	---	---	---	0.352
3.30	22,644	753.30	0.38 ic	---	---	---	---	---	---	---	---	---	0.377
3.40	23,837	753.40	0.40 ic	---	---	---	---	---	---	---	---	---	0.399
3.50	25,030	753.50	0.42 ic	---	---	---	---	---	---	---	---	---	0.421

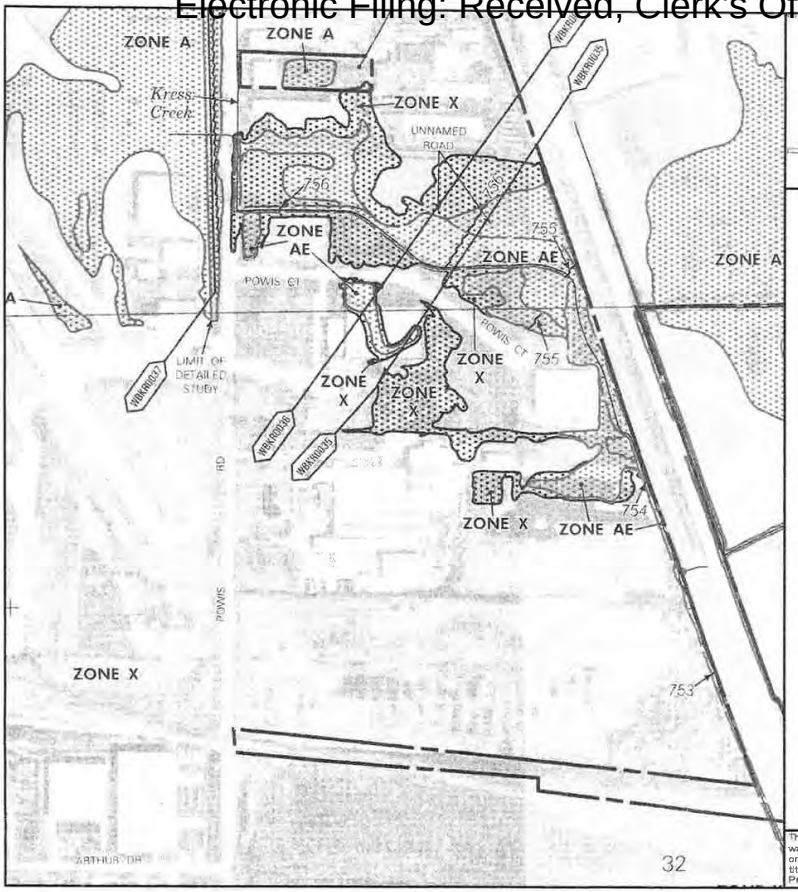
Continues on next page ...

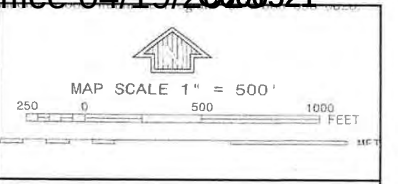
west pond

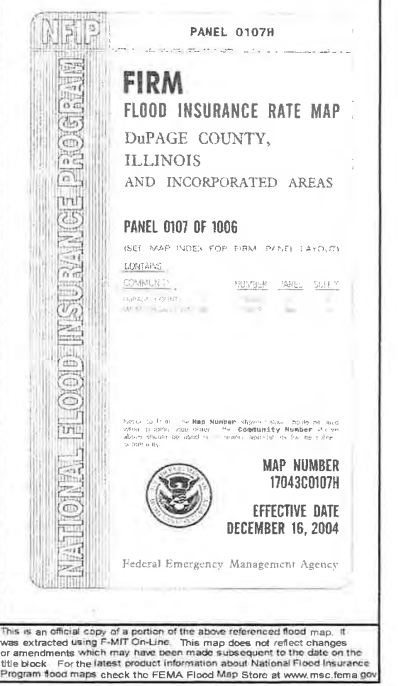
Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
3.60	26,222	753.60	0.44 ic	---	---	---	---	---	---	---	---	---	0.441
3.70	27,415	753.70	0.46 ic	---	---	---	---	---	---	---	---	---	0.461
3.80	28,608	753.80	0.48 ic	---	---	---	---	---	---	---	---	---	0.480
3.90	29,800	753.90	0.50 ic	---	---	---	---	---	---	---	---	---	0.498
4.00	30,993	754.00	0.52 ic	---	---	---	---	---	---	---	---	---	0.515
4.10	34,282	754.10	0.53 ic	---	---	---	---	---	---	---	---	---	0.532
4.20	37,572	754.20	0.55 ic	---	---	---	---	---	---	---	---	---	0.548
4.30	40,861	754.30	0.56 ic	---	---	---	---	---	---	---	---	---	0.564
4.40	44,151	754.40	0.58 ic	---	---	---	---	---	---	---	---	---	0.580
4.50	47,440	754.50	0.59 ic	---	---	---	---	---	---	---	---	---	0.595
4.60	50,729	754.60	0.61 ic	---	---	---	---	---	---	---	---	---	0.609
4.70	54,019	754.70	0.62 ic	---	---	---	---	---	---	---	---	---	0.624
4.80	57,308	754.80	0.64 ic	---	---	---	---	---	---	---	---	---	0.638
4.90	60,597	754.90	0.65 ic	---	---	---	---	---	---	---	---	---	0.651
5.00	63,887	755.00	0.66 ic	---	---	---	---	---	---	---	---	---	0.665

End







This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-2829

217/782-0610

12/28/2016

WEST DUPAGE RECYCLING AND TRANSFER INC.
KJ LOERUP
2351 POWIS ROAD
WEST CHICAGO, IL 60185

RE: FACILITY: WEST DUPAGE RECYCLING & TRANSFER WEST CHICAGO, IL
COUNTY: DU PAGE NPDES Permit No:ILR10V500
Notice of Termination Under Construction Site Activity Storm Water General Permit

Dear NPDES Permittee:

Thank you for notifying us that construction activities at the above referenced site have ceased and that final stabilization of the site has been completed. Based on your notification, we have terminated Permit Number ILR10V500 effective immediately.

If you have any questions or comments regarding the above, or if we can be of any further assistance, please contact Melissa Parrott at the above telephone number.

Very truly yours,

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

CC: Records Unit, Billing System Kane Dupage County SWCD, Region: DesPlaines

STORMWATER MANAGEMENT
DETENTION DESIGN COMPUTATIONS
FOR HOVING- WEST DUPAGE RECYCLING & TRANSFER, LLC
IN WEST CHICAGO, IL
BY
TEBRUGGE ENGINEERING
410 E. CHURCH ST. SUITE A
SANDWICH, IL

WEST DUPAGE RECYCLING IS COMPLETING SITE RENOVATIONS, BUILDING EXPANSIONS AND PARKING LOT IMPROVEMENTS FOR THEIR RECYCLING BUSINESS LOCATED AT 1655 POWIS ROAD IN WEST CHICAGO,IL. THE SITE COVERS 27.64 ACRES AND THERE CURRENTLY EXISTS A WEST AND EAST DETENTION POND. REVIEW OF THE SITE GRADES SHOWS 3.39 ACRES TRIBUTARY TO THE WEST POND AND 17.38 ACRES TRIBUTARY TO THE EAST POND. THERE IS 6.87 ACRES CONSISTING OF WETLANDS, LAND ADJACENT TO KRESS CREEK AND PORTIONS OF THE NORTH AND WEST PROPERTY WHICH DRAIN AWAY FROM THE PONDS.

WEST POND ANALYSIS: TRIBUTARTY AREA = 3.39 AC
SUMMARY OF AREAS – PAVEMENT AREA = 1.73AC & GRASS= 1.40 AC & POND = 0.26 AC

CALCULATION OF PROPOSED SITE CURVE NUMBER (CN)

IMPERVIOUS (PARKING LOT):	96 X 1.70 AC = 163.20
PERVIOUS (GREEN AREAS):	65 X 1.44 AC = 93.60
DETENTION POND :	90 X 0.25 AC = 22.50
TOTAL:	3.39 AC = 279.3

CN (WEIGHTED) = 279.3/3.39 AC. = 82.3 USE CN = 82

EAST POND ANALYSIS: TRIBUTARTY AREA = 17.38 AC
SUMMARY OF AREAS – PAVEMENT/BUILDING AREA = 8.78 AC & GRASS = 1.58 AC
POND = 3.85 AC & GRAVEL AREAS= 3.17

CALCULATION OF PROPOSED SITE CURVE NUMBER (CN)

IMPERVIOUS (BUILDING & PARKING LOT):	96 X 8.78 AC = 842.88
PERVIOUS (GREEN AREAS):	65 X 1.58 AC = 102.70
DETENTION POND :	90 X 3.85 AC = 346.50
GRAVEL AREAS :	82 X 3.17 AC = 259.94
TOTAL:	17.38 AC = 1552.02

CN (WEIGHTED) = 1552.02/17.38 AC. = 89.2 USE CN = 89

RESTRICTOR SIZING: Q = CA (2GH) 1/2

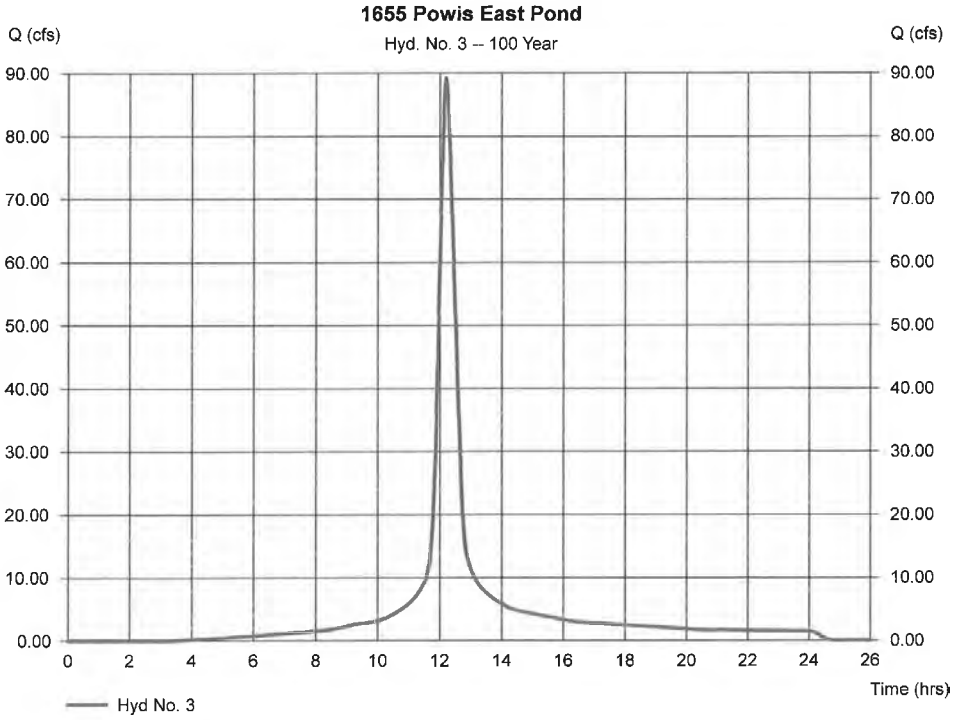
West Pond -100 yr Q allow = 0.10 * 3.39 AC. = 0.34 cfs West Pond has 4" restrictor
East Pond - 100 yr Q allow = 0.10 * 17.38 AC = 1.74 cfs East Pond has 6" restrictor -100 YR release = 1.38 cfs

Electronic Filing: Received, Clerk's Office 04/24/2023

Hyd. No. 3

1655 Powis East Pond

Hydrograph type	= SCS Runoff	Peak discharge	= 89.24 cfs
Storm frequency	= 100 yrs	Time to peak	= 732 min
Time interval	= 2 min	Hyd. volume	= 400,843 cuft
Drainage area	= 17.380 ac	Curve number	= 89
Basin Slope	= 0.8 %	Hydraulic length	= 1350 ft
Tc method	= LAG	Time of conc. (Tc)	= 33.07 min
Total precip.	= 7.58 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Electronic Filing: Received, Clerk's Office 04/25/2023

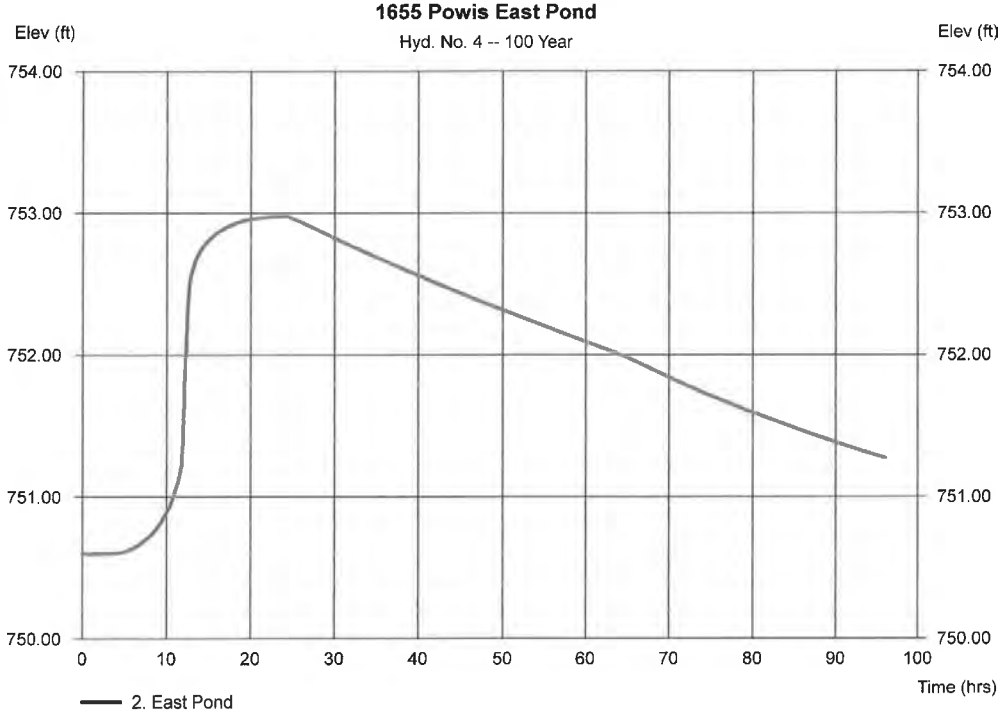
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2009 by Autodesk, Inc. v6.066 Tuesday, Nov 29, 2016

Hyd. No. 4

1655 Powis East Pond

Hydrograph type	= Reservoir	Peak discharge	= 1.378 cfs
Storm frequency	= 100 yrs	Time to peak	= 1448 min
Time interval	= 2 min	Hyd. volume	= 327,874 cuft
Inflow hyd. No.	= 3 - 1655 Powis East Pond	Max. Elevation	= 752.98 ft
Reservoir name	= East Pond	Max. Storage	= 337,312 cuft

Storage Indication method used.



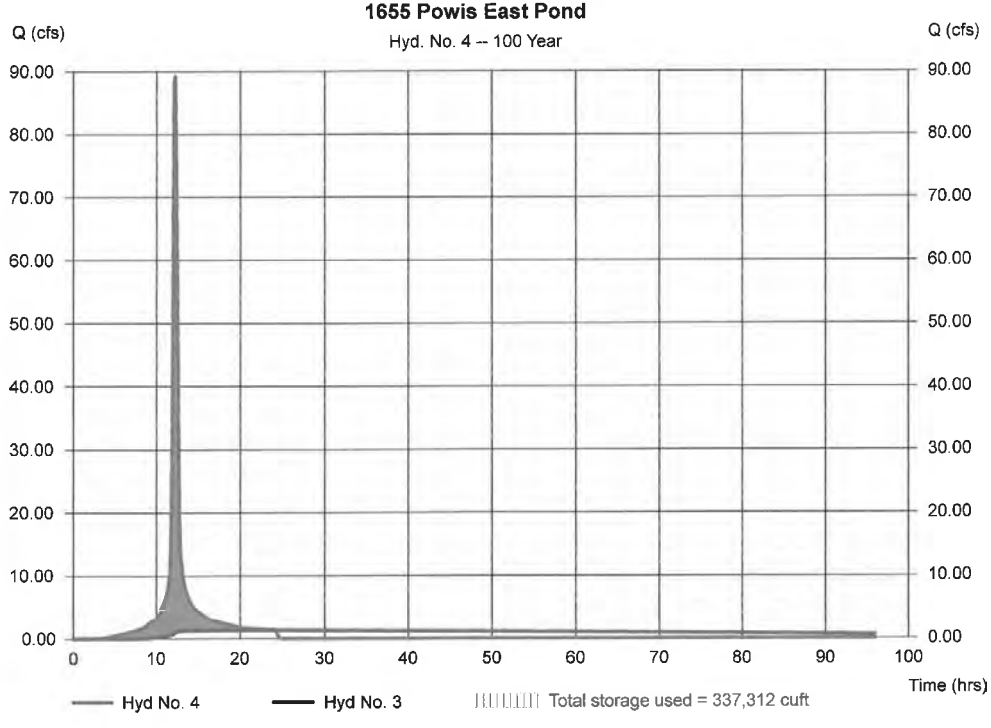
Hydrograph Report Electronic Filing: Received, Clerk's Office 04/26/2023

Hyd. No. 4

1655 Powis East Pond

Hydrograph type	= Reservoir	Peak discharge	= 1.378 cfs
Storm frequency	= 100 yrs	Time to peak	= 1448 min
Time interval	= 2 min	Hyd. volume	= 327,874 cuft
Inflow hyd. No.	= 3 - 1655 Powis East Pond	Max. Elevation	= 752.98 ft
Reservoir name	= East Pond	Max. Storage	= 337,312 cuft

Storage Indication method used.



Pond No. 2 - East Pond

Pond Data

Contours - User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 750.60 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	750.60	89,395	0	0
0.40	751.00	103,754	38,593	38,593
1.40	752.00	152,893	127,519	166,112
2.40	753.00	198,704	175,281	341,394
3.00	753.60	203,810	120,734	462,128

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 6.00	0.00	0.00	0.00
Span (in)	= 6.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 750.60	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)
TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	750.60	0.00	---	---	---	---	---	---	---	---	---	0.000
0.04	3,859	750.64	0.01 ic	---	---	---	---	---	---	---	---	---	0.005
0.08	7,719	750.68	0.02 ic	---	---	---	---	---	---	---	---	---	0.020
0.12	11,578	750.72	0.04 ic	---	---	---	---	---	---	---	---	---	0.043
0.16	15,437	750.76	0.07 ic	---	---	---	---	---	---	---	---	---	0.074
0.20	19,296	750.80	0.11 ic	---	---	---	---	---	---	---	---	---	0.112
0.24	23,156	750.84	0.16 ic	---	---	---	---	---	---	---	---	---	0.156
0.28	27,015	750.88	0.20 ic	---	---	---	---	---	---	---	---	---	0.204
0.32	30,874	750.92	0.26 ic	---	---	---	---	---	---	---	---	---	0.256
0.36	34,733	750.96	0.31 ic	---	---	---	---	---	---	---	---	---	0.309
0.40	38,593	751.00	0.36 ic	---	---	---	---	---	---	---	---	---	0.363
0.50	51,345	751.10	0.47 ic	---	---	---	---	---	---	---	---	---	0.473
0.60	64,097	751.20	0.56 ic	---	---	---	---	---	---	---	---	---	0.559
0.70	76,848	751.30	0.63 ic	---	---	---	---	---	---	---	---	---	0.634
0.80	89,600	751.40	0.70 ic	---	---	---	---	---	---	---	---	---	0.701
0.90	102,352	751.50	0.76 ic	---	---	---	---	---	---	---	---	---	0.762
1.00	115,104	751.60	0.82 ic	---	---	---	---	---	---	---	---	---	0.819
1.10	127,856	751.70	0.87 ic	---	---	---	---	---	---	---	---	---	0.871
1.20	140,608	751.80	0.92 ic	---	---	---	---	---	---	---	---	---	0.921
1.30	153,360	751.90	0.97 ic	---	---	---	---	---	---	---	---	---	0.969
1.40	166,112	752.00	1.01 ic	---	---	---	---	---	---	---	---	---	1.014
1.50	183,640	752.10	1.06 ic	---	---	---	---	---	---	---	---	---	1.057
1.60	201,168	752.20	1.10 ic	---	---	---	---	---	---	---	---	---	1.098
1.70	218,697	752.30	1.14 ic	---	---	---	---	---	---	---	---	---	1.138
1.80	236,225	752.40	1.18 ic	---	---	---	---	---	---	---	---	---	1.177
1.90	253,753	752.50	1.21 ic	---	---	---	---	---	---	---	---	---	1.214
2.00	271,281	752.60	1.25 ic	---	---	---	---	---	---	---	---	---	1.250
2.10	288,809	752.70	1.29 ic	---	---	---	---	---	---	---	---	---	1.286
2.20	306,337	752.80	1.32 ic	---	---	---	---	---	---	---	---	---	1.320
2.30	323,865	752.90	1.35 ic	---	---	---	---	---	---	---	---	---	1.353
2.40	341,394	753.00	1.39 ic	---	---	---	---	---	---	---	---	---	1.386
2.46	353,467	753.06	1.41 ic	---	---	---	---	---	---	---	---	---	1.405
2.52	365,540	753.12	1.42 ic	---	---	---	---	---	---	---	---	---	1.424
2.58	377,614	753.18	1.44 ic	---	---	---	---	---	---	---	---	---	1.443
2.64	389,687	753.24	1.46 ic	---	---	---	---	---	---	---	---	---	1.461
2.70	401,761	753.30	1.48 ic	---	---	---	---	---	---	---	---	---	1.480
2.76	413,834	753.36	1.50 ic	---	---	---	---	---	---	---	---	---	1.498

Continues on next page...

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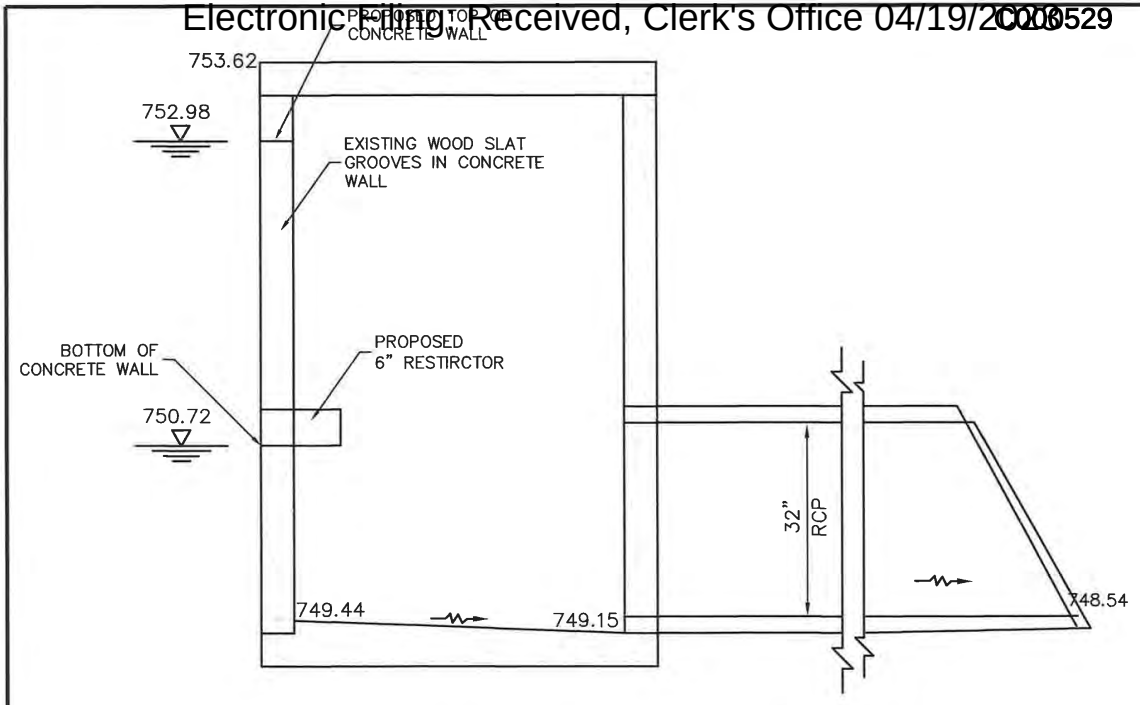
East Pond

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
2.82	425,907	753.42	1.52 ic	---	---	---	---	---	---	---	---	---	1.515
2.88	437,981	753.48	1.53 ic	---	---	---	---	---	---	---	---	---	1.533
2.94	450,054	753.54	1.55 ic	---	---	---	---	---	---	---	---	---	1.550
3.00	462,128	753.60	1.57 ic	---	---	---	---	---	---	---	---	---	1.568

...End



OUTFALL STRUCTURE WITH RESTRICTOR

N.T.S.

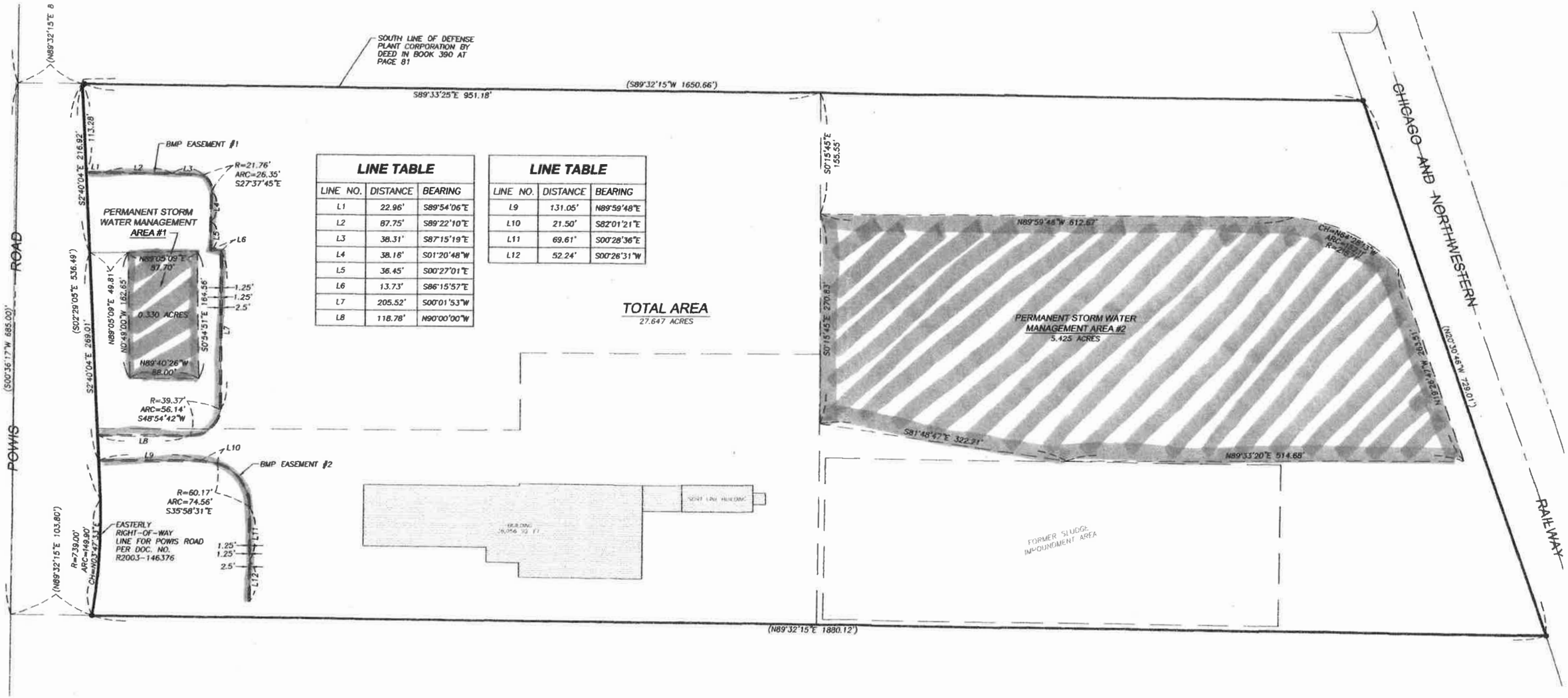
TEBRUGGE ENGINEERING
P O BOX 38, PLANO, IL 60545
PHONE: (630) 552-4390 FAX: (630) 552-4392

PREPARED FOR:

WEST DUPAGE RECYCLING & TRANSFER, INC.

1655 POWIS ROAD SITE PLAN

PROJECT NO.	**14 325 01**
SCALE:	**N.T.S.**
DATE:	**11.29.16**



LINE TABLE		
LINE NO.	DISTANCE	BEARING
L1	22.96'	S89°54'06"E
L2	87.75'	S89°22'10"E
L3	38.31'	S87°15'19"E
L4	38.16'	S01°20'48"W
L5	36.45'	S00°27'01"E
L6	13.73'	S86°15'57"E
L7	205.52'	S00°01'53"W
L8	118.78'	N90°00'00"W

LINE TABLE		
LINE NO.	DISTANCE	BEARING
L9	131.05'	N89°59'48"E
L10	21.50'	S82°01'21"E
L11	69.61'	S00°28'36"E
L12	52.24'	S00°26'31"W

TEBRUGGE ENGINEERING
P.O. BOX 38, PLANO, IL 60545
PHONE: (630) 552-4390 FAX: (630) 552-4392

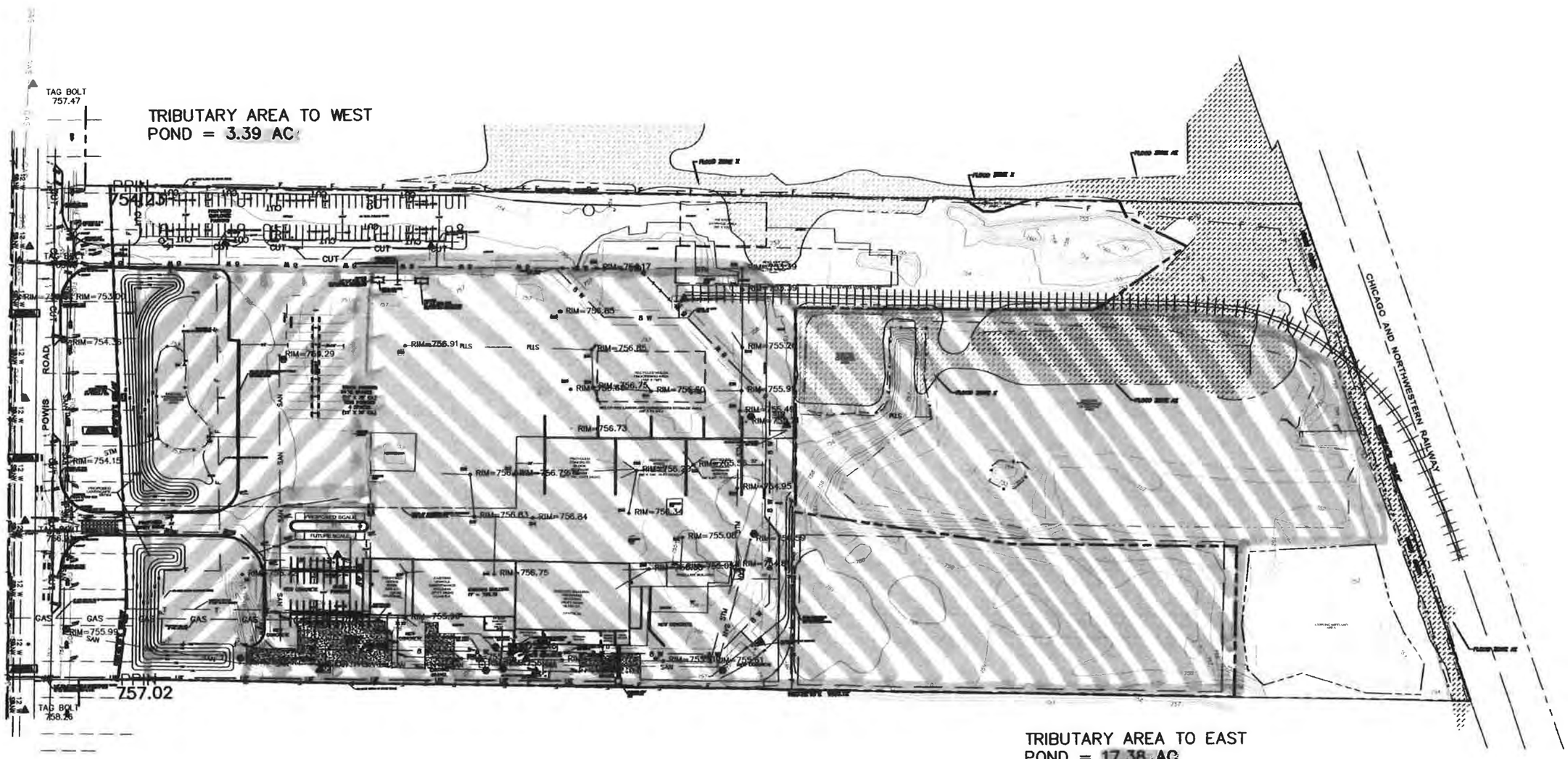
REVISIONS	NO.	DATE	NOTES

PREPARED FOR:
WESTDUPAGE RECYCLING & TRANSFER, INC.
1655 POWIS RD, WEST CHICAGO, IL

1655 POWIS ROAD CIVIL SITE PLAN
STORM WATER MANAGEMENT AREA EXHIBIT

PROJECT NO. 14 385 02
SCALE: NTS
DATE: 12/12/14

SHEET NO. 1 OF 1 SHEETS



TEBRUGGE ENGINEERING
P.O. BOX 98 PLANO, IL 60545
PHONE (630) 552-4390 FAX (630) 552-4392

REVISIONS	NO.	DATE	NOTES

PREPARED FOR:
WESTDUPAGE RECYCLING & TRANSFER, INC.
1655 POWIS RD, WEST CHICAGO, IL

1655 POWIS ROAD CIVIL SITE PLAN
TRIBUTARY AREA EXHIBIT

PROJECT NO.	14 325 02
SCALE:	1" = 150'
DATE:	12/12/16

SHEET NO. 1 OF 1 SHEETS

Electronic Filing: Received, Clerk's Office 04/19/2023

ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR
ALUM	ALUMINUM
ACT	ACOUSTICAL CEILING TILE
B/	BOTTOM OF
BLDG	BUILDING
BLK	BLOCK
BD	BOARD
CPT	CARPET
CMU	CONCRETE MASONRY UNIT
CJ	CONTROL JOINT
CG	CORNER GUARD
℄	CENTER LINE
CLG	CEILING
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CT	CERAMIC TILE
DET	DETAIL
DIA	DIAMETER
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
EF	EXHAUST FAN
EJ	EXPANSION JOINT
EL or ELEV	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
EXIST	EXISTING
FD	FLOOR DRAIN
GFI	GROUND FAULT INTERRUPTER
GYP	GYPSUM
HB	HOSE BIB
HM	HOLLOW METAL
HT	HEIGHT
INSUL	INSULATION
MIN	MINIMUM
NIC	NOT IN CONTRACT
OC	ON CENTER
OH	OVERHEAD
PL	PLATE
RM	ROOM
SS	STAINLESS STEEL
STL	STEEL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
W/	WITH
WD	WOOD

GENERAL NOTES

ANY DISCREPANCIES IN SITE CONDITIONS, FIELD MEASUREMENTS AND OR PLAN CONFIGURATIONS SHOULD BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY!

DO NOT SCALE DRAWINGS

ALL WORK PERFORMED SHALL COMPLY WITH ALL APPLICABLE LOCAL AND STATE BUILDING CODES, ORDINANCES REGULATIONS AND ALL OTHER AUTHORITIES HAVING JURISDICTION

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS ON THE JOB SITE, AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK OR BE RESPONSIBLE FOR SAME

ALL MATERIALS TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS

THE OWNER AND / OR GENERAL CONTRACTOR RECOGNIZE AND AGREE THAT THE ARCHITECT AND OR DESIGNER IS NOT TO PROVIDE ANY ON-SITE SERVICES AND WILL NOT EXERCISE ANY CONTROL, NOR PROVIDE ANY SUPERVISION OF SITE CONDITION NOR WORKING CONDITIONS OR CONSTRUCTION PRACTICES.

THESE PLANS WHERE PREPARED UNDER MY SUPERVISION AND TO THE BEST OF MY KNOWLEDGE COMPLY TO ALL APPLICABLE CODES AND ORDINANCES IN FORCE AT THE TIME PLANS WERE ISSUED.

CODES & BUILDING DATA

2009 INTERNATIONAL BUILDING CODE W/ APPENDICES F-J INCLUSIVE

2012 ILLINOIS ENERGY CONSERVATION CODE

2009 INTERNATIONAL FIRE CODE

2009 INTERNATIONAL FUEL GAS CODE

2009 INTERNATIONAL PROPERTY MAINTENANCE CODE

2009 INTERNATION MECHANICAL CODE

2008 INATIONAL ELECTRIC CODE

ILLINOIS STATE PLUMBING CODE, CURRENT EDITION

ILLINOIS ACCESSIBILITY CODE, 1997 (5 TH PRINTING)

ACTUAL AREA OFFICES = 4,974 SF
ACTUAL AREA HEATED F-1 = 11,904 SF
ACTUAL AREA NON-HEATED F-1 = 19,338 SF

TOTAL AREA = 36,216 SF

SPACE DESIGNED AS B/F-1 NON-SEPARATED USES
CONSTRUCTION TYPE 2B - NON-COMBUSTIBLE
ALLOWABLE AREA F-1 USE + SPRINKLER + OPEN AREA INCREASE = 15,500 SF X 4.75 = 73,625 SF
ALLOWABLE AREA B USE + SPRINKLER + OPEN AREA INCREASE = 23,000 SF X 4.75 = 109,250 SF

FIRST FLOOR CODE OCCUPANT LOAD
OFFICE - 4,974SF / 100 = 50 CCUPANTS
FACTORY - 31,242 SF / 200 = 157 OCCUPANTS
MEZZANINE FLOOR CODE OCCUPANT LOAD
STORAGE - 1,440 SF / 500 = 3 OCCUPANTS

FIRST FLOOR CODE PLUMBING LOAD
OFFICE - 4,974SF / 200 = 25 CCUPANTS
FACTORY - 31,242 SF / 400 = 78 OCCUPANTS
MEZZANINE FLOOR PLUMBING OCCUPANT LOAD
STORAGE - 1,440 SF / 400 = 4 OCCUPANTS

FIRST FLOOR LIVE LOADS	150 PSF LIVE LOAD
DEAD LOADS	10 PSF LIVE LOAD
MEZZANINE FLOOR LIVE LOADS	125 PSF LIVE LOAD
DEAD LOADS	20 PSF LIVE LOAD
STAIRS	100 PSF LIVE LOAD
	3,000 PSF SOIL ASSUMED

ALLOWABLE BUILDING HEIGHT - 55' + 20' (W/ SPRINKLER) = 75'
ACTUAL BUILDING HEIGHT = 48'

FIRE SUPRESSION PER NFPA 13 AND IBC CHAP 9 & IFC - BY OTHERS
FIRE ALARM PER NFPA 72 AND IBC CHAP. 9 & IFC - BY OTHERS

FIRE RATING REQUIREMENTS

PRIMARY STRUCTURAL FRAME	0 HR.
BEARING WALLS	0 HR.
FLOOR CONSTRUCTION AND SECONDARY MEMBER	0 HR
STAIRS	0 HR
ROOF CONSTRUCTION	0 HR

INTERIOR CONSTRUCTION
FLAME SPREAD RATINGS

GYPSUM BOARD WALLS - 76-200 CLASS C
CEILINGS - 76-200 CLASS C
INSULATION - 76-200 CLASS C

MIN. - MAX. R & U VALUES

EXTERIOR WALLS R-26
ROOF - R-41
EXT. METAL MAN DOORS U - .078
EXT. OVERHEAD DOORS U - .057
EXT. GLASS DOORS U .950
WINDOWS U .550

PHASE 1 & 2
NEW FACILITY FOR:
K. HOVING, INC.

1655 POWIS RD.
WEST CHICAGO, ILLINOIS

2352 POWIS RD.
WEST CHICAGO, ILLINOIS

ARCHITECT
STEVEN W. HANSEN, ARCHITECT
43W752 US HIGHWAY 30
SUGAR GROVE, ILLINOIS 60554
630.466.8021

I HEREBY CERTIFY THAT THESE CONTRACT DOCUMENTS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE MEET ALL FEDERAL, STATE, AND LOCAL CODES

I HAVE PRPEARED, OR CAUSED TO BE PREPARED UNDER MY DIRECT SUPERVISION, THE ATTACHED PLANS AND SPECIFICATIONS AND STATE THAT TO THE BEST OF MY KNOWLEGDE AND BELIEF AND TO EXTENT OF CONTRACTUAL OBLIGATION, THEY ARE IN COMPLIANCE WITH ALL APPLICABLE CODES INCLUDING THE ENVIRONMENTAL BARRIERS ACT (410 ILCS) AND THE ILLINOIS ACCESSIBILITY CODE (71 ILL. ADM. CODE 400).

SIGNED: DATE: EXP:

INDEX

CS COVER SHEET
A1.O - OVERALL 1"=20'-0" FLOOR PLAN
A1.1 - OFFICE PLAN
A1.2 - MEZZANINE PLAN
A1.3 - SHOP PLAN
A2.0 - ELEVATIONS
A3.0 - BUILDING SECTIONS
A4.0 - 1/2" = 1'-0" WALL SECTIONS
A4.2 - 1/2" = 1'-0" WALL SECTIONS
A5.0 - 3/8" = 1'-0" STAIR & TOLIET ROOM PLAN
A6.0 - ROOM FINISH , DOOR SCHEDULE AND WINDOW SCHEDULE
HC - HANDICAPPED NOTES AND DETAILS
S1.0 - FOOTING PLAN/ BEAM LAYOUT PLAN
S2.0 - SORT FLOOR STRUCTURAL PLAN
S2.1 - CONCRETE BINS PLANS
S3.0 - COLUMN & FOOTING SCHEDULES
S4.0 - RESERVED
S5.0 - RESERVED
S6.0 - STRUCTURAL NOTES
M1.0 - OFFICE HVAC LAYOUT
M2.0 - SHOP HVAC LAYOUT
M3.0 - HVAC SHCEDULE & NOTES
E1.0 - OVERALL ELECTRICAL PLAN
E1.1 - FIRST / MEZZANINE LIGHTING PLAN
E2.0 - OFFICE OPOWER PLAN
E3.0 - SHOP POWER & LIGHTING
E3.1 - TIP FLOOR POWER & LIGHTING
E4.0 - PANELS, SCHEDULES AND RISER DIAGRM
P1.0 - OVERALL FLOOR PLUMBING LAYOUT
P2.0 - PLUMBING PLANS
P3.0 - PLUMBING NOTES AND ISOMETRIC DRAWING

COPYRIGHT – STEVEN W HANSEN, ARCHITECT 2015

OWNER:
K. HOVING, INC.
2352 POWIS ROAD
WEST CHICAGO, ILLINOIS

NEW FACILITY FOR:
K. HOVING, INC.
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

STEVEN W. HANSEN
ARCHITECT
43W752 US HWY 30 IL.
SUGAR GROVE, IL 60554
630.466.8021

#	DATE	DESCRIPTION
1	6/1/2015	FINAL REVIEW
2	6/5/2015	PERMITS
3	6/28/2015	PHASE 2 CONTRUCTION REVISIONS

PROJECT NO. 2415

CS

L.R.S. - WEST CHICAGO

55°/ CLOUDY

11/010/19

1163-899 TIE - CONTROL TO DUPAGE CO. BM

STA	BS	HI	FS	ELEV
WC105				757.10
	3.98			
		761.08		
CP 4			5.77	755.31
	5.62			
		760.93		
WC105			3.83	757.10

T SCM / 1CGR

- DISK IN CONC. @ NE CORNER OF POWIS RD. & POWIS COURT

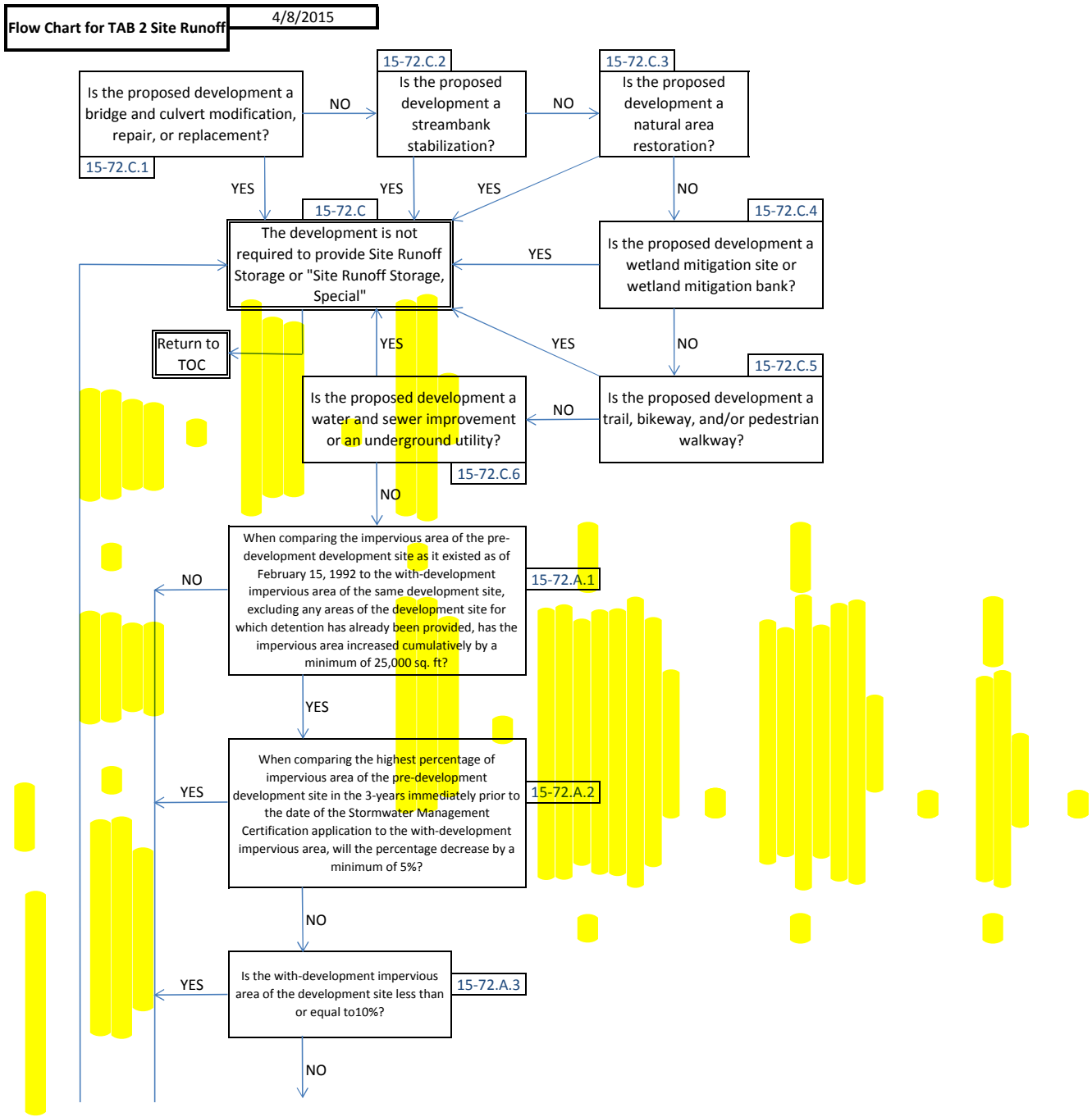
- IRON ROD SET ON W. SIDE OF POWIS RD +/- 100' NORTH OF FIRE HYDRANT OPPOSITE N. ENTRANCE DRIVE TO L.R.S. + 1/2 12' WEST of Edge of PAV.

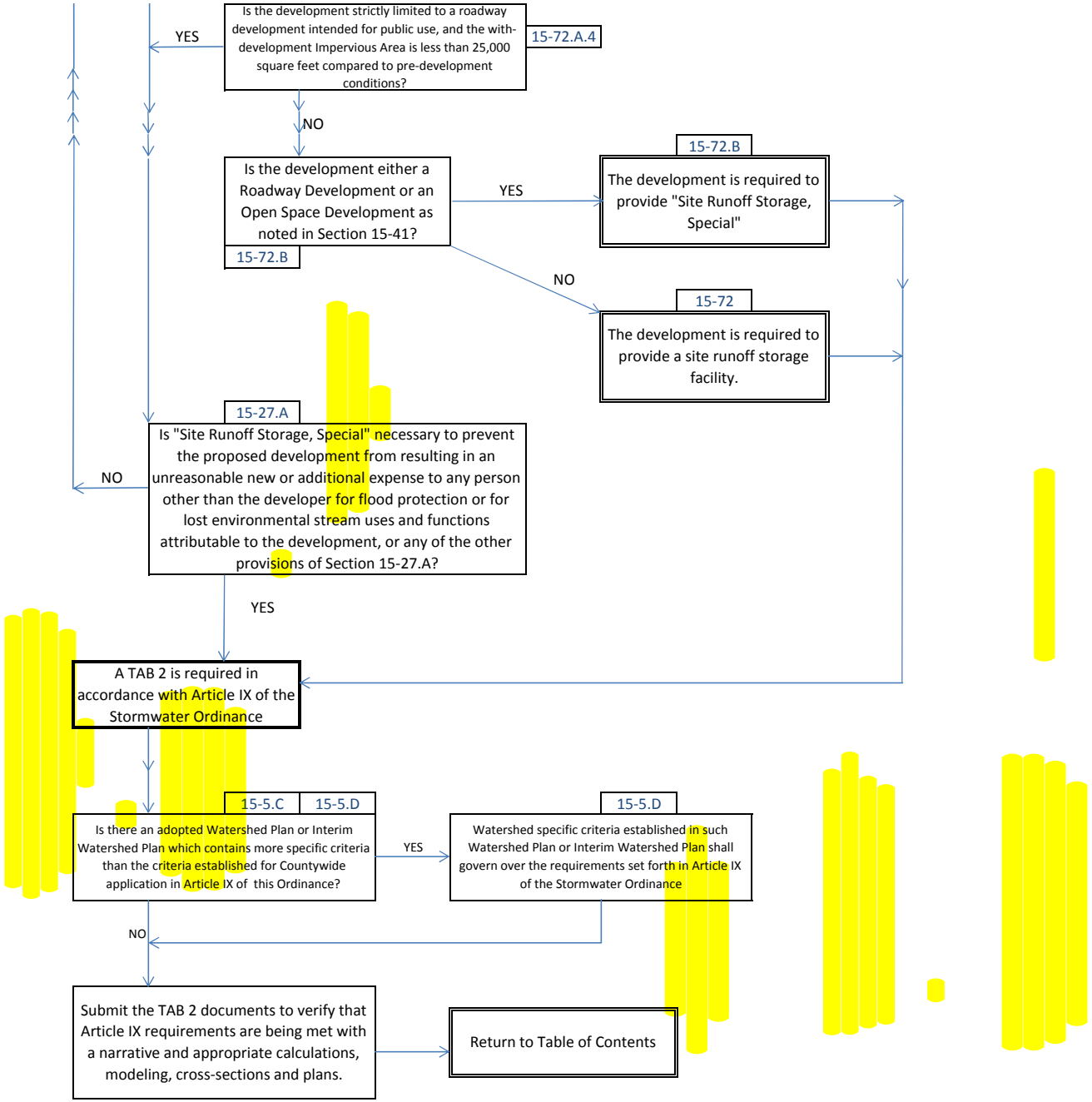
PROFESSIONAL LAND SURVEYOR
DOUGLAS R. McCLINTIC
035-002992
NAPERVILLE
ILLINOIS
STATE OF ILLINOIS

35-002992

TAB 2

SITE RUNOFF STORAGE


Flow Chart for TAB 2 Site Runoff
4/8/2015
Is the proposed development a bridge and culvert modification, repair, or replacement?
15-72.C.1
NO
15-72.C.2
Is the proposed development a streambank stabilization?
NO
15-72.C.3
Is the proposed development a natural area restoration?
YES
YES
YES
NO
15-72.C
The development is not required to provide Site Runoff Storage or "Site Runoff Storage, Special"
YES
15-72.C.4
Is the proposed development a wetland mitigation site or wetland mitigation bank?
Return to TOC
YES
YES
NO
15-72.C.5
Is the proposed development a water and sewer improvement or an underground utility?
NO
Is the proposed development a trail, bikeway, and/or pedestrian walkway?
15-72.C.6
NO
When comparing the impervious area of the pre-development development site as it existed as of February 15, 1992 to the with-development impervious area of the same development site, excluding any areas of the development site for which detention has already been provided, has the impervious area increased cumulatively by a minimum of 25,000 sq. ft?
15-72.A.1
NO
YES
When comparing the highest percentage of impervious area of the pre-development development site in the 3-years immediately prior to the date of the Stormwater Management Certification application to the with-development impervious area, will the percentage decrease by a minimum of 5%?
15-72.A.2
YES
NO
Is the with-development impervious area of the development site less than or equal to10%?
15-72.A.3
YES
NO


Is the development strictly limited to a roadway development intended for public use, and the with-development Impervious Area is less than 25,000 square feet compared to pre-development conditions?
15-72.A.4
YES
NO
Is the development either a Roadway Development or an Open Space Development as noted in Section 15-41?
15-72.B
YES
15-72.B
The development is required to provide "Site Runoff Storage, Special"
NO
15-72
The development is required to provide a site runoff storage facility.
15-27.A
Is "Site Runoff Storage, Special" necessary to prevent the proposed development from resulting in an unreasonable new or additional expense to any person other than the developer for flood protection or for lost environmental stream uses and functions attributable to the development, or any of the other provisions of Section 15-27.A?
NO
YES
A TAB 2 is required in accordance with Article IX of the Stormwater Ordinance
15-5.C
15-5.D
Is there an adopted Watershed Plan or Interim Watershed Plan which contains more specific criteria than the criteria established for Countywide application in Article IX of this Ordinance?
YES
15-5.D
Watershed specific criteria established in such Watershed Plan or Interim Watershed Plan shall govern over the requirements set forth in Article IX of the Stormwater Ordinance
NO
Submit the TAB 2 documents to verify that Article IX requirements are being met with a narrative and appropriate calculations, modeling, cross-sections and plans.
Return to Table of Contents

TAB 2. SITE RUNOFF STORAGE

Site runoff storage is required by DuPage County for developments with a net new impervious area of 25,000 square feet or greater. Site runoff storage facilities consist of the east and west detention ponds, each including a restrictor structure with an emergency overflow.

The maximum allowable release rate, as defined in the Ordinance, is equal to 0.10 cubic feet per second (cfs) multiplied by the number of acres disturbed by the development. As communicated in Tab 1, our approach to the analysis assumed all upstream tributary to the ponds was "disturbed." The design rainfall depth and duration is the 100-year, 24-hour duration ISWS Bulletin 71 rainfall depth. Details and exceptions to site runoff storage requirements are in Article IX of the Ordinance.

The following items are being submitted to demonstrate and support that the application for certification is in compliance with the Ordinance:

- A scaled plan or plans illustrating the major and minor conveyance system, including the size, type, length, and inverts of conveyance structures including drainage pipes, culverts, manholes, catch basins, inlets, and drain tiles. **Provided on Drawing C100 of the Plan Set in Tab 8, Attachment 8-1.**
- A scaled exhibit illustrating the existing impervious area of the site prior to the certification along with a calculation of the percentage of the site that is impervious. **Provided as Figure 2-1, Stormwater Facilities Map.**
- A scaled exhibit illustrating the proposed impervious surfaces of the development. **Provided on Drawings C200 to C202 of the Plan Set in Tab 8, Attachment 8-1.**
- Calculations of the percentage of impervious surfaces after complete construction of the proposed development. **Provided on Figure 2-1, Stormwater Facilities Map.**
- Scaled plans illustrating the location of and details for site runoff storage. **Provided on Figure 2-1, Stormwater Facilities Map.**
- Calculations that establish the required site runoff storage volume along with calculations confirming that the proposed plan achieves either the site runoff storage or the modified site runoff storage. **Provided as Attachment 2-1.**
- When site runoff storage special is required, calculations that demonstrate the specified post-development discharges have not exceeded the predevelopment values. **This part is not applicable to the proposed development project.**

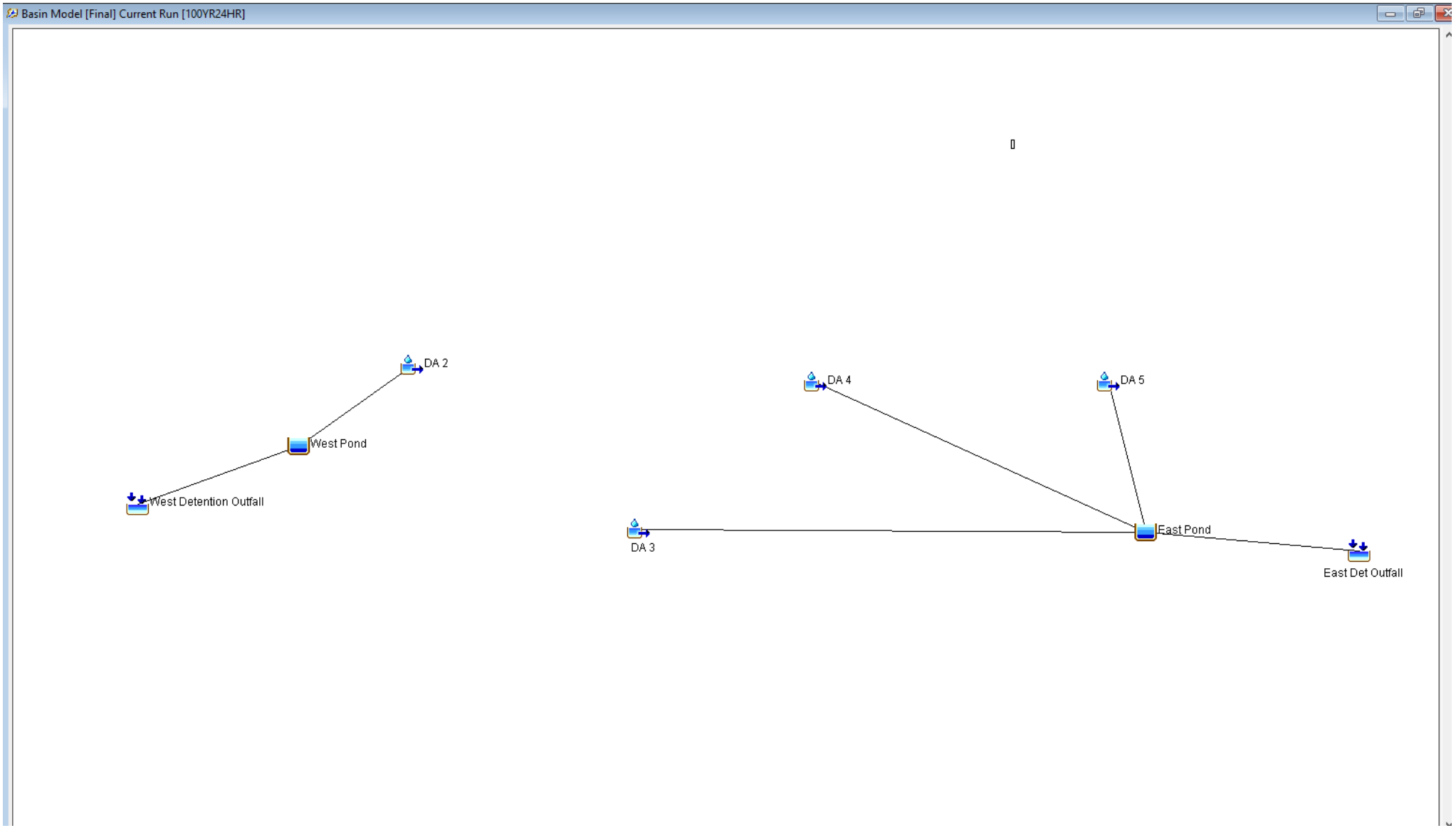
Both ponds will be expanded based on the analyses, and a new restrictor will be added to each. The east pond will include a dual stage restrictor & weir which provides both the required volume control storage (with release over 48 – 96 hours) as well as the 100-year release rate restrictor. The 100-year release rate restrictor was sized assumed free release from the pond; however, the detention pond volume was determined assuming Kress Creek as at 100-year flood stage (i.e. tailwater condition).

Due to the addition of increased restriction (as compared to existing condition), post-development discharges are decreased for both ponds as compared to pre-development. The design normal water level, high water level, volume, and other design details for each pond are provided in the project drawings (Attachment 8-1) and within the calculation summary (Attachment 2-1).

ATTACHMENT 2-1

SITE RUNOFF STORAGE CALCULATIONS

Model Diagram - HEC-HMS
24-hr, 100-yr event



Runoff Curve Number

Project: LRS West Chicago By: CAC Date: 4/11/2019
Location: 1655 Powis Rd Checked: DAK Date: 5/1/2019
File: Curve_Number.xlsx

Circle One: Present (Developed) Description: Proposed - Full Site

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	7.46	552.04
C	Impervious Area - Building	98	15.92	1560.16
C	Impervious Area - Open Water	100	4.37	437
		Totals =	27.75	2549.2
			0.04336 sq.mi	

CN (weighted) = $\frac{\text{total product}}{\text{total area}} = \frac{2549.2}{27.75} =$ 91.863

Use CN = **92**

Runoff Curve Number

Project: LRS West Chicago By: CAC Date: 4/11/2019
Location: 1655 Powis Rd Checked: DAK Date: 5/1/2019
File: Curve_Number.xlsx

Circle One: Present (Developed) Description: Proposed Drainage Area - 1

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	0.76	56.24
C	Impervious Area - Parking	98	0.11	10.78
		Totals =	0.87	67.02
			0.00136 sq.mi	

CN (weighted) = $\frac{\text{total product}}{\text{total area}} = \frac{67.02}{0.87} =$ 77.034

Use CN = **77**

Runoff Curve Number

Project: LRS West Chicago By: CAC Date: 4/10/2019
Location: 1655 Powis Rd Checked: DAK Date: 5/1/2019
File: Curve_Number.xlsx

Circle One: Present (Developed) Description: Proposed Drainage Area - 2

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	0.70	51.8
C	Impervious Area - Parking	98	1.49	146.02
C	Impervious Area - Water	100	0.27	27
		Totals =	2.46	224.82
			0.00384 sq.mi	

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{224.82}{2.46} = 91.39$$

Use CN = **91**

Runoff Curve Number

Project: LRS West Chicago By: CAC Date: 4/11/2019
Location: 1655 Powis Rd Checked: DAK Date: 5/1/2019
File: Curve_Number.xlsx

Circle One: Present (Developed) Description: Proposed Drainage Area - 3

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	0.67	49.58
C	Impervious Area - Pavement/Buildings	98	9.69	949.62
C	Impervious Area - Open Water	100	0.00	0
		Totals =	10.36	999.2
			0.01619 sq.mi	

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{999.2}{10.36} = 96.448$$

Use CN = **96**

Runoff Curve Number

Project: LRS West Chicago By: CAC Date: 4/11/2019
Location: 1655 Powis Rd Checked: DAK Date: 5/1/2019
File: Curve_Number.xlsx

Circle One: Present (Developed) Description: Proposed Drainage Area - 4

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	0.30	22.2
C	Impervious Area - Parking/Building	98	1.62	158.76
		Totals =	1.92	180.96
			0.00300 sq.mi	

CN (weighted) = $\frac{\text{total product}}{\text{total area}} = \frac{180.96}{1.92} =$ 94.25

Use CN = **94**

Runoff Curve Number

Project: LRS West Chicago By: CAC Date: 4/11/2019
Location: 1655 Powis Rd Checked: DAK Date: 5/1/2019
File: Curve_Number.xlsx

Circle One: Present (Developed) Description: Proposed Drainage Area - 5

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	2.83	209.42
C	Impervious Area - Pavement	98	2.99	293.02
	Impervious Area - Water	100	4.10	410
		Totals =	9.92	912.44
			0.01550 sq.mi	

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{912.44}{9.92} = 91.98$$

Use CN = **92**

Runoff Curve Number

Project: LRS West Chicago By: CAC Date: 4/11/2019
Location: 1655 Powis Rd Checked: DAK Date: 5/1/2019
File: Curve_Number.xlsx

Circle One: Present (Developed) Description: Proposed Drainage Area - 6

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	0.32	23.68
C	Impervious Area - Pavement	98	0.02	1.96
		Totals =	0.34	25.64
			0.00053 sq.mi	

CN (weighted) = $\frac{\text{total product}}{\text{total area}} = \frac{25.64}{0.34} =$ 75.412

Use CN = **75**

Runoff Curve Number

Project: LRS West Chicago By: CAC Date: 4/10/2019
Location: 1655 Powis Rd Checked: DAK Date: 5/1/2019
File: Curve_Number.xlsx

Circle One: Present (Developed) Description: Proposed Drainage Area - 7

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	1.63	120.62
C				
		Totals =	1.63	120.62
			0.00255 sq.mi	

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{120.62}{1.63} = 74$$

Use CN = **74**

Runoff Curve Number

Project: LRS West Chicago By: CAC Date: 4/11/2019
Location: 1655 Powis Rd Checked: DAK Date: 5/1/2019
File: Curve_Number.xlsx

Circle One: Present (Developed) Description: Proposed Drainage Area - 8

Soil Name and Hydrologic Group (Appendix A)	Cover Description (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	Curve Number	Area [X] acres [ ] sq. mi. [ ] %	Product of Curve Number and Area
C	Pervious Area - Open Space, Good Condition	74	0.25	18.5
		Totals =	0.25	18.5
			0.00039 sq.mi	

$$\text{CN (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{18.5}{0.25} = 74$$

Use CN = **74**

Attachment 2 - Time of Concentration

LRS - West Chicago

West Chicago, DuPage County, Illinois

CEC Project 163-899

Project:	LRS - West Chicago	Made By:	CAC	Date:	4/12/2019
Location:	1655 Powis Road, West Chicago, IL	Checked By:	DAK	Date:	5/1/2019
Watershed Location:	West Pond Tributaries				
Site Condition:	Proposed				
Drainage Area ID:	2				

SHEET FLOW

		Segment ID	AB				
Surface Description (Table 3-1)			Smooth Surface				
Manning's roughness coeff., n			0.011				
Flow Length, L (total L ≤ 100')	(ft)		100				
Two-yr 24-hr rainfall, P2	(in)		3.04				
Land slope, s	(ft/ft)		0.01				
$T_t = (0.007(nL)^{0.8})/(P_2^{0.5} s^{0.4})$	(hr)		0.03	+		=	0.03 hr

SHALLOW CONCENTRATED FLOW

		Segment ID	BC	CD		
Surface Description (paved or unpaved)			paved	unp.		
Flow Length, L	(ft)		95	37		
Watercourse slope, s	(ft/ft)		0.016	0.02		
Average velocity, V	(ft/s)		2.57	2.28		
$T_t = L / 3600 V$	(hr)		0.01	0.00	=	0.01 hr

CHANNEL FLOW

		Segment ID				
Cross-sectional flow area, a	(ft^2)					
Wetted perimeter, Pw	(ft)					
Hydraulic radius, r = a/Pw	(ft)					
Channel slope, s	(ft/ft)					
Manning's roughness coeff., n						
$V = (1.49 r^{0.667} s^{0.5}) / n$	(ft/s)					
Flow length, L	(ft)					
$T_t = L / 3600 V$	(hr)				=	0 hr

Watershed or subarea T_c or T_t = 0.04 hr

Attachment 2-1: Stage Storage Discharge
LRS - West Chicago
West Chicago, DuPage County, Illinois
CEC Project 163-899

Project: LRS - West Chicago
Location: 1655 Powis Road, West Chicago, IL
Watershed Location: West Pond Tributaries
Site Condition: Proposed

Made By: CAC Date: 4/12/2019
Checked By: DAK Date: 5/1/2019

Contour (feet)	Area (acre)	Storage Volume (acre-feet)	Cumulative Storage Volume (acre-feet)	Area (square miles)
752.00	0.23	0.00	0.00	0.000
753.00	0.39	0.31	0.31	0.001
754.00	0.470	0.43	0.74	0.001
755.00	1.184	0.83	1.57	0.002

NOTES:
1. Acre-feet of storage per contour interval approximated by multiplying the average contour acreage between the interval, times contour depth.
2. Tributary area to West Pond is 2.52 acres, therefore, allowable release shall not exceed 0.252 cfs.

Attachment 2 - Time of Concentration

LRS - West Chicago

West Chicago, DuPage County, Illinois

CEC Project 163-899

Project:	LRS - West Chicago	Made By:	CAC	Date:	4/25/2019
Location:	1655 Powis Road, West Chicago, IL	Checked By:	DAK	Date:	5/1/2019
Watershed Location:	East Pond Tributaries				
Site Condition:	Proposed				
Drainage Area ID:	3				

SHEET FLOW

		Segment ID					
Surface Description (Table 3-1)		AB					
Manning's roughness coeff., n		Smooth Surface					
Flow Length, L (total L ≤ 100')	(ft)	0.011					
Two-yr 24-hr rainfall, P2	(in)	88.6					
Land slope, s	(ft/ft)	3.04					
$T_t = (0.007(nL)^{0.8})/(P_2^{0.5} s^{0.4})$	(hr)	0.01					
		0.02	+		=	0.02	hr

SHALLOW CONCENTRATED FLOW

		Segment ID					
Surface Description (paved or unpaved)		BC					
Flow Length, L	(ft)	paved					
Watercourse slope, s	(ft/ft)	1352.4					
Average velocity, V	(ft/s)	0.0025					
$T_t = L / 3600 V$	(hr)	1.02					
		0.37			=	0.37	hr

CHANNEL FLOW

		Segment ID					
Cross-sectional flow area, a	(ft^2)						
Wetted perimeter, Pw	(ft)						
Hydraulic radius, r = a/Pw	(ft)						
Channel slope, s	(ft/ft)						
Manning's roughness coeff., n							
$V = (1.49 r^{0.667} s^{0.5}) / n$	(ft/s)						
Flow length, L	(ft)						
$T_t = L / 3600 V$	(hr)						
					=	0	hr

Watershed or subarea T_c or T_t = 0.39 hr

Attachment 2 - Time of Concentration

LRS - West Chicago

West Chicago, DuPage County, Illinois

CEC Project 163-899

Project:	LRS - West Chicago	Made By:	CAC	Date:	4/25/2019
Location:	1655 Powis Road, West Chicago, IL	Checked By:	DAK	Date:	5/1/2019
Watershed Location:	East Pond Tributaries				
Site Condition:	Proposed				
Drainage Area ID:	4				

SHEET FLOW

		Segment ID	AB				
Surface Description (Table 3-1)			Smooth Surface				
Manning's roughness coeff., n			0.011				
Flow Length, L (total L ≤ 100')	(ft)		100				
Two-yr 24-hr rainfall, P2	(in)		3.04				
Land slope, s	(ft/ft)		0.007				
$T_t = (0.007(nL)^{0.8})/(P_2^{0.5} s^{0.4})$	(hr)		0.03	+		=	0.03 hr

SHALLOW CONCENTRATED FLOW

		Segment ID	BC	CD		
Surface Description (paved or unpaved)			paved	paved		
Flow Length, L	(ft)		214	691.75		
Watercourse slope, s	(ft/ft)		0.003	0.00		
Average velocity, V	(ft/s)		1.11	0.91		
$T_t = L / 3600 V$	(hr)		0.05	0.21	=	0.26 hr

CHANNEL FLOW

		Segment ID				
Cross-sectional flow area, a	(ft^2)					
Wetted perimeter, Pw	(ft)					
Hydraulic radius, r = a/Pw	(ft)					
Channel slope, s	(ft/ft)					
Manning's roughness coeff., n						
$V = (1.49 r^{0.667} s^{0.5}) / n$	(ft/s)					
Flow length, L	(ft)					
$T_t = L / 3600 V$	(hr)				=	0 hr

Watershed or subarea T_c or T_t = 0.29 hr

Attachment 2 - Time of Concentration

LRS - West Chicago

West Chicago, DuPage County, Illinois

CEC Project 163-899

Project:	LRS - West Chicago	Made By:	CAC	Date:	4/25/2019
Location:	1655 Powis Road, West Chicago, IL	Checked By:	DAK	Date:	5/1/2019
Watershed Location:	East Pond Tributaries				
Site Condition:	Proposed				
Drainage Area ID:	5				

SHEET FLOW

		Segment ID	AB				
Surface Description (Table 3-1)			Smooth Surface				
Manning's roughness coeff., n			0.011				
Flow Length, L (total L ≤ 100')	(ft)		100				
Two-yr 24-hr rainfall, P2	(in)		3.04				
Land slope, s	(ft/ft)		0.01				
$T_t = (0.007(nL)^{0.8})/(P_2^{0.5} s^{0.4})$	(hr)		0.03	+		=	0.03 hr

SHALLOW CONCENTRATED FLOW

		Segment ID	BC		CD		
Surface Description (paved or unpaved)			paved		unp.		
Flow Length, L	(ft)		119.25		74		
Watercourse slope, s	(ft/ft)		0.014		0.18		
Average velocity, V	(ft/s)		2.41		6.85		
$T_t = L / 3600 V$	(hr)		0.01		0.00	=	0.01 hr

CHANNEL FLOW

		Segment ID					
Cross-sectional flow area, a	(ft^2)						
Wetted perimeter, Pw	(ft)						
Hydraulic radius, r = a/Pw	(ft)						
Channel slope, s	(ft/ft)						
Manning's roughness coeff., n							
$V = (1.49 r^{0.667} s^{0.5}) / n$	(ft/s)						
Flow length, L	(ft)						
$T_t = L / 3600 V$	(hr)					=	0 hr

Watershed or subarea T_c or T_t = 0.04 hr

Attachment 2-1: Stage-Storage-Discharge
LRS - West Chicago
West Chicago, DuPage County, Illinois
CEC Project 163-899

Project: LRS - West Chicago
Location: 1655 Powis Road, West Chicago, IL
Watershed Location: East Pond Tributaries
Site Condition: Proposed - tailwater and no tailwater condition

Made By: MMK Date: 11/6/2019
Checked By: DAK Date: 11/6/2019

Stage - Storage - Discharge East Table - TAILWATER AND NO TAILWATER CONDITION FOR DETENTION SIZING

Contour (feet)	Area (acre)	Storage Volume (acre-feet)[1]	Cumulative Storage Volume (acre-feet)	Area (square miles)	Discharge - No Tailwater (cfs)	Discharge - With Tailwater (cfs)	
749.50	3.58	0.00	0.00	0.006	0.00	0.0	
750.00	3.75	1.83	1.83	0.006	0.62	0.0	
751.00	3.92	3.84	5.67	0.006	1.50	0.0	
752.00	4.10	4.01	9.68	0.006	2.02	0.0	*2.23 cfs at 752.47 elevation (no tailwater condition)
753.00	4.69	8.61	14.28	0.007	--	1.18	
754.00	4.97	4.83	19.11	0.008	--	1.81	*1.89 cfs at 754.16 (tailwater conditions)
755.00	5.25	5.11	24.22	0.008	--	--	*see note 3
755.10	5.30	5.65	24.76	0.008	--	--	*see note 3

NOTES:
1. Acre-feet of storage per contour interval approximated by multiplying the average contour acreage between the interval, times contour depth.
2. Tributary area to East Pond is 22.47 acres, therefore, allowable release shall not exceed 2.247 cfs.
3. 100-year high water level is dictated by tailwater condition model and is 754.16. There is no release above 754.16 for the 100-year tailwater model condition

Electronic Filing: Received, Clerk's Office 04/19/2023

LRS - West Chicago
West Chicago, DuPage County, Illinois
CEC Project 163-899

PROPOSED CONDITIONS
ORIFICE/WEIR STRUCTURE RATING ANALYSIS

PROJECT NAME: LRS West Chicago
PROJ. NO.: 163-899
DESCRIPTION: West Pond
FILENAME: Orifice.xlsx
DATE: 23-Apr-19

OUTLET:

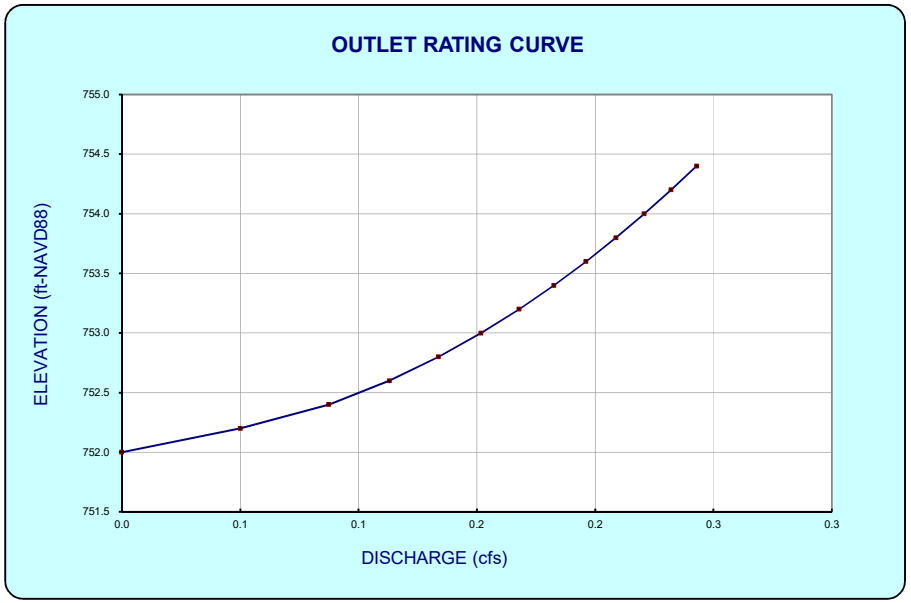
ORIFICE:	2.45	IN. DIA. @ ELEV	752	
WEIR:	5	FEET WIDE @ ELEV	754.7	

ORIFICE FLOW EQUATION: $Q = C_d A(2gH)^{0.5}$

WEIR FLOW EQUATION: $Q = 3.0L(H)^{1.5}$

HYDRAULIC DIMENSIONS

	# 1
ORIFICE AREA (ft^2)	0.0327
ORIFICE DIAMETER (in)	2.45
ORIFICE DISCHARGE COEFFICIENT	0.61
ORIFICE ELEV. (ft-NAVD88)	752.00
TAILWATER OR CENTROID (ft-NAVD88)	752.102
WEIR LENGTH (ft)	5.00
WEIR COEFFICIENT	3.0
WEIR ELEV. (ft-NAVD88)	754.7



ELEVATION-DISCHARGE RELATIONSHIP

Elevation (feet)	Q-Orifice (cfs)	Q-Weir (cfs)	Q-Total (cfs)
752.0	0.00	0.00	0.00
752.2	0.05	0.00	0.05
752.4	0.09	0.00	0.09
752.6	0.11	0.00	0.11
752.8	0.13	0.00	0.13
753.0	0.15	0.00	0.15
753.2	0.17	0.00	0.17
753.4	0.18	0.00	0.18
753.6	0.20	0.00	0.20
753.8	0.21	0.00	0.21
754.0	0.22	0.00	0.22
754.2	0.23	0.00	0.23
754.4	0.24	0.00	0.24
754.6	0.25	0.00	0.25
754.8	0.26	0.47	0.74
755.0	0.27	2.46	2.74
755.2	0.28	5.30	5.59

Electronic Filing: Received, Clerk's Office 04/19/2023

C000557

West Chicago, DuPage County, Illinois
CEC Project 163-899

PROPOSED CONDITIONS
ORIFICE/WEIR STRUCTURE RATING ANALYSIS

PROJECT NAME: LRS West Chicago
PROJ. NO.: 163-899
DESCRIPTION: East Pond
FILENAME: Orifice.xlsx
DATE: 24-Sep-19

OUTLET:

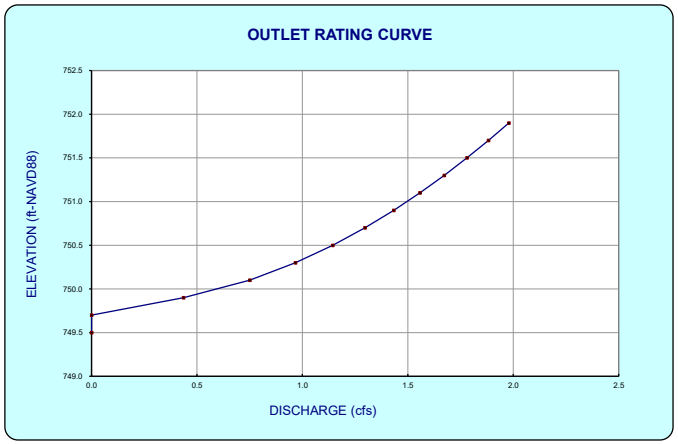
ORIFICE:	7.15	IN. DIA. @ ELEV	749.5
WEIR:	5	FEET WIDE @ ELEV	755.1

ORIFICE FLOW EQUATION: $Q = C_d A(2gH)^{0.5}$

WEIR FLOW EQUATION: $Q = 3.0L(H)^{1.5}$

HYDRAULIC DIMENSIONS

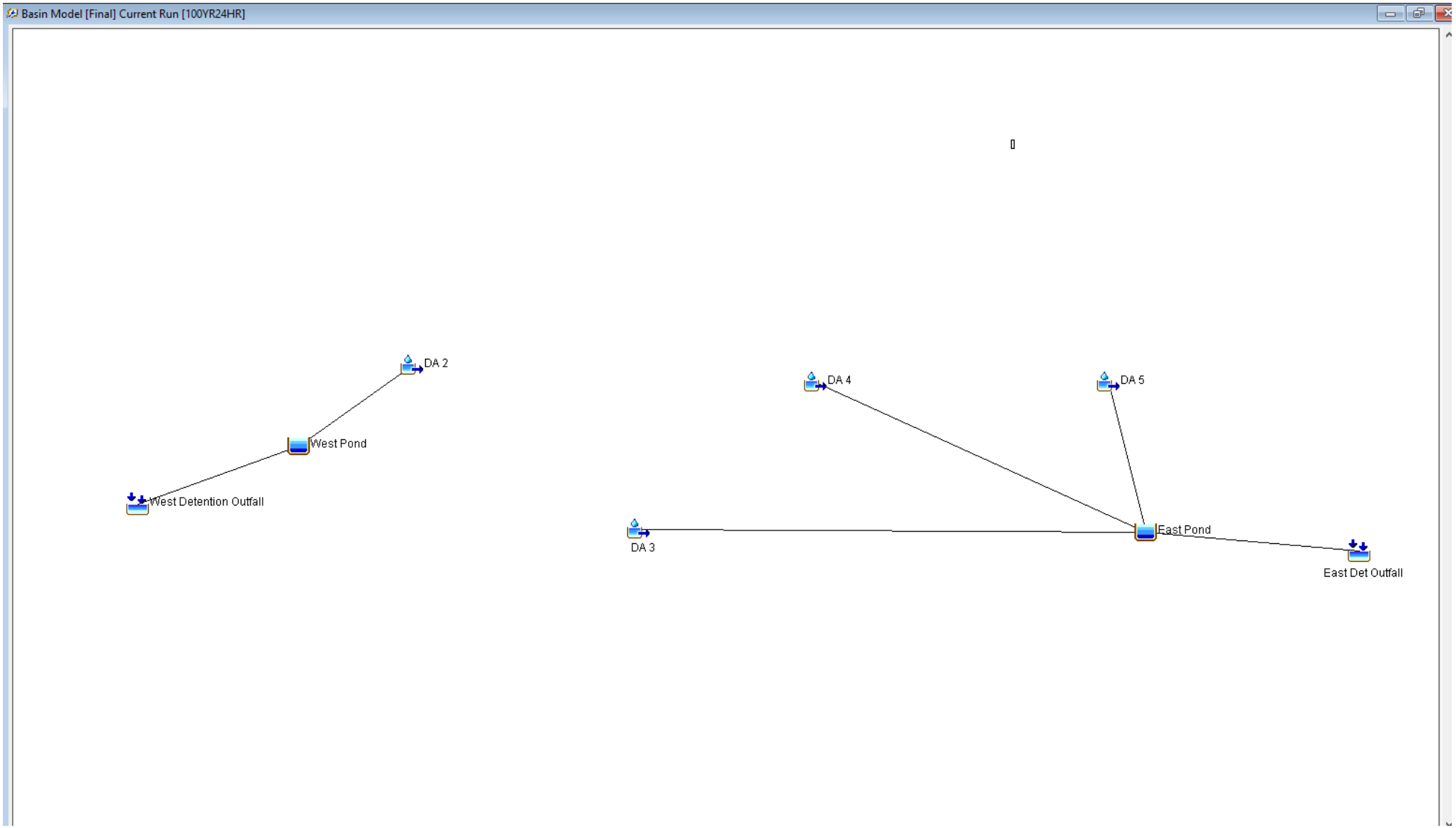
	# 1
ORIFICE AREA (ft^2)	0.2788
ORIFICE DIAMETER (in)	7.15
ORIFICE DISCHARGE COEFFICIENT	0.61
ORIFICE ELEV. (ft-NAVD88)	749.50
TAILWATER OR CENTROID (ft-NAVD88)	749.798
WEIR LENGTH (ft)	5.00
WEIR COEFFICIENT	3.0
WEIR ELEV. (ft-NAVD88)	755.1



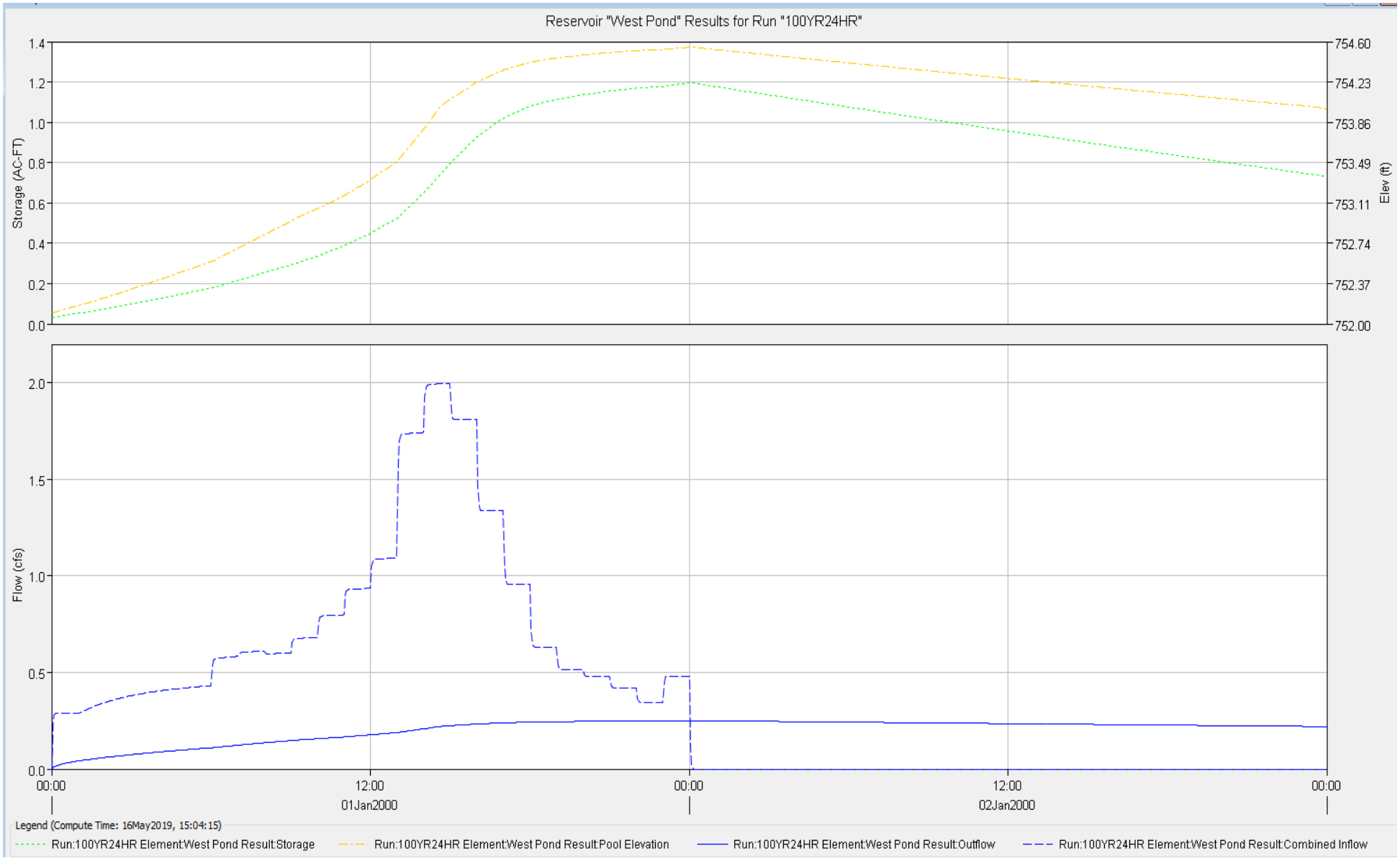
ELEVATION-DISCHARGE RELATIONSHIP

Elevation (feet)	Q-Orifice (cfs)	Q-Weir (cfs)	Q-Total (cfs)
749.5	0.00	0.00	0.00
749.7	0.00	0.00	0.00
749.9	0.44	0.00	0.44
750.1	0.75	0.00	0.75
750.3	0.97	0.00	0.97
750.5	1.14	0.00	1.14
750.7	1.30	0.00	1.30
750.9	1.43	0.00	1.43
751.1	1.56	0.00	1.56
751.3	1.67	0.00	1.67
751.5	1.78	0.00	1.78
751.7	1.88	0.00	1.88
751.9	1.98	0.00	1.98
752.1	2.07	0.00	2.07
752.3	2.16	0.00	2.16
752.5	2.24	0.00	2.24
752.7	2.33	0.00	2.33
752.9	2.40	0.00	2.40
753.1	2.48	0.00	2.48
753.3	2.55	0.00	2.55
753.5	2.63	0.00	2.63
753.7	2.70	0.00	2.70
753.9	2.76	0.00	2.76
754.1	2.83	0.00	2.83
754.3	2.90	0.00	2.90
754.5	2.96	0.00	2.96
754.7	3.02	0.00	3.02
754.9	3.08	0.00	3.08
755.1	3.14	0.00	3.14
755.3	3.20	1.34	4.54
755.5	3.26	3.79	7.05
755.7	3.32	6.97	10.29
755.9	3.37	10.73	14.10
756.1	3.43	15.00	18.43
756.3	3.48	19.72	23.20

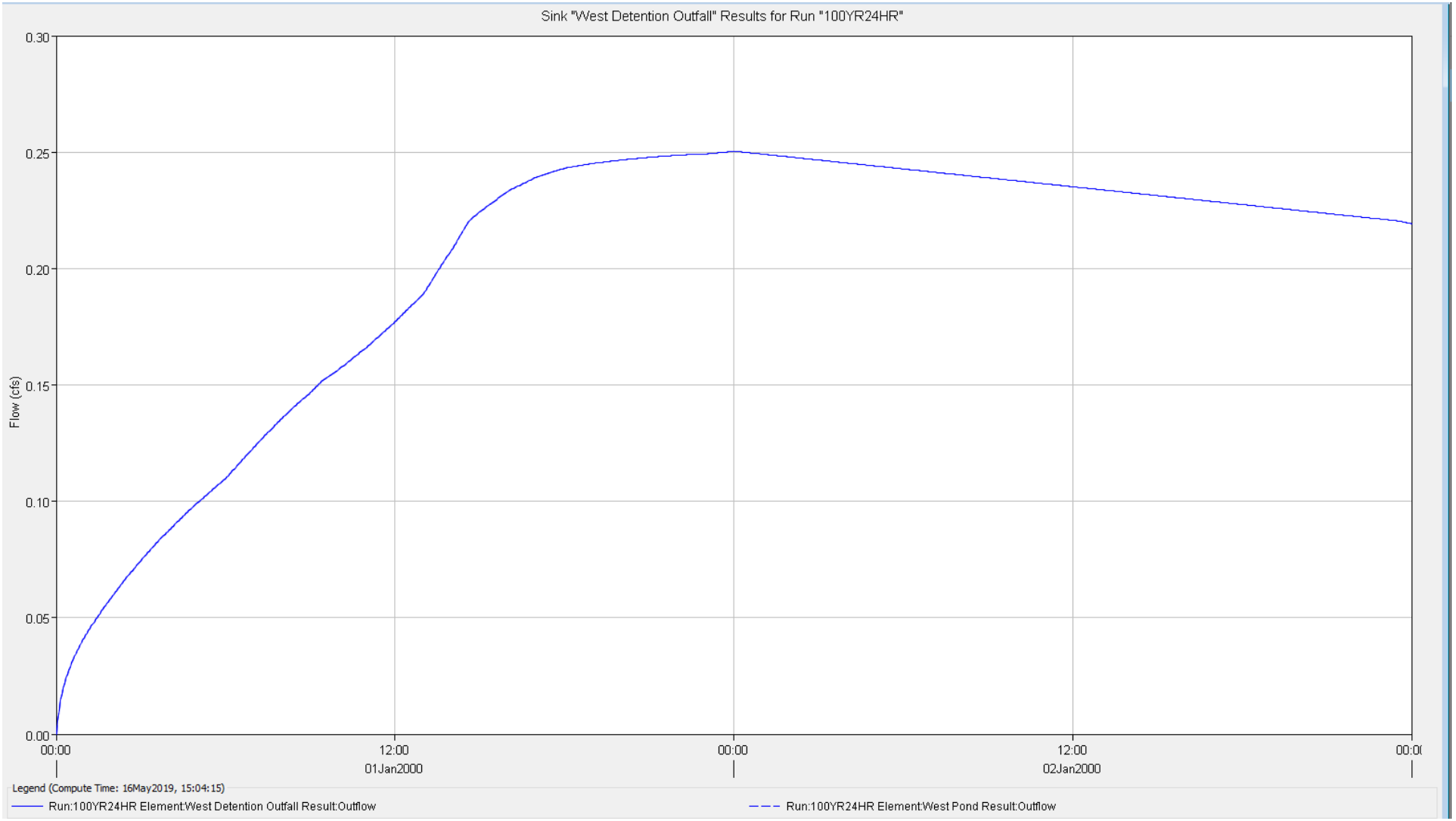
Model Diagram - HEC-HMS
24-hr, 100-yr event

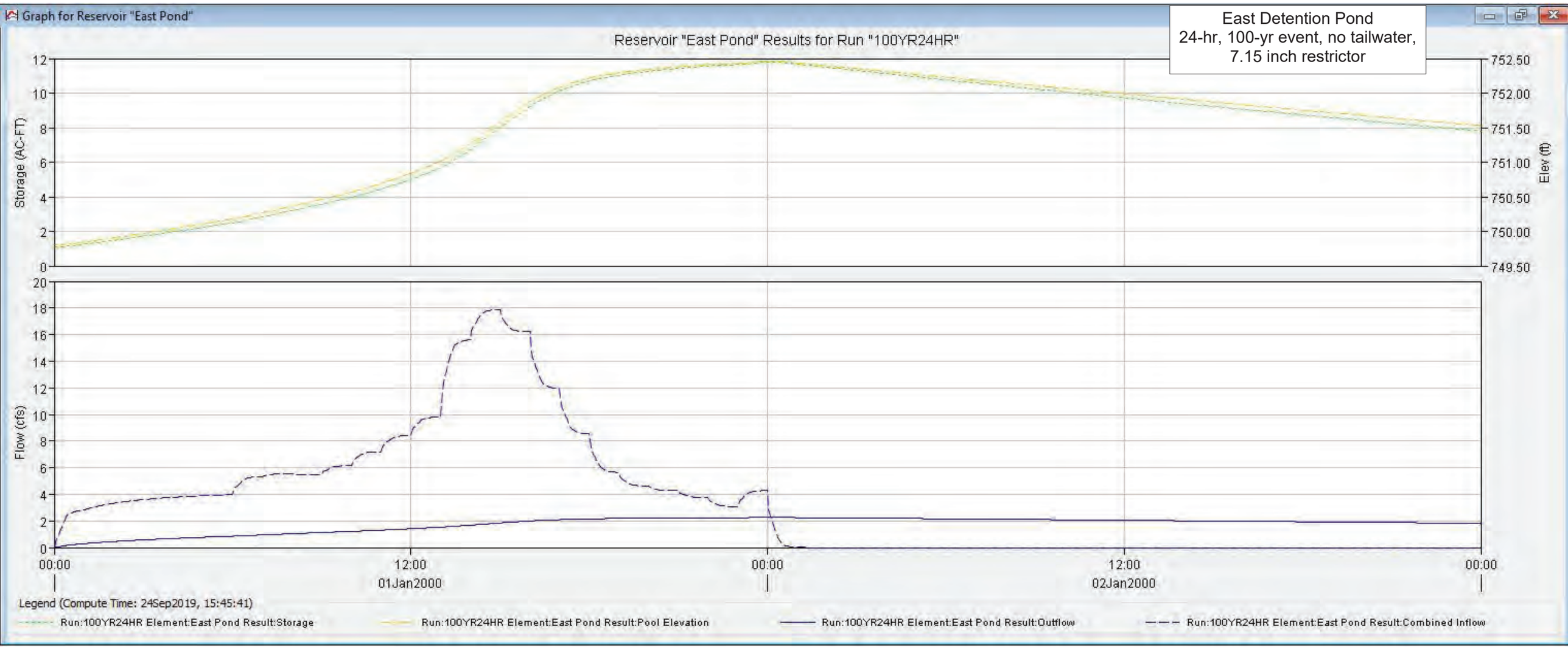


West Detention Pond
24-hr, 100-yr event



West Detention Outfall - Maximum Flow
24-hr, 100-yr event

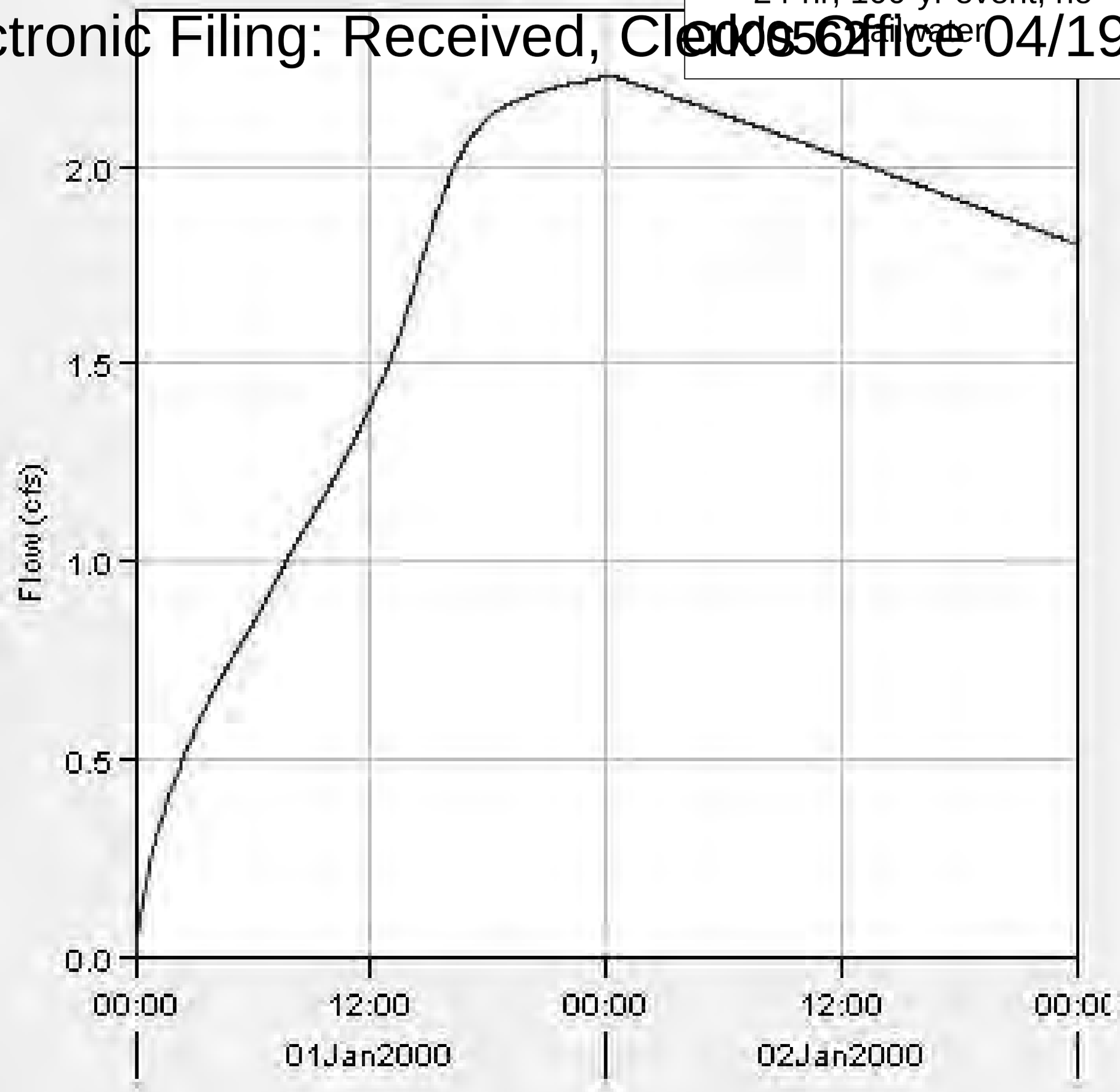



Graph for Reservoir "East Pond"
Reservoir "East Pond" Results for Run "100YR24HR"
East Detention Pond
24-hr, 100-yr event, no tailwater,
7.15 inch restrictor
Storage (AC-FT)
Elev (ft)
Flow (cfs)
00:00
12:00
01Jan2000
00:00
12:00
02Jan2000
00:00
Legend (Compute Time: 24Sep2019, 15:45:41)
Run:100YR24HR Element:East Pond Result:Storage
Run:100YR24HR Element:East Pond Result:Pool Elevation
Run:100YR24HR Element:East Pond Result:Outflow
Run:100YR24HR Element:East Pond Result:Combined Inflow

ctronic Filing: Received, Clerk's Office 04/19/2

East Pond

East Detention Pond
24-hr, 100-yr event, no
detainwater



East Detention Pond
24-Hour, 100-year Event,
No Tailwater
SUMMARY TABLE

Project: Project 1 Simulation Run: 100YR24HR
Reservoir: East Pond

Start of Run: 01Jan2000, 00:00 Basin Model: Final
End of Run: 03Jan2000, 00:00 Meteorologic Model: 100YR24HR
Compute Time: 24Sep2019, 16:24:39 Control Specifications: 24HR

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	00:00	0.00	1.09	749.80	0.00
01Jan2000	00:03	0.46	1.09	749.80	0.02
01Jan2000	00:06	0.68	1.10	749.80	0.04
01Jan2000	00:09	0.91	1.10	749.80	0.06
01Jan2000	00:12	1.21	1.10	749.80	0.07
01Jan2000	00:15	1.53	1.11	749.80	0.09
01Jan2000	00:18	1.83	1.11	749.81	0.11
01Jan2000	00:21	2.08	1.12	749.81	0.12
01Jan2000	00:24	2.27	1.13	749.81	0.14
01Jan2000	00:27	2.41	1.14	749.81	0.16
01Jan2000	00:30	2.50	1.15	749.82	0.17
01Jan2000	00:33	2.57	1.16	749.82	0.18
01Jan2000	00:36	2.63	1.17	749.82	0.20
01Jan2000	00:39	2.67	1.18	749.82	0.21
01Jan2000	00:42	2.70	1.19	749.83	0.22
01Jan2000	00:45	2.72	1.20	749.83	0.23
01Jan2000	00:48	2.74	1.21	749.83	0.24
01Jan2000	00:51	2.75	1.22	749.84	0.26
01Jan2000	00:54	2.77	1.23	749.84	0.27
01Jan2000	00:57	2.78	1.24	749.84	0.28
01Jan2000	01:00	2.81	1.25	749.84	0.28
01Jan2000	01:03	2.85	1.26	749.85	0.29
01Jan2000	01:06	2.88	1.27	749.85	0.30
01Jan2000	01:09	2.92	1.28	749.85	0.31
01Jan2000	01:12	2.95	1.29	749.86	0.32
01Jan2000	01:15	2.98	1.30	749.86	0.33

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	01:18	3.01	1.32	749.86	0.34
01Jan2000	01:21	3.03	1.33	749.86	0.35
01Jan2000	01:24	3.06	1.34	749.87	0.35
01Jan2000	01:27	3.08	1.35	749.87	0.36
01Jan2000	01:30	3.11	1.36	749.87	0.37
01Jan2000	01:33	3.13	1.37	749.88	0.38
01Jan2000	01:36	3.16	1.38	749.88	0.39
01Jan2000	01:39	3.18	1.39	749.88	0.39
01Jan2000	01:42	3.20	1.41	749.89	0.40
01Jan2000	01:45	3.22	1.42	749.89	0.41
01Jan2000	01:48	3.24	1.43	749.89	0.42
01Jan2000	01:51	3.26	1.44	749.90	0.42
01Jan2000	01:54	3.28	1.45	749.90	0.43
01Jan2000	01:57	3.30	1.46	749.90	0.44
01Jan2000	02:00	3.32	1.48	749.91	0.44
01Jan2000	02:03	3.34	1.49	749.91	0.45
01Jan2000	02:06	3.36	1.50	749.91	0.46
01Jan2000	02:09	3.37	1.51	749.92	0.46
01Jan2000	02:12	3.39	1.52	749.92	0.47
01Jan2000	02:15	3.41	1.54	749.92	0.48
01Jan2000	02:18	3.42	1.55	749.93	0.48
01Jan2000	02:21	3.44	1.56	749.93	0.49
01Jan2000	02:24	3.45	1.57	749.93	0.50
01Jan2000	02:27	3.47	1.58	749.94	0.50
01Jan2000	02:30	3.48	1.60	749.94	0.51
01Jan2000	02:33	3.49	1.61	749.94	0.51
01Jan2000	02:36	3.51	1.62	749.95	0.52
01Jan2000	02:39	3.52	1.63	749.95	0.53
01Jan2000	02:42	3.53	1.65	749.95	0.53
01Jan2000	02:45	3.54	1.66	749.96	0.54
01Jan2000	02:48	3.56	1.67	749.96	0.54

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	02:51	3.57	1.68	749.96	0.55
01Jan2000	02:54	3.58	1.70	749.97	0.56
01Jan2000	02:57	3.59	1.71	749.97	0.56
01Jan2000	03:00	3.60	1.72	749.97	0.57
01Jan2000	03:03	3.61	1.73	749.98	0.57
01Jan2000	03:06	3.62	1.75	749.98	0.58
01Jan2000	03:09	3.63	1.76	749.98	0.58
01Jan2000	03:12	3.64	1.77	749.99	0.59
01Jan2000	03:15	3.65	1.78	749.99	0.59
01Jan2000	03:18	3.66	1.80	749.99	0.60
01Jan2000	03:21	3.67	1.81	750.00	0.61
01Jan2000	03:24	3.68	1.82	750.00	0.61
01Jan2000	03:27	3.69	1.83	750.00	0.62
01Jan2000	03:30	3.70	1.85	750.01	0.62
01Jan2000	03:33	3.71	1.86	750.01	0.63
01Jan2000	03:36	3.71	1.87	750.01	0.63
01Jan2000	03:39	3.72	1.89	750.02	0.64
01Jan2000	03:42	3.73	1.90	750.02	0.64
01Jan2000	03:45	3.74	1.91	750.02	0.65
01Jan2000	03:48	3.75	1.92	750.03	0.65
01Jan2000	03:51	3.75	1.94	750.03	0.65
01Jan2000	03:54	3.76	1.95	750.03	0.66
01Jan2000	03:57	3.77	1.96	750.04	0.66
01Jan2000	04:00	3.78	1.98	750.04	0.67
01Jan2000	04:03	3.78	1.99	750.04	0.67
01Jan2000	04:06	3.79	2.00	750.05	0.68
01Jan2000	04:09	3.80	2.01	750.05	0.68
01Jan2000	04:12	3.80	2.03	750.05	0.69
01Jan2000	04:15	3.81	2.04	750.06	0.69
01Jan2000	04:18	3.81	2.05	750.06	0.70
01Jan2000	04:21	3.82	2.07	750.06	0.70

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	04:24	3.83	2.08	750.07	0.71
01Jan2000	04:27	3.83	2.09	750.07	0.71
01Jan2000	04:30	3.84	2.10	750.07	0.71
01Jan2000	04:33	3.84	2.12	750.08	0.72
01Jan2000	04:36	3.85	2.13	750.08	0.72
01Jan2000	04:39	3.85	2.14	750.08	0.73
01Jan2000	04:42	3.86	2.16	750.09	0.73
01Jan2000	04:45	3.87	2.17	750.09	0.74
01Jan2000	04:48	3.87	2.18	750.09	0.74
01Jan2000	04:51	3.88	2.19	750.10	0.74
01Jan2000	04:54	3.88	2.21	750.10	0.75
01Jan2000	04:57	3.89	2.22	750.10	0.75
01Jan2000	05:00	3.89	2.23	750.11	0.76
01Jan2000	05:03	3.90	2.25	750.11	0.76
01Jan2000	05:06	3.90	2.26	750.11	0.76
01Jan2000	05:09	3.90	2.27	750.12	0.77
01Jan2000	05:12	3.91	2.29	750.12	0.77
01Jan2000	05:15	3.91	2.30	750.12	0.78
01Jan2000	05:18	3.92	2.31	750.13	0.78
01Jan2000	05:21	3.92	2.32	750.13	0.78
01Jan2000	05:24	3.93	2.34	750.13	0.79
01Jan2000	05:27	3.93	2.35	750.14	0.79
01Jan2000	05:30	3.93	2.36	750.14	0.80
01Jan2000	05:33	3.94	2.38	750.14	0.80
01Jan2000	05:36	3.94	2.39	750.15	0.80
01Jan2000	05:39	3.95	2.40	750.15	0.81
01Jan2000	05:42	3.95	2.41	750.15	0.81
01Jan2000	05:45	3.95	2.43	750.16	0.82
01Jan2000	05:48	3.96	2.44	750.16	0.82
01Jan2000	05:51	3.96	2.45	750.16	0.82
01Jan2000	05:54	3.96	2.47	750.17	0.83

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	05:57	3.97	2.48	750.17	0.83
01Jan2000	06:00	3.97	2.49	750.17	0.84
01Jan2000	06:03	4.37	2.51	750.18	0.84
01Jan2000	06:06	4.51	2.52	750.18	0.84
01Jan2000	06:09	4.61	2.54	750.19	0.85
01Jan2000	06:12	4.73	2.55	750.19	0.85
01Jan2000	06:15	4.84	2.57	750.19	0.86
01Jan2000	06:18	4.95	2.59	750.20	0.86
01Jan2000	06:21	5.04	2.60	750.20	0.87
01Jan2000	06:24	5.11	2.62	750.21	0.87
01Jan2000	06:27	5.16	2.64	750.21	0.88
01Jan2000	06:30	5.20	2.66	750.22	0.88
01Jan2000	06:33	5.23	2.67	750.22	0.89
01Jan2000	06:36	5.26	2.69	750.23	0.89
01Jan2000	06:39	5.27	2.71	750.23	0.90
01Jan2000	06:42	5.29	2.73	750.24	0.90
01Jan2000	06:45	5.30	2.75	750.24	0.91
01Jan2000	06:48	5.31	2.76	750.25	0.91
01Jan2000	06:51	5.32	2.78	750.25	0.91
01Jan2000	06:54	5.32	2.80	750.25	0.92
01Jan2000	06:57	5.33	2.82	750.26	0.92
01Jan2000	07:00	5.34	2.84	750.26	0.93
01Jan2000	07:03	5.39	2.85	750.27	0.93
01Jan2000	07:06	5.41	2.87	750.27	0.94
01Jan2000	07:09	5.43	2.89	750.28	0.94
01Jan2000	07:12	5.45	2.91	750.28	0.95
01Jan2000	07:15	5.47	2.93	750.29	0.95
01Jan2000	07:18	5.48	2.95	750.29	0.96
01Jan2000	07:21	5.50	2.97	750.30	0.96
01Jan2000	07:24	5.51	2.99	750.30	0.97
01Jan2000	07:27	5.52	3.00	750.31	0.97

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	07:30	5.53	3.02	750.31	0.98
01Jan2000	07:33	5.53	3.04	750.32	0.98
01Jan2000	07:36	5.54	3.06	750.32	0.99
01Jan2000	07:39	5.55	3.08	750.33	0.99
01Jan2000	07:42	5.55	3.10	750.33	0.99
01Jan2000	07:45	5.55	3.12	750.34	1.00
01Jan2000	07:48	5.56	3.14	750.34	1.00
01Jan2000	07:51	5.56	3.15	750.35	1.01
01Jan2000	07:54	5.56	3.17	750.35	1.01
01Jan2000	07:57	5.57	3.19	750.36	1.02
01Jan2000	08:00	5.57	3.21	750.36	1.02
01Jan2000	08:03	5.52	3.23	750.37	1.03
01Jan2000	08:06	5.51	3.25	750.37	1.03
01Jan2000	08:09	5.50	3.27	750.38	1.04
01Jan2000	08:12	5.49	3.28	750.38	1.04
01Jan2000	08:15	5.47	3.30	750.39	1.04
01Jan2000	08:18	5.46	3.32	750.39	1.05
01Jan2000	08:21	5.46	3.34	750.39	1.05
01Jan2000	08:24	5.45	3.36	750.40	1.06
01Jan2000	08:27	5.45	3.38	750.40	1.06
01Jan2000	08:30	5.45	3.39	750.41	1.06
01Jan2000	08:33	5.44	3.41	750.41	1.07
01Jan2000	08:36	5.44	3.43	750.42	1.07
01Jan2000	08:39	5.45	3.45	750.42	1.08
01Jan2000	08:42	5.45	3.47	750.43	1.08
01Jan2000	08:45	5.45	3.48	750.43	1.08
01Jan2000	08:48	5.45	3.50	750.44	1.09
01Jan2000	08:51	5.45	3.52	750.44	1.09
01Jan2000	08:54	5.45	3.54	750.45	1.10
01Jan2000	08:57	5.45	3.56	750.45	1.10
01Jan2000	09:00	5.46	3.57	750.46	1.10

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	09:03	5.67	3.59	750.46	1.11
01Jan2000	09:06	5.75	3.61	750.47	1.11
01Jan2000	09:09	5.80	3.63	750.47	1.12
01Jan2000	09:12	5.86	3.65	750.48	1.12
01Jan2000	09:15	5.92	3.67	750.48	1.13
01Jan2000	09:18	5.97	3.69	750.49	1.13
01Jan2000	09:21	6.02	3.71	750.49	1.13
01Jan2000	09:24	6.05	3.73	750.50	1.14
01Jan2000	09:27	6.08	3.75	750.50	1.14
01Jan2000	09:30	6.10	3.77	750.51	1.15
01Jan2000	09:33	6.11	3.79	750.51	1.15
01Jan2000	09:36	6.12	3.81	750.52	1.16
01Jan2000	09:39	6.13	3.83	750.52	1.16
01Jan2000	09:42	6.14	3.85	750.53	1.16
01Jan2000	09:45	6.14	3.87	750.53	1.17
01Jan2000	09:48	6.15	3.89	750.54	1.17
01Jan2000	09:51	6.15	3.92	750.54	1.18
01Jan2000	09:54	6.15	3.94	750.55	1.18
01Jan2000	09:57	6.16	3.96	750.55	1.19
01Jan2000	10:00	6.16	3.98	750.56	1.19
01Jan2000	10:03	6.49	4.00	750.57	1.19
01Jan2000	10:06	6.61	4.02	750.57	1.20
01Jan2000	10:09	6.68	4.04	750.58	1.20
01Jan2000	10:12	6.77	4.07	750.58	1.21
01Jan2000	10:15	6.85	4.09	750.59	1.21
01Jan2000	10:18	6.93	4.11	750.60	1.22
01Jan2000	10:21	7.00	4.14	750.60	1.22
01Jan2000	10:24	7.05	4.16	750.61	1.23
01Jan2000	10:27	7.09	4.18	750.61	1.23
01Jan2000	10:30	7.12	4.21	750.62	1.24
01Jan2000	10:33	7.14	4.23	750.63	1.24

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	10:36	7.15	4.26	750.63	1.25
01Jan2000	10:39	7.16	4.28	750.64	1.25
01Jan2000	10:42	7.17	4.31	750.65	1.25
01Jan2000	10:45	7.18	4.33	750.65	1.26
01Jan2000	10:48	7.19	4.35	750.66	1.26
01Jan2000	10:51	7.19	4.38	750.66	1.27
01Jan2000	10:54	7.20	4.40	750.67	1.27
01Jan2000	10:57	7.20	4.43	750.68	1.28
01Jan2000	11:00	7.20	4.45	750.68	1.28
01Jan2000	11:03	7.59	4.48	750.69	1.29
01Jan2000	11:06	7.73	4.50	750.70	1.29
01Jan2000	11:09	7.82	4.53	750.70	1.30
01Jan2000	11:12	7.91	4.56	750.71	1.30
01Jan2000	11:15	8.01	4.59	750.72	1.31
01Jan2000	11:18	8.11	4.61	750.73	1.31
01Jan2000	11:21	8.18	4.64	750.73	1.32
01Jan2000	11:24	8.25	4.67	750.74	1.32
01Jan2000	11:27	8.29	4.70	750.75	1.33
01Jan2000	11:30	8.32	4.73	750.76	1.33
01Jan2000	11:33	8.34	4.76	750.76	1.34
01Jan2000	11:36	8.36	4.79	750.77	1.34
01Jan2000	11:39	8.38	4.81	750.78	1.35
01Jan2000	11:42	8.39	4.84	750.79	1.35
01Jan2000	11:45	8.39	4.87	750.79	1.36
01Jan2000	11:48	8.40	4.90	750.80	1.36
01Jan2000	11:51	8.41	4.93	750.81	1.37
01Jan2000	11:54	8.41	4.96	750.82	1.37
01Jan2000	11:57	8.41	4.99	750.82	1.38
01Jan2000	12:00	8.42	5.02	750.83	1.38
01Jan2000	12:03	8.86	5.05	750.84	1.39
01Jan2000	12:06	9.02	5.08	750.85	1.40

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	12:09	9.12	5.11	750.85	1.40
01Jan2000	12:12	9.23	5.14	750.86	1.41
01Jan2000	12:15	9.35	5.18	750.87	1.41
01Jan2000	12:18	9.45	5.21	750.88	1.42
01Jan2000	12:21	9.54	5.24	750.89	1.42
01Jan2000	12:24	9.61	5.28	750.90	1.43
01Jan2000	12:27	9.66	5.31	750.91	1.43
01Jan2000	12:30	9.70	5.34	750.92	1.44
01Jan2000	12:33	9.72	5.38	750.92	1.45
01Jan2000	12:36	9.74	5.41	750.93	1.45
01Jan2000	12:39	9.76	5.45	750.94	1.46
01Jan2000	12:42	9.77	5.48	750.95	1.46
01Jan2000	12:45	9.78	5.51	750.96	1.47
01Jan2000	12:48	9.79	5.55	750.97	1.47
01Jan2000	12:51	9.79	5.58	750.98	1.48
01Jan2000	12:54	9.80	5.62	750.99	1.49
01Jan2000	12:57	9.80	5.65	751.00	1.49
01Jan2000	13:00	9.80	5.69	751.00	1.50
01Jan2000	13:03	11.71	5.72	751.01	1.50
01Jan2000	13:06	12.39	5.77	751.02	1.51
01Jan2000	13:09	12.81	5.81	751.04	1.52
01Jan2000	13:12	13.27	5.86	751.05	1.52
01Jan2000	13:15	13.75	5.91	751.06	1.53
01Jan2000	13:18	14.19	5.96	751.07	1.54
01Jan2000	13:21	14.57	6.02	751.09	1.55
01Jan2000	13:24	14.86	6.07	751.10	1.56
01Jan2000	13:27	15.06	6.13	751.11	1.56
01Jan2000	13:30	15.20	6.18	751.13	1.57
01Jan2000	13:33	15.31	6.24	751.14	1.58
01Jan2000	13:36	15.39	6.29	751.16	1.59
01Jan2000	13:39	15.45	6.35	751.17	1.60

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	13:42	15.50	6.41	751.18	1.61
01Jan2000	13:45	15.53	6.47	751.20	1.61
01Jan2000	13:48	15.55	6.52	751.21	1.62
01Jan2000	13:51	15.57	6.58	751.23	1.63
01Jan2000	13:54	15.59	6.64	751.24	1.64
01Jan2000	13:57	15.60	6.70	751.26	1.65
01Jan2000	14:00	15.61	6.75	751.27	1.65
01Jan2000	14:03	16.35	6.81	751.29	1.66
01Jan2000	14:06	16.62	6.88	751.30	1.67
01Jan2000	14:09	16.78	6.94	751.32	1.68
01Jan2000	14:12	16.96	7.00	751.33	1.69
01Jan2000	14:15	17.15	7.06	751.35	1.70
01Jan2000	14:18	17.32	7.13	751.36	1.71
01Jan2000	14:21	17.46	7.19	751.38	1.71
01Jan2000	14:24	17.58	7.26	751.40	1.72
01Jan2000	14:27	17.65	7.32	751.41	1.73
01Jan2000	14:30	17.71	7.39	751.43	1.74
01Jan2000	14:33	17.75	7.46	751.45	1.75
01Jan2000	14:36	17.79	7.52	751.46	1.76
01Jan2000	14:39	17.81	7.59	751.48	1.77
01Jan2000	14:42	17.83	7.65	751.49	1.78
01Jan2000	14:45	17.84	7.72	751.51	1.78
01Jan2000	14:48	17.85	7.79	751.53	1.79
01Jan2000	14:51	17.86	7.85	751.54	1.80
01Jan2000	14:54	17.87	7.92	751.56	1.81
01Jan2000	14:57	17.87	7.99	751.58	1.82
01Jan2000	15:00	17.88	8.05	751.59	1.83
01Jan2000	15:03	17.32	8.12	751.61	1.84
01Jan2000	15:06	17.12	8.18	751.63	1.84
01Jan2000	15:09	17.00	8.24	751.64	1.85
01Jan2000	15:12	16.86	8.31	751.66	1.86

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	15:15	16.73	8.37	751.67	1.87
01Jan2000	15:18	16.60	8.43	751.69	1.87
01Jan2000	15:21	16.49	8.49	751.70	1.88
01Jan2000	15:24	16.41	8.55	751.72	1.89
01Jan2000	15:27	16.35	8.61	751.73	1.90
01Jan2000	15:30	16.31	8.67	751.75	1.90
01Jan2000	15:33	16.28	8.73	751.76	1.91
01Jan2000	15:36	16.26	8.79	751.78	1.92
01Jan2000	15:39	16.25	8.85	751.79	1.93
01Jan2000	15:42	16.24	8.91	751.81	1.93
01Jan2000	15:45	16.23	8.97	751.82	1.94
01Jan2000	15:48	16.22	9.02	751.84	1.95
01Jan2000	15:51	16.22	9.08	751.85	1.95
01Jan2000	15:54	16.22	9.14	751.87	1.96
01Jan2000	15:57	16.22	9.20	751.88	1.97
01Jan2000	16:00	16.22	9.26	751.90	1.97
01Jan2000	16:03	14.79	9.32	751.91	1.98
01Jan2000	16:06	14.29	9.37	751.92	1.99
01Jan2000	16:09	13.98	9.42	751.93	1.99
01Jan2000	16:12	13.64	9.47	751.95	2.00
01Jan2000	16:15	13.29	9.51	751.96	2.00
01Jan2000	16:18	12.97	9.56	751.97	2.01
01Jan2000	16:21	12.70	9.61	751.98	2.01
01Jan2000	16:24	12.49	9.65	751.99	2.02
01Jan2000	16:27	12.34	9.69	752.00	2.02
01Jan2000	16:30	12.24	9.73	752.01	2.03
01Jan2000	16:33	12.16	9.78	752.02	2.03
01Jan2000	16:36	12.10	9.82	752.03	2.04
01Jan2000	16:39	12.06	9.86	752.04	2.04
01Jan2000	16:42	12.03	9.90	752.05	2.05
01Jan2000	16:45	12.01	9.94	752.06	2.05

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	16:48	12.00	9.98	752.07	2.05
01Jan2000	16:51	11.99	10.02	752.07	2.06
01Jan2000	16:54	11.98	10.07	752.08	2.06
01Jan2000	16:57	11.97	10.11	752.09	2.07
01Jan2000	17:00	11.97	10.15	752.10	2.07
01Jan2000	17:03	10.82	10.19	752.11	2.07
01Jan2000	17:06	10.42	10.22	752.12	2.08
01Jan2000	17:09	10.17	10.25	752.12	2.08
01Jan2000	17:12	9.90	10.29	752.13	2.08
01Jan2000	17:15	9.62	10.32	752.14	2.09
01Jan2000	17:18	9.36	10.35	752.15	2.09
01Jan2000	17:21	9.14	10.38	752.15	2.09
01Jan2000	17:24	8.97	10.41	752.16	2.10
01Jan2000	17:27	8.86	10.44	752.16	2.10
01Jan2000	17:30	8.77	10.46	752.17	2.10
01Jan2000	17:33	8.71	10.49	752.18	2.10
01Jan2000	17:36	8.66	10.52	752.18	2.11
01Jan2000	17:39	8.63	10.55	752.19	2.11
01Jan2000	17:42	8.61	10.57	752.19	2.11
01Jan2000	17:45	8.59	10.60	752.20	2.11
01Jan2000	17:48	8.58	10.63	752.21	2.12
01Jan2000	17:51	8.57	10.65	752.21	2.12
01Jan2000	17:54	8.56	10.68	752.22	2.12
01Jan2000	17:57	8.56	10.71	752.22	2.12
01Jan2000	18:00	8.55	10.73	752.23	2.13
01Jan2000	18:03	7.58	10.76	752.23	2.13
01Jan2000	18:06	7.24	10.78	752.24	2.13
01Jan2000	18:09	7.02	10.80	752.24	2.13
01Jan2000	18:12	6.79	10.82	752.25	2.13
01Jan2000	18:15	6.56	10.84	752.25	2.14
01Jan2000	18:18	6.33	10.86	752.26	2.14

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	18:21	6.15	10.87	752.26	2.14
01Jan2000	18:24	6.01	10.89	752.26	2.14
01Jan2000	18:27	5.91	10.91	752.27	2.14
01Jan2000	18:30	5.84	10.92	752.27	2.14
01Jan2000	18:33	5.78	10.94	752.27	2.15
01Jan2000	18:36	5.74	10.95	752.28	2.15
01Jan2000	18:39	5.72	10.97	752.28	2.15
01Jan2000	18:42	5.70	10.98	752.28	2.15
01Jan2000	18:45	5.68	10.99	752.29	2.15
01Jan2000	18:48	5.67	11.01	752.29	2.15
01Jan2000	18:51	5.66	11.02	752.29	2.15
01Jan2000	18:54	5.66	11.04	752.30	2.16
01Jan2000	18:57	5.65	11.05	752.30	2.16
01Jan2000	19:00	5.65	11.07	752.30	2.16
01Jan2000	19:03	5.30	11.08	752.30	2.16
01Jan2000	19:06	5.18	11.09	752.31	2.16
01Jan2000	19:09	5.11	11.11	752.31	2.16
01Jan2000	19:12	5.02	11.12	752.31	2.16
01Jan2000	19:15	4.94	11.13	752.32	2.16
01Jan2000	19:18	4.86	11.14	752.32	2.16
01Jan2000	19:21	4.80	11.15	752.32	2.17
01Jan2000	19:24	4.75	11.16	752.32	2.17
01Jan2000	19:27	4.71	11.17	752.32	2.17
01Jan2000	19:30	4.69	11.18	752.33	2.17
01Jan2000	19:33	4.67	11.19	752.33	2.17
01Jan2000	19:36	4.65	11.20	752.33	2.17
01Jan2000	19:39	4.64	11.21	752.33	2.17
01Jan2000	19:42	4.64	11.22	752.34	2.17
01Jan2000	19:45	4.63	11.23	752.34	2.17
01Jan2000	19:48	4.63	11.25	752.34	2.17
01Jan2000	19:51	4.62	11.26	752.34	2.18

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	19:54	4.62	11.27	752.34	2.18
01Jan2000	19:57	4.62	11.28	752.35	2.18
01Jan2000	20:00	4.62	11.29	752.35	2.18
01Jan2000	20:03	4.50	11.30	752.35	2.18
01Jan2000	20:06	4.46	11.30	752.35	2.18
01Jan2000	20:09	4.44	11.31	752.36	2.18
01Jan2000	20:12	4.41	11.32	752.36	2.18
01Jan2000	20:15	4.38	11.33	752.36	2.18
01Jan2000	20:18	4.36	11.34	752.36	2.18
01Jan2000	20:21	4.34	11.35	752.36	2.18
01Jan2000	20:24	4.32	11.36	752.37	2.18
01Jan2000	20:27	4.31	11.37	752.37	2.19
01Jan2000	20:30	4.30	11.38	752.37	2.19
01Jan2000	20:33	4.29	11.39	752.37	2.19
01Jan2000	20:36	4.29	11.39	752.37	2.19
01Jan2000	20:39	4.28	11.40	752.37	2.19
01Jan2000	20:42	4.28	11.41	752.38	2.19
01Jan2000	20:45	4.28	11.42	752.38	2.19
01Jan2000	20:48	4.28	11.43	752.38	2.19
01Jan2000	20:51	4.28	11.44	752.38	2.19
01Jan2000	20:54	4.28	11.45	752.38	2.19
01Jan2000	20:57	4.28	11.45	752.39	2.19
01Jan2000	21:00	4.28	11.46	752.39	2.19
01Jan2000	21:03	4.10	11.47	752.39	2.20
01Jan2000	21:06	4.04	11.48	752.39	2.20
01Jan2000	21:09	4.01	11.49	752.39	2.20
01Jan2000	21:12	3.97	11.49	752.39	2.20
01Jan2000	21:15	3.92	11.50	752.40	2.20
01Jan2000	21:18	3.89	11.51	752.40	2.20
01Jan2000	21:21	3.85	11.52	752.40	2.20
01Jan2000	21:24	3.83	11.52	752.40	2.20

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	21:27	3.81	11.53	752.40	2.20
01Jan2000	21:30	3.80	11.54	752.40	2.20
01Jan2000	21:33	3.79	11.54	752.40	2.20
01Jan2000	21:36	3.78	11.55	752.41	2.20
01Jan2000	21:39	3.78	11.56	752.41	2.20
01Jan2000	21:42	3.77	11.56	752.41	2.20
01Jan2000	21:45	3.77	11.57	752.41	2.20
01Jan2000	21:48	3.77	11.57	752.41	2.20
01Jan2000	21:51	3.77	11.58	752.41	2.21
01Jan2000	21:54	3.77	11.59	752.41	2.21
01Jan2000	21:57	3.77	11.59	752.42	2.21
01Jan2000	22:00	3.76	11.60	752.42	2.21
01Jan2000	22:03	3.54	11.61	752.42	2.21
01Jan2000	22:06	3.45	11.61	752.42	2.21
01Jan2000	22:09	3.40	11.62	752.42	2.21
01Jan2000	22:12	3.35	11.62	752.42	2.21
01Jan2000	22:15	3.29	11.63	752.42	2.21
01Jan2000	22:18	3.24	11.63	752.42	2.21
01Jan2000	22:21	3.20	11.63	752.42	2.21
01Jan2000	22:24	3.17	11.64	752.43	2.21
01Jan2000	22:27	3.14	11.64	752.43	2.21
01Jan2000	22:30	3.13	11.65	752.43	2.21
01Jan2000	22:33	3.11	11.65	752.43	2.21
01Jan2000	22:36	3.10	11.65	752.43	2.21
01Jan2000	22:39	3.10	11.66	752.43	2.21
01Jan2000	22:42	3.09	11.66	752.43	2.21
01Jan2000	22:45	3.09	11.67	752.43	2.21
01Jan2000	22:48	3.09	11.67	752.43	2.21
01Jan2000	22:51	3.08	11.67	752.43	2.21
01Jan2000	22:54	3.08	11.68	752.43	2.21
01Jan2000	22:57	3.08	11.68	752.43	2.21

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	23:00	3.08	11.68	752.44	2.21
01Jan2000	23:03	3.48	11.69	752.44	2.22
01Jan2000	23:06	3.62	11.69	752.44	2.22
01Jan2000	23:09	3.71	11.70	752.44	2.22
01Jan2000	23:12	3.80	11.71	752.44	2.22
01Jan2000	23:15	3.90	11.71	752.44	2.22
01Jan2000	23:18	3.99	11.72	752.44	2.22
01Jan2000	23:21	4.07	11.73	752.44	2.22
01Jan2000	23:24	4.13	11.73	752.45	2.22
01Jan2000	23:27	4.17	11.74	752.45	2.22
01Jan2000	23:30	4.20	11.75	752.45	2.22
01Jan2000	23:33	4.22	11.76	752.45	2.22
01Jan2000	23:36	4.24	11.77	752.45	2.22
01Jan2000	23:39	4.25	11.78	752.46	2.22
01Jan2000	23:42	4.26	11.78	752.46	2.22
01Jan2000	23:45	4.26	11.79	752.46	2.22
01Jan2000	23:48	4.27	11.80	752.46	2.23
01Jan2000	23:51	4.27	11.81	752.46	2.23
01Jan2000	23:54	4.27	11.82	752.46	2.23
01Jan2000	23:57	4.27	11.83	752.47	2.23
02Jan2000	00:00	4.28	11.83	752.47	2.23
02Jan2000	00:03	2.84	11.84	752.47	2.23
02Jan2000	00:06	2.34	11.84	752.47	2.23
02Jan2000	00:09	2.03	11.84	752.47	2.23
02Jan2000	00:12	1.69	11.84	752.47	2.23
02Jan2000	00:15	1.34	11.84	752.47	2.23
02Jan2000	00:18	1.02	11.83	752.47	2.23
02Jan2000	00:21	0.75	11.83	752.47	2.23
02Jan2000	00:24	0.54	11.82	752.47	2.23
02Jan2000	00:27	0.39	11.81	752.46	2.23
02Jan2000	00:30	0.29	11.81	752.46	2.23

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	00:33	0.21	11.80	752.46	2.23
02Jan2000	00:36	0.15	11.79	752.46	2.22
02Jan2000	00:39	0.11	11.78	752.46	2.22
02Jan2000	00:42	0.08	11.77	752.45	2.22
02Jan2000	00:45	0.06	11.76	752.45	2.22
02Jan2000	00:48	0.04	11.75	752.45	2.22
02Jan2000	00:51	0.03	11.74	752.45	2.22
02Jan2000	00:54	0.02	11.74	752.45	2.22
02Jan2000	00:57	0.01	11.73	752.44	2.22
02Jan2000	01:00	0.01	11.72	752.44	2.22
02Jan2000	01:03	0.01	11.71	752.44	2.22
02Jan2000	01:06	0.00	11.70	752.44	2.22
02Jan2000	01:09	0.00	11.69	752.44	2.22
02Jan2000	01:12	0.00	11.68	752.43	2.21
02Jan2000	01:15	0.00	11.67	752.43	2.21
02Jan2000	01:18	0.00	11.66	752.43	2.21
02Jan2000	01:21	0.00	11.65	752.43	2.21
02Jan2000	01:24	0.00	11.64	752.43	2.21
02Jan2000	01:27	0.00	11.63	752.42	2.21
02Jan2000	01:30	0.00	11.63	752.42	2.21
02Jan2000	01:33	0.00	11.62	752.42	2.21
02Jan2000	01:36	0.00	11.61	752.42	2.21
02Jan2000	01:39	0.00	11.60	752.42	2.21
02Jan2000	01:42	0.00	11.59	752.42	2.21
02Jan2000	01:45	0.00	11.58	752.41	2.21
02Jan2000	01:48	0.00	11.57	752.41	2.20
02Jan2000	01:51	0.00	11.56	752.41	2.20
02Jan2000	01:54	0.00	11.55	752.41	2.20
02Jan2000	01:57	0.00	11.54	752.41	2.20
02Jan2000	02:00	0.00	11.53	752.40	2.20
02Jan2000	02:03	0.00	11.53	752.40	2.20

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	02:06	0.00	11.52	752.40	2.20
02Jan2000	02:09	0.00	11.51	752.40	2.20
02Jan2000	02:12	0.00	11.50	752.40	2.20
02Jan2000	02:15	0.00	11.49	752.39	2.20
02Jan2000	02:18	0.00	11.48	752.39	2.20
02Jan2000	02:21	0.00	11.47	752.39	2.20
02Jan2000	02:24	0.00	11.46	752.39	2.19
02Jan2000	02:27	0.00	11.45	752.39	2.19
02Jan2000	02:30	0.00	11.44	752.38	2.19
02Jan2000	02:33	0.00	11.43	752.38	2.19
02Jan2000	02:36	0.00	11.43	752.38	2.19
02Jan2000	02:39	0.00	11.42	752.38	2.19
02Jan2000	02:42	0.00	11.41	752.38	2.19
02Jan2000	02:45	0.00	11.40	752.37	2.19
02Jan2000	02:48	0.00	11.39	752.37	2.19
02Jan2000	02:51	0.00	11.38	752.37	2.19
02Jan2000	02:54	0.00	11.37	752.37	2.19
02Jan2000	02:57	0.00	11.36	752.37	2.19
02Jan2000	03:00	0.00	11.35	752.36	2.18
02Jan2000	03:03	0.00	11.34	752.36	2.18
02Jan2000	03:06	0.00	11.34	752.36	2.18
02Jan2000	03:09	0.00	11.33	752.36	2.18
02Jan2000	03:12	0.00	11.32	752.36	2.18
02Jan2000	03:15	0.00	11.31	752.35	2.18
02Jan2000	03:18	0.00	11.30	752.35	2.18
02Jan2000	03:21	0.00	11.29	752.35	2.18
02Jan2000	03:24	0.00	11.28	752.35	2.18
02Jan2000	03:27	0.00	11.27	752.35	2.18
02Jan2000	03:30	0.00	11.26	752.34	2.18
02Jan2000	03:33	0.00	11.25	752.34	2.18
02Jan2000	03:36	0.00	11.25	752.34	2.17

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	03:39	0.00	11.24	752.34	2.17
02Jan2000	03:42	0.00	11.23	752.34	2.17
02Jan2000	03:45	0.00	11.22	752.33	2.17
02Jan2000	03:48	0.00	11.21	752.33	2.17
02Jan2000	03:51	0.00	11.20	752.33	2.17
02Jan2000	03:54	0.00	11.19	752.33	2.17
02Jan2000	03:57	0.00	11.18	752.33	2.17
02Jan2000	04:00	0.00	11.17	752.32	2.17
02Jan2000	04:03	0.00	11.16	752.32	2.17
02Jan2000	04:06	0.00	11.16	752.32	2.17
02Jan2000	04:09	0.00	11.15	752.32	2.17
02Jan2000	04:12	0.00	11.14	752.32	2.16
02Jan2000	04:15	0.00	11.13	752.31	2.16
02Jan2000	04:18	0.00	11.12	752.31	2.16
02Jan2000	04:21	0.00	11.11	752.31	2.16
02Jan2000	04:24	0.00	11.10	752.31	2.16
02Jan2000	04:27	0.00	11.09	752.31	2.16
02Jan2000	04:30	0.00	11.08	752.31	2.16
02Jan2000	04:33	0.00	11.07	752.30	2.16
02Jan2000	04:36	0.00	11.07	752.30	2.16
02Jan2000	04:39	0.00	11.06	752.30	2.16
02Jan2000	04:42	0.00	11.05	752.30	2.16
02Jan2000	04:45	0.00	11.04	752.30	2.16
02Jan2000	04:48	0.00	11.03	752.29	2.15
02Jan2000	04:51	0.00	11.02	752.29	2.15
02Jan2000	04:54	0.00	11.01	752.29	2.15
02Jan2000	04:57	0.00	11.00	752.29	2.15
02Jan2000	05:00	0.00	10.99	752.29	2.15
02Jan2000	05:03	0.00	10.99	752.28	2.15
02Jan2000	05:06	0.00	10.98	752.28	2.15
02Jan2000	05:09	0.00	10.97	752.28	2.15

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	05:12	0.00	10.96	752.28	2.15
02Jan2000	05:15	0.00	10.95	752.28	2.15
02Jan2000	05:18	0.00	10.94	752.27	2.15
02Jan2000	05:21	0.00	10.93	752.27	2.15
02Jan2000	05:24	0.00	10.92	752.27	2.14
02Jan2000	05:27	0.00	10.91	752.27	2.14
02Jan2000	05:30	0.00	10.91	752.27	2.14
02Jan2000	05:33	0.00	10.90	752.26	2.14
02Jan2000	05:36	0.00	10.89	752.26	2.14
02Jan2000	05:39	0.00	10.88	752.26	2.14
02Jan2000	05:42	0.00	10.87	752.26	2.14
02Jan2000	05:45	0.00	10.86	752.26	2.14
02Jan2000	05:48	0.00	10.85	752.26	2.14
02Jan2000	05:51	0.00	10.84	752.25	2.14
02Jan2000	05:54	0.00	10.84	752.25	2.14
02Jan2000	05:57	0.00	10.83	752.25	2.14
02Jan2000	06:00	0.00	10.82	752.25	2.13
02Jan2000	06:03	0.00	10.81	752.25	2.13
02Jan2000	06:06	0.00	10.80	752.24	2.13
02Jan2000	06:09	0.00	10.79	752.24	2.13
02Jan2000	06:12	0.00	10.78	752.24	2.13
02Jan2000	06:15	0.00	10.77	752.24	2.13
02Jan2000	06:18	0.00	10.76	752.24	2.13
02Jan2000	06:21	0.00	10.76	752.23	2.13
02Jan2000	06:24	0.00	10.75	752.23	2.13
02Jan2000	06:27	0.00	10.74	752.23	2.13
02Jan2000	06:30	0.00	10.73	752.23	2.13
02Jan2000	06:33	0.00	10.72	752.23	2.13
02Jan2000	06:36	0.00	10.71	752.22	2.12
02Jan2000	06:39	0.00	10.70	752.22	2.12
02Jan2000	06:42	0.00	10.69	752.22	2.12

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	06:45	0.00	10.69	752.22	2.12
02Jan2000	06:48	0.00	10.68	752.22	2.12
02Jan2000	06:51	0.00	10.67	752.21	2.12
02Jan2000	06:54	0.00	10.66	752.21	2.12
02Jan2000	06:57	0.00	10.65	752.21	2.12
02Jan2000	07:00	0.00	10.64	752.21	2.12
02Jan2000	07:03	0.00	10.63	752.21	2.12
02Jan2000	07:06	0.00	10.62	752.21	2.12
02Jan2000	07:09	0.00	10.62	752.20	2.11
02Jan2000	07:12	0.00	10.61	752.20	2.11
02Jan2000	07:15	0.00	10.60	752.20	2.11
02Jan2000	07:18	0.00	10.59	752.20	2.11
02Jan2000	07:21	0.00	10.58	752.20	2.11
02Jan2000	07:24	0.00	10.57	752.19	2.11
02Jan2000	07:27	0.00	10.56	752.19	2.11
02Jan2000	07:30	0.00	10.55	752.19	2.11
02Jan2000	07:33	0.00	10.55	752.19	2.11
02Jan2000	07:36	0.00	10.54	752.19	2.11
02Jan2000	07:39	0.00	10.53	752.18	2.11
02Jan2000	07:42	0.00	10.52	752.18	2.11
02Jan2000	07:45	0.00	10.51	752.18	2.10
02Jan2000	07:48	0.00	10.50	752.18	2.10
02Jan2000	07:51	0.00	10.49	752.18	2.10
02Jan2000	07:54	0.00	10.49	752.18	2.10
02Jan2000	07:57	0.00	10.48	752.17	2.10
02Jan2000	08:00	0.00	10.47	752.17	2.10
02Jan2000	08:03	0.00	10.46	752.17	2.10
02Jan2000	08:06	0.00	10.45	752.17	2.10
02Jan2000	08:09	0.00	10.44	752.17	2.10
02Jan2000	08:12	0.00	10.43	752.16	2.10
02Jan2000	08:15	0.00	10.42	752.16	2.10

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	08:18	0.00	10.42	752.16	2.10
02Jan2000	08:21	0.00	10.41	752.16	2.09
02Jan2000	08:24	0.00	10.40	752.16	2.09
02Jan2000	08:27	0.00	10.39	752.15	2.09
02Jan2000	08:30	0.00	10.38	752.15	2.09
02Jan2000	08:33	0.00	10.37	752.15	2.09
02Jan2000	08:36	0.00	10.36	752.15	2.09
02Jan2000	08:39	0.00	10.36	752.15	2.09
02Jan2000	08:42	0.00	10.35	752.14	2.09
02Jan2000	08:45	0.00	10.34	752.14	2.09
02Jan2000	08:48	0.00	10.33	752.14	2.09
02Jan2000	08:51	0.00	10.32	752.14	2.09
02Jan2000	08:54	0.00	10.31	752.14	2.09
02Jan2000	08:57	0.00	10.30	752.14	2.08
02Jan2000	09:00	0.00	10.29	752.13	2.08
02Jan2000	09:03	0.00	10.29	752.13	2.08
02Jan2000	09:06	0.00	10.28	752.13	2.08
02Jan2000	09:09	0.00	10.27	752.13	2.08
02Jan2000	09:12	0.00	10.26	752.13	2.08
02Jan2000	09:15	0.00	10.25	752.12	2.08
02Jan2000	09:18	0.00	10.24	752.12	2.08
02Jan2000	09:21	0.00	10.23	752.12	2.08
02Jan2000	09:24	0.00	10.23	752.12	2.08
02Jan2000	09:27	0.00	10.22	752.12	2.08
02Jan2000	09:30	0.00	10.21	752.11	2.08
02Jan2000	09:33	0.00	10.20	752.11	2.07
02Jan2000	09:36	0.00	10.19	752.11	2.07
02Jan2000	09:39	0.00	10.18	752.11	2.07
02Jan2000	09:42	0.00	10.17	752.11	2.07
02Jan2000	09:45	0.00	10.17	752.11	2.07
02Jan2000	09:48	0.00	10.16	752.10	2.07

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	09:51	0.00	10.15	752.10	2.07
02Jan2000	09:54	0.00	10.14	752.10	2.07
02Jan2000	09:57	0.00	10.13	752.10	2.07
02Jan2000	10:00	0.00	10.12	752.10	2.07
02Jan2000	10:03	0.00	10.11	752.09	2.07
02Jan2000	10:06	0.00	10.11	752.09	2.07
02Jan2000	10:09	0.00	10.10	752.09	2.06
02Jan2000	10:12	0.00	10.09	752.09	2.06
02Jan2000	10:15	0.00	10.08	752.09	2.06
02Jan2000	10:18	0.00	10.07	752.09	2.06
02Jan2000	10:21	0.00	10.06	752.08	2.06
02Jan2000	10:24	0.00	10.05	752.08	2.06
02Jan2000	10:27	0.00	10.05	752.08	2.06
02Jan2000	10:30	0.00	10.04	752.08	2.06
02Jan2000	10:33	0.00	10.03	752.08	2.06
02Jan2000	10:36	0.00	10.02	752.07	2.06
02Jan2000	10:39	0.00	10.01	752.07	2.06
02Jan2000	10:42	0.00	10.00	752.07	2.06
02Jan2000	10:45	0.00	10.00	752.07	2.05
02Jan2000	10:48	0.00	9.99	752.07	2.05
02Jan2000	10:51	0.00	9.98	752.06	2.05
02Jan2000	10:54	0.00	9.97	752.06	2.05
02Jan2000	10:57	0.00	9.96	752.06	2.05
02Jan2000	11:00	0.00	9.95	752.06	2.05
02Jan2000	11:03	0.00	9.94	752.06	2.05
02Jan2000	11:06	0.00	9.94	752.06	2.05
02Jan2000	11:09	0.00	9.93	752.05	2.05
02Jan2000	11:12	0.00	9.92	752.05	2.05
02Jan2000	11:15	0.00	9.91	752.05	2.05
02Jan2000	11:18	0.00	9.90	752.05	2.05
02Jan2000	11:21	0.00	9.89	752.05	2.04

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	11:24	0.00	9.89	752.04	2.04
02Jan2000	11:27	0.00	9.88	752.04	2.04
02Jan2000	11:30	0.00	9.87	752.04	2.04
02Jan2000	11:33	0.00	9.86	752.04	2.04
02Jan2000	11:36	0.00	9.85	752.04	2.04
02Jan2000	11:39	0.00	9.84	752.04	2.04
02Jan2000	11:42	0.00	9.83	752.03	2.04
02Jan2000	11:45	0.00	9.83	752.03	2.04
02Jan2000	11:48	0.00	9.82	752.03	2.04
02Jan2000	11:51	0.00	9.81	752.03	2.04
02Jan2000	11:54	0.00	9.80	752.03	2.04
02Jan2000	11:57	0.00	9.79	752.02	2.03
02Jan2000	12:00	0.00	9.78	752.02	2.03
02Jan2000	12:03	0.00	9.78	752.02	2.03
02Jan2000	12:06	0.00	9.77	752.02	2.03
02Jan2000	12:09	0.00	9.76	752.02	2.03
02Jan2000	12:12	0.00	9.75	752.02	2.03
02Jan2000	12:15	0.00	9.74	752.01	2.03
02Jan2000	12:18	0.00	9.73	752.01	2.03
02Jan2000	12:21	0.00	9.73	752.01	2.03
02Jan2000	12:24	0.00	9.72	752.01	2.03
02Jan2000	12:27	0.00	9.71	752.01	2.03
02Jan2000	12:30	0.00	9.70	752.00	2.03
02Jan2000	12:33	0.00	9.69	752.00	2.02
02Jan2000	12:36	0.00	9.68	752.00	2.02
02Jan2000	12:39	0.00	9.68	752.00	2.02
02Jan2000	12:42	0.00	9.67	752.00	2.02
02Jan2000	12:45	0.00	9.66	751.99	2.02
02Jan2000	12:48	0.00	9.65	751.99	2.02
02Jan2000	12:51	0.00	9.64	751.99	2.02
02Jan2000	12:54	0.00	9.63	751.99	2.02

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	12:57	0.00	9.63	751.99	2.02
02Jan2000	13:00	0.00	9.62	751.98	2.02
02Jan2000	13:03	0.00	9.61	751.98	2.02
02Jan2000	13:06	0.00	9.60	751.98	2.01
02Jan2000	13:09	0.00	9.59	751.98	2.01
02Jan2000	13:12	0.00	9.58	751.98	2.01
02Jan2000	13:15	0.00	9.58	751.97	2.01
02Jan2000	13:18	0.00	9.57	751.97	2.01
02Jan2000	13:21	0.00	9.56	751.97	2.01
02Jan2000	13:24	0.00	9.55	751.97	2.01
02Jan2000	13:27	0.00	9.54	751.97	2.01
02Jan2000	13:30	0.00	9.53	751.96	2.01
02Jan2000	13:33	0.00	9.53	751.96	2.01
02Jan2000	13:36	0.00	9.52	751.96	2.00
02Jan2000	13:39	0.00	9.51	751.96	2.00
02Jan2000	13:42	0.00	9.50	751.96	2.00
02Jan2000	13:45	0.00	9.49	751.95	2.00
02Jan2000	13:48	0.00	9.48	751.95	2.00
02Jan2000	13:51	0.00	9.48	751.95	2.00
02Jan2000	13:54	0.00	9.47	751.95	2.00
02Jan2000	13:57	0.00	9.46	751.94	2.00
02Jan2000	14:00	0.00	9.45	751.94	2.00
02Jan2000	14:03	0.00	9.44	751.94	2.00
02Jan2000	14:06	0.00	9.43	751.94	2.00
02Jan2000	14:09	0.00	9.43	751.94	1.99
02Jan2000	14:12	0.00	9.42	751.93	1.99
02Jan2000	14:15	0.00	9.41	751.93	1.99
02Jan2000	14:18	0.00	9.40	751.93	1.99
02Jan2000	14:21	0.00	9.39	751.93	1.99
02Jan2000	14:24	0.00	9.39	751.93	1.99
02Jan2000	14:27	0.00	9.38	751.92	1.99

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	14:30	0.00	9.37	751.92	1.99
02Jan2000	14:33	0.00	9.36	751.92	1.99
02Jan2000	14:36	0.00	9.35	751.92	1.99
02Jan2000	14:39	0.00	9.34	751.92	1.98
02Jan2000	14:42	0.00	9.34	751.91	1.98
02Jan2000	14:45	0.00	9.33	751.91	1.98
02Jan2000	14:48	0.00	9.32	751.91	1.98
02Jan2000	14:51	0.00	9.31	751.91	1.98
02Jan2000	14:54	0.00	9.30	751.91	1.98
02Jan2000	14:57	0.00	9.29	751.90	1.98
02Jan2000	15:00	0.00	9.29	751.90	1.98
02Jan2000	15:03	0.00	9.28	751.90	1.98
02Jan2000	15:06	0.00	9.27	751.90	1.98
02Jan2000	15:09	0.00	9.26	751.90	1.97
02Jan2000	15:12	0.00	9.25	751.89	1.97
02Jan2000	15:15	0.00	9.25	751.89	1.97
02Jan2000	15:18	0.00	9.24	751.89	1.97
02Jan2000	15:21	0.00	9.23	751.89	1.97
02Jan2000	15:24	0.00	9.22	751.89	1.97
02Jan2000	15:27	0.00	9.21	751.88	1.97
02Jan2000	15:30	0.00	9.21	751.88	1.97
02Jan2000	15:33	0.00	9.20	751.88	1.97
02Jan2000	15:36	0.00	9.19	751.88	1.97
02Jan2000	15:39	0.00	9.18	751.88	1.97
02Jan2000	15:42	0.00	9.17	751.87	1.96
02Jan2000	15:45	0.00	9.16	751.87	1.96
02Jan2000	15:48	0.00	9.16	751.87	1.96
02Jan2000	15:51	0.00	9.15	751.87	1.96
02Jan2000	15:54	0.00	9.14	751.87	1.96
02Jan2000	15:57	0.00	9.13	751.86	1.96
02Jan2000	16:00	0.00	9.12	751.86	1.96

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	16:03	0.00	9.12	751.86	1.96
02Jan2000	16:06	0.00	9.11	751.86	1.96
02Jan2000	16:09	0.00	9.10	751.86	1.96
02Jan2000	16:12	0.00	9.09	751.85	1.95
02Jan2000	16:15	0.00	9.08	751.85	1.95
02Jan2000	16:18	0.00	9.08	751.85	1.95
02Jan2000	16:21	0.00	9.07	751.85	1.95
02Jan2000	16:24	0.00	9.06	751.85	1.95
02Jan2000	16:27	0.00	9.05	751.84	1.95
02Jan2000	16:30	0.00	9.04	751.84	1.95
02Jan2000	16:33	0.00	9.04	751.84	1.95
02Jan2000	16:36	0.00	9.03	751.84	1.95
02Jan2000	16:39	0.00	9.02	751.84	1.95
02Jan2000	16:42	0.00	9.01	751.83	1.95
02Jan2000	16:45	0.00	9.00	751.83	1.94
02Jan2000	16:48	0.00	9.00	751.83	1.94
02Jan2000	16:51	0.00	8.99	751.83	1.94
02Jan2000	16:54	0.00	8.98	751.83	1.94
02Jan2000	16:57	0.00	8.97	751.82	1.94
02Jan2000	17:00	0.00	8.96	751.82	1.94
02Jan2000	17:03	0.00	8.95	751.82	1.94
02Jan2000	17:06	0.00	8.95	751.82	1.94
02Jan2000	17:09	0.00	8.94	751.82	1.94
02Jan2000	17:12	0.00	8.93	751.81	1.94
02Jan2000	17:15	0.00	8.92	751.81	1.93
02Jan2000	17:18	0.00	8.91	751.81	1.93
02Jan2000	17:21	0.00	8.91	751.81	1.93
02Jan2000	17:24	0.00	8.90	751.81	1.93
02Jan2000	17:27	0.00	8.89	751.80	1.93
02Jan2000	17:30	0.00	8.88	751.80	1.93
02Jan2000	17:33	0.00	8.88	751.80	1.93

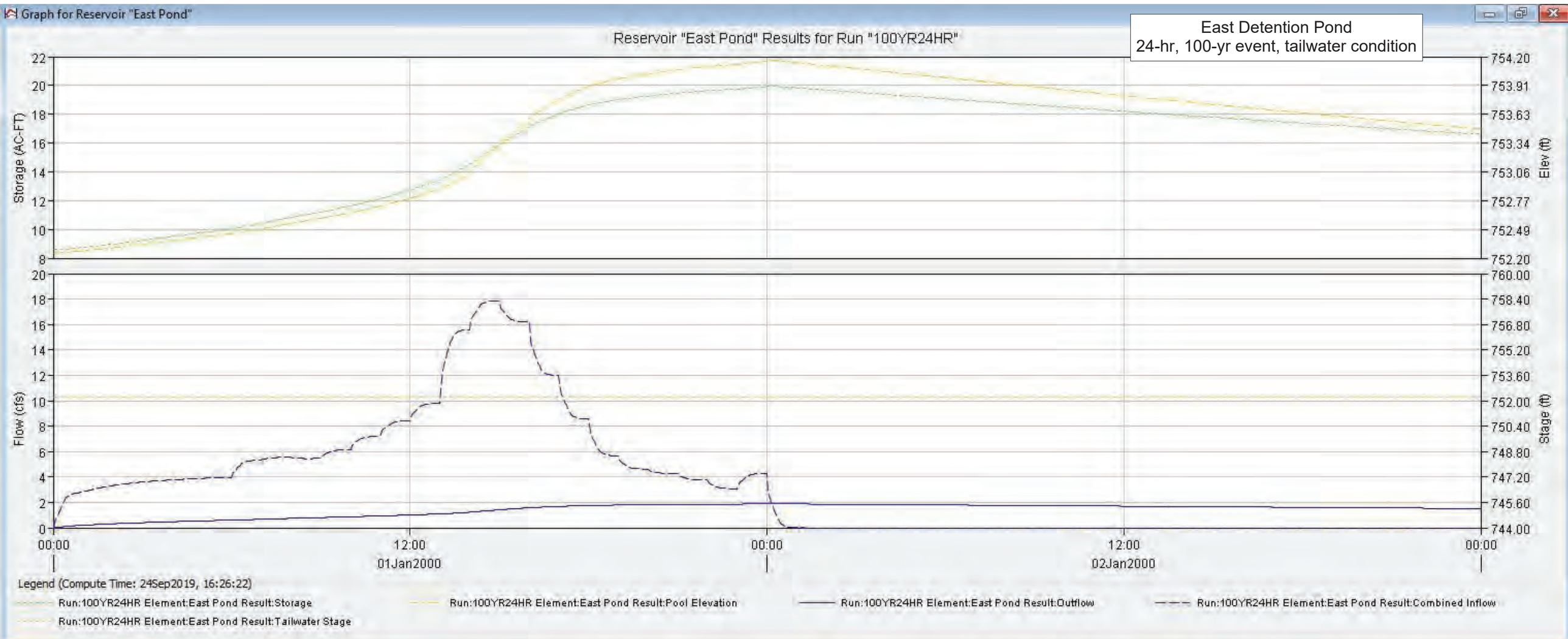
Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	17:36	0.00	8.87	751.80	1.93
02Jan2000	17:39	0.00	8.86	751.80	1.93
02Jan2000	17:42	0.00	8.85	751.79	1.93
02Jan2000	17:45	0.00	8.84	751.79	1.93
02Jan2000	17:48	0.00	8.84	751.79	1.92
02Jan2000	17:51	0.00	8.83	751.79	1.92
02Jan2000	17:54	0.00	8.82	751.79	1.92
02Jan2000	17:57	0.00	8.81	751.78	1.92
02Jan2000	18:00	0.00	8.80	751.78	1.92
02Jan2000	18:03	0.00	8.80	751.78	1.92
02Jan2000	18:06	0.00	8.79	751.78	1.92
02Jan2000	18:09	0.00	8.78	751.78	1.92
02Jan2000	18:12	0.00	8.77	751.77	1.92
02Jan2000	18:15	0.00	8.76	751.77	1.92
02Jan2000	18:18	0.00	8.76	751.77	1.91
02Jan2000	18:21	0.00	8.75	751.77	1.91
02Jan2000	18:24	0.00	8.74	751.77	1.91
02Jan2000	18:27	0.00	8.73	751.76	1.91
02Jan2000	18:30	0.00	8.72	751.76	1.91
02Jan2000	18:33	0.00	8.72	751.76	1.91
02Jan2000	18:36	0.00	8.71	751.76	1.91
02Jan2000	18:39	0.00	8.70	751.76	1.91
02Jan2000	18:42	0.00	8.69	751.75	1.91
02Jan2000	18:45	0.00	8.68	751.75	1.91
02Jan2000	18:48	0.00	8.68	751.75	1.90
02Jan2000	18:51	0.00	8.67	751.75	1.90
02Jan2000	18:54	0.00	8.66	751.75	1.90
02Jan2000	18:57	0.00	8.65	751.74	1.90
02Jan2000	19:00	0.00	8.65	751.74	1.90
02Jan2000	19:03	0.00	8.64	751.74	1.90
02Jan2000	19:06	0.00	8.63	751.74	1.90

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	19:09	0.00	8.62	751.74	1.90
02Jan2000	19:12	0.00	8.61	751.73	1.90
02Jan2000	19:15	0.00	8.61	751.73	1.90
02Jan2000	19:18	0.00	8.60	751.73	1.90
02Jan2000	19:21	0.00	8.59	751.73	1.89
02Jan2000	19:24	0.00	8.58	751.73	1.89
02Jan2000	19:27	0.00	8.57	751.72	1.89
02Jan2000	19:30	0.00	8.57	751.72	1.89
02Jan2000	19:33	0.00	8.56	751.72	1.89
02Jan2000	19:36	0.00	8.55	751.72	1.89
02Jan2000	19:39	0.00	8.54	751.72	1.89
02Jan2000	19:42	0.00	8.54	751.71	1.89
02Jan2000	19:45	0.00	8.53	751.71	1.89
02Jan2000	19:48	0.00	8.52	751.71	1.89
02Jan2000	19:51	0.00	8.51	751.71	1.88
02Jan2000	19:54	0.00	8.50	751.71	1.88
02Jan2000	19:57	0.00	8.50	751.70	1.88
02Jan2000	20:00	0.00	8.49	751.70	1.88
02Jan2000	20:03	0.00	8.48	751.70	1.88
02Jan2000	20:06	0.00	8.47	751.70	1.88
02Jan2000	20:09	0.00	8.47	751.70	1.88
02Jan2000	20:12	0.00	8.46	751.70	1.88
02Jan2000	20:15	0.00	8.45	751.69	1.88
02Jan2000	20:18	0.00	8.44	751.69	1.88
02Jan2000	20:21	0.00	8.43	751.69	1.88
02Jan2000	20:24	0.00	8.43	751.69	1.87
02Jan2000	20:27	0.00	8.42	751.69	1.87
02Jan2000	20:30	0.00	8.41	751.68	1.87
02Jan2000	20:33	0.00	8.40	751.68	1.87
02Jan2000	20:36	0.00	8.40	751.68	1.87
02Jan2000	20:39	0.00	8.39	751.68	1.87

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	20:42	0.00	8.38	751.68	1.87
02Jan2000	20:45	0.00	8.37	751.67	1.87
02Jan2000	20:48	0.00	8.37	751.67	1.87
02Jan2000	20:51	0.00	8.36	751.67	1.87
02Jan2000	20:54	0.00	8.35	751.67	1.86
02Jan2000	20:57	0.00	8.34	751.67	1.86
02Jan2000	21:00	0.00	8.33	751.66	1.86
02Jan2000	21:03	0.00	8.33	751.66	1.86
02Jan2000	21:06	0.00	8.32	751.66	1.86
02Jan2000	21:09	0.00	8.31	751.66	1.86
02Jan2000	21:12	0.00	8.30	751.66	1.86
02Jan2000	21:15	0.00	8.30	751.65	1.86
02Jan2000	21:18	0.00	8.29	751.65	1.86
02Jan2000	21:21	0.00	8.28	751.65	1.86
02Jan2000	21:24	0.00	8.27	751.65	1.86
02Jan2000	21:27	0.00	8.27	751.65	1.85
02Jan2000	21:30	0.00	8.26	751.65	1.85
02Jan2000	21:33	0.00	8.25	751.64	1.85
02Jan2000	21:36	0.00	8.24	751.64	1.85
02Jan2000	21:39	0.00	8.23	751.64	1.85
02Jan2000	21:42	0.00	8.23	751.64	1.85
02Jan2000	21:45	0.00	8.22	751.64	1.85
02Jan2000	21:48	0.00	8.21	751.63	1.85
02Jan2000	21:51	0.00	8.20	751.63	1.85
02Jan2000	21:54	0.00	8.20	751.63	1.85
02Jan2000	21:57	0.00	8.19	751.63	1.84
02Jan2000	22:00	0.00	8.18	751.63	1.84
02Jan2000	22:03	0.00	8.17	751.62	1.84
02Jan2000	22:06	0.00	8.17	751.62	1.84
02Jan2000	22:09	0.00	8.16	751.62	1.84
02Jan2000	22:12	0.00	8.15	751.62	1.84

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	22:15	0.00	8.14	751.62	1.84
02Jan2000	22:18	0.00	8.14	751.61	1.84
02Jan2000	22:21	0.00	8.13	751.61	1.84
02Jan2000	22:24	0.00	8.12	751.61	1.84
02Jan2000	22:27	0.00	8.11	751.61	1.83
02Jan2000	22:30	0.00	8.11	751.61	1.83
02Jan2000	22:33	0.00	8.10	751.61	1.83
02Jan2000	22:36	0.00	8.09	751.60	1.83
02Jan2000	22:39	0.00	8.08	751.60	1.83
02Jan2000	22:42	0.00	8.08	751.60	1.83
02Jan2000	22:45	0.00	8.07	751.60	1.83
02Jan2000	22:48	0.00	8.06	751.60	1.83
02Jan2000	22:51	0.00	8.05	751.59	1.83
02Jan2000	22:54	0.00	8.04	751.59	1.83
02Jan2000	22:57	0.00	8.04	751.59	1.83
02Jan2000	23:00	0.00	8.03	751.59	1.82
02Jan2000	23:03	0.00	8.02	751.59	1.82
02Jan2000	23:06	0.00	8.01	751.58	1.82
02Jan2000	23:09	0.00	8.01	751.58	1.82
02Jan2000	23:12	0.00	8.00	751.58	1.82
02Jan2000	23:15	0.00	7.99	751.58	1.82
02Jan2000	23:18	0.00	7.98	751.58	1.82
02Jan2000	23:21	0.00	7.98	751.58	1.82
02Jan2000	23:24	0.00	7.97	751.57	1.82
02Jan2000	23:27	0.00	7.96	751.57	1.82
02Jan2000	23:30	0.00	7.95	751.57	1.81
02Jan2000	23:33	0.00	7.95	751.57	1.81
02Jan2000	23:36	0.00	7.94	751.57	1.81
02Jan2000	23:39	0.00	7.93	751.56	1.81
02Jan2000	23:42	0.00	7.92	751.56	1.81
02Jan2000	23:45	0.00	7.92	751.56	1.81

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	23:48	0.00	7.91	751.56	1.81
02Jan2000	23:51	0.00	7.90	751.56	1.81
02Jan2000	23:54	0.00	7.89	751.55	1.81
02Jan2000	23:57	0.00	7.89	751.55	1.81
03Jan2000	00:00	0.00	7.88	751.55	1.81


Graph for Reservoir "East Pond"
Reservoir "East Pond" Results for Run "100YR24HR"
East Detention Pond
24-hr, 100-yr event, tailwater condition
Storage (AC-FT)
Elev (ft)
Flow (cfs)
Stage (ft)
00:00
12:00
01Jan2000
00:00
12:00
02Jan2000
00:00
Legend (Compute Time: 24Sep2019, 16:26:22)
Run:100YR24HR Element:East Pond Result:Storage
Run:100YR24HR Element:East Pond Result:Pool Elevation
Run:100YR24HR Element:East Pond Result:Outflow
Run:100YR24HR Element:East Pond Result:Combined Inflow
Run:100YR24HR Element:East Pond Result:Tailwater Stage

East Detention Pond
24-hr, 100-yr event, tailwater condition

Summary Results for Reservoir "East Pond"

Project: Project 2 Simulation Run: 100YR24HR
Reservoir: East Pond

Start of Run:	01Jan2000, 00:00	Basin Model:	Final
End of Run:	03Jan2000, 00:00	Meteorologic Model:	100YR24HR
Compute Time:	24Sep2019, 16:26:22	Control Specifications:	24HR

Volume Units: (•) IN ( ) AC-FT

Computed Results

Peak Inflow:	17.88 (CFS)	Date/Time of Peak Inflow:	01Jan2000, 15:00
Peak Discharge:	1.89 (CFS)	Date/Time of Peak Discharge:	02Jan2000, 00:09
Inflow Volume:	7.26 (IN)	Peak Storage:	19.94 (AC-FT)
Discharge Volume:	2.97 (IN)	Peak Elevation:	754.16 (FT)

East Detention Pond
24-Hour, 100-year Event,
With Tailwater
SUMMARY TABLE

Project: Project 2 Simulation Run: 100YR24HR
Reservoir: East Pond

Start of Run: 01Jan2000, 00:00 Basin Model: Final
End of Run: 03Jan2000, 00:00 Meteorologic Model: 100YR24HR
Compute Time: 24Sep2019, 16:26:22 Control Specifications: 24HR

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	00:00	0.00	8.58	752.25	0.00
01Jan2000	00:03	0.46	8.58	752.25	0.01
01Jan2000	00:06	0.68	8.58	752.25	0.03
01Jan2000	00:09	0.91	8.59	752.25	0.04
01Jan2000	00:12	1.21	8.59	752.25	0.05
01Jan2000	00:15	1.53	8.60	752.25	0.06
01Jan2000	00:18	1.83	8.60	752.25	0.07
01Jan2000	00:21	2.08	8.61	752.25	0.09
01Jan2000	00:24	2.27	8.62	752.26	0.10
01Jan2000	00:27	2.41	8.63	752.26	0.11
01Jan2000	00:30	2.50	8.64	752.26	0.12
01Jan2000	00:33	2.57	8.65	752.26	0.13
01Jan2000	00:36	2.63	8.66	752.26	0.14
01Jan2000	00:39	2.67	8.67	752.26	0.15
01Jan2000	00:42	2.70	8.68	752.26	0.16
01Jan2000	00:45	2.72	8.69	752.26	0.16
01Jan2000	00:48	2.74	8.70	752.27	0.17
01Jan2000	00:51	2.75	8.71	752.27	0.18
01Jan2000	00:54	2.77	8.72	752.27	0.19
01Jan2000	00:57	2.78	8.73	752.27	0.19
01Jan2000	01:00	2.81	8.74	752.27	0.20
01Jan2000	01:03	2.85	8.75	752.27	0.21
01Jan2000	01:06	2.88	8.76	752.27	0.21
01Jan2000	01:09	2.92	8.78	752.28	0.22
01Jan2000	01:12	2.95	8.79	752.28	0.23
01Jan2000	01:15	2.98	8.80	752.28	0.23

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	01:18	3.01	8.81	752.28	0.24
01Jan2000	01:21	3.03	8.82	752.28	0.24
01Jan2000	01:24	3.06	8.83	752.28	0.25
01Jan2000	01:27	3.08	8.84	752.28	0.25
01Jan2000	01:30	3.11	8.86	752.29	0.26
01Jan2000	01:33	3.13	8.87	752.29	0.27
01Jan2000	01:36	3.16	8.88	752.29	0.27
01Jan2000	01:39	3.18	8.89	752.29	0.28
01Jan2000	01:42	3.20	8.90	752.29	0.28
01Jan2000	01:45	3.22	8.92	752.29	0.29
01Jan2000	01:48	3.24	8.93	752.30	0.29
01Jan2000	01:51	3.26	8.94	752.30	0.30
01Jan2000	01:54	3.28	8.95	752.30	0.30
01Jan2000	01:57	3.30	8.96	752.30	0.31
01Jan2000	02:00	3.32	8.98	752.30	0.31
01Jan2000	02:03	3.34	8.99	752.30	0.32
01Jan2000	02:06	3.36	9.00	752.31	0.32
01Jan2000	02:09	3.37	9.01	752.31	0.33
01Jan2000	02:12	3.39	9.03	752.31	0.33
01Jan2000	02:15	3.41	9.04	752.31	0.34
01Jan2000	02:18	3.42	9.05	752.31	0.34
01Jan2000	02:21	3.44	9.07	752.31	0.34
01Jan2000	02:24	3.45	9.08	752.32	0.35
01Jan2000	02:27	3.47	9.09	752.32	0.35
01Jan2000	02:30	3.48	9.10	752.32	0.36
01Jan2000	02:33	3.49	9.12	752.32	0.36
01Jan2000	02:36	3.51	9.13	752.32	0.37
01Jan2000	02:39	3.52	9.14	752.32	0.37
01Jan2000	02:42	3.53	9.16	752.33	0.38
01Jan2000	02:45	3.54	9.17	752.33	0.38
01Jan2000	02:48	3.56	9.18	752.33	0.38

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	02:51	3.57	9.20	752.33	0.39
01Jan2000	02:54	3.58	9.21	752.33	0.39
01Jan2000	02:57	3.59	9.22	752.33	0.40
01Jan2000	03:00	3.60	9.23	752.34	0.40
01Jan2000	03:03	3.61	9.25	752.34	0.40
01Jan2000	03:06	3.62	9.26	752.34	0.41
01Jan2000	03:09	3.63	9.27	752.34	0.41
01Jan2000	03:12	3.64	9.29	752.34	0.42
01Jan2000	03:15	3.65	9.30	752.34	0.42
01Jan2000	03:18	3.66	9.31	752.35	0.42
01Jan2000	03:21	3.67	9.33	752.35	0.43
01Jan2000	03:24	3.68	9.34	752.35	0.43
01Jan2000	03:27	3.69	9.35	752.35	0.44
01Jan2000	03:30	3.70	9.37	752.35	0.44
01Jan2000	03:33	3.71	9.38	752.36	0.44
01Jan2000	03:36	3.71	9.40	752.36	0.45
01Jan2000	03:39	3.72	9.41	752.36	0.45
01Jan2000	03:42	3.73	9.42	752.36	0.45
01Jan2000	03:45	3.74	9.44	752.36	0.46
01Jan2000	03:48	3.75	9.45	752.36	0.46
01Jan2000	03:51	3.75	9.46	752.37	0.46
01Jan2000	03:54	3.76	9.48	752.37	0.47
01Jan2000	03:57	3.77	9.49	752.37	0.47
01Jan2000	04:00	3.78	9.50	752.37	0.48
01Jan2000	04:03	3.78	9.52	752.37	0.48
01Jan2000	04:06	3.79	9.53	752.38	0.48
01Jan2000	04:09	3.80	9.54	752.38	0.49
01Jan2000	04:12	3.80	9.56	752.38	0.49
01Jan2000	04:15	3.81	9.57	752.38	0.49
01Jan2000	04:18	3.81	9.59	752.38	0.50
01Jan2000	04:21	3.82	9.60	752.38	0.50

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	04:24	3.83	9.61	752.39	0.50
01Jan2000	04:27	3.83	9.63	752.39	0.51
01Jan2000	04:30	3.84	9.64	752.39	0.51
01Jan2000	04:33	3.84	9.65	752.39	0.51
01Jan2000	04:36	3.85	9.67	752.39	0.52
01Jan2000	04:39	3.85	9.68	752.39	0.52
01Jan2000	04:42	3.86	9.70	752.40	0.52
01Jan2000	04:45	3.87	9.71	752.40	0.53
01Jan2000	04:48	3.87	9.72	752.40	0.53
01Jan2000	04:51	3.88	9.74	752.40	0.53
01Jan2000	04:54	3.88	9.75	752.40	0.54
01Jan2000	04:57	3.89	9.76	752.41	0.54
01Jan2000	05:00	3.89	9.78	752.41	0.54
01Jan2000	05:03	3.90	9.79	752.41	0.54
01Jan2000	05:06	3.90	9.81	752.41	0.55
01Jan2000	05:09	3.90	9.82	752.41	0.55
01Jan2000	05:12	3.91	9.83	752.42	0.55
01Jan2000	05:15	3.91	9.85	752.42	0.56
01Jan2000	05:18	3.92	9.86	752.42	0.56
01Jan2000	05:21	3.92	9.88	752.42	0.56
01Jan2000	05:24	3.93	9.89	752.42	0.57
01Jan2000	05:27	3.93	9.90	752.42	0.57
01Jan2000	05:30	3.93	9.92	752.43	0.57
01Jan2000	05:33	3.94	9.93	752.43	0.58
01Jan2000	05:36	3.94	9.95	752.43	0.58
01Jan2000	05:39	3.95	9.96	752.43	0.58
01Jan2000	05:42	3.95	9.97	752.43	0.58
01Jan2000	05:45	3.95	9.99	752.44	0.59
01Jan2000	05:48	3.96	10.00	752.44	0.59
01Jan2000	05:51	3.96	10.01	752.44	0.59
01Jan2000	05:54	3.96	10.03	752.44	0.60

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	05:57	3.97	10.04	752.44	0.60
01Jan2000	06:00	3.97	10.06	752.44	0.60
01Jan2000	06:03	4.37	10.07	752.45	0.60
01Jan2000	06:06	4.51	10.09	752.45	0.61
01Jan2000	06:09	4.61	10.10	752.45	0.61
01Jan2000	06:12	4.73	10.12	752.45	0.61
01Jan2000	06:15	4.84	10.14	752.45	0.62
01Jan2000	06:18	4.95	10.16	752.46	0.62
01Jan2000	06:21	5.04	10.17	752.46	0.62
01Jan2000	06:24	5.11	10.19	752.46	0.63
01Jan2000	06:27	5.16	10.21	752.46	0.63
01Jan2000	06:30	5.20	10.23	752.47	0.64
01Jan2000	06:33	5.23	10.25	752.47	0.64
01Jan2000	06:36	5.26	10.27	752.47	0.64
01Jan2000	06:39	5.27	10.29	752.47	0.65
01Jan2000	06:42	5.29	10.31	752.48	0.65
01Jan2000	06:45	5.30	10.32	752.48	0.65
01Jan2000	06:48	5.31	10.34	752.48	0.66
01Jan2000	06:51	5.32	10.36	752.48	0.66
01Jan2000	06:54	5.32	10.38	752.49	0.66
01Jan2000	06:57	5.33	10.40	752.49	0.67
01Jan2000	07:00	5.34	10.42	752.49	0.67
01Jan2000	07:03	5.39	10.44	752.49	0.67
01Jan2000	07:06	5.41	10.46	752.50	0.68
01Jan2000	07:09	5.43	10.48	752.50	0.68
01Jan2000	07:12	5.45	10.50	752.50	0.69
01Jan2000	07:15	5.47	10.52	752.51	0.69
01Jan2000	07:18	5.48	10.54	752.51	0.69
01Jan2000	07:21	5.50	10.56	752.51	0.70
01Jan2000	07:24	5.51	10.58	752.51	0.70
01Jan2000	07:27	5.52	10.60	752.52	0.70

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	07:30	5.53	10.62	752.52	0.71
01Jan2000	07:33	5.53	10.64	752.52	0.71
01Jan2000	07:36	5.54	10.66	752.52	0.71
01Jan2000	07:39	5.55	10.68	752.53	0.72
01Jan2000	07:42	5.55	10.70	752.53	0.72
01Jan2000	07:45	5.55	10.72	752.53	0.72
01Jan2000	07:48	5.56	10.74	752.53	0.73
01Jan2000	07:51	5.56	10.76	752.54	0.73
01Jan2000	07:54	5.56	10.78	752.54	0.73
01Jan2000	07:57	5.57	10.80	752.54	0.74
01Jan2000	08:00	5.57	10.82	752.54	0.74
01Jan2000	08:03	5.52	10.84	752.55	0.74
01Jan2000	08:06	5.51	10.86	752.55	0.75
01Jan2000	08:09	5.50	10.88	752.55	0.75
01Jan2000	08:12	5.49	10.90	752.55	0.75
01Jan2000	08:15	5.47	10.92	752.56	0.76
01Jan2000	08:18	5.46	10.93	752.56	0.76
01Jan2000	08:21	5.46	10.95	752.56	0.76
01Jan2000	08:24	5.45	10.97	752.56	0.77
01Jan2000	08:27	5.45	10.99	752.57	0.77
01Jan2000	08:30	5.45	11.01	752.57	0.77
01Jan2000	08:33	5.44	11.03	752.57	0.77
01Jan2000	08:36	5.44	11.05	752.58	0.78
01Jan2000	08:39	5.45	11.07	752.58	0.78
01Jan2000	08:42	5.45	11.09	752.58	0.78
01Jan2000	08:45	5.45	11.11	752.58	0.79
01Jan2000	08:48	5.45	11.13	752.59	0.79
01Jan2000	08:51	5.45	11.15	752.59	0.79
01Jan2000	08:54	5.45	11.17	752.59	0.80
01Jan2000	08:57	5.45	11.19	752.59	0.80
01Jan2000	09:00	5.46	11.21	752.60	0.80

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	09:03	5.67	11.22	752.60	0.80
01Jan2000	09:06	5.75	11.25	752.60	0.81
01Jan2000	09:09	5.80	11.27	752.60	0.81
01Jan2000	09:12	5.86	11.29	752.61	0.81
01Jan2000	09:15	5.92	11.31	752.61	0.82
01Jan2000	09:18	5.97	11.33	752.61	0.82
01Jan2000	09:21	6.02	11.35	752.61	0.82
01Jan2000	09:24	6.05	11.37	752.62	0.83
01Jan2000	09:27	6.08	11.39	752.62	0.83
01Jan2000	09:30	6.10	11.41	752.62	0.83
01Jan2000	09:33	6.11	11.44	752.63	0.84
01Jan2000	09:36	6.12	11.46	752.63	0.84
01Jan2000	09:39	6.13	11.48	752.63	0.84
01Jan2000	09:42	6.14	11.50	752.63	0.85
01Jan2000	09:45	6.14	11.52	752.64	0.85
01Jan2000	09:48	6.15	11.55	752.64	0.85
01Jan2000	09:51	6.15	11.57	752.64	0.86
01Jan2000	09:54	6.15	11.59	752.65	0.86
01Jan2000	09:57	6.16	11.61	752.65	0.86
01Jan2000	10:00	6.16	11.63	752.65	0.86
01Jan2000	10:03	6.49	11.66	752.65	0.87
01Jan2000	10:06	6.61	11.68	752.66	0.87
01Jan2000	10:09	6.68	11.70	752.66	0.87
01Jan2000	10:12	6.77	11.73	752.66	0.88
01Jan2000	10:15	6.85	11.75	752.67	0.88
01Jan2000	10:18	6.93	11.78	752.67	0.88
01Jan2000	10:21	7.00	11.80	752.67	0.89
01Jan2000	10:24	7.05	11.83	752.68	0.89
01Jan2000	10:27	7.09	11.85	752.68	0.90
01Jan2000	10:30	7.12	11.88	752.68	0.90
01Jan2000	10:33	7.14	11.90	752.69	0.90

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	10:36	7.15	11.93	752.69	0.91
01Jan2000	10:39	7.16	11.96	752.69	0.91
01Jan2000	10:42	7.17	11.98	752.70	0.91
01Jan2000	10:45	7.18	12.01	752.70	0.92
01Jan2000	10:48	7.19	12.03	752.70	0.92
01Jan2000	10:51	7.19	12.06	752.71	0.92
01Jan2000	10:54	7.20	12.08	752.71	0.93
01Jan2000	10:57	7.20	12.11	752.71	0.93
01Jan2000	11:00	7.20	12.14	752.72	0.93
01Jan2000	11:03	7.59	12.16	752.72	0.94
01Jan2000	11:06	7.73	12.19	752.73	0.94
01Jan2000	11:09	7.82	12.22	752.73	0.94
01Jan2000	11:12	7.91	12.25	752.73	0.95
01Jan2000	11:15	8.01	12.28	752.74	0.95
01Jan2000	11:18	8.11	12.31	752.74	0.96
01Jan2000	11:21	8.18	12.34	752.74	0.96
01Jan2000	11:24	8.25	12.37	752.75	0.96
01Jan2000	11:27	8.29	12.40	752.75	0.97
01Jan2000	11:30	8.32	12.43	752.76	0.97
01Jan2000	11:33	8.34	12.46	752.76	0.97
01Jan2000	11:36	8.36	12.49	752.76	0.98
01Jan2000	11:39	8.38	12.52	752.77	0.98
01Jan2000	11:42	8.39	12.55	752.77	0.99
01Jan2000	11:45	8.39	12.58	752.78	0.99
01Jan2000	11:48	8.40	12.61	752.78	0.99
01Jan2000	11:51	8.41	12.64	752.78	1.00
01Jan2000	11:54	8.41	12.67	752.79	1.00
01Jan2000	11:57	8.41	12.70	752.79	1.00
01Jan2000	12:00	8.42	12.73	752.80	1.01
01Jan2000	12:03	8.86	12.76	752.80	1.01
01Jan2000	12:06	9.02	12.80	752.80	1.02

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	12:09	9.12	12.83	752.81	1.02
01Jan2000	12:12	9.23	12.86	752.81	1.02
01Jan2000	12:15	9.35	12.90	752.82	1.03
01Jan2000	12:18	9.45	12.93	752.82	1.03
01Jan2000	12:21	9.54	12.97	752.83	1.04
01Jan2000	12:24	9.61	13.00	752.83	1.04
01Jan2000	12:27	9.66	13.04	752.84	1.04
01Jan2000	12:30	9.70	13.07	752.84	1.05
01Jan2000	12:33	9.72	13.11	752.85	1.05
01Jan2000	12:36	9.74	13.15	752.85	1.06
01Jan2000	12:39	9.76	13.18	752.86	1.06
01Jan2000	12:42	9.77	13.22	752.86	1.07
01Jan2000	12:45	9.78	13.25	752.86	1.07
01Jan2000	12:48	9.79	13.29	752.87	1.07
01Jan2000	12:51	9.79	13.33	752.87	1.08
01Jan2000	12:54	9.80	13.36	752.88	1.08
01Jan2000	12:57	9.80	13.40	752.88	1.09
01Jan2000	13:00	9.80	13.43	752.89	1.09
01Jan2000	13:03	11.71	13.47	752.89	1.09
01Jan2000	13:06	12.39	13.52	752.90	1.10
01Jan2000	13:09	12.81	13.57	752.91	1.10
01Jan2000	13:12	13.27	13.62	752.91	1.11
01Jan2000	13:15	13.75	13.67	752.92	1.12
01Jan2000	13:18	14.19	13.72	752.93	1.12
01Jan2000	13:21	14.57	13.77	752.93	1.13
01Jan2000	13:24	14.86	13.83	752.94	1.13
01Jan2000	13:27	15.06	13.89	752.95	1.14
01Jan2000	13:30	15.20	13.95	752.96	1.15
01Jan2000	13:33	15.31	14.00	752.96	1.15
01Jan2000	13:36	15.39	14.06	752.97	1.16
01Jan2000	13:39	15.45	14.12	752.98	1.16

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	13:42	15.50	14.18	752.99	1.17
01Jan2000	13:45	15.53	14.24	752.99	1.18
01Jan2000	13:48	15.55	14.30	753.00	1.18
01Jan2000	13:51	15.57	14.36	753.02	1.19
01Jan2000	13:54	15.59	14.42	753.03	1.20
01Jan2000	13:57	15.60	14.48	753.04	1.21
01Jan2000	14:00	15.61	14.54	753.05	1.22
01Jan2000	14:03	16.35	14.60	753.07	1.23
01Jan2000	14:06	16.62	14.66	753.08	1.24
01Jan2000	14:09	16.78	14.72	753.09	1.25
01Jan2000	14:12	16.96	14.79	753.11	1.26
01Jan2000	14:15	17.15	14.85	753.12	1.27
01Jan2000	14:18	17.32	14.92	753.13	1.28
01Jan2000	14:21	17.46	14.99	753.15	1.29
01Jan2000	14:24	17.58	15.05	753.16	1.30
01Jan2000	14:27	17.65	15.12	753.17	1.31
01Jan2000	14:30	17.71	15.19	753.19	1.32
01Jan2000	14:33	17.75	15.26	753.20	1.33
01Jan2000	14:36	17.79	15.32	753.22	1.34
01Jan2000	14:39	17.81	15.39	753.23	1.35
01Jan2000	14:42	17.83	15.46	753.24	1.36
01Jan2000	14:45	17.84	15.53	753.26	1.37
01Jan2000	14:48	17.85	15.60	753.27	1.38
01Jan2000	14:51	17.86	15.66	753.29	1.39
01Jan2000	14:54	17.87	15.73	753.30	1.40
01Jan2000	14:57	17.87	15.80	753.31	1.41
01Jan2000	15:00	17.88	15.87	753.33	1.42
01Jan2000	15:03	17.32	15.94	753.34	1.43
01Jan2000	15:06	17.12	16.00	753.36	1.43
01Jan2000	15:09	17.00	16.07	753.37	1.44
01Jan2000	15:12	16.86	16.13	753.38	1.45

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	15:15	16.73	16.19	753.40	1.46
01Jan2000	15:18	16.60	16.26	753.41	1.47
01Jan2000	15:21	16.49	16.32	753.42	1.48
01Jan2000	15:24	16.41	16.38	753.43	1.48
01Jan2000	15:27	16.35	16.44	753.45	1.49
01Jan2000	15:30	16.31	16.50	753.46	1.50
01Jan2000	15:33	16.28	16.56	753.47	1.51
01Jan2000	15:36	16.26	16.62	753.49	1.52
01Jan2000	15:39	16.25	16.69	753.50	1.52
01Jan2000	15:42	16.24	16.75	753.51	1.53
01Jan2000	15:45	16.23	16.81	753.52	1.54
01Jan2000	15:48	16.22	16.87	753.54	1.55
01Jan2000	15:51	16.22	16.93	753.55	1.55
01Jan2000	15:54	16.22	16.99	753.56	1.56
01Jan2000	15:57	16.22	17.05	753.57	1.57
01Jan2000	16:00	16.22	17.11	753.59	1.58
01Jan2000	16:03	14.79	17.17	753.60	1.58
01Jan2000	16:06	14.29	17.22	753.61	1.59
01Jan2000	16:09	13.98	17.27	753.62	1.60
01Jan2000	16:12	13.64	17.32	753.63	1.60
01Jan2000	16:15	13.29	17.37	753.64	1.61
01Jan2000	16:18	12.97	17.42	753.65	1.61
01Jan2000	16:21	12.70	17.47	753.66	1.62
01Jan2000	16:24	12.49	17.51	753.67	1.63
01Jan2000	16:27	12.34	17.56	753.68	1.63
01Jan2000	16:30	12.24	17.60	753.69	1.64
01Jan2000	16:33	12.16	17.64	753.70	1.64
01Jan2000	16:36	12.10	17.69	753.71	1.65
01Jan2000	16:39	12.06	17.73	753.71	1.65
01Jan2000	16:42	12.03	17.77	753.72	1.66
01Jan2000	16:45	12.01	17.82	753.73	1.66

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	16:48	12.00	17.86	753.74	1.67
01Jan2000	16:51	11.99	17.90	753.75	1.67
01Jan2000	16:54	11.98	17.94	753.76	1.68
01Jan2000	16:57	11.97	17.99	753.77	1.68
01Jan2000	17:00	11.97	18.03	753.78	1.69
01Jan2000	17:03	10.82	18.07	753.78	1.69
01Jan2000	17:06	10.42	18.11	753.79	1.69
01Jan2000	17:09	10.17	18.14	753.80	1.70
01Jan2000	17:12	9.90	18.18	753.81	1.70
01Jan2000	17:15	9.62	18.21	753.81	1.71
01Jan2000	17:18	9.36	18.24	753.82	1.71
01Jan2000	17:21	9.14	18.27	753.83	1.71
01Jan2000	17:24	8.97	18.30	753.83	1.72
01Jan2000	17:27	8.86	18.33	753.84	1.72
01Jan2000	17:30	8.77	18.36	753.85	1.72
01Jan2000	17:33	8.71	18.39	753.85	1.73
01Jan2000	17:36	8.66	18.42	753.86	1.73
01Jan2000	17:39	8.63	18.45	753.86	1.73
01Jan2000	17:42	8.61	18.48	753.87	1.74
01Jan2000	17:45	8.59	18.51	753.87	1.74
01Jan2000	17:48	8.58	18.53	753.88	1.74
01Jan2000	17:51	8.57	18.56	753.89	1.75
01Jan2000	17:54	8.56	18.59	753.89	1.75
01Jan2000	17:57	8.56	18.62	753.90	1.75
01Jan2000	18:00	8.55	18.65	753.90	1.75
01Jan2000	18:03	7.58	18.67	753.91	1.76
01Jan2000	18:06	7.24	18.70	753.91	1.76
01Jan2000	18:09	7.02	18.72	753.92	1.76
01Jan2000	18:12	6.79	18.74	753.92	1.76
01Jan2000	18:15	6.56	18.76	753.93	1.77
01Jan2000	18:18	6.33	18.78	753.93	1.77

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	18:21	6.15	18.80	753.94	1.77
01Jan2000	18:24	6.01	18.81	753.94	1.77
01Jan2000	18:27	5.91	18.83	753.94	1.77
01Jan2000	18:30	5.84	18.85	753.95	1.78
01Jan2000	18:33	5.78	18.87	753.95	1.78
01Jan2000	18:36	5.74	18.88	753.95	1.78
01Jan2000	18:39	5.72	18.90	753.96	1.78
01Jan2000	18:42	5.70	18.91	753.96	1.78
01Jan2000	18:45	5.68	18.93	753.96	1.79
01Jan2000	18:48	5.67	18.95	753.97	1.79
01Jan2000	18:51	5.66	18.96	753.97	1.79
01Jan2000	18:54	5.66	18.98	753.97	1.79
01Jan2000	18:57	5.65	19.00	753.98	1.79
01Jan2000	19:00	5.65	19.01	753.98	1.79
01Jan2000	19:03	5.30	19.03	753.98	1.80
01Jan2000	19:06	5.18	19.04	753.99	1.80
01Jan2000	19:09	5.11	19.05	753.99	1.80
01Jan2000	19:12	5.02	19.07	753.99	1.80
01Jan2000	19:15	4.94	19.08	753.99	1.80
01Jan2000	19:18	4.86	19.09	754.00	1.80
01Jan2000	19:21	4.80	19.11	754.00	1.80
01Jan2000	19:24	4.75	19.12	754.00	1.81
01Jan2000	19:27	4.71	19.13	754.00	1.81
01Jan2000	19:30	4.69	19.14	754.01	1.81
01Jan2000	19:33	4.67	19.15	754.01	1.81
01Jan2000	19:36	4.65	19.17	754.01	1.81
01Jan2000	19:39	4.64	19.18	754.01	1.81
01Jan2000	19:42	4.64	19.19	754.02	1.81
01Jan2000	19:45	4.63	19.20	754.02	1.81
01Jan2000	19:48	4.63	19.21	754.02	1.82
01Jan2000	19:51	4.62	19.22	754.02	1.82

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	19:54	4.62	19.24	754.02	1.82
01Jan2000	19:57	4.62	19.25	754.03	1.82
01Jan2000	20:00	4.62	19.26	754.03	1.82
01Jan2000	20:03	4.50	19.27	754.03	1.82
01Jan2000	20:06	4.46	19.28	754.03	1.82
01Jan2000	20:09	4.44	19.29	754.04	1.82
01Jan2000	20:12	4.41	19.30	754.04	1.82
01Jan2000	20:15	4.38	19.31	754.04	1.83
01Jan2000	20:18	4.36	19.32	754.04	1.83
01Jan2000	20:21	4.34	19.33	754.04	1.83
01Jan2000	20:24	4.32	19.34	754.05	1.83
01Jan2000	20:27	4.31	19.36	754.05	1.83
01Jan2000	20:30	4.30	19.37	754.05	1.83
01Jan2000	20:33	4.29	19.38	754.05	1.83
01Jan2000	20:36	4.29	19.39	754.05	1.83
01Jan2000	20:39	4.28	19.40	754.06	1.83
01Jan2000	20:42	4.28	19.41	754.06	1.83
01Jan2000	20:45	4.28	19.42	754.06	1.84
01Jan2000	20:48	4.28	19.43	754.06	1.84
01Jan2000	20:51	4.28	19.44	754.06	1.84
01Jan2000	20:54	4.28	19.45	754.07	1.84
01Jan2000	20:57	4.28	19.46	754.07	1.84
01Jan2000	21:00	4.28	19.47	754.07	1.84
01Jan2000	21:03	4.10	19.48	754.07	1.84
01Jan2000	21:06	4.04	19.49	754.07	1.84
01Jan2000	21:09	4.01	19.49	754.08	1.84
01Jan2000	21:12	3.97	19.50	754.08	1.84
01Jan2000	21:15	3.92	19.51	754.08	1.84
01Jan2000	21:18	3.89	19.52	754.08	1.85
01Jan2000	21:21	3.85	19.53	754.08	1.85
01Jan2000	21:24	3.83	19.54	754.08	1.85

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	21:27	3.81	19.55	754.09	1.85
01Jan2000	21:30	3.80	19.55	754.09	1.85
01Jan2000	21:33	3.79	19.56	754.09	1.85
01Jan2000	21:36	3.78	19.57	754.09	1.85
01Jan2000	21:39	3.78	19.58	754.09	1.85
01Jan2000	21:42	3.77	19.59	754.09	1.85
01Jan2000	21:45	3.77	19.59	754.09	1.85
01Jan2000	21:48	3.77	19.60	754.10	1.85
01Jan2000	21:51	3.77	19.61	754.10	1.85
01Jan2000	21:54	3.77	19.62	754.10	1.86
01Jan2000	21:57	3.77	19.62	754.10	1.86
01Jan2000	22:00	3.76	19.63	754.10	1.86
01Jan2000	22:03	3.54	19.64	754.10	1.86
01Jan2000	22:06	3.45	19.65	754.11	1.86
01Jan2000	22:09	3.40	19.65	754.11	1.86
01Jan2000	22:12	3.35	19.66	754.11	1.86
01Jan2000	22:15	3.29	19.67	754.11	1.86
01Jan2000	22:18	3.24	19.67	754.11	1.86
01Jan2000	22:21	3.20	19.68	754.11	1.86
01Jan2000	22:24	3.17	19.68	754.11	1.86
01Jan2000	22:27	3.14	19.69	754.11	1.86
01Jan2000	22:30	3.13	19.69	754.11	1.86
01Jan2000	22:33	3.11	19.70	754.12	1.86
01Jan2000	22:36	3.10	19.70	754.12	1.86
01Jan2000	22:39	3.10	19.71	754.12	1.86
01Jan2000	22:42	3.09	19.71	754.12	1.86
01Jan2000	22:45	3.09	19.72	754.12	1.87
01Jan2000	22:48	3.09	19.72	754.12	1.87
01Jan2000	22:51	3.08	19.73	754.12	1.87
01Jan2000	22:54	3.08	19.73	754.12	1.87
01Jan2000	22:57	3.08	19.74	754.12	1.87

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
01Jan2000	23:00	3.08	19.74	754.12	1.87
01Jan2000	23:03	3.48	19.75	754.13	1.87
01Jan2000	23:06	3.62	19.76	754.13	1.87
01Jan2000	23:09	3.71	19.76	754.13	1.87
01Jan2000	23:12	3.80	19.77	754.13	1.87
01Jan2000	23:15	3.90	19.78	754.13	1.87
01Jan2000	23:18	3.99	19.79	754.13	1.87
01Jan2000	23:21	4.07	19.80	754.13	1.87
01Jan2000	23:24	4.13	19.81	754.14	1.87
01Jan2000	23:27	4.17	19.82	754.14	1.87
01Jan2000	23:30	4.20	19.83	754.14	1.88
01Jan2000	23:33	4.22	19.84	754.14	1.88
01Jan2000	23:36	4.24	19.85	754.14	1.88
01Jan2000	23:39	4.25	19.85	754.15	1.88
01Jan2000	23:42	4.26	19.86	754.15	1.88
01Jan2000	23:45	4.26	19.87	754.15	1.88
01Jan2000	23:48	4.27	19.88	754.15	1.88
01Jan2000	23:51	4.27	19.89	754.15	1.88
01Jan2000	23:54	4.27	19.90	754.16	1.88
01Jan2000	23:57	4.27	19.91	754.16	1.88
02Jan2000	00:00	4.28	19.92	754.16	1.89
02Jan2000	00:03	2.84	19.93	754.16	1.89
02Jan2000	00:06	2.34	19.93	754.16	1.89
02Jan2000	00:09	2.03	19.94	754.16	1.89
02Jan2000	00:12	1.69	19.93	754.16	1.89
02Jan2000	00:15	1.34	19.93	754.16	1.89
02Jan2000	00:18	1.02	19.93	754.16	1.89
02Jan2000	00:21	0.75	19.93	754.16	1.89
02Jan2000	00:24	0.54	19.92	754.16	1.88
02Jan2000	00:27	0.39	19.92	754.16	1.88
02Jan2000	00:30	0.29	19.91	754.16	1.88

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	00:33	0.21	19.90	754.16	1.88
02Jan2000	00:36	0.15	19.90	754.15	1.88
02Jan2000	00:39	0.11	19.89	754.15	1.88
02Jan2000	00:42	0.08	19.88	754.15	1.88
02Jan2000	00:45	0.06	19.87	754.15	1.88
02Jan2000	00:48	0.04	19.87	754.15	1.88
02Jan2000	00:51	0.03	19.86	754.15	1.88
02Jan2000	00:54	0.02	19.85	754.14	1.88
02Jan2000	00:57	0.01	19.84	754.14	1.88
02Jan2000	01:00	0.01	19.83	754.14	1.88
02Jan2000	01:03	0.01	19.83	754.14	1.88
02Jan2000	01:06	0.00	19.82	754.14	1.87
02Jan2000	01:09	0.00	19.81	754.14	1.87
02Jan2000	01:12	0.00	19.80	754.14	1.87
02Jan2000	01:15	0.00	19.80	754.13	1.87
02Jan2000	01:18	0.00	19.79	754.13	1.87
02Jan2000	01:21	0.00	19.78	754.13	1.87
02Jan2000	01:24	0.00	19.77	754.13	1.87
02Jan2000	01:27	0.00	19.77	754.13	1.87
02Jan2000	01:30	0.00	19.76	754.13	1.87
02Jan2000	01:33	0.00	19.75	754.13	1.87
02Jan2000	01:36	0.00	19.74	754.12	1.87
02Jan2000	01:39	0.00	19.73	754.12	1.87
02Jan2000	01:42	0.00	19.73	754.12	1.87
02Jan2000	01:45	0.00	19.72	754.12	1.87
02Jan2000	01:48	0.00	19.71	754.12	1.86
02Jan2000	01:51	0.00	19.70	754.12	1.86
02Jan2000	01:54	0.00	19.70	754.11	1.86
02Jan2000	01:57	0.00	19.69	754.11	1.86
02Jan2000	02:00	0.00	19.68	754.11	1.86
02Jan2000	02:03	0.00	19.67	754.11	1.86

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	02:06	0.00	19.67	754.11	1.86
02Jan2000	02:09	0.00	19.66	754.11	1.86
02Jan2000	02:12	0.00	19.65	754.11	1.86
02Jan2000	02:15	0.00	19.64	754.10	1.86
02Jan2000	02:18	0.00	19.63	754.10	1.86
02Jan2000	02:21	0.00	19.63	754.10	1.86
02Jan2000	02:24	0.00	19.62	754.10	1.86
02Jan2000	02:27	0.00	19.61	754.10	1.85
02Jan2000	02:30	0.00	19.60	754.10	1.85
02Jan2000	02:33	0.00	19.60	754.10	1.85
02Jan2000	02:36	0.00	19.59	754.09	1.85
02Jan2000	02:39	0.00	19.58	754.09	1.85
02Jan2000	02:42	0.00	19.57	754.09	1.85
02Jan2000	02:45	0.00	19.57	754.09	1.85
02Jan2000	02:48	0.00	19.56	754.09	1.85
02Jan2000	02:51	0.00	19.55	754.09	1.85
02Jan2000	02:54	0.00	19.54	754.08	1.85
02Jan2000	02:57	0.00	19.53	754.08	1.85
02Jan2000	03:00	0.00	19.53	754.08	1.85
02Jan2000	03:03	0.00	19.52	754.08	1.85
02Jan2000	03:06	0.00	19.51	754.08	1.84
02Jan2000	03:09	0.00	19.50	754.08	1.84
02Jan2000	03:12	0.00	19.50	754.08	1.84
02Jan2000	03:15	0.00	19.49	754.07	1.84
02Jan2000	03:18	0.00	19.48	754.07	1.84
02Jan2000	03:21	0.00	19.47	754.07	1.84
02Jan2000	03:24	0.00	19.47	754.07	1.84
02Jan2000	03:27	0.00	19.46	754.07	1.84
02Jan2000	03:30	0.00	19.45	754.07	1.84
02Jan2000	03:33	0.00	19.44	754.07	1.84
02Jan2000	03:36	0.00	19.44	754.06	1.84

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	03:39	0.00	19.43	754.06	1.84
02Jan2000	03:42	0.00	19.42	754.06	1.84
02Jan2000	03:45	0.00	19.41	754.06	1.84
02Jan2000	03:48	0.00	19.41	754.06	1.83
02Jan2000	03:51	0.00	19.40	754.06	1.83
02Jan2000	03:54	0.00	19.39	754.05	1.83
02Jan2000	03:57	0.00	19.38	754.05	1.83
02Jan2000	04:00	0.00	19.38	754.05	1.83
02Jan2000	04:03	0.00	19.37	754.05	1.83
02Jan2000	04:06	0.00	19.36	754.05	1.83
02Jan2000	04:09	0.00	19.35	754.05	1.83
02Jan2000	04:12	0.00	19.35	754.05	1.83
02Jan2000	04:15	0.00	19.34	754.04	1.83
02Jan2000	04:18	0.00	19.33	754.04	1.83
02Jan2000	04:21	0.00	19.32	754.04	1.83
02Jan2000	04:24	0.00	19.31	754.04	1.83
02Jan2000	04:27	0.00	19.31	754.04	1.82
02Jan2000	04:30	0.00	19.30	754.04	1.82
02Jan2000	04:33	0.00	19.29	754.04	1.82
02Jan2000	04:36	0.00	19.28	754.03	1.82
02Jan2000	04:39	0.00	19.28	754.03	1.82
02Jan2000	04:42	0.00	19.27	754.03	1.82
02Jan2000	04:45	0.00	19.26	754.03	1.82
02Jan2000	04:48	0.00	19.25	754.03	1.82
02Jan2000	04:51	0.00	19.25	754.03	1.82
02Jan2000	04:54	0.00	19.24	754.03	1.82
02Jan2000	04:57	0.00	19.23	754.02	1.82
02Jan2000	05:00	0.00	19.22	754.02	1.82
02Jan2000	05:03	0.00	19.22	754.02	1.82
02Jan2000	05:06	0.00	19.21	754.02	1.81
02Jan2000	05:09	0.00	19.20	754.02	1.81

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	05:12	0.00	19.19	754.02	1.81
02Jan2000	05:15	0.00	19.19	754.02	1.81
02Jan2000	05:18	0.00	19.18	754.01	1.81
02Jan2000	05:21	0.00	19.17	754.01	1.81
02Jan2000	05:24	0.00	19.16	754.01	1.81
02Jan2000	05:27	0.00	19.16	754.01	1.81
02Jan2000	05:30	0.00	19.15	754.01	1.81
02Jan2000	05:33	0.00	19.14	754.01	1.81
02Jan2000	05:36	0.00	19.13	754.00	1.81
02Jan2000	05:39	0.00	19.13	754.00	1.81
02Jan2000	05:42	0.00	19.12	754.00	1.81
02Jan2000	05:45	0.00	19.11	754.00	1.80
02Jan2000	05:48	0.00	19.10	754.00	1.80
02Jan2000	05:51	0.00	19.10	754.00	1.80
02Jan2000	05:54	0.00	19.09	754.00	1.80
02Jan2000	05:57	0.00	19.08	753.99	1.80
02Jan2000	06:00	0.00	19.08	753.99	1.80
02Jan2000	06:03	0.00	19.07	753.99	1.80
02Jan2000	06:06	0.00	19.06	753.99	1.80
02Jan2000	06:09	0.00	19.05	753.99	1.80
02Jan2000	06:12	0.00	19.05	753.99	1.80
02Jan2000	06:15	0.00	19.04	753.99	1.80
02Jan2000	06:18	0.00	19.03	753.98	1.80
02Jan2000	06:21	0.00	19.02	753.98	1.80
02Jan2000	06:24	0.00	19.02	753.98	1.79
02Jan2000	06:27	0.00	19.01	753.98	1.79
02Jan2000	06:30	0.00	19.00	753.98	1.79
02Jan2000	06:33	0.00	18.99	753.98	1.79
02Jan2000	06:36	0.00	18.99	753.97	1.79
02Jan2000	06:39	0.00	18.98	753.97	1.79
02Jan2000	06:42	0.00	18.97	753.97	1.79

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	06:45	0.00	18.96	753.97	1.79
02Jan2000	06:48	0.00	18.96	753.97	1.79
02Jan2000	06:51	0.00	18.95	753.97	1.79
02Jan2000	06:54	0.00	18.94	753.97	1.79
02Jan2000	06:57	0.00	18.93	753.96	1.79
02Jan2000	07:00	0.00	18.93	753.96	1.79
02Jan2000	07:03	0.00	18.92	753.96	1.78
02Jan2000	07:06	0.00	18.91	753.96	1.78
02Jan2000	07:09	0.00	18.90	753.96	1.78
02Jan2000	07:12	0.00	18.90	753.96	1.78
02Jan2000	07:15	0.00	18.89	753.95	1.78
02Jan2000	07:18	0.00	18.88	753.95	1.78
02Jan2000	07:21	0.00	18.88	753.95	1.78
02Jan2000	07:24	0.00	18.87	753.95	1.78
02Jan2000	07:27	0.00	18.86	753.95	1.78
02Jan2000	07:30	0.00	18.85	753.95	1.78
02Jan2000	07:33	0.00	18.85	753.95	1.78
02Jan2000	07:36	0.00	18.84	753.94	1.78
02Jan2000	07:39	0.00	18.83	753.94	1.77
02Jan2000	07:42	0.00	18.82	753.94	1.77
02Jan2000	07:45	0.00	18.82	753.94	1.77
02Jan2000	07:48	0.00	18.81	753.94	1.77
02Jan2000	07:51	0.00	18.80	753.94	1.77
02Jan2000	07:54	0.00	18.79	753.93	1.77
02Jan2000	07:57	0.00	18.79	753.93	1.77
02Jan2000	08:00	0.00	18.78	753.93	1.77
02Jan2000	08:03	0.00	18.77	753.93	1.77
02Jan2000	08:06	0.00	18.77	753.93	1.77
02Jan2000	08:09	0.00	18.76	753.93	1.77
02Jan2000	08:12	0.00	18.75	753.93	1.77
02Jan2000	08:15	0.00	18.74	753.92	1.77

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	08:18	0.00	18.74	753.92	1.76
02Jan2000	08:21	0.00	18.73	753.92	1.76
02Jan2000	08:24	0.00	18.72	753.92	1.76
02Jan2000	08:27	0.00	18.71	753.92	1.76
02Jan2000	08:30	0.00	18.71	753.92	1.76
02Jan2000	08:33	0.00	18.70	753.92	1.76
02Jan2000	08:36	0.00	18.69	753.91	1.76
02Jan2000	08:39	0.00	18.69	753.91	1.76
02Jan2000	08:42	0.00	18.68	753.91	1.76
02Jan2000	08:45	0.00	18.67	753.91	1.76
02Jan2000	08:48	0.00	18.66	753.91	1.76
02Jan2000	08:51	0.00	18.66	753.91	1.76
02Jan2000	08:54	0.00	18.65	753.90	1.75
02Jan2000	08:57	0.00	18.64	753.90	1.75
02Jan2000	09:00	0.00	18.63	753.90	1.75
02Jan2000	09:03	0.00	18.63	753.90	1.75
02Jan2000	09:06	0.00	18.62	753.90	1.75
02Jan2000	09:09	0.00	18.61	753.90	1.75
02Jan2000	09:12	0.00	18.61	753.90	1.75
02Jan2000	09:15	0.00	18.60	753.89	1.75
02Jan2000	09:18	0.00	18.59	753.89	1.75
02Jan2000	09:21	0.00	18.58	753.89	1.75
02Jan2000	09:24	0.00	18.58	753.89	1.75
02Jan2000	09:27	0.00	18.57	753.89	1.75
02Jan2000	09:30	0.00	18.56	753.89	1.75
02Jan2000	09:33	0.00	18.55	753.89	1.74
02Jan2000	09:36	0.00	18.55	753.88	1.74
02Jan2000	09:39	0.00	18.54	753.88	1.74
02Jan2000	09:42	0.00	18.53	753.88	1.74
02Jan2000	09:45	0.00	18.53	753.88	1.74
02Jan2000	09:48	0.00	18.52	753.88	1.74

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	09:51	0.00	18.51	753.88	1.74
02Jan2000	09:54	0.00	18.50	753.87	1.74
02Jan2000	09:57	0.00	18.50	753.87	1.74
02Jan2000	10:00	0.00	18.49	753.87	1.74
02Jan2000	10:03	0.00	18.48	753.87	1.74
02Jan2000	10:06	0.00	18.48	753.87	1.74
02Jan2000	10:09	0.00	18.47	753.87	1.73
02Jan2000	10:12	0.00	18.46	753.87	1.73
02Jan2000	10:15	0.00	18.45	753.86	1.73
02Jan2000	10:18	0.00	18.45	753.86	1.73
02Jan2000	10:21	0.00	18.44	753.86	1.73
02Jan2000	10:24	0.00	18.43	753.86	1.73
02Jan2000	10:27	0.00	18.43	753.86	1.73
02Jan2000	10:30	0.00	18.42	753.86	1.73
02Jan2000	10:33	0.00	18.41	753.86	1.73
02Jan2000	10:36	0.00	18.40	753.85	1.73
02Jan2000	10:39	0.00	18.40	753.85	1.73
02Jan2000	10:42	0.00	18.39	753.85	1.73
02Jan2000	10:45	0.00	18.38	753.85	1.73
02Jan2000	10:48	0.00	18.38	753.85	1.72
02Jan2000	10:51	0.00	18.37	753.85	1.72
02Jan2000	10:54	0.00	18.36	753.85	1.72
02Jan2000	10:57	0.00	18.35	753.84	1.72
02Jan2000	11:00	0.00	18.35	753.84	1.72
02Jan2000	11:03	0.00	18.34	753.84	1.72
02Jan2000	11:06	0.00	18.33	753.84	1.72
02Jan2000	11:09	0.00	18.33	753.84	1.72
02Jan2000	11:12	0.00	18.32	753.84	1.72
02Jan2000	11:15	0.00	18.31	753.83	1.72
02Jan2000	11:18	0.00	18.30	753.83	1.72
02Jan2000	11:21	0.00	18.30	753.83	1.72

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	11:24	0.00	18.29	753.83	1.72
02Jan2000	11:27	0.00	18.28	753.83	1.71
02Jan2000	11:30	0.00	18.28	753.83	1.71
02Jan2000	11:33	0.00	18.27	753.83	1.71
02Jan2000	11:36	0.00	18.26	753.82	1.71
02Jan2000	11:39	0.00	18.26	753.82	1.71
02Jan2000	11:42	0.00	18.25	753.82	1.71
02Jan2000	11:45	0.00	18.24	753.82	1.71
02Jan2000	11:48	0.00	18.23	753.82	1.71
02Jan2000	11:51	0.00	18.23	753.82	1.71
02Jan2000	11:54	0.00	18.22	753.82	1.71
02Jan2000	11:57	0.00	18.21	753.81	1.71
02Jan2000	12:00	0.00	18.21	753.81	1.71
02Jan2000	12:03	0.00	18.20	753.81	1.70
02Jan2000	12:06	0.00	18.19	753.81	1.70
02Jan2000	12:09	0.00	18.18	753.81	1.70
02Jan2000	12:12	0.00	18.18	753.81	1.70
02Jan2000	12:15	0.00	18.17	753.81	1.70
02Jan2000	12:18	0.00	18.16	753.80	1.70
02Jan2000	12:21	0.00	18.16	753.80	1.70
02Jan2000	12:24	0.00	18.15	753.80	1.70
02Jan2000	12:27	0.00	18.14	753.80	1.70
02Jan2000	12:30	0.00	18.14	753.80	1.70
02Jan2000	12:33	0.00	18.13	753.80	1.70
02Jan2000	12:36	0.00	18.12	753.80	1.70
02Jan2000	12:39	0.00	18.11	753.79	1.70
02Jan2000	12:42	0.00	18.11	753.79	1.69
02Jan2000	12:45	0.00	18.10	753.79	1.69
02Jan2000	12:48	0.00	18.09	753.79	1.69
02Jan2000	12:51	0.00	18.09	753.79	1.69
02Jan2000	12:54	0.00	18.08	753.79	1.69

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	12:57	0.00	18.07	753.79	1.69
02Jan2000	13:00	0.00	18.07	753.78	1.69
02Jan2000	13:03	0.00	18.06	753.78	1.69
02Jan2000	13:06	0.00	18.05	753.78	1.69
02Jan2000	13:09	0.00	18.04	753.78	1.69
02Jan2000	13:12	0.00	18.04	753.78	1.69
02Jan2000	13:15	0.00	18.03	753.78	1.69
02Jan2000	13:18	0.00	18.02	753.78	1.68
02Jan2000	13:21	0.00	18.02	753.77	1.68
02Jan2000	13:24	0.00	18.01	753.77	1.68
02Jan2000	13:27	0.00	18.00	753.77	1.68
02Jan2000	13:30	0.00	18.00	753.77	1.68
02Jan2000	13:33	0.00	17.99	753.77	1.68
02Jan2000	13:36	0.00	17.98	753.77	1.68
02Jan2000	13:39	0.00	17.97	753.77	1.68
02Jan2000	13:42	0.00	17.97	753.76	1.68
02Jan2000	13:45	0.00	17.96	753.76	1.68
02Jan2000	13:48	0.00	17.95	753.76	1.68
02Jan2000	13:51	0.00	17.95	753.76	1.68
02Jan2000	13:54	0.00	17.94	753.76	1.68
02Jan2000	13:57	0.00	17.93	753.76	1.67
02Jan2000	14:00	0.00	17.93	753.75	1.67
02Jan2000	14:03	0.00	17.92	753.75	1.67
02Jan2000	14:06	0.00	17.91	753.75	1.67
02Jan2000	14:09	0.00	17.91	753.75	1.67
02Jan2000	14:12	0.00	17.90	753.75	1.67
02Jan2000	14:15	0.00	17.89	753.75	1.67
02Jan2000	14:18	0.00	17.89	753.75	1.67
02Jan2000	14:21	0.00	17.88	753.74	1.67
02Jan2000	14:24	0.00	17.87	753.74	1.67
02Jan2000	14:27	0.00	17.86	753.74	1.67

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	14:30	0.00	17.86	753.74	1.67
02Jan2000	14:33	0.00	17.85	753.74	1.66
02Jan2000	14:36	0.00	17.84	753.74	1.66
02Jan2000	14:39	0.00	17.84	753.74	1.66
02Jan2000	14:42	0.00	17.83	753.73	1.66
02Jan2000	14:45	0.00	17.82	753.73	1.66
02Jan2000	14:48	0.00	17.82	753.73	1.66
02Jan2000	14:51	0.00	17.81	753.73	1.66
02Jan2000	14:54	0.00	17.80	753.73	1.66
02Jan2000	14:57	0.00	17.80	753.73	1.66
02Jan2000	15:00	0.00	17.79	753.73	1.66
02Jan2000	15:03	0.00	17.78	753.73	1.66
02Jan2000	15:06	0.00	17.78	753.72	1.66
02Jan2000	15:09	0.00	17.77	753.72	1.66
02Jan2000	15:12	0.00	17.76	753.72	1.65
02Jan2000	15:15	0.00	17.75	753.72	1.65
02Jan2000	15:18	0.00	17.75	753.72	1.65
02Jan2000	15:21	0.00	17.74	753.72	1.65
02Jan2000	15:24	0.00	17.73	753.72	1.65
02Jan2000	15:27	0.00	17.73	753.71	1.65
02Jan2000	15:30	0.00	17.72	753.71	1.65
02Jan2000	15:33	0.00	17.71	753.71	1.65
02Jan2000	15:36	0.00	17.71	753.71	1.65
02Jan2000	15:39	0.00	17.70	753.71	1.65
02Jan2000	15:42	0.00	17.69	753.71	1.65
02Jan2000	15:45	0.00	17.69	753.71	1.65
02Jan2000	15:48	0.00	17.68	753.70	1.64
02Jan2000	15:51	0.00	17.67	753.70	1.64
02Jan2000	15:54	0.00	17.67	753.70	1.64
02Jan2000	15:57	0.00	17.66	753.70	1.64
02Jan2000	16:00	0.00	17.65	753.70	1.64

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	16:03	0.00	17.65	753.70	1.64
02Jan2000	16:06	0.00	17.64	753.70	1.64
02Jan2000	16:09	0.00	17.63	753.69	1.64
02Jan2000	16:12	0.00	17.63	753.69	1.64
02Jan2000	16:15	0.00	17.62	753.69	1.64
02Jan2000	16:18	0.00	17.61	753.69	1.64
02Jan2000	16:21	0.00	17.61	753.69	1.64
02Jan2000	16:24	0.00	17.60	753.69	1.64
02Jan2000	16:27	0.00	17.59	753.69	1.63
02Jan2000	16:30	0.00	17.58	753.68	1.63
02Jan2000	16:33	0.00	17.58	753.68	1.63
02Jan2000	16:36	0.00	17.57	753.68	1.63
02Jan2000	16:39	0.00	17.56	753.68	1.63
02Jan2000	16:42	0.00	17.56	753.68	1.63
02Jan2000	16:45	0.00	17.55	753.68	1.63
02Jan2000	16:48	0.00	17.54	753.68	1.63
02Jan2000	16:51	0.00	17.54	753.67	1.63
02Jan2000	16:54	0.00	17.53	753.67	1.63
02Jan2000	16:57	0.00	17.52	753.67	1.63
02Jan2000	17:00	0.00	17.52	753.67	1.63
02Jan2000	17:03	0.00	17.51	753.67	1.63
02Jan2000	17:06	0.00	17.50	753.67	1.62
02Jan2000	17:09	0.00	17.50	753.67	1.62
02Jan2000	17:12	0.00	17.49	753.66	1.62
02Jan2000	17:15	0.00	17.48	753.66	1.62
02Jan2000	17:18	0.00	17.48	753.66	1.62
02Jan2000	17:21	0.00	17.47	753.66	1.62
02Jan2000	17:24	0.00	17.46	753.66	1.62
02Jan2000	17:27	0.00	17.46	753.66	1.62
02Jan2000	17:30	0.00	17.45	753.66	1.62
02Jan2000	17:33	0.00	17.44	753.66	1.62

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	17:36	0.00	17.44	753.65	1.62
02Jan2000	17:39	0.00	17.43	753.65	1.62
02Jan2000	17:42	0.00	17.42	753.65	1.61
02Jan2000	17:45	0.00	17.42	753.65	1.61
02Jan2000	17:48	0.00	17.41	753.65	1.61
02Jan2000	17:51	0.00	17.40	753.65	1.61
02Jan2000	17:54	0.00	17.40	753.65	1.61
02Jan2000	17:57	0.00	17.39	753.64	1.61
02Jan2000	18:00	0.00	17.38	753.64	1.61
02Jan2000	18:03	0.00	17.38	753.64	1.61
02Jan2000	18:06	0.00	17.37	753.64	1.61
02Jan2000	18:09	0.00	17.36	753.64	1.61
02Jan2000	18:12	0.00	17.36	753.64	1.61
02Jan2000	18:15	0.00	17.35	753.64	1.61
02Jan2000	18:18	0.00	17.34	753.63	1.61
02Jan2000	18:21	0.00	17.34	753.63	1.60
02Jan2000	18:24	0.00	17.33	753.63	1.60
02Jan2000	18:27	0.00	17.32	753.63	1.60
02Jan2000	18:30	0.00	17.32	753.63	1.60
02Jan2000	18:33	0.00	17.31	753.63	1.60
02Jan2000	18:36	0.00	17.30	753.63	1.60
02Jan2000	18:39	0.00	17.30	753.62	1.60
02Jan2000	18:42	0.00	17.29	753.62	1.60
02Jan2000	18:45	0.00	17.28	753.62	1.60
02Jan2000	18:48	0.00	17.28	753.62	1.60
02Jan2000	18:51	0.00	17.27	753.62	1.60
02Jan2000	18:54	0.00	17.26	753.62	1.60
02Jan2000	18:57	0.00	17.26	753.62	1.59
02Jan2000	19:00	0.00	17.25	753.62	1.59
02Jan2000	19:03	0.00	17.24	753.61	1.59
02Jan2000	19:06	0.00	17.24	753.61	1.59

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	19:09	0.00	17.23	753.61	1.59
02Jan2000	19:12	0.00	17.23	753.61	1.59
02Jan2000	19:15	0.00	17.22	753.61	1.59
02Jan2000	19:18	0.00	17.21	753.61	1.59
02Jan2000	19:21	0.00	17.21	753.61	1.59
02Jan2000	19:24	0.00	17.20	753.60	1.59
02Jan2000	19:27	0.00	17.19	753.60	1.59
02Jan2000	19:30	0.00	17.19	753.60	1.59
02Jan2000	19:33	0.00	17.18	753.60	1.59
02Jan2000	19:36	0.00	17.17	753.60	1.58
02Jan2000	19:39	0.00	17.17	753.60	1.58
02Jan2000	19:42	0.00	17.16	753.60	1.58
02Jan2000	19:45	0.00	17.15	753.59	1.58
02Jan2000	19:48	0.00	17.15	753.59	1.58
02Jan2000	19:51	0.00	17.14	753.59	1.58
02Jan2000	19:54	0.00	17.13	753.59	1.58
02Jan2000	19:57	0.00	17.13	753.59	1.58
02Jan2000	20:00	0.00	17.12	753.59	1.58
02Jan2000	20:03	0.00	17.11	753.59	1.58
02Jan2000	20:06	0.00	17.11	753.59	1.58
02Jan2000	20:09	0.00	17.10	753.58	1.58
02Jan2000	20:12	0.00	17.09	753.58	1.57
02Jan2000	20:15	0.00	17.09	753.58	1.57
02Jan2000	20:18	0.00	17.08	753.58	1.57
02Jan2000	20:21	0.00	17.07	753.58	1.57
02Jan2000	20:24	0.00	17.07	753.58	1.57
02Jan2000	20:27	0.00	17.06	753.58	1.57
02Jan2000	20:30	0.00	17.06	753.57	1.57
02Jan2000	20:33	0.00	17.05	753.57	1.57
02Jan2000	20:36	0.00	17.04	753.57	1.57
02Jan2000	20:39	0.00	17.04	753.57	1.57

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	20:42	0.00	17.03	753.57	1.57
02Jan2000	20:45	0.00	17.02	753.57	1.57
02Jan2000	20:48	0.00	17.02	753.57	1.57
02Jan2000	20:51	0.00	17.01	753.57	1.56
02Jan2000	20:54	0.00	17.00	753.56	1.56
02Jan2000	20:57	0.00	17.00	753.56	1.56
02Jan2000	21:00	0.00	16.99	753.56	1.56
02Jan2000	21:03	0.00	16.98	753.56	1.56
02Jan2000	21:06	0.00	16.98	753.56	1.56
02Jan2000	21:09	0.00	16.97	753.56	1.56
02Jan2000	21:12	0.00	16.96	753.56	1.56
02Jan2000	21:15	0.00	16.96	753.55	1.56
02Jan2000	21:18	0.00	16.95	753.55	1.56
02Jan2000	21:21	0.00	16.95	753.55	1.56
02Jan2000	21:24	0.00	16.94	753.55	1.56
02Jan2000	21:27	0.00	16.93	753.55	1.56
02Jan2000	21:30	0.00	16.93	753.55	1.55
02Jan2000	21:33	0.00	16.92	753.55	1.55
02Jan2000	21:36	0.00	16.91	753.55	1.55
02Jan2000	21:39	0.00	16.91	753.54	1.55
02Jan2000	21:42	0.00	16.90	753.54	1.55
02Jan2000	21:45	0.00	16.89	753.54	1.55
02Jan2000	21:48	0.00	16.89	753.54	1.55
02Jan2000	21:51	0.00	16.88	753.54	1.55
02Jan2000	21:54	0.00	16.88	753.54	1.55
02Jan2000	21:57	0.00	16.87	753.54	1.55
02Jan2000	22:00	0.00	16.86	753.53	1.55
02Jan2000	22:03	0.00	16.86	753.53	1.55
02Jan2000	22:06	0.00	16.85	753.53	1.54
02Jan2000	22:09	0.00	16.84	753.53	1.54
02Jan2000	22:12	0.00	16.84	753.53	1.54

Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	22:15	0.00	16.83	753.53	1.54
02Jan2000	22:18	0.00	16.82	753.53	1.54
02Jan2000	22:21	0.00	16.82	753.53	1.54
02Jan2000	22:24	0.00	16.81	753.52	1.54
02Jan2000	22:27	0.00	16.80	753.52	1.54
02Jan2000	22:30	0.00	16.80	753.52	1.54
02Jan2000	22:33	0.00	16.79	753.52	1.54
02Jan2000	22:36	0.00	16.79	753.52	1.54
02Jan2000	22:39	0.00	16.78	753.52	1.54
02Jan2000	22:42	0.00	16.77	753.52	1.54
02Jan2000	22:45	0.00	16.77	753.51	1.53
02Jan2000	22:48	0.00	16.76	753.51	1.53
02Jan2000	22:51	0.00	16.75	753.51	1.53
02Jan2000	22:54	0.00	16.75	753.51	1.53
02Jan2000	22:57	0.00	16.74	753.51	1.53
02Jan2000	23:00	0.00	16.74	753.51	1.53
02Jan2000	23:03	0.00	16.73	753.51	1.53
02Jan2000	23:06	0.00	16.72	753.51	1.53
02Jan2000	23:09	0.00	16.72	753.50	1.53
02Jan2000	23:12	0.00	16.71	753.50	1.53
02Jan2000	23:15	0.00	16.70	753.50	1.53
02Jan2000	23:18	0.00	16.70	753.50	1.53
02Jan2000	23:21	0.00	16.69	753.50	1.52
02Jan2000	23:24	0.00	16.68	753.50	1.52
02Jan2000	23:27	0.00	16.68	753.50	1.52
02Jan2000	23:30	0.00	16.67	753.50	1.52
02Jan2000	23:33	0.00	16.67	753.49	1.52
02Jan2000	23:36	0.00	16.66	753.49	1.52
02Jan2000	23:39	0.00	16.65	753.49	1.52
02Jan2000	23:42	0.00	16.65	753.49	1.52
02Jan2000	23:45	0.00	16.64	753.49	1.52

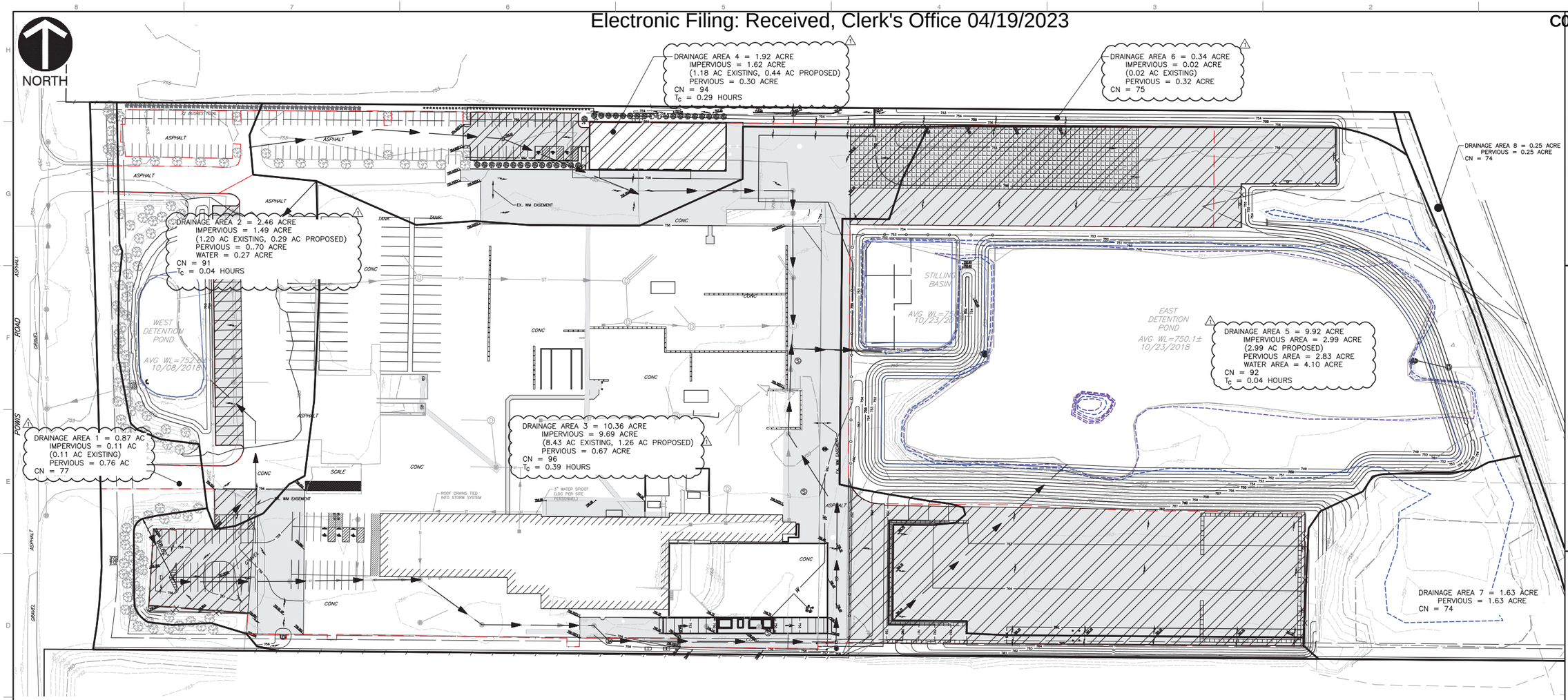
Date	Time	Inflow (CFS)	Storage (AC-FT)	Elevation (FT)	Outflow (CFS)
02Jan2000	23:48	0.00	16.63	753.49	1.52
02Jan2000	23:51	0.00	16.63	753.49	1.52
02Jan2000	23:54	0.00	16.62	753.48	1.52
02Jan2000	23:57	0.00	16.62	753.48	1.52
03Jan2000	00:00	0.00	16.61	753.48	1.51

FIGURE 2-1

STORMWATER FACILITIES MAP

Electronic Filing: Received, Clerk's Office 04/19/2023

C000630



LEGEND

- IMPERVIOUS AREA (PAVEMENT/GRAVEL/BUILDING)
- IMPERVIOUS AREA (WATER SURFACE)
- SITE DRAINAGE AREA
- TIME OF CONCENTRATION PATH
- AREA OF NEW IMPERVIOUS

SITE INFORMATION

TOTAL SITE AREA: 27.75 ACRES
TOTAL EXISTING IMPERVIOUS AREA: 10.94 ACRES
TOTAL IMPERVIOUS AREA: 20.29 ACRES
PAVEMENT/GRAVEL/BUILDINGS: 15.92 ACRES
WATER SURFACE: 4.37 ACRES
TOTAL PERVIOUS AREA: 7.46 ACRES
PERCENTAGE OF IMPERVIOUS SURFACE AFTER CONSTRUCTION: 73.1%
TOTAL PROPOSED AREA OF DISTURBANCE: 16.1 ACRES

SITE RUNOFF STORAGE SUMMARY

EAST DETENTION POND:
NORMAL WATER LEVEL: 749.50± FT MSL
HIGH WATER LEVEL (HWL): 754.16 FT MSL
DETENTION VOLUME PROVIDED AT HWL: 19.94 ACRE-FT
REQUIRED RELEASE RATE: 2.247 CFS
PROVIDED RELEASE RATE: 2.23 CFS

WEST DETENTION BASIN:
NORMAL WATER LEVEL: 752.00± FT MSL
HIGH WATER LEVEL: 754.55 FT MSL
DETENTION VOLUME PROVIDED AT HWL: 1.20 ACRE-FT
REQUIRED RELEASE RATE: 0.252 CFS
PROVIDED RELEASE RATE: 0.25 CFS

REFERENCE

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED 1.20.15, AS-BUILT DATE JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

SCALE IN FEET
0 60 120

REVISION RECORD

NO	DATE	DESCRIPTION
1	06/07/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.ceinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
LRS - WEST CHICAGO
SW CERTIFICATION APPLICATION
1655 POWIS ROAD
WEST CHICAGO DUPAGE COUNTY, IL

STORMWATER FACILITIES MAP

DATE:	06/04/2019
DWG SCALE:	1"=60'
DRAWN BY:	CAC
CHECKED BY:	CAC
PROJECT NO:	163-899.0004
APPROVED BY:	DAK

FIGURE NO.: 2-1
SHEET 1 OF 1

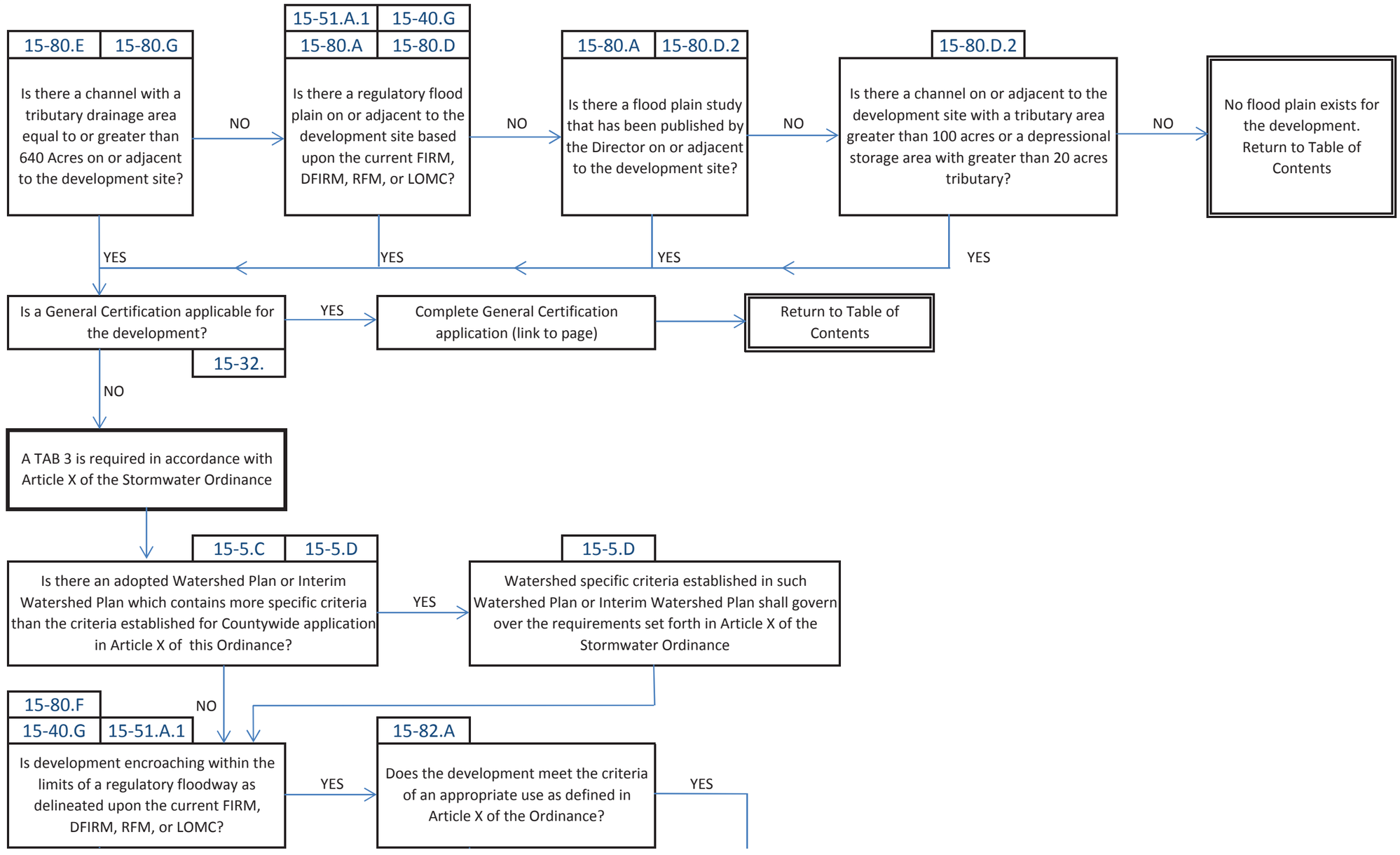
P:\2016\163-899_CADD\Dwg\CIVIL-Stormwater\163899_CIVIL-Figure 1-Waterbody.dwg[LAYOUT1] LST(11/1/2019 - mkay) - LD 10/1/2019 8:54 AM

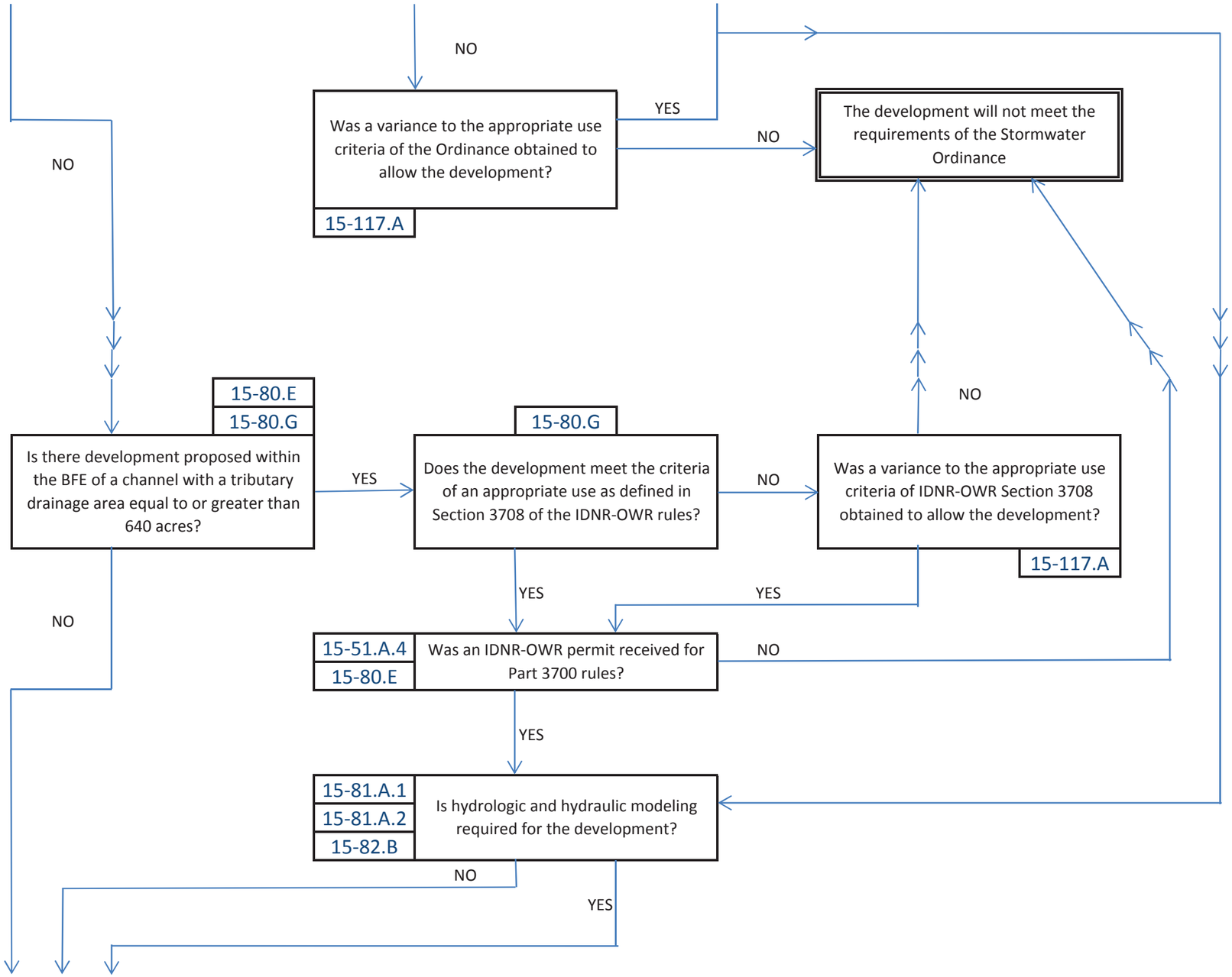
TAB 3

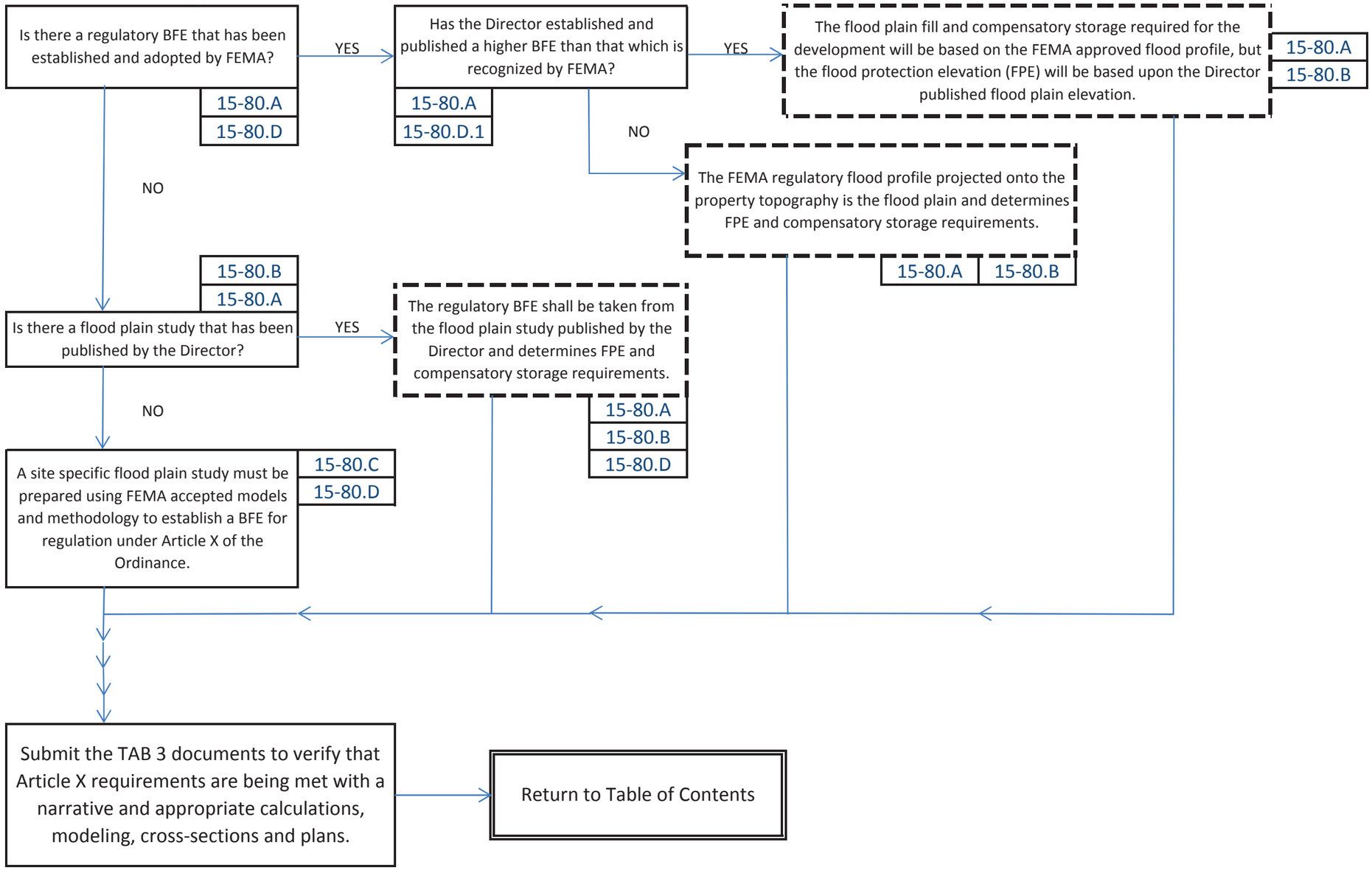
FLOOD PLAIN

TAB 3 Flood Plain

9/22/2015




NO
Was a variance to the appropriate use criteria of the Ordinance obtained to allow the development?
15-117.A
YES
NO
The development will not meet the requirements of the Stormwater Ordinance
NO
15-80.E
15-80.G
Is there development proposed within the BFE of a channel with a tributary drainage area equal to or greater than 640 acres?
YES
15-80.G
Does the development meet the criteria of an appropriate use as defined in Section 3708 of the IDNR-OWR rules?
NO
NO
Was a variance to the appropriate use criteria of IDNR-OWR Section 3708 obtained to allow the development?
15-117.A
NO
YES
YES
15-51.A.4
15-80.E
Was an IDNR-OWR permit received for Part 3700 rules?
NO
YES
15-81.A.1
15-81.A.2
15-82.B
Is hydrologic and hydraulic modeling required for the development?
NO
YES


Is there a regulatory BFE that has been established and adopted by FEMA?
15-80.A
15-80.D
YES
Has the Director established and published a higher BFE than that which is recognized by FEMA?
15-80.A
15-80.D.1
YES
The flood plain fill and compensatory storage required for the development will be based on the FEMA approved flood profile, but the flood protection elevation (FPE) will be based upon the Director published flood plain elevation.
15-80.A
15-80.B
NO
The FEMA regulatory flood profile projected onto the property topography is the flood plain and determines FPE and compensatory storage requirements.
15-80.A
15-80.B
NO
15-80.B
15-80.A
Is there a flood plain study that has been published by the Director?
YES
The regulatory BFE shall be taken from the flood plain study published by the Director and determines FPE and compensatory storage requirements.
15-80.A
15-80.B
15-80.D
NO
A site specific flood plain study must be prepared using FEMA accepted models and methodology to establish a BFE for regulation under Article X of the Ordinance.
15-80.C
15-80.D
Submit the TAB 3 documents to verify that Article X requirements are being met with a narrative and appropriate calculations, modeling, cross-sections and plans.
Return to Table of Contents

TAB 3. FLOOD PLAIN

Kress Creek abuts the property on the east side of the Facility and is the location of both the current and proposed east detention pond outfall. At the location of the outfall, the Kress Creek upstream tributary area includes approximately 0.99 square miles of drainage. Based on the current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), and associated Flood Insurance Study for DuPage County, Illinois and Incorporated Areas, Volume 1-6, Revised" August 1, 2019 (FIS), the Kress Creek 100-year base flood encroaches on the east side of the site. The FIRM does not indicate presence of floodway on the site (other than within the immediate banks of Kress Creek). A copy of the United States Geological Survey (USGS) "Streamstats" report for Kress Creek, a notated 2019 FIRM, and relevant portions of the FIS are provided as Attachments 3-1 through 3-3, respectively.

The 100-year base flood elevation (BFE) based on the current FIS is 752.25. Based on the topographic survey, the BFE only encroaches on the site in an area located north of the existing spur track as delineated on project drawings located in Tab 8, Attachment 8-1. Proposed improvements in this area are offset a minimum of 25-feet from the BFE. The rest of the west bank of Kress Creek is greater than 752.25 elevation; therefore, no additional site encroachments exist other than the connection of the east pond outfall to the creek, as discussed further below.

The existing east pond outfall is restricted with an 8-inch restrictor and is pitched towards the creek. The 8-inch restrictor invert is 750.54, which is a 1.71 foot hydraulic difference compared to the 100-year high water level of Kress Creek (752.25). Using a Manning's equation analysis of the hydraulic difference reveals that the flow back towards the pond under 100-year high water level conditions is 1.68 cubic feet per second (cfs).

Manning's Equation:

$$Q = VA = \left(\frac{1.49}{n}\right) AR^{\frac{2}{3}} \sqrt{S} \quad [U.S.]$$

$$Q = VA = \left(\frac{1.00}{n}\right) AR^{\frac{2}{3}} \sqrt{S} \quad [SI]$$

Per Table 8 of Volume 1 of 6 of the FIS, the 100-year flow in Kress Creek adjacent to the site is 52 cfs, therefore, the "backflow" at flood stage is only 3.2% of the existing bypass flow. Based on this analysis, there is negligible hydraulic conductivity between the east pond and Kress Creek at flood stage, and, as such, no existing floodplain storage within the east pond. What little hydraulically conductivity exists will be maintained with a nearly identically sized restrictor (7.15-inch) to meet Ordinance requirements for detention. Additionally, the east pond volume is being increased for detention purposes from 7.61 acre-feet (ac-ft) to 19.94 ac-ft. Based on this, storage

available will be increased significantly for the negligible amount of water that could backflow into the east pond versus pre-development conditions.

The existing outfall will be reused downstream of the new restrictor structure. The existing outfall is vegetated. The proposed outfall restrictor is smaller than the existing, therefore, release rate is lower under proposed conditions than existing. As such, no additional outlet protection is proposed which will avoid any impacts to Kress Creek.

In summary, the proposed development does not encroach on the regulatory floodplain, pond restrictor is similarly sized for the negligible backflow in flood condition, pond volume is significantly increased in comparison to the predevelopment conditions, and there are no impacts to the floodway except for the outfall protection in Kress Creek.

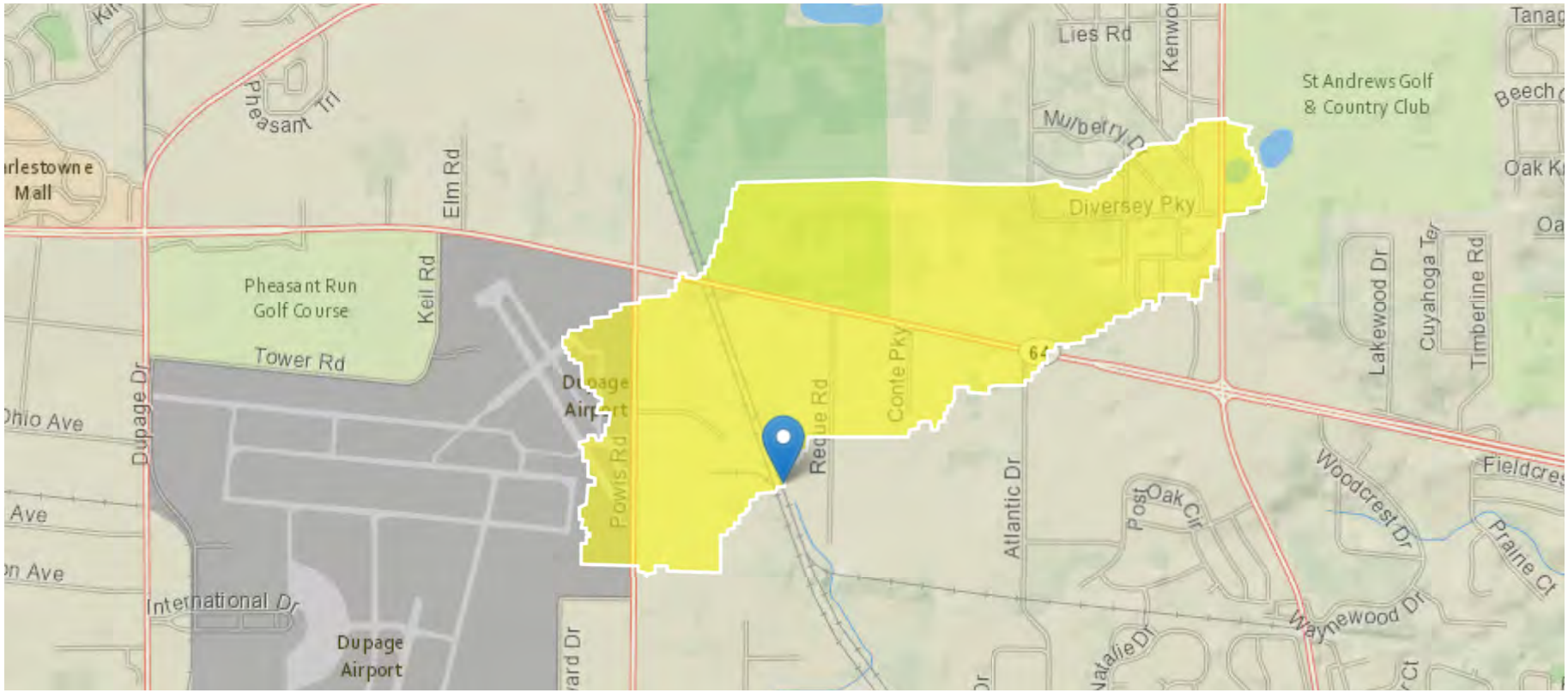
ATTACHMENT 3-1

STREAM STATS

Electronic Filing: Received, Clerk's Office 04/19/2023 C000638

Kress Creek Report at 1655 Powis Road Outfall

Region ID:	IL
Workspace ID:	IL20190521132210042000
Clicked Point (Latitude, Longitude):	41.91184, -88.23056
Time:	2019-05-21 08:22:27 -0500



Existing and proposed outfall is located just south of spur track.

Electronic Filing: Received, Clerk's Office 04/19/2023 C000639

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BASLENAH	Basin length from outlet to basin divide determined using the method in the ArcHydro Toolset	2.04	miles
CSL1085RAW	Unadjusted 10-85 stream slope method in feet per mile.	21.705	feet per mi
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	19.95	feet per mi
BASINPERIM	Perimeter of the drainage basin as defined in SIR 2004-5262	6.7	miles
DRNAREA	Area that drains to a point on a stream	0.99	square miles
ELEVMAX	Maximum basin elevation	801	feet
FLC11DVLMH	Fraction of drainage area that is in low to high developed land-use classes 22-24 from NLCD 2011	0.549	decimal fraction
FSSURGDC78	Fraction of land area that is in very poorly drained and unknown likely water drainage classes 7 and 8 from SSURGO	0.337	decimal fraction
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	67.9	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	28.3	percent
MINBELEV	Minimum basin elevation	754	feet
RELIEF	Maximum - minimum elevation	47.6	feet
RELRELF	Basin relief divided by basin perimeter	7.1	feet per mi
SOILPERM	Average Soil Permeability	4.066	inches per hour
URBTHE2010	Fraction of drainage area that is in urban classes 7 to 10 from Theobald 2010	0.558	dimensionless
WATWET	Percent open water and herbaceous wetland from NLCD	4.181	percent

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Application Version: 4.3.0

ATTACHMENT 3-2

FLOOD INSURANCE RATE MAP

Electronic Filing: Received, Clerk's Office 04/19/2023

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or flood plain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or flood plain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

In the State of Illinois, any portion of a stream or watercourse that lies within the **floodway fringe** of a studied (AE) stream may have a state regulated floodway. The FIRM may not depict these state regulated floodways.

Floodways restricted by anthropogenic features such as bridges and culverts are drawn to reflect natural conditions and may not agree with the model computed widths listed in the Floodway Data table in the Flood Insurance Study report.

Multiple **topographic sources** may have been used in the delineation of Special Flood Hazard Areas. See Flood Insurance Study report for details on source resolution and geographic extent.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 16. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services, NOAA, N/NGS12
National Geodetic Survey SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by the Cook County Board of Commissioners. Color digital orthoimages with a 6-inch pixel resolution were photogrammetrically compiled from aerial photography acquired during the leaf-off period of spring 2012.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The Special Flood Hazard Areas and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

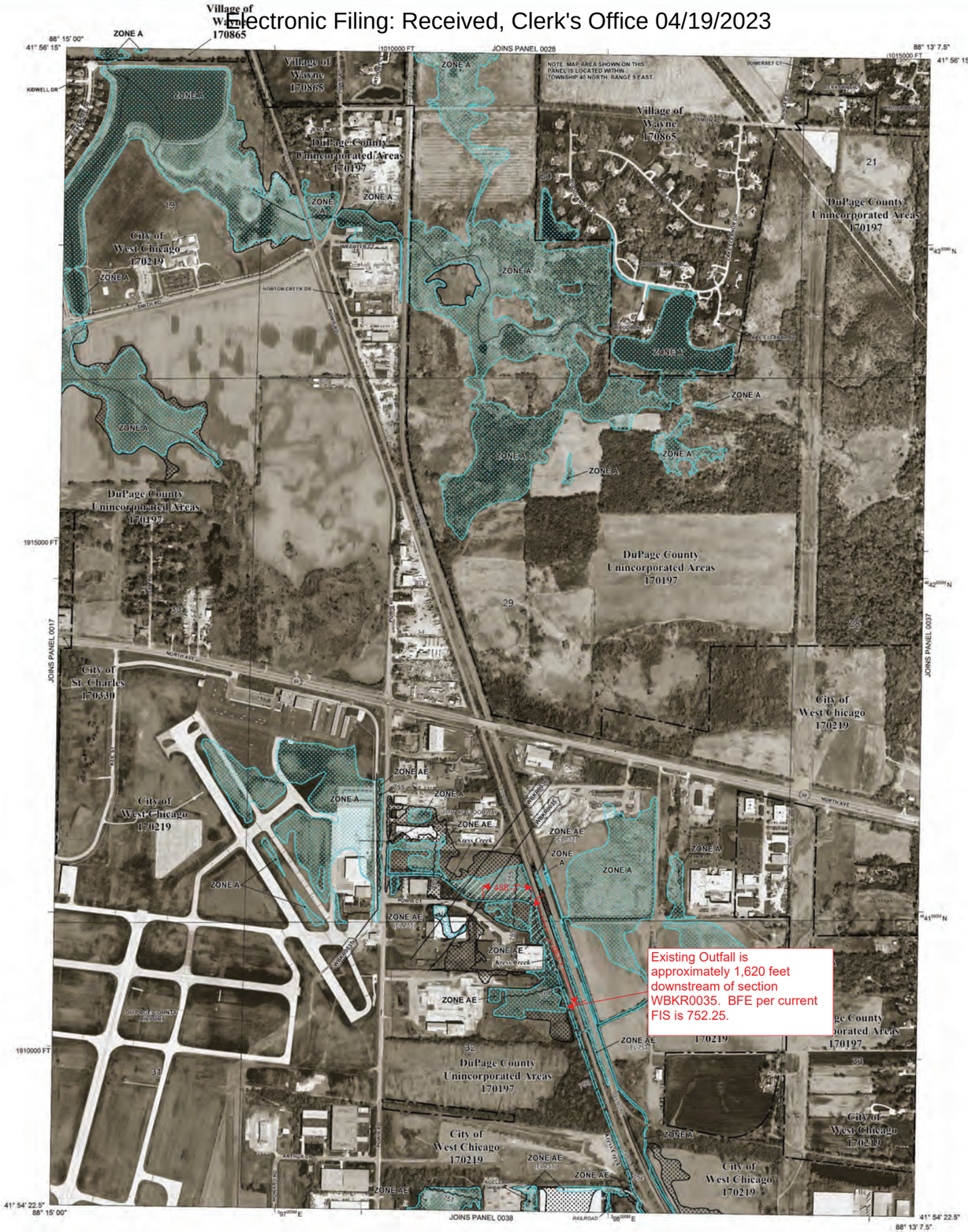
Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the Map Service Center (MSC) website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map**, how to order products or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

PANEL INDEX

Panel Not Printed



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- 45° 02' 08", 93° 02' 12" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4989000 N — 1000-meter Universal Transverse Mercator grid values, zone 16
- 1565000 FT — 5000-foot grid tick: Illinois State Plane East Coordinate System, 3776 zone (FIPSZONE 1201) Transverse Mercator
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
DECEMBER 16, 2004

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
August 1, 2019 - to change Special Flood Hazard Areas, to add Base Flood Elevations, and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0036J

FIRM

FLOOD INSURANCE RATE MAP

DU PAGE COUNTY, ILLINOIS AND INCORPORATED AREAS

PANEL 36 OF 287

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DU PAGE COUNTY	170197	0036	J
ST CHARLES, CITY OF	170330	0036	J
WAYNE, VILLAGE OF	170865	0036	J
WEST CHICAGO, CITY OF	170219	0036	J

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
17043C0036J

MAP REVISED
AUGUST 1, 2019

Federal Emergency Management Agency

ATTACHMENT 3-3

FLOOD INSURANCE STUDY

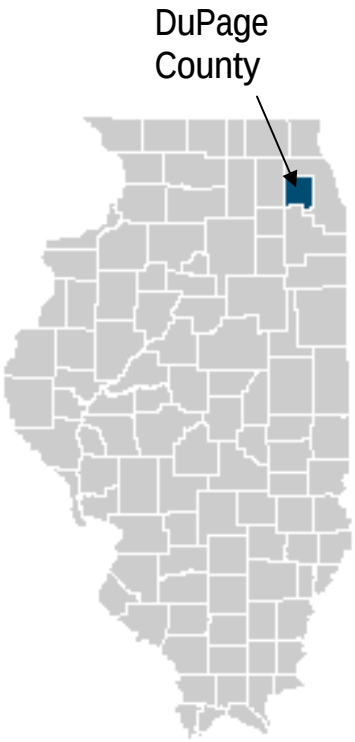
FLOOD INSURANCE STUDY

DU PAGE COUNTY, ILLINOIS
AND INCORPORATED AREAS

Volume 1 of 6

COMMUNITY NAME	COMMUNITY NUMBER	COMMUNITY NAME	COMMUNITY NUMBER
ADDISON, VILLAGE OF	170198	ITASCA, VILLAGE OF	170210
AURORA, CITY OF	170320	LEMONT, VILLAGE OF	170117
BARTLETT, VILLAGE OF	170059	LISLE, VILLAGE OF	170211
BATAVIA, CITY OF*	170321	LOMBARD, VILLAGE OF	170212
BENSENVILLE, VILLAGE OF	170200	NAPERVILLE, CITY OF	170213
BLOOMINGDALE, VILLAGE OF	170201	OAK BROOK, VILLAGE OF	170214
BOLINGBROOK, VILLAGE OF	170812	OAKBROOK TERRACE, CITY OF	170215
BURR RIDGE, VILLAGE OF	170071	ROSELLE, VILLAGE OF	170216
CAROL STREAM, VILLAGE OF	170202	SCHAUMBURG, VILLAGE OF	170158
CHICAGO, CITY OF	170074	ST. CHARLES, CITY OF*	170330
CLARENDON HILLS, VILLAGE OF	170203	VILLA PARK, VILLAGE OF	170217
DARIEN, CITY OF	170750	WARRENVILLE, CITY OF	170218
DOWNERS GROVE, VILLAGE OF	170204	WAYNE, VILLAGE OF	170865
DU PAGE COUNTY (UNINCORPORATED AREAS)	170197	WEST CHICAGO, CITY OF	170219
ELK GROVE VILLAGE, VILLAGE OF	170088	WESTMONT, VILLAGE OF	170220
ELMHURST, CITY OF	170205	WHEATON, CITY OF	170221
GLENDALE HEIGHTS, VILLAGE OF	170206	WILLOWBROOK, VILLAGE OF	170222
GLEN ELLYN, VILLAGE OF	170207	WINFIELD, VILLAGE OF	170223
HANOVER PARK, VILLAGE OF	170099	WOOD DALE, CITY OF	170224
HINSDALE, VILLAGE OF	170105	WOODRIDGE, VILLAGE OF	170737

*NO SPECIAL FLOOD HAZARD AREAS IDENTIFIED IN DU PAGE COUNTY



REVISED: AUGUST 1, 2019

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER

17043CV001B

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the Community Map Repository. It is advisable to contact the Community Map Repository for any additional data.

The Federal Emergency Management Agency (FEMA) may revise and republish part or all of this FIS report at any time. In addition, FEMA may revise part of this FIS by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS. It is, therefore, the responsibility of the user to consult with community officials and to check the Community Map Repository to obtain the most current FIS components.

Initial Countywide FIS Effective Date: December 16, 2004

Revised Countywide FIS Effective Date(s): August 1, 2019

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Addison Creek Tributary No. 2 (DPAC)	04P
Addison Creek Tributary No. 3 (DPAC)	05-06P
Addison Creek Tributary No. 4 (DPAC)	07P
Bensenville Ditch (DPBD)	08P
Des Plaines River (DPDP)	09-10P
Des Plaines River Reach No. 7 (DPDP)	11-16P
59th Street Ditch (DPFC)	17P
63rd Street Ditch (DPFC)	18-20P
79th Street Ditch (DPFC)	21P
Flagg Creek (DPFC)	22P
Plainfield Road Ditch (DPFC)	23-24P
North Unnamed Creek (DPWL)	25P
North Unnamed Creek Tributary (DPWL)	26P
South Unnamed Creek (DPWL)	27-28P
Willow Creek (DPWL)	29P
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Armitage Creek (EBAR)	35-37P
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Glen Crest Creek (EBGL)	62-63P
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North Branch (SCBW)	119-121P
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Devon Avenue Tributary (SCDA)	123-124P
South Branch Tributary No. 3 (SCDA)	125P
Briarwood Ditch Tributary (SCGC)	126P
Ginger Creek (SCGC)	127-130P
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Heritage Oaks Tributary (SCGC)	132P
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Mays Lake Tributary (SCGC)	134P
McDonald Tributary (SCGC)	135P
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Meacham Creek Tributary No. 1 (SCSB)	143P
Spring Brook Creek (SCSB)	144-152P
Spring Brook Tributary No. 1 (SCSB)	153P
Salt Creek (SCSC)	154-162P
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Sugar Creek Tributary No. 2 (SCSU)	167P
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Ferry Creek (WBFE)	205-208P
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Unnamed Tributary to Ferry Creek (WBFE)	211P
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South Of Foxcroft Road Tributary Reach No. 2 (WBFX)	213-214P
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Klein Creek Tributary No. 1 (WBKC)	221-222P
Klein Creek Tributary No. 2 (WBKC)	223P
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Kress Creek (WBKR)	225-231P
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West Branch Tributary No. 4 (WBW4)	249-250P
West Branch Tributary No. 6 (WBW6)	251-253P
West Branch Tributary No. 7 (WBW7)	254-256P
West Branch Reach No. 18 (WBWB)	257P
West Branch DuPage River (WBWB)	258-269P
Winfield Creek (WBWF)	270-275P
Winding Creek (WBWG)	276-277P

Exhibit 2 – Flood Insurance Rate Map Index and Flood Insurance Rate Map

Table 4 - Stream Name Changes (continued)

Community	Watershed	Old Name	New Name
Village of Addison; DuPage County*	SCWC	Salt Creek's Westwood Creek Reach #3	Community Pond Tributary
Village of Addison; Village of Lombard; DuPage County*	SCWC	South Fork Westwood Creek	Westwood Creek
Village of Addison; DuPage County*	SCWC	Salt Creek's Westwood Creek Reach #6	Westwood Creek Reach No. 6
City of Darien; Village of Willowbrook; DuPage County*	SWSW	East Branch Sawmill Creek, Sawmill Creek Tributary No. 1	Sawmill Creek
City of Darien; DuPage County*	SWSW	West Branch Sawmill Creek	Sawmill Creek Reach No. 8
City of Naperville	WBFX	Unnamed Creek (South of 87th Street)	South of Foxcroft Road Tributary
City of Naperville	WBFX	Unnamed Creek (South of Foxcroft Road)	South of Foxcroft Road Tributary Reach No. 2
City of West Chicago	WBKR	Unnamed Tributary to Kress Creek	Kress Creek Reach No. 2
DuPage County*	WBSR	West Branch DuPage River's Steeple Run Tributary Reach #3	Steeple Run Tributary Reach No. 3
Village of Bartlett; DuPage County*	WBW2	Country Creek	West Branch Tributary No. 2
DuPage County*	WBWB	West Branch Tributary No. 5	West Branch Reach No. 18

*Unincorporated areas

The streams, or portions of streams, listed in Table 5, "Limits of New or Revised Zone AE Study," have new or revised hydrologic and hydraulic analyses for this countywide FIS.

Table 5 - Limits of New or Revised Zone AE Study

Flooding Source	Limits of Zone AE Study
East Branch DuPage River Watershed (EB)	
Armitage Creek (EBAR)	From the confluence with East Branch DuPage River to approximately 11,600 feet above the confluence with East Branch DuPage River (approximately 50 feet upstream of Paul Avenue)
Armitage Fork Tributary (EBAR)	From the confluence with Armitage Creek to approximately 4,420 feet above the confluence with Armitage Creek (just downstream of Mildred Avenue)
Army Trail Road Tributary (EBAT)	From the confluence with East Branch DuPage River to approximately 3,650 feet above the confluence with East Branch DuPage River (just upstream of Army Trail Road)
Crabtree Creek (EBCR)	From the confluence with East Branch DuPage River to approximately 8,225 feet above the confluence with East Branch DuPage River (approximately at Janes Avenue)

Table 6 - Limits Zone AE Study (continued)

Flooding Source	Limits of Zone AE Study
West Branch DuPage River Watershed (WB)	
Cress Creek (WBCC)	From the confluence with West Branch DuPage River to approximately 6,150 feet above the confluence with West Branch DuPage River (approximately 200 feet upstream of West Street)
Ferry Creek (WBFE)	From the confluence with West Branch DuPage River to approximately 19,750 feet above the confluence with West Branch DuPage River (approximately 70 feet upstream of Access Road)
Ferry Creek Tributary No. 1 (WBFE)	From the confluence with Ferry Creek to approximately 4,820 feet above the confluence with Ferry Creek (approximately at McDowell Road)
Unnamed Tributary to Ferry Creek (WBFE) [1]	From approximately 1,880 feet above the confluence with Ferry Creek to approximately 3,440 feet above the confluence with Ferry Creek
South of Foxcroft Road Tributary (WBFX)	From approximately 5,440 feet above the confluence with West Branch DuPage River (DuPage-Will County boundary) to approximately 6,600 feet above the confluence with West Branch DuPage River
South of Foxcroft Road Tributary Reach No. 2 (WBFX)	From the confluence with West Branch DuPage River (DuPage-Will County boundary) to approximately 3,850 feet above the confluence with West Branch DuPage River (approximately 1,025 feet upstream of 87th Street)
Klein Creek (WBKC)	From the confluence with West Branch DuPage River to approximately 34,850 feet above the confluence with West Branch DuPage River (approximately 1,700 feet upstream of Schmale Road)
Klein Creek Tributary No. 1 (WBKC)	From the confluence with Klein Creek to approximately 8,025 feet above the confluence with Klein Creek (approximately 1,375 feet upstream of Pleasant Hill Road)
Klein Creek Tributary No. 2 (WBKC)	From the confluence with Klein Creek to approximately 2,400 feet above the confluence with Klein Creek (approximately 150 feet upstream of Blackhawk Drive)
Klein Creek Tributary No. 3 (WBKC)	From the confluence with Klein Creek to approximately 3,570 feet above the confluence with Klein Creek (approximately 1,750 feet upstream of 84th Court)
Kress Creek (WBKR)	From the confluence with West Branch DuPage River to approximately 42,250 feet above the confluence with West Branch DuPage River (approximately 75 feet upstream of Powis Road)
Kress Creek Reach No. 2 (WBKR)	From the confluence with Kress Creek to approximately 11,950 feet above the confluence with Kress Creek (approximately 55 feet upstream of Rail Road
Spring Brook No. 1 (WBSP)	From the confluence with West Branch DuPage River to approximately 30,500 feet above the confluence with West Branch DuPage River (approximately 2,600 feet upstream of Hawthorn Street)

[1] Stream studied in detail as part of LOMR 06-05-B753P

Table 6 - Limits Zone AE Study (continued)

Flooding Source	Limits of Zone AE Study
West Branch DuPage River Watershed (WB) - continued	
Steeple Run Tributary (WBSR)	From the confluence with West Branch DuPage River to approximately 11,550 feet above the confluence with West Branch DuPage River (approximately 900 feet upstream of Springhill Circle East)
Steeple Run Tributary Reach No. 3 (WBSR)	From the confluence with Steeple Run Tributary to approximately 2,900 feet above the confluence with Steeple Run Tributary
West Branch Tributary No. 1 (WBW1)	From approximately 5,940 feet above the confluence with West Branch DuPage River (approximately at Forest Preserve Road) to approximately 10,380 feet above the confluence with West Branch DuPage River (just downstream of Gary Avenue)
West Branch Tributary No. 2 (WBW2)	From the confluence with West Branch DuPage River to approximately 12,050 feet above the confluence with West Branch DuPage River (just downstream of Devon Avenue)
West Branch Tributary No. 3 (WBW3)	From the confluence with West Branch DuPage River to approximately 8,200 feet above the confluence with West Branch DuPage River (just downstream of Waynewood Drive)
West Branch Tributary No. 4 (WBW4)	From the confluence with West Branch DuPage River to approximately 10,150 feet above the confluence with West Branch DuPage River (approximately 950 feet upstream of Timber Lane)
West Branch Tributary No. 6 (WBW6)	From the confluence with West Branch DuPage River to approximately 2,730 feet above the confluence with West Branch DuPage River (approximately 180 feet upstream of Unnamed Road)
West Branch Tributary No. 7 (WBW7)	From the confluence with West Branch DuPage River to approximately 3,370 feet above the confluence with West Branch DuPage River (approximately 1,590 feet upstream of Oxford Lane)
West Branch Reach No. 18 (WBWB)	From the confluence with West Branch DuPage River to approximately 1,750 feet above the confluence with West Branch DuPage River (approximately 35 feet upstream of railroad; 215 feet upstream of Donald Avenue)
West Branch DuPage River (WBWB)	From approximately 11,300 feet above the confluence with DuPage River (at DuPage-Will County boundary) to approximately 164,300 feet above the confluence with DuPage River (at DuPage-Cook County boundary)
Winfield Creek (WBWF)	From the confluence with West Branch DuPage River to approximately 35,500 feet above the confluence with West Branch DuPage River (approximately 75 feet upstream of Farm Road)
Winding Creek (WBWG)	From the confluence with West Branch DuPage River to approximately 6,760 feet above the confluence with West Branch DuPage River (approximately 340 feet upstream of Modaff Road)

Zone A stream modeling was not within the requisite scope of new analyses included in this revised countywide FIS. Portions of model-based stream

delineations may, however, be depicted as Zone A on the FIRM based on engineering judgment. Additionally, some new or revised ponding area delineations may be depicted as Zone A on the FIRM based on known flood risk, topographic data analysis, and engineering judgment.

Letters of Map Revision

This FIS also provides a history of the incorporation of determination letters issued by FEMA that have resulted in map changes (Letter of Map Revision [LOMR]) since the December 16, 2004 initial countywide FIS. This incorporation is summarized in Tables 7a-b, “Incorporated Letters of Map Change.” The "Community" column entries shown as “DuPage County” refer to the unincorporated areas of the county.

It should be noted that all or portions of a given map change may be superseded by subsequent Letters of Map Revision or restudies.

Table 7a – Incorporated Letters of Map Change (August 1, 2019)

LOMC Type	Case Number	Effective Date	Community	Flooding Source	Project Identifier
LOMR	16-05-0956P	11/25/2016	Bensenville, Village of; Chicago, City of; Elk Grove Village, Village of	North Unnamed Creek (DPWL), North Unnamed Creek Tributary (DPWL), South Unnamed Creek (DPWL), Willow Creek (DPWL)	O'Hare Modernization Project
LOMR	15-05-1012P	02/05/2016	Bensenville, Village of; Chicago, City of; Elk Grove Village, Village of	North Unnamed Creek (DPWL), North Unnamed Creek Tributary (DPWL), South Unnamed Creek (DPWL)	South and North Unnamed Tributaries (Tributaries To Willow Creek)
LOMR	15-05-2352P	12/03/2015	Naperville, City of	Spring Brook No. 2 (DUSG)	Standard Market of Naperville
LOMR	15-05-1937P	08/14/2015	Warrenville, City of; DuPage County	West Branch DuPage River (WBWB)	Bower School Berm Flood Levee Certification
LOMR	14-05-2185P	09/10/2014	Lisle, Village of	Unnamed Zone A	Arbor Trails Subdivision
LOMR	13-05-3690P	09/02/2014	Lisle, Village of; DuPage County	St. Joseph Creek Reach No. 3 (EBSJ)	St. Joseph Creek Tributary 2 (B)
LOMR	13-05-5378P	05/02/2014	Woodridge, Village of	Lily Cache Creek (DULC)	Union Pointe Business Park
LOMR	13-05-2368P	08/02/2013	Glen Ellyn, Village of	Unnamed Ponding Areas	650 Roosevelt Road
LOMR	13-05-1709P	05/28/2013	Darien, City of	Sawmill Creek Reach No. 8 (SWSW)	Darien Re-delineation
LOMR	12-05-8596P	03/15/2013	Roselle, Village of	On-site basin (WBWB)	Bristol Crossing
LOMR	11-05-2629P	06/10/2011	Lisle, Village of	Unnamed Tributary to St. Procopius Creek (EBE6)	Woodglenn Park
LOMR	10-05-5743P	11/12/2010	Woodridge, Village of	Lily Cache Creek (DULC)	NE Corner of I-355 and Boughton Road
LOMR	08-05-0178P	09/29/2008	Bensenville, Village of	North Unnamed Creek (DPFC)	Devon O'Hare Industrial Park

Table 7a – Incorporated Letters of Map Change (August 1, 2019) - continued

LOMC Type	Case Number	Effective Date	Community	Flooding Source	Project Identifier
LOMR	08-05-1383P	06/11/2008	Aurora, City of	Waubansee Creek (FRWA)	The Plaza on New York
LOMR	08-05-1097P	05/26/2008	DuPage County	Addison Creek (DPAC)	Central States Trucking
LOMR	08-05-0519P	05/04/2008	Elmhurst, Village of	Addison Creek Tributary No. 4 (DPAC)	Addison Creek Tributary
LOMR	08-05-0818P	03/25/2008	Aurora, City of	Waubansee Creek (FRWA)	Kensington Station
LOMR	07-05-2642P	03/20/2008	DuPage County	Timber Lake (SWSW)	Timber Lake Drainage Improvements
LOMR	07-05-2451P	08/16/2007	Hinsdale, Village of	Tributary to East Branch DuPage River (EBEB)	East Branch Forest Preserve Dog Facility
LOMR	06-05-BZ77P	11/30/2006	Lisle, Village of	Schwartz Creek (EBEB) (formerly East Branch Tributary No. 3)	Reissuance of LOMR 03-05-4639P
LOMR	06-05-BZ76P	11/29/2006	Lisle, Village of	Schwartz Creek (EBEB) (formerly East Branch Tributary No. 3)	Tributary 3 of East Branch DuPage River (IL)
LOMR	06-05-B753P	11/22/2006	Warrenville, City of	Unnamed Tributary to Ferry Creek (WBFE)	Monarch Landing
LOMR	06-05-BM99P	10/31/2006	Woodridge, Village of	Unnamed Tributary Area	Farmingdale Village, Illinois
LOMR-F	06-05-B235A	02/14/2006	Carol Stream, Village of	Klein Creek (WBKC)	Fountains at Town Center, Subdivision, Lots 1-41, Lot F, Lot G and Lot H
LOMR	04-05-039P	04/09/2004	DuPage County	Kress Creek	West Park Property (2nd submittal)
LOMR	03-05-2146P	05/30/2003	Woodridge, Village of	East Branch Reach No. 3 (EBEB)	Normadale Woods Subdivision
LOMR	02-05-2605P	12/19/2002	Carol Stream, Village of	Klein Creek (WBKC)	Carol Stream Fire Station No. 1
LOMR	02-05-3599P	10/01/2002	Hinsdale, Village of	Kress Creek (WBKR)	No Project Basis of Request = Correction

Flooding Source and Location	USGS Gage No.	Drainage Area (sq. miles)	Record (years)
Klein Creek at Carol Stream	05539950	8.81	15

Kress Creek and Kress Creek Reach No. 2 (WBKR)

Discharges for the 10-, 2-, and 1-percent-annual-chance floods for Kress Creek and Kress Creek Reach No. 2 within the unincorporated areas of DuPage County were computed using the log-Pearson Type III method (Reference 29) for gaged streams and regional equations for ungaged (Reference 30, 31). The USGS stream gage used for the hydrologic analyses is presented in below. The 0.2-percent annual-chance flood discharge was estimated by straight-line extrapolation.

Flooding Source and Location	USGS Gage No.	Drainage Area (sq. miles)	Record (years)
Kress Creek at West Chicago	05540050	10.01	15

Kress Creek is within sub area 6 of the Chicago Metropolitan - DuPage River Basin study performed by the USACE's Hydrologic Engineering Center (Reference 36). Peak flows for this sub area, previously derived by the Chicago District, were utilized to derive peak flood flows for the reaches of Kress Creek and Kress Creek Reach No 2 within the City of West Chicago. A discharge-frequency relationship was developed for Kress Creek at State Highway 38, and peak flows for Kress Creek at the mouth were obtained by applying the square root of the drainage area ratio. The 0.2-percent annual-chance flood discharge was estimated by straight-line extrapolation.

The peak discharge for a portion of the headwater area of Kress Creek studied by Zone A methods was determined from a regional curve, which indicated the 1-percent-annual-chance peak discharge as a function of average streambed slope. This curve was determined by solving and plotting solutions to the multiple regression equation adopted by the State of Illinois for several streams within DuPage County (Reference 30).

West Branch Tributaries No. 1, 2, 3, 4, 6, 7, and 18
(WBW1), (WBW2), (WBW3), (WBW4), (WBW6), (WBW7), (WBWB)

For West Branch Tributaries No. 1, 2, 3, 4, 6, 7, and 18, synthetic frequency-discharge curves were derived using regional statistics developed in the Chicago Metropolitan - DuPage River Basin study performed by the USACE's Hydrologic Engineering Center (Reference 36). These discharges assume zero skew.

West Branch DuPage River (WBWB)

Discharge-frequency data for the West Branch DuPage River were developed through the use of the Chicago Metropolitan - DuPage River Basin study performed by the USACE's Hydrologic Engineering Center (Reference 36). In the Chicago study, the DuPage River Basin above Shorewood, Illinois, was

Table 8 - Summary of Discharges - continued

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
Sawmill Creek Watershed (SW) - continued					
Sawmill Creek Reach No. 3 (SWSW) Just above confluence with Sawmill Creek	2.4	670	957	1,048	1,295
Sawmill Creek Reach No. 4 (SWSW) 360 feet above confluence with Sawmill Creek Reach No. 3	0.4	200	386	481	737
Sawmill Creek Reach No. 8 (SWSW) Just above confluence with Wards Creek	0.7	223	401	488	718
Sawmill Creek Reach No. 10 (SWSW) Just above confluence with Sawmill Creek	0.4	101	194	237	366
Wards Creek (SWSW) Just above confluence with Sawmill Creek	1.4	440	982	982	1,597
Wards Creek (SWWD) Just upstream of Interstate 55	3.1	208	410	519	853
Wards Creek Reach No. 2 (SWWD) Just above confluence with Wards Creek	0.4	58	92	109	161
West Branch DuPage River Watershed (WB)					
Cress Creek (WBCC) At confluence with West Branch DuPage River	1.5	325	575	740	1,430
Ferry Creek (WBFE) At confluence with West Branch DuPage River	8.6	380	540	615	805
Ferry Creek Tributary No. 1 (WBFE) At confluence with Ferry Creek	2.4	150	265	300	390
Unnamed Tributary to Ferry Creek (WBFE) Just downstream of railroad	0.9	140	271	327	*

*Data not available

Table 8 - Summary of Discharges (continued)

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
West Branch DuPage River Watershed (WB) - continued					
South of Foxcroft Road Tributary (WBFX)					
At confluence with West Branch DuPage River	1.3	80 [4]	225 [4]	295 [4]	505 [4]
Approximately 80 feet downstream of Ring Road	0.6	25 [4]	125 [4]	170 [4]	320 [4]
South of Foxcroft Road Tributary Reach No. 2 (WBFX)					
At confluence with West Branch DuPage River	0.3	185	250	285	380
Approximately 1,000 feet downstream of 87th Street	0.2	85.0	150	185	280
Klein Creek (WBKC)					
Downstream of Thunderbird Trail	6.4	455	592	655	947
Approximately 1,000 feet upstream of Dam "A"	4.9	400	542	619	817
Klein Creek Tributary No. 1 (WBKC)					
At confluence with Klein Creek	1.1	33	60	95	240
Klein Creek Tributary No. 2 (WBKC)					
At confluence with Klein Creek	1.2	220	300	355	515
Klein Creek Tributary No. 3 (WBKC)					
At confluence with Klein Creek	0.8	140	*	208	*
Kress Creek (WBKR)					
At confluence with West Branch DuPage River	18.3	760	1,060	1,170	1,470
At Town Road	14.8	655	915	1,000	1,270
Approximately 200 feet upstream of Road A (river mile 3.1)	12.3	580	810	890	1,125
At Roosevelt Road (State Highway 38)	10.1	510	710	780	985
At Indian Boundary Road	5.4	365	510	560	705
At Hawthorne Lane	4.2	330	460	505	635
Approximately 4,400 feet upstream of Harvester Road (river mile 7.66)	1.5	40	45	52	63

[4] Decrease due to interbasin flow
*Data not available

Table 8 - Summary of Discharges (continued)

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
West Branch DuPage River Watershed (WB) - continued					
Kress Creek Reach No. 2 (WBKR)					
At confluence with Kress Creek	1.0	9	135	155	195
Spring Brook No. 1 (WBSP)					
Just above confluence with West Branch DuPage River	7.7	759	1,438	1,760	2,481
Steeple Run Tributary (WBSR)					
Just downstream of Loomis Street	2.7	95	301	415	887
Steeple Run Tributary Reach No. 3 (WBSR)					
1,100 feet above confluence with Steeple Run Tributary	0.4	125	315	421	708
West Branch Tributary No. 1 (WBW1)					
Just upstream of Forest Preserve Road	1.4	65	140	190	305
West Branch Tributary No. 2 (WBW2)					
At confluence with West Branch DuPage River	3.7	278	390	430	569
West Branch Tributary No. 3 (WBW3)					
At confluence with West Branch DuPage River	1.3	190	335	430	650
West Branch Tributary No. 4 (WBW4)					
At confluence with West Branch DuPage River	2.9	275	475	590	880
West Branch Tributary No. 6 (WBW6)					
At confluence with West Branch DuPage River	0.2	155	240	285	675
West Branch Tributary No. 7 (WBW7)					
At confluence with West Branch DuPage River	0.2	55	110	150	210
West Branch Reach No. 18 (WBWB)					
At confluence with West Branch DuPage River	0.1	35	*	95	*

*Data not available

computer step-backwater model (Reference 61). Starting water-surface elevations were calculated using the slope/area method.

South of Foxcroft Road Tributary and South of Foxcroft Road Tributary Reach No. 2 (WBFX)

Both overbank and channel cross sections for South of Foxcroft Road Tributary [formerly Unnamed Creek (South of 87th Street)] and South of Foxcroft Road Tributary Reach No. 2 [formerly Unnamed Creek (South of Foxcroft Road)] were field surveyed. Water-surface elevations for South of Foxcroft Road Tributary and South of Foxcroft Road Tributary Reach No. 2 were computed for the 10-, 2-, 1-, and 0.2-percent-annual-chance floods using a HEC-2 computer step-backwater model (Reference 61). Starting water-surface elevations were calculated using the slope/area method.

Klein Creek and Tributaries (WBKC)

Cross-section data for Klein Creek, Klein Creek Tributary No. 2, and Klein Creek Tributary No. 3 were obtained by field measurement.

Water-surface elevations of floods of the selected recurrence intervals were computed using the USACE HEC-2 step-backwater computer program (Reference 61). Starting water-surface elevations were calculated using the slope/area method.

Kress Creek and Kress Creek Reach No. 2 (WBKR)

Cross-section data for part of Kress Creek and Kress Creek Reach No. 2 (formerly Unnamed Tributary to Kress Creek) were obtained by field measurement. Within the City of West Chicago, cross sections for Kress Creek up to Hawthorne Lane are identical to those used for a 1975 USACE floodplain information report (Reference 68). In addition, channel modifications to Kress Creek for a distance of 600 feet upstream of the railroad and culverts at the railroad crossing were inspected in March 1978 and incorporated into the hydraulic model.

Water-surface profiles for Kress Creek and Kress Creek Reach No. 2 were developed through use of the USACE HEC-2 step-backwater computer program (Reference 61). Starting water-surface elevations were calculated using the slope/area method.

West Branch Tributaries No. 1, 2, 3, 4, 6, 7, and 18
(WBW1), (WBW2), (WBW3), (WBW4), (WBW6), (WBW7), (WBWB)

Cross section data for West Branch Tributary No. 1, West Branch Tributary No. 2 (formerly Country Creek), West Branch Tributary No. 3, West Branch Tributary No. 4, West Branch Tributary No. 6, West Branch Tributary No. 7, and West Branch Reach No. 18 (formerly West Branch Tributary No. 5) were obtained by

Table 10 - Roughness Coefficients (Manning's "n" Values) - continued

Stream	Channel "n"	Overbank "n"
Salt Creek Watershed (SC) - continued		
Spring Brook Creek (SCSB)	0.015 - 0.154	0.015 - 0.250
Spring Brook Tributary No. 1 (SCSB)	0.035 - 0.080	0.035 - 0.250
Salt Creek (SCSC)	0.045 - 0.100	0.015 - 0.200
Sugar Creek (SCSU)	0.022 - 0.105	0.022 - 0.120
Sugar Creek Tributary No. 2 (SCSU)	0.030 - 0.080	0.030 - 0.100
Sugar Creek Tributary No. 3 (SCSU)	0.030 - 0.055	0.030 - 0.100
Sugar Creek Tributary No. 4 (SCSU)	0.030 - 0.070	0.035 - 0.100
Community Pond Tributary (SCWC)	0.025 - 0.035	0.035 - 0.050
Westwood Creek (SCWC)	0.025 - 0.040	0.035 - 0.090
Westwood Creek Reach No. 6 (SCWC)	0.025 - 0.035	0.035 - 0.040
Sawmill Creek Watershed (SWSW)		
Argonne Tributary (SWSW)	0.035 - 0.095	0.025 - 0.120
Freund Brook (SWSW)	0.034 - 0.100	0.034 - 0.150
Sawmill Creek (SWSW)	0.015 - 0.100	0.013 - 0.101
Sawmill Creek Reach No. 3 (SWSW)	0.030 - 0.080	0.015 - 0.150
Sawmill Creek Reach No. 4 (SWSW)	0.030 - 0.081	0.020 - 0.101
Sawmill Creek Reach No. 8 (SWSW)	0.035 - 0.100	0.035 - 0.151
Sawmill Creek Reach No. 10 (SWSW)	0.030 - 0.031	0.013 - 0.100
Wards Creek (SWSW)	0.040 - 0.120	0.040 - 0.150
Wards Creek (SWWD)	0.035 - 0.095	0.013 - 0.100
Wards Creek Reach No. 2 (SWWD)	0.040 - 0.100	0.025 - 0.100
West Branch DuPage River Watershed (WBWB)		
Cress Creek (WBCC)	0.030	0.800
Ferry Creek (WBFE)	0.015 -0.040	0.045 - 0.080
Ferry Creek Tributary No. 1 (WBFE)	0.015 -0.040	0.045 - 0.080
Unnamed Tributary to Ferry Creek (WBFE)	0.050 - 0.050	0.550 - 0.100
South of Foxcroft Road Tributary (WBFX)	*	*
South of Foxcroft Road Tributary Reach No. 2 (WBFX)	0.300	0.050
Klein Creek (WBKC)	0.030-0.045	0.060-0.080
Klein Creek Tributary No. 1	*	*
Klein Creek Tributary No. 2 (WBKC)	0.035	0.065
Klein Creek Tributary No. 3 (WBKC)	0.055	0.070
Kress Creek (WBKR)	0.015-0.080	0.040-0.100
Kress Creek Reach No. 2 (WBKR)	0.015-0.080	0.040-0.100
Spring Brook No. 1 (WBSP)	0.030 - 0.120	0.013 - 0.155
Steeple Run Tributary (WBSR)	0.014 - 0.100	0.030 - 0.100
Steeple Run Tributary Reach No. 3 (WBSR)	0.010 - 0.040	0.010 - 0.040

*Data not available

Table 10 - Roughness Coefficients (Manning's "n" Values) - continued

Stream	Channel "n"	Overbank "n"
West Branch DuPage River Watershed (WBWB) - continued		
West Branch Tributary No. 1 (WBW1)	0.050-0.080	0.095
West Branch Tributary No. 2 (WBW2)	0.015-0.035	0.035-0.120
West Branch Tributary No. 3 (WBW3)	0.040-0.070	0.085
West Branch Tributary No. 4 (WBW4)	0.065	0.085-0.100
West Branch Tributary No. 6 (WBW6)	0.070	0.100
West Branch Tributary No. 7 (WBW7)	0.050-0.060	0.065-0.100
West Branch Reach No. 18 (WBWB)	0.050-0.070	0.065-0.085
West Branch DuPage River (WBWB)	0.035 - 0.050	0.040 - 0.100
Winfield Creek (WBWF)	0.015-0.055	0.045-0.100
Winding Creek (WBWG)	*	*

*Data not available

3.3 Vertical Datum

All FIS Reports and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum used for newly created or revised FIS Reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD29). With the completion of the North American Vertical Datum of 1988 (NAVD88), many FIS Reports and FIRMs are now prepared using NAVD88 as the referenced vertical datum.

Flood elevations shown in this FIS Report and on the FIRMs are referenced to NAVD88. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between NGVD29 and NAVD88 or other datum conversion, visit the National Geodetic Survey website at www.ngs.noaa.gov.

Effective information for this FIS was converted from NGVD 29 to NAVD 88 based on data presented in Figure 2 and Table 11a. Computations show an average conversion factor of -0.271 feet (NGVD 29 – 0.271 = NAVD 88) for the county. The conversion factor was applied uniformly across the county, with the exception of Norton Creek, Norton Creek Tributary, and Waubansee Creek, and was used to prepare the Floodway Data Tables, Flood Profiles, and FIRMs.

The countywide conversion factor could not be used for Norton Creek, Norton Creek Tributary, and Waubansee Creek since the studied portion of the streams are located in two counties and the average conversion factor determined for each county differs from the other. The Multiple Conversion Factors (stream-by-stream) method was applied to these streams. For the stream-by-stream method, each studied stream is assigned an average conversion factor based on the

conversion factors at three points along the stream. These results are shown in Table 11b.

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the archived project documentation associated with the FIS Report and the FIRMs for this community. Interested individuals may contact FEMA to access these data.

To obtain current elevation, description, and/or location information for benchmarks in the area, please visit the NGS website at www.ngs.noaa.gov.
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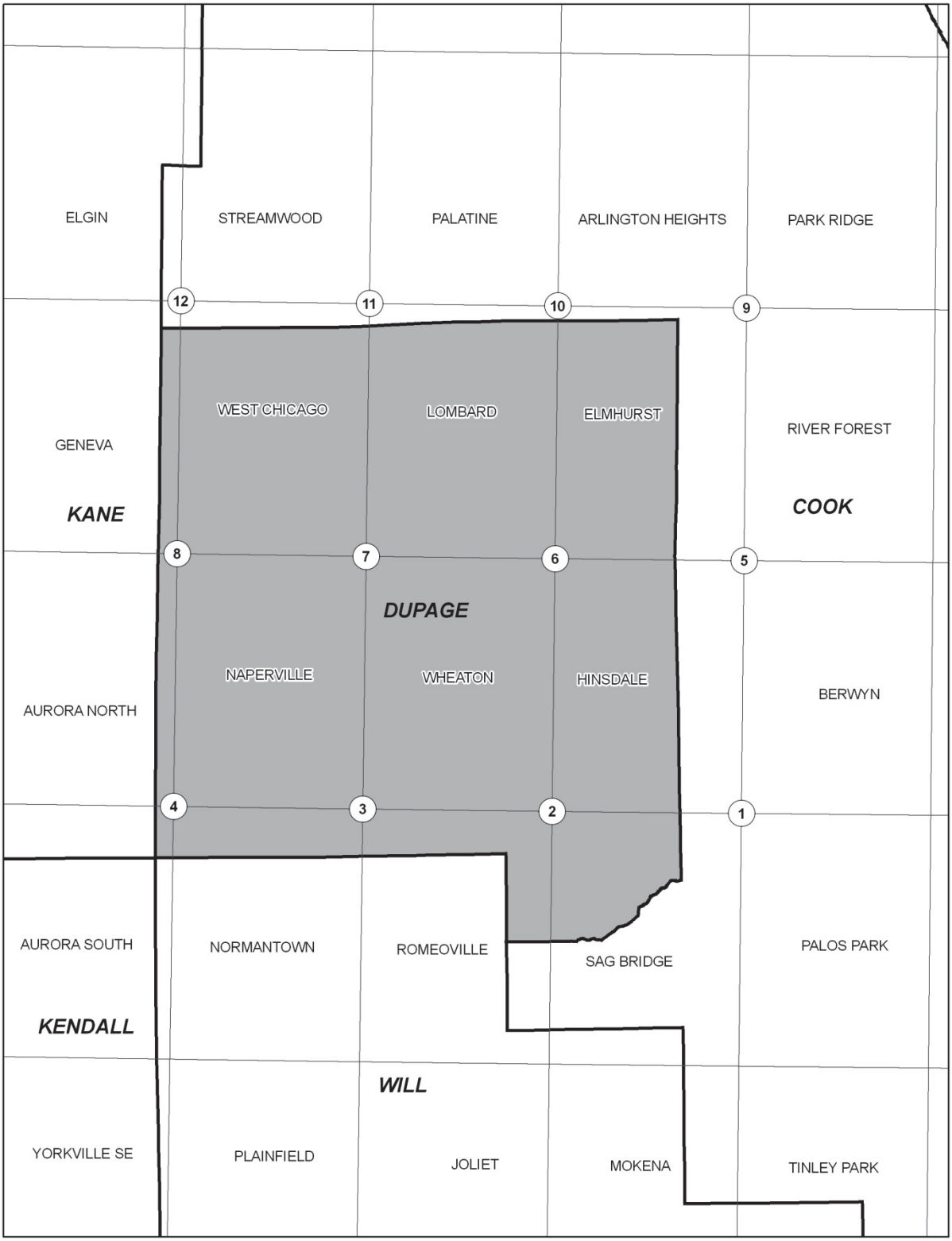


Figure 2 – Vertical Datum Conversions
USGS Quadrangle Corner Intersections
The change in elevation for each Point ID is listed in Table 11a.

Table 11a - Vertical Datum Conversions
Datum Conversions – DuPage County

Point ID #	Quadrangle Name	Corner	NAD83 Latitude (dec. deg.)	NAD83 Longitude (dec. deg.)	NGVD 29 to NAVD 88 Elevation Change (feet)
1	Palos Park	NW	41.750	87.875	-0.282
2	Sag Bridge	NW	41.750	88.000	-0.269
3	Romeoville	NW	41.750	88.125	-0.266
4	Normantown	NW	41.750	88.250	-0.243
5	Berwyn	NW	41.875	87.875	-0.295
6	Hinsdale	NW	41.875	88.000	-0.279
7	Wheaton	NW	41.875	88.125	-0.259
8	Naperville	NW	41.875	88.250	-0.240
9	River Forest	NW	42.000	87.875	-0.308
10	Elmhurst	NW	42.000	88.000	-0.282
11	Lombard	NW	42.000	88.125	-0.272
12	West Chicago	NW	42.000	88.250	-0.262
Range of conversion values					-0.308 through -0.240
Average conversion factor					**-0.271**
Maximum variance from the average conversion					0.037
Maximum variance from a no-conversion value					0.308

Table 11b - Vertical Datum Conversions
Multiple Conversion Factor (stream-by-stream) Method
DuPage County

Point Location	Community	NAD83 Latitude (dec. deg.)	NAD83 Longitude (dec. deg.)	NGVD29 to NAVD88 Elevation Change (Feet)	Maximum (Offset)	Average Conversion
Norton Creek	City of West Chicago, Village of Wayne					
Downstream		47.949	88.311	-0.243		
Intermediate		41.947	88.280	-0.246		
Upstream		41.938	88.249	-0.249	-0.003	-0.246
Norton Creek Tributary	Unincorporated Lake County, Village of Wayne					
Downstream		41.948	88.264	-0.249		
Intermediate		41.954	88.253	-0.253		
Upstream		41.958	88.242	-0.253	0.003	-0.251
Waubansee Creek	City of Aurora					
Downstream		41.686	88.354	-0.233		
Intermediate		41.722	88.298	-0.233		
Upstream		41.752	88.232	-0.246	-0.013	-0.237

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
West Branch DuPage River Watershed (WB) - continued								
Kress Creek (WBKR)								
WBKR0001	882	139	464	2.5	705.2	702.9 [2]	703.0	0.1
WBKR0002	1,122	150	572	2.0	705.2	703.7 [2]	703.8	0.1
WBKR0003	3,080	65	231	5.1	709.2	709.2	709.2	0.0
WBKR0004	5,613	95	293	4.0	715.3	715.3	715.4	0.1
WBKR0005	5,782	259	1,312	0.9	719.9	719.9	720.0	0.1
WBKR0006	6,805	250	1,289	0.9	721.0	721.0	721.1	0.1
WBKR0007	7,562	270	2,936	0.4	723.5	723.5	723.6	0.1
WBKR0008	8,006	295	2,390	0.5	723.5	723.5	723.6	0.1
WBKR0010	11,161	330	1,508	0.7	726.9	726.9	726.9	0.0
WBKR0011	13,563	151	271	3.7	727.1	727.1	727.1	0.0
WBKR0012	16,205	290	176	0.9	734.0	734.0	734.0	0.0
WBKR0013	17,053	521	1,558	0.6	735.4	735.4	735.4	0.0
WBKR0014	18,982	120	557	1.6	737.6	737.6	737.6	0.0
WBKR0015	20,423	125	400	2.2	738.3	738.3	738.4	0.1
WBKR0016	22,175	33	109	2.4	738.4	738.4	738.5	0.1
WBKR0017	23,240	21	64	4.1	738.4	738.4	738.4	0.0
WBKR0018	23,656	30	89	1.6	739.8	739.8	739.8	0.0
WBKR0019	25,234	28	60	1.6	740.4	740.4	740.5	0.1

[1] Feet above confluence with West Branch DuPage River (WBWB)
[2] Elevations computed without consideration of backwater effects from West Branch DuPage River (WBWB)

TABLE 12

FEDERAL EMERGENCY MANAGEMENT AGENCY

DU PAGE COUNTY, IL AND INCORPORATED AREAS

FLOODWAY DATA

KRESS CREEK (WBKR)

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
West Branch DuPage River Watershed (WB) - continued								
Kress Creek (WBKR) - continued								
WBKR0020	25,526	158 [2]	150	2.2	744.1	744.1	744.1	0.0
WBKR0021	26,351	168 [2]	233	1.2	744.6	744.6	744.7	0.1
WBKR0022	26,579	166 [2]	235	1.0	744.9	744.9	745.0	0.1
WBKR0023	27,985	49	133	1.5	745.3	745.3	745.4	0.1
WBKR0024	28,158	81	273	0.7	746.0	746.0	746.1	0.1
WBKR0025	28,722	31	135	1.4	746.0	746.0	746.1	0.1
WBKR0026	28,897	35	212	1.0	748.1	748.1	748.2	0.1
WBKR0027	30,320	39	195	0.7	748.3	748.3	748.4	0.1
WBKR0028	30,482	40	246	0.6	749.5	749.5	749.6	0.1
WBKR0029	32,036	36	193	0.8	749.5	749.5	749.6	0.1
WBKR0030	32,284	40	164	0.9	749.5	749.5	749.5	0.0
WBKR0031	34,078	68	140	0.7	749.7	749.7	749.7	0.0
WBKR0032	34,185	38	116	1.7	750.5	750.5	750.5	0.0
WBKR0033	36,853	24	74	0.6	751.4	751.4	751.4	0.0
WBKR0034	37,424	20	52	0.9	751.4	751.4	751.4	0.0
WBKR0035	41,489	179	529	0.1	752.9	752.9	753.0	0.1
WBKR0036	41,620	222	916	0.1	752.9	752.9	753.0	0.1
WBKR0037	42,236	*	*	*	752.9	*	*	*

[1] Feet above confluence with West Branch DuPage River (WBWB)
[2] Floodway width reflects model width, see FIRM panel for regulatory floodway
* Data not available

TABLE 12

FEDERAL EMERGENCY MANAGEMENT AGENCY

DU PAGE COUNTY, IL AND INCORPORATED AREAS

FLOODWAY DATA

KRESS CREEK (WBKR)

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE [1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
West Branch DuPage River Watershed (WB) - continued								
Kress Creek Reach No. 2 (WBKR)								
WBKR0038	1,303	155	693	0.2	732.3	732.3	732.3	0.0
WBKR0039	2,106	28	56	2.8	732.3	732.3	732.3	0.0
WBKR0040	2,426	200 [2]	321	0.5	734.4	734.4	734.4	0.0
WBKR0041	2,649	162	334	0.5	736.4	736.4	736.4	0.0
WBKR0042	3,876	30	37	4.1	741.4	741.4	741.4	0.0
WBKR0043	4,105	77	166	0.9	744.0	744.0	744.0	0.0
WBKR0044	4,850	24	47	2.6	744.3	744.3	744.3	0.0
WBKR0045	5,127	99	221	0.8	748.7	748.7	748.7	0.0
WBKR0046	5,728	67	99	1.3	748.8	748.8	748.8	0.0
WBKR0047	6,118	31	80	1.6	748.9	748.9	748.9	0.0
WBKR0048	6,544	85	189	0.7	748.9	748.9	748.9	0.0
WBKR0049	7,088	5	15	7.9	749.8	749.8	749.8	0.0
WBKR0050	7,560	30	5	1.4	751.6	751.6	751.6	0.0
WBKR0051	8,001	125	183	0.7	752.4	752.4	752.4	0.0
WBKR0052	8,591	45	93	0.9	752.6	752.6	752.6	0.0
WBKR0053	9,124	40	985	0.1	756.7	756.7	756.7	0.0
WBKR0054	11,762	163	579	0.1	756.7	756.7	756.7	0.0
WBKR0055	11,950	35	122	0.7	758.3	758.3	758.3	0.0

[1] Feet above confluence with Kress Creek (WBKR)
[2] Floodway width reflects model width, see FIRM panel for regulatory floodway

TABLE 12

FEDERAL EMERGENCY MANAGEMENT AGENCY

DU PAGE COUNTY, IL AND INCORPORATED AREAS

FLOODWAY DATA

KRESS CREEK REACH NO. 2 (WBKR)

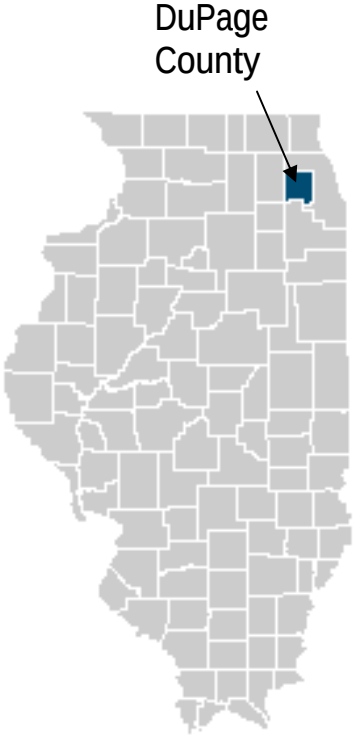
FLOOD INSURANCE STUDY

DU PAGE COUNTY, ILLINOIS
AND INCORPORATED AREAS

Volume 6 of 6

COMMUNITY NAME	COMMUNITY NUMBER
ADDISON, VILLAGE OF	170198
AURORA, CITY OF	170320
BARTLETT, VILLAGE OF	170059
BATAVIA, CITY OF*	170321
BENSENVILLE, VILLAGE OF	170200
BLOOMINGDALE, VILLAGE OF	170201
BOLINGBROOK, VILLAGE OF	170812
BURR RIDGE, VILLAGE OF	170071
CAROL STREAM, VILLAGE OF	170202
CHICAGO, CITY OF	170074
CLARENDON HILLS, VILLAGE OF	170203
DARIEN, CITY OF	170750
DOWNERS GROVE, VILLAGE OF	170204
DU PAGE COUNTY (UNINCORPORATED AREAS)	170197
ELK GROVE VILLAGE, VILLAGE OF	170088
ELMHURST, CITY OF	170205
GLENDALE HEIGHTS, VILLAGE OF	170206
GLEN ELLYN, VILLAGE OF	170207
HANOVER PARK, VILLAGE OF	170099
HINSDALE, VILLAGE OF	170105
ITASCA, VILLAGE OF	170210
LEMONT, VILLAGE OF	170117
LISLE, VILLAGE OF	170211
LOMBARD, VILLAGE OF	170212
NAPERVILLE, CITY OF	170213
OAK BROOK, VILLAGE OF	170214
OAKBROOK TERRACE, CITY OF	170215
ROSELLE, VILLAGE OF	170216
SCHAUMBURG, VILLAGE OF	170158
ST. CHARLES, CITY OF*	170330
VILLA PARK, VILLAGE OF	170217
WARRENVILLE, CITY OF	170218
WAYNE, VILLAGE OF	170865
WEST CHICAGO, CITY OF	170219
WESTMONT, VILLAGE OF	170220
WHEATON, CITY OF	170221
WILLOWBROOK, VILLAGE OF	170222
WINFIELD, VILLAGE OF	170223
WOOD DALE, CITY OF	170224
WOODRIDGE, VILLAGE OF	170737

*NO SPECIAL FLOOD HAZARD AREAS IDENTIFIED IN DU PAGE COUNTY

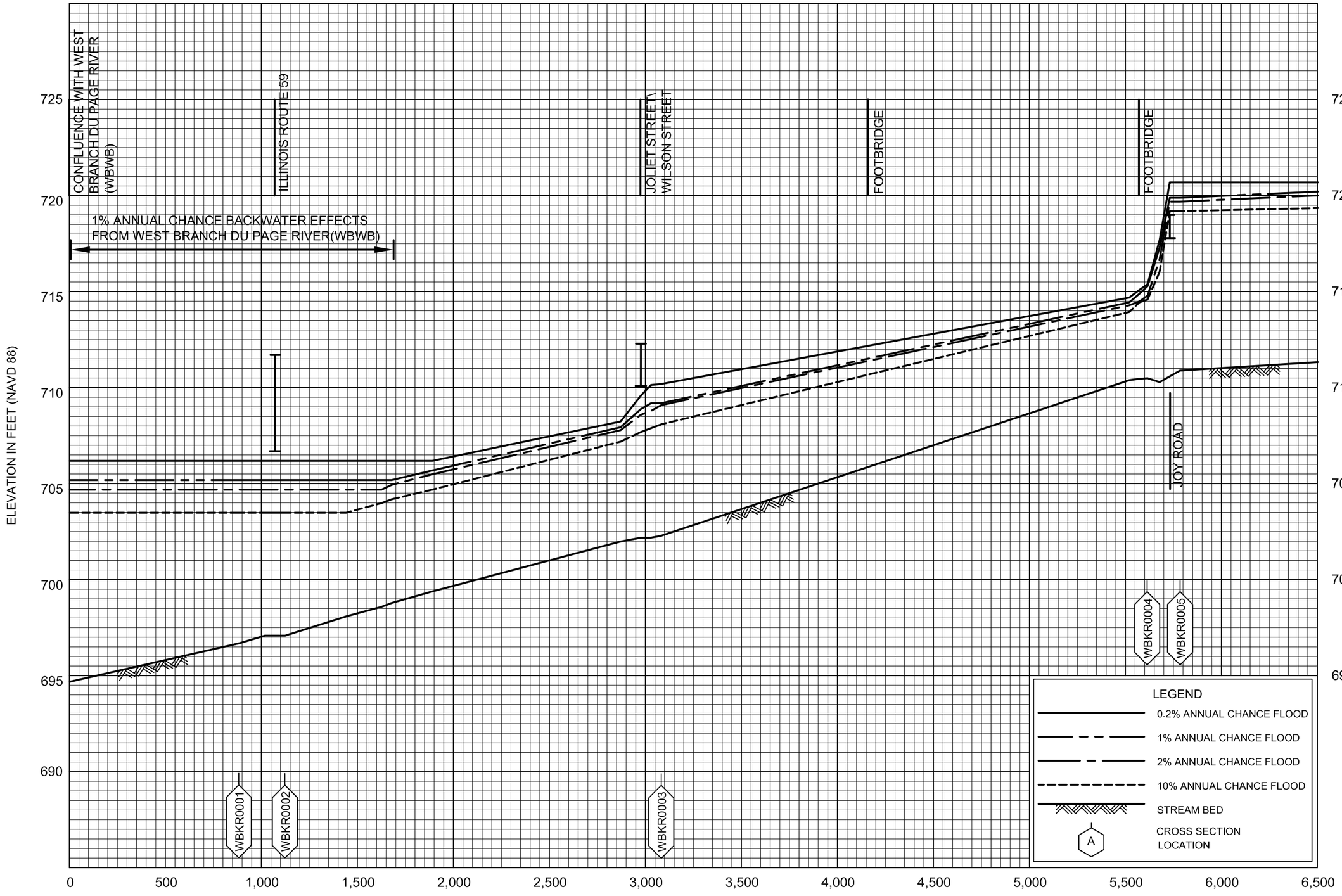


REVISED: AUGUST 1, 2019

Federal Emergency Management Agency

FLOOD INSURANCE STUDY

NUMBER 17043CV006B



FLOOD PROFILES

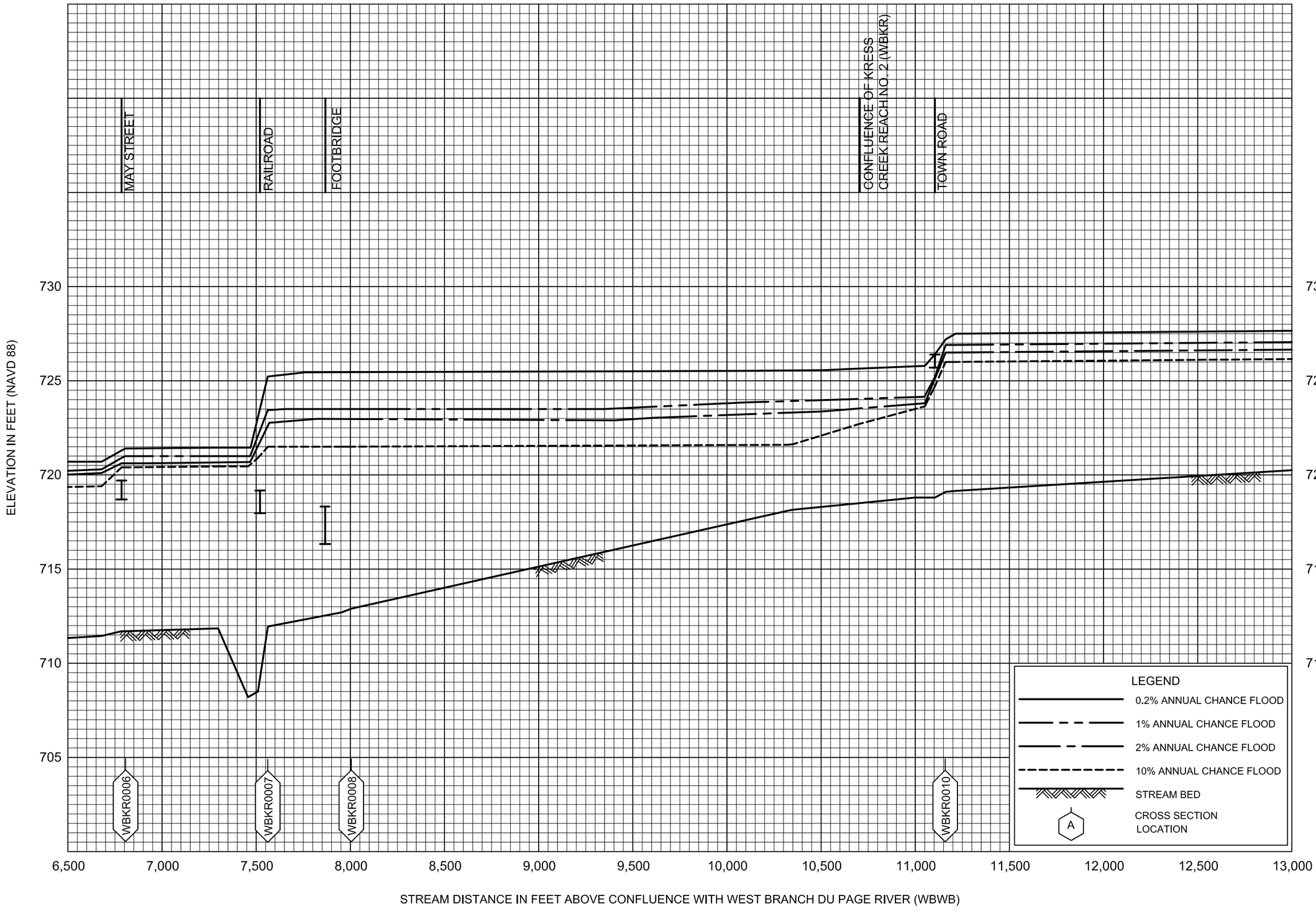
KRESS CREEK (WBKR)

FEDERAL EMERGENCY MANAGEMENT AGENCY

DU PAGE COUNTY, IL

AND INCORPORATED AREAS

225P



FLOOD PROFILES

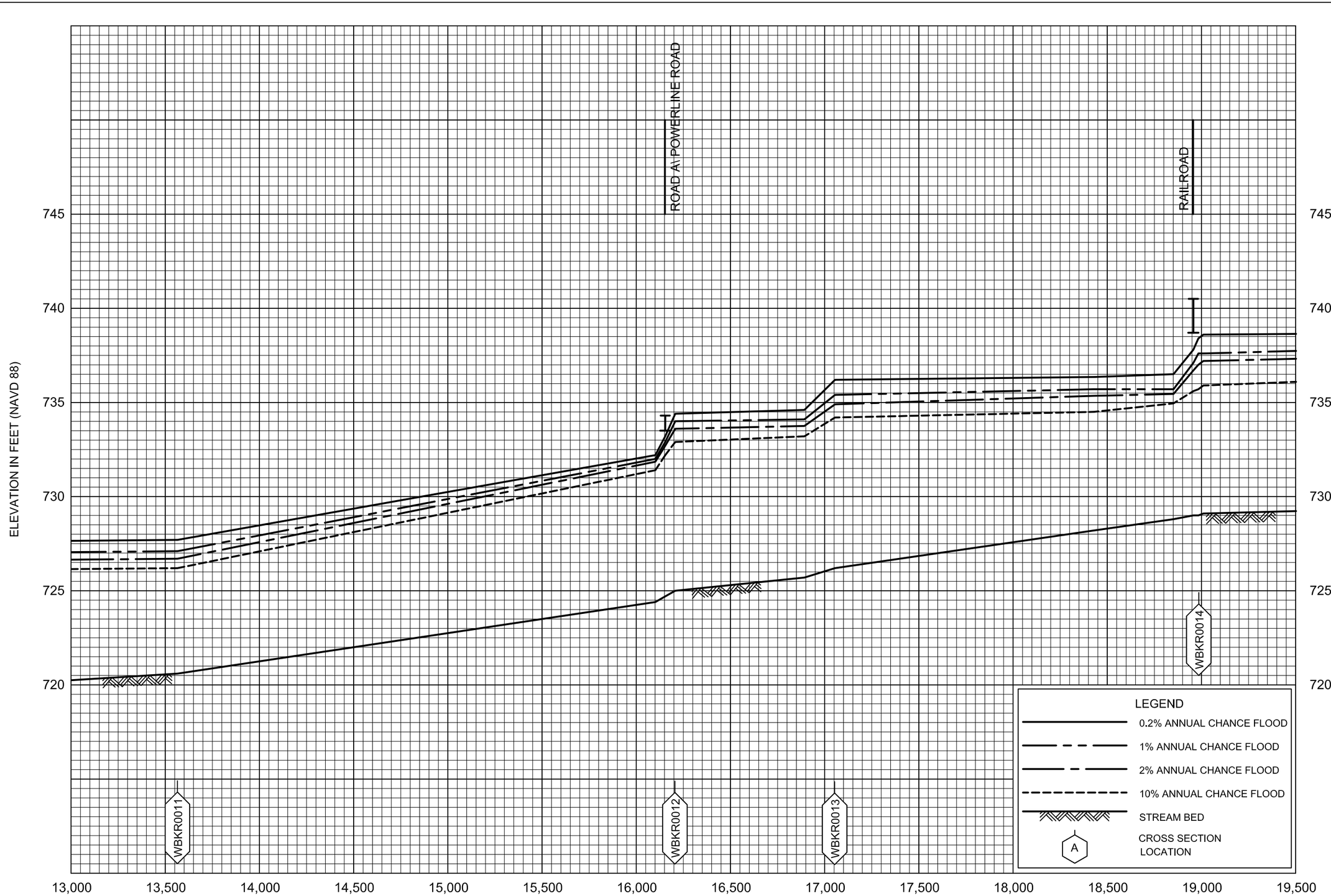
KRESS CREEK (WBKR)

FEDERAL EMERGENCY MANAGEMENT AGENCY

DU PAGE COUNTY, IL

AND INCORPORATED AREAS

226P



FLOOD PROFILES

KRESS CREEK (WBKR)

FEDERAL EMERGENCY MANAGEMENT AGENCY

DU PAGE COUNTY, IL

AND INCORPORATED AREAS

227P

FABYAN PARKWAY
MCCHESNEY ROAD
FOOTBRIDGE
ROOSEVELT ROAD
ACCESS ROAD
RAILROAD
ACCESS ROAD

ELEVATION IN FEET (NAVD 88)

755
750
745
740
735
730
725

WBKR0015
WBKR0016
WBKR0017
WBKR0018
WBKR0019
WBKR0020

LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD*
10% ANNUAL CHANCE FLOOD
STREAM BED
A CROSS SECTION LOCATION

19,500 20,000 20,500 21,000 21,500 22,000 22,500 23,000 23,500 24,000 24,500 25,000 25,500 26,000

DISTANCE IN FEET ABOVE CONFLUENCE WITH WEST BRANCH DU PAGE RIVER (WBWB)

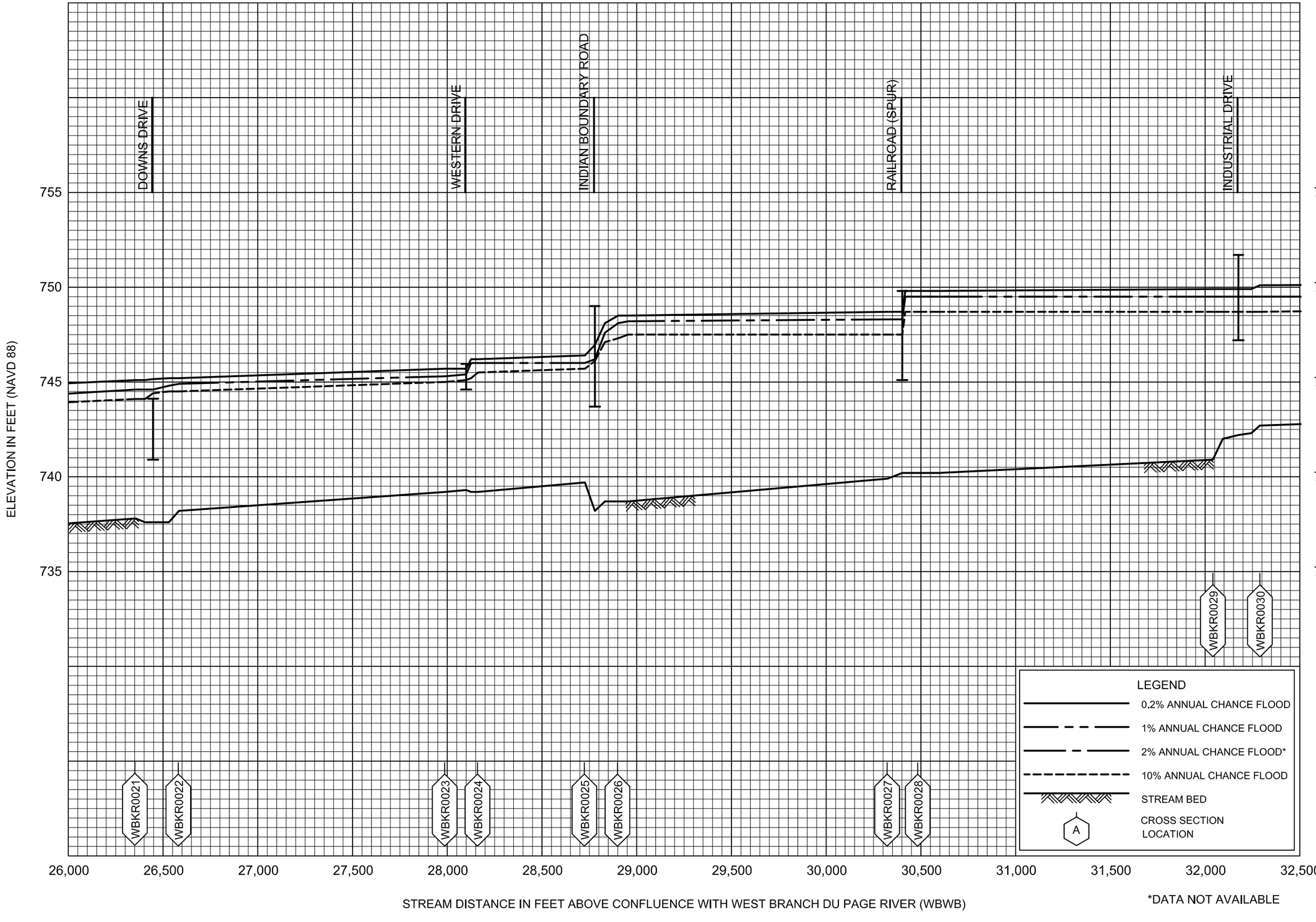
*DATA NOT AVAILABLE UPSTREAM OF FOOTBRIDGE

FLOOD PROFILES

KRESS CREEK (WBKR)

FEDERAL EMERGENCY MANAGEMENT AGENCY
DU PAGE COUNTY, IL
AND INCORPORATED AREAS

228P



FLOOD PROFILES

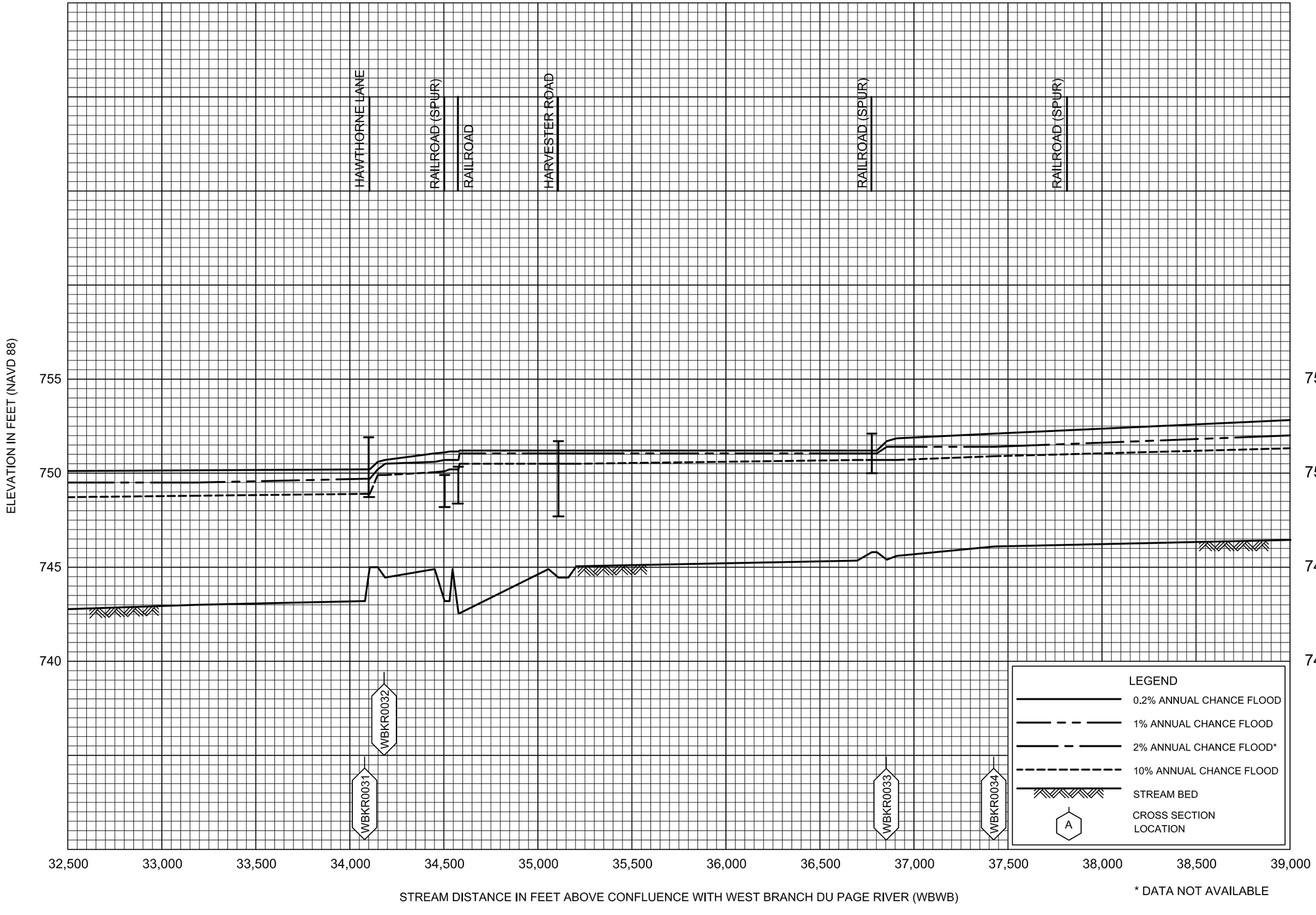
KRESS CREEK (WBKR)

FEDERAL EMERGENCY MANAGEMENT AGENCY

DU PAGE COUNTY, IL

AND INCORPORATED AREAS

229P



FLOOD PROFILES

KRESS CREEK (WBKR)

FEDERAL EMERGENCY MANAGEMENT AGENCY

DU PAGE COUNTY, IL

AND INCORPORATED AREAS

230P

Electro ling: Received, Clerk e 04/19/2023

16'-9"

WBKR0035 is at 41483.23 feet upstream of confluence

ress Creek 100-year FE at Outfall

rth ary

RAILROAD

FIELD ACCESS (REMOVED)

CROWN COURT (R

POWIS ROAD

LIMIT OF DETAILED STUDY

760
755
750
745
740

ELEVATION IN FEET (NAVD 88)

WBKR0036
WBKR0035
WBKR0037

LEGEND
- 0.2% ANNUAL CHANCE FLOOD
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD*
- 10% ANNUAL CHANCE FLOOD
- STREAM BED
- A — CROSS SECTION LOCATION

39,000 39,500 40,000 40,500 41,000 41,500 42,000 42,500

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WEST BRANCH DU PAGE RIVER (WBWB)

* DATA NOT AVAILABLE

FLOOD PROFILES

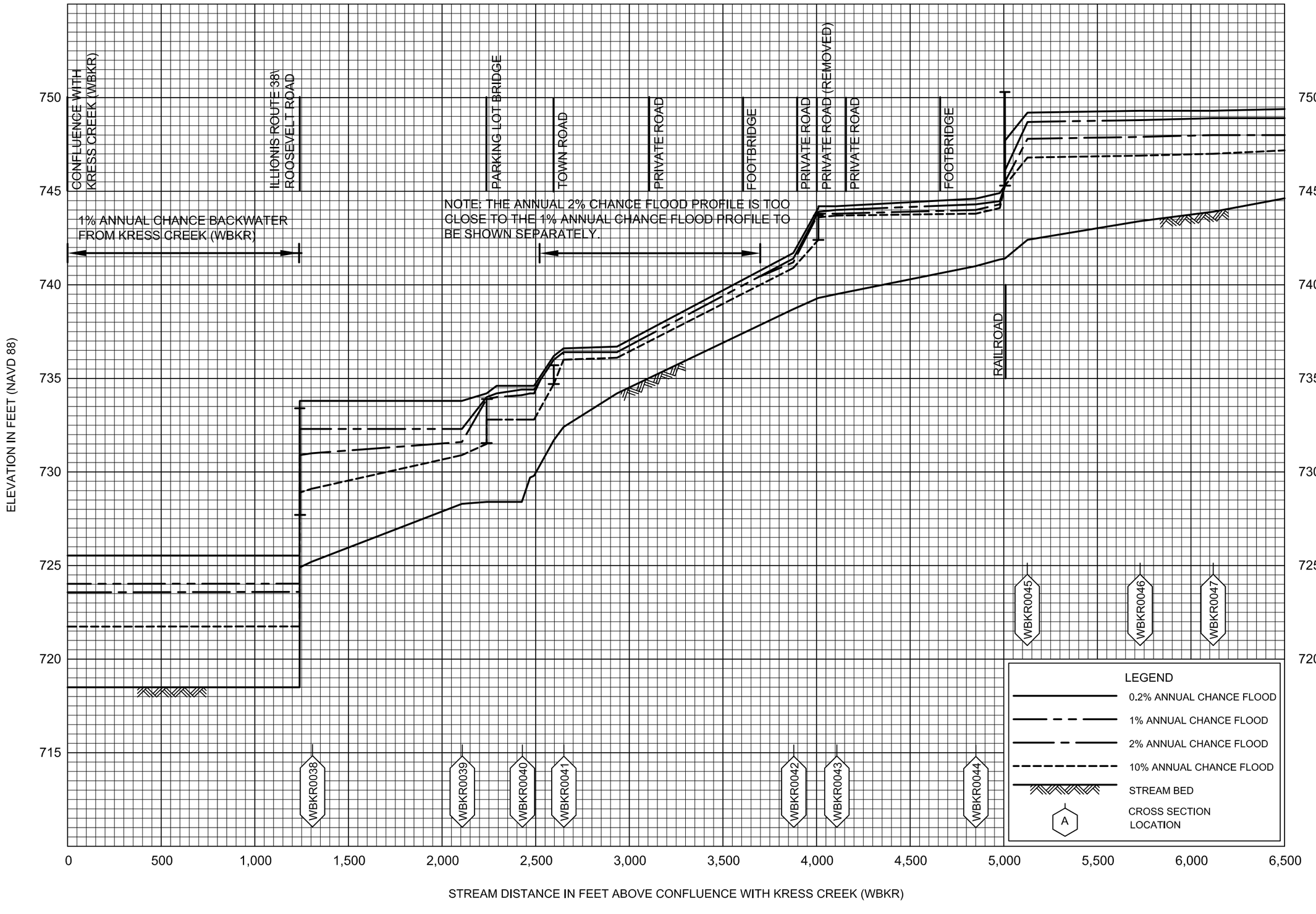
KRESS CREEK (WBKR)

FEDERAL EMERGENCY MANAGEMENT AGENCY

DU PAGE COUNTY, IL

AND INCORPORATED AREAS

231P



FLOOD PROFILES

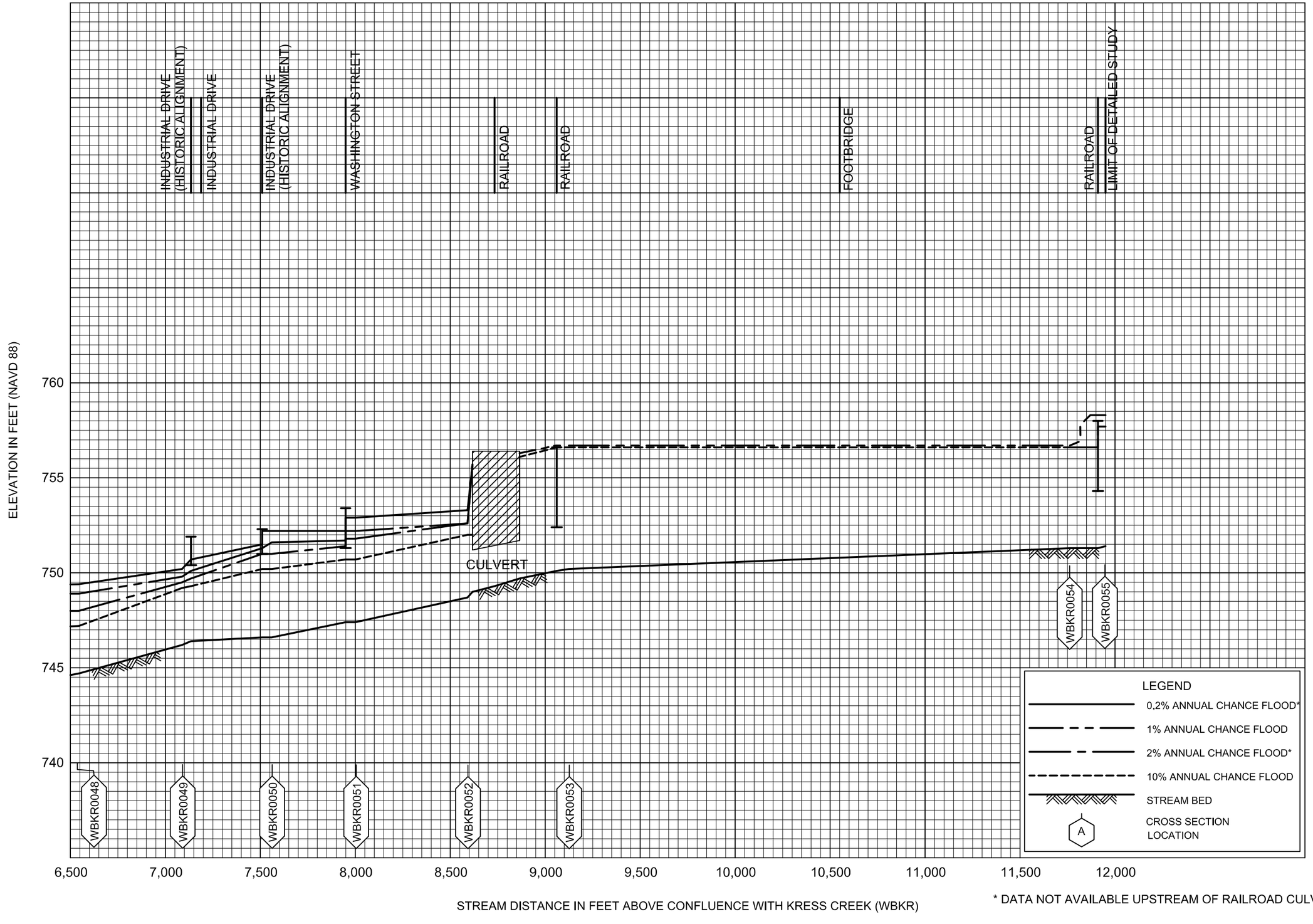
KRESS CREEK REACH NO. 2 (WBKR)

FEDERAL EMERGENCY MANAGEMENT AGENCY

DU PAGE COUNTY, IL

AND INCORPORATED AREAS

232P



FLOOD PROFILES

KRESS CREEK REACH NO. 2 (WBKR)

FEDERAL EMERGENCY MANAGEMENT AGENCY

DU PAGE COUNTY, IL

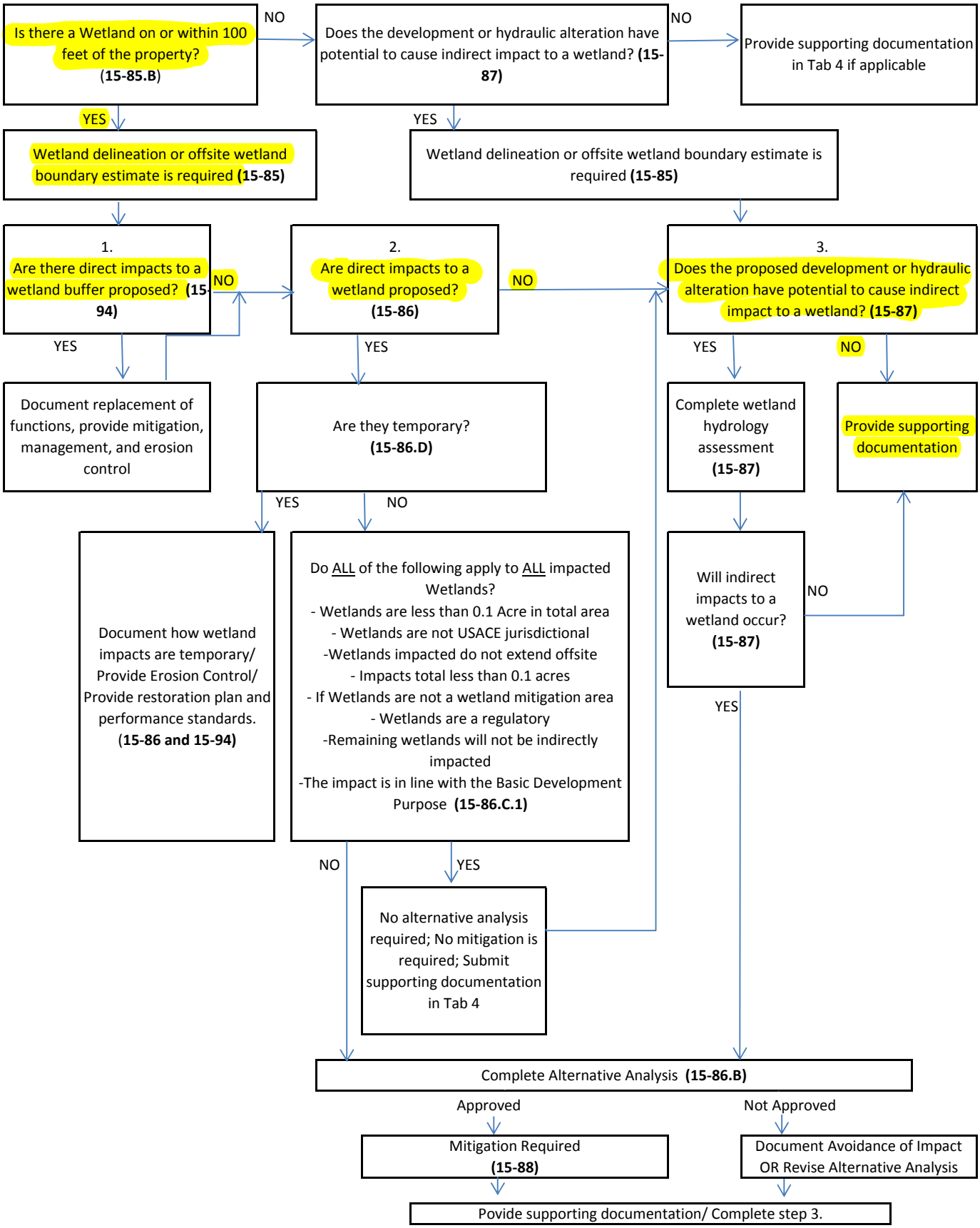
AND INCORPORATED AREAS

233P

TAB 4

WETLANDS

Tab 4. Wetland and Wetland Buffer 3/4/2015



TAB 4. WETLANDS/WETLAND BUFFER

DuPage County Wetland and Buffer Application, dated September 2019, was prepared in accordance with the Federal Methodology by V3 Companies (V3). A copy of the V3 report is provided as Attachment 4-1. The report provides the Tab 4 submittal requirements, as listed in the Ordinance including:

- [15-48.A.1.a.] Completed USACE wetland delineation data forms.
- [15-48.A.1.b.] Aerial photograph, or other exhibit, clearly showing wetland boundaries, location of wetland delineation data points, and offsite wetlands within 100-feet of the property.
- [15-48.A.1.c.] A narrative describing the physical characteristics and size of each onsite wetland and buffer including a floristic inventory list, calculated mean C and floristic quality index calculated for each onsite wetland area.
- [15-48.A.1.d.] Representative photos of each wetland and its associated buffer.
- [15-48.A.1.e.] Copies of the below listed information:
    - [15.48.A.1.e.1.] Floristic inventory list.
    - [15.48.A.1.e.2.] NRCS DuPage County soil survey map with legend identifying any mapped hydric soils.
    - [15.48.A.1.e.3.] IDNR threatened and endangered species consultation (EcoCAT).
    - [15.48.A.1.e.4.] National wetland inventory map.
    - [15.48.A.1.e.5.] DuPage County wetland inventory map.
    - [15.48.A.1.e.6.] DuPage County regulatory flood plain map and flood insurance rate map.
    - [15.48.A.1.e.7.] Site location map with approximate scale.

A discussed in the V3 report, the proposed project includes re-establishment of the 50-foot wetland buffer adjacent to Kress Creek as well as the regulatory floodplain that extends westward near the northern boundary. The report contains all required details of the buffer re-establishment. Relevant portions of tabs 5, 8, and 9 with respect to wetlands are all included in the V3 report. The report is not re-attached to subsequent tabs for efficiency purposes.

ATTACHMENT 4-1

DUPAGE COUNTY WETLAND AND BUFFER APPLICATION - V3 COMPANIES

DUPAGE COUNTY WETLAND AND BUFFER APPLICATION

PROJECT SITE:
1655 Powis Road
West Chicago, DuPage County, Illinois

PREPARED FOR:
Lakeshore Recycling Systems
6132 Oakton Street
Morton Grove, IL 60053

PREPARED BY:
V3 Companies
7325 Janes Avenue
Woodridge, Illinois 60517
630.724.9200

March 4, 2019

Project Overview

Project Overview

1655 Powis Road
West Chicago, DuPage County, Illinois

March 4, 2019
September, 2019

Project Description. The subject property is located at the Lakeshore Recycling Systems facility (1655 Powis Road, West Chicago, DuPage County, Illinois). The project area is located in the eastern half of the subject property and includes the 50-foot Waters of the U.S. buffer of Kress Creek (Area 5), which traverses the east property boundary. Between 2016 and 2017, scrub-shrub vegetation within the 50-foot buffer was mowed down, ground up asphalt was placed in the center of the buffer and grading activities occurred in the northwestern portion of the buffer. The proposed project will include planting of native shrubs and trees throughout and native seed throughout the 50-foot buffer and removal of ground up asphalt in the center portion of the buffer to restore buffer function. The following information summarizes the information provided in accordance with the pertinent sections of the DuPage County Countywide Stormwater and Flood Plain Ordinance.

Floodplain and Floodway Information. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), flood zone AE and X, associated with Kress Creek, is located in the northern portion of the 50-foot Waters of the U.S. buffer.

Soils Information. Soils within the project area were mapped by the Natural Resources Conservation Service (NRCS) in 2015. One soil series, Drummer silty clay loam (152A), is mapped within the 50-foot Waters of the U.S. buffer. Drummer silty clay loam (152A) is listed on the *Hydric Soils of Illinois* list (USDA, NRCS 2018).

Wetland Delineation. A delineation of wetlands and Waters on the subject property was completed on September 13, 2018. Refer to the Wetland Delineation and Assessment Report, dated October 9, 2018, included in Tab 4. The project area includes only the 50-foot buffer around Area 5, Kress Creek, a Waters of the U.S. Area 5 was determined to be a non-high quality aquatic resource subject to USACE jurisdiction. The buffer restoration exhibit includes the finger of floodplain buffer that extends outside of the existing 50-foot buffer associated with Kress Creek.

Wetland & Buffer Summary. The project proposes to remove any fill/stone that was placed within the buffer and topdress the area with clean topsoil. Any areas disturbed within the buffer as a result of fill removal will be seeded with native seed to promote soil stabilization. Following excavation, topdressing, seeding, and blanketing, pods of native shrubs will be installed the buffer as identified on the Buffer Restoration Plan. A three year Management and Monitoring Plan is provided in Tab 9. No wetlands or Waters of the U.S. will be impacted by the proposed project.

Tab 4

Wetland and Buffer Submittal (Articles XI and XII)

1655 Powis Road

WEST CHICAGO, DUPAGE COUNTY, ILLINOIS

DuPage County Wetland and Buffer Application
Table of Contents

TAB 4: Wetland and Buffer Impacts Submittal (Sec.15-48)

- Section 15-48 Wetland and Buffer Narrative
- Wetland Delineation & Assessment Report

Section 15-48 Wetland and Buffer Narrative

Section 15-48
Wetland and Buffer Narrative

1655 Powis Road
West Chicago, DuPage County, Illinois

March 4, 2019
Revised September, 2019

Project Description. The subject property is located at the Lakeshore Recycling Systems facility (1655 Powis Road, West Chicago, DuPage County, Illinois). The project area is located in the eastern half of the subject property and includes the 50-foot Waters of the U.S. buffer of Kress Creek (Area 5), which traverses the east property boundary. Between 2016 and 2017, scrub-shrub vegetation within the 50-foot buffer was mowed down, ground up asphalt was placed in the center of the buffer and grading activities occurred in the northwestern portion of the buffer. The proposed project will include planting of native shrubs and trees throughout and native seed throughout the 50-foot buffer and removal of ground up asphalt in the center portion of the buffer to restore buffer function. The following information summarizes the information provided in accordance with the pertinent sections of the DuPage County Countywide Stormwater and Flood Plain Ordinance.

Sec. 15-85. Requirements for Wetland Delineation

The 28-acre subject property was investigated by V3 Companies (V3) on September 13, 2018 to determine the presence, extent and quality of any wetlands or other areas under U.S. Army Corps of Engineers (USACE) and DuPage County Stormwater jurisdiction. Five areas were identified on the subject property and included two excavated, exempt stormwater management basins (Areas 1 and 3), one excavated, exempt settling pond (Area 2), one emergent wetland (Area 4) and one Waters of the U.S. (Area 5). The delineated boundaries for Areas 1 – 5 were field verified by Ms. Jenna Fahey of DuPage County Stormwater on October 1, 2018.

Sec. 15-86. Requirements for Developments Affecting Wetlands

The proposed project meets the requirements specified by Section 15-86 of the Ordinance for development in wetlands. No wetlands or Waters of the U.S. /DuPage will be impacted by the proposed project.

Sec. 15-87. Indirect Impacts to Wetlands

The proposed project will not alter the hydrology of Areas 1 -5. All proposed work will occur in the 50-foot Waters of the U.S. buffer of Kress Creek (Area 5) and will not alter the hydrology of Area 5.

Sec. 15-88. Wetland Mitigation Requirements

Wetland mitigation is not required because there are no proposed wetland or Waters of the U.S./DuPage impacts.

Sec. 15-92. Identification of Buffers

Kress Creek (Area 5) is a non-high quality aquatic resource and qualifies as a regulatory area with a 50-foot buffer. The buffer restoration exhibit includes the finger of floodplain buffer that extends outside of the existing 50-foot buffer associated with Kress Creek.

Sec. 15-94. Development Affecting a Buffer

The project proposes to remove any fill/stone that was placed within the buffer and topdress the area with clean topsoil. Any areas disturbed within the buffer as a result of fill removal will be seeded with native seed to promote soil stabilization. Following excavation, topdressing, seeding, and blanketing, pods of native shrubs will be installed the buffer as identified on the Buffer Restoration Plan. A three year Management and Monitoring Plan is provided in Tab 9.

Wetland Delineation and Assessment Report

WETLAND DELINEATION AND ASSESSMENT REPORT

PROJECT SITE:

1655 Powis Road
West Chicago, DuPage County, Illinois

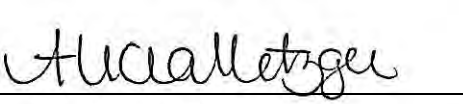
PREPARED FOR:
Lakeshore Recycling Systems
6132 Oakton Street
Morton Grove, IL 60053

PREPARED BY:
V3 Companies
7325 Janes Avenue
Woodridge, Illinois 60517
630.724.9200

October 9, 2018

We hereby certify that this Wetland Delineation and Assessment Report has been prepared by V3 Companies for use by Lakeshore Recycling Systems, their affiliates, lenders, and assignees.

Project Staff:



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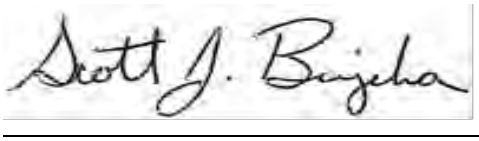

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EXECUTIVE SUMMARY

The approximately 28-acre subject property was investigated by V3 Companies (V3) on September 13, 2018 to determine the presence, extent and quality of any wetlands or other areas under U.S. Army Corps of Engineers (USACE) and/or DuPage County jurisdiction. V3 previously prepared a Wetland Delineation and Assessment Report, dated March 20, 2015, for the property. On March 19, 2015, the USACE issued a Jurisdictional Determination for the property, which is valid until March 19, 2020. DuPage County Stormwater Management concurred with the 2015 Wetland Delineation in an email dated January 16, 2015. The DuPage County concurrence expired in January 2017.

Delineation Summary.

One emergent wetland (Area 4), one Waters of the U.S. (Area 5), one excavated settling pond (Area 2), and two excavated stormwater management basins (Areas 1 & 3) were delineated on the subject property.

- Area 1 (~0.22 acres) is a man-made excavated stormwater management basin located in the western portion of the subject property. Historical aerial review indicates this basin was constructed between 1988 and 1993 and was previously determined to be exempt by DuPage County Stormwater on January 16, 2015. The current USACE jurisdictional determination dated March 19, 2015 (valid until March 19, 2020) exempts Area 1 (previously identified as Area 4 in the V3 2015 Wetland Delineation & Assessment Report) from USACE jurisdiction. In V3's professional opinion, Area 1 (previously identified as Area 4 in 2015) remains exempt from DuPage County and USACE jurisdiction.
- Area 2 (~0.36 acres) is a man-made excavated settling pond located in the central portion of the subject property. Historical aerial review indicates this basin was constructed between 1988 and 1993 and was previously determined to be exempt by DuPage County Stormwater on January 16, 2015. The current USACE jurisdictional determination dated March 19, 2015 (valid until March 19, 2020) exempts Area 2 (previously identified as Area 1 in the V3 2015 Wetland Delineation & Assessment Report) from USACE jurisdiction. In V3's professional opinion, Area 2 (previously identified as Area 1 in 2015) remains exempt from DuPage County and USACE jurisdiction.
- Area 3 (~3.86 acres) is a man-made excavated stormwater management basin located in the east central portion of the subject property. Historical aerial review indicates this basin was constructed between 1988 and 1993 and was previously determined to be exempt by DuPage County Stormwater on January 16, 2015. The current USACE jurisdictional determination dated March 19, 2015 (valid until March 19, 2020) exempts Area 3 (previously identified as Area 1 in the V3 2015 Wetland Delineation & Assessment Report) from USACE jurisdiction. In V3's professional opinion, Area 3 (previously identified as Area 1 in 2015) remains exempt from DuPage County and USACE jurisdiction.
- Area 4 (~0.69 acres) is an emergent wetland located in the southeast corner of the subject property. The current USACE jurisdictional determination letter dated March 19, 2015 (Valid until March 16, 2020) identifies Area 4 (previously identified as Area 5 in the V3 2015 Wetland Delineation & Assessment Report) as being subject to USACE jurisdiction. In V3's professional opinion Area 4 (previously identified as Area 5 in 2015) remains under USACE jurisdiction as the

March 19, 2015 USACE jurisdictional determination is still valid.

- Area 5 (~0.18 acres) is a Waters of the U.S. (Kress Creek) with wetland fringe and runs north south along the eastern boundary of the subject property. The current USACE jurisdictional determination letter dated March 19, 2015 (Valid until March 19, 2020) identifies Area 5 (previously identified as Area 3 in the V3 2015 Wetland Delineation & Assessment Report) as being subject to USACE jurisdiction. In V3's professional opinion, Area 5 (previously identified as Area 3 in 2015) remains under USACE jurisdiction as the March 19, 2015 USACE jurisdictional determination is still valid.

No other wetlands or Waters of DuPage were identified within 100-feet of the subject property per the DuPage County Ordinance; however, Kress Creek continues along the eastern property boundary to the north and the south.

Areas 1, 2, and 3 are man-made, excavated basins or ponds which were previously determined to be exempt by DuPage County Stormwater on January 16, 2015 and the USACE on March 19, 2015. Area 4, an emergent wetland, and Area 5, Kress Creek, are under USACE jurisdiction based on the March 19, 2015 USACE Jurisdictional Determination. The Jurisdictional Determination is valid until March 19, 2020.

The delineated boundaries for Areas 1-5 were field verified by Jenna Fahey of DuPage County Stormwater on October 1, 2018.

Regulatory Summary.

Pursuant to Section 404 of the Clean Water Act, the U. S. Army Corps of Engineers (USACE) has jurisdiction over the placement of fill or dredged material in all jurisdictional waters of the United States. Jurisdictional areas include rivers, streams, tributary waterways, lakes, natural ponds and wetlands adjacent to these areas. A Section 404 permit must be obtained before placing any fill material within a jurisdictional area.

Wetlands that lack a continuous surface connection through a relatively permanent tributary to traditionally navigable waters are considered isolated wetlands and are not regulated under the Clean Water Act.[1] To be considered relatively permanent, a tributary must have continuous flow at least seasonally (typically at least three months). Swales and erosional features are generally not considered to be tributaries or waters of the United States. Ditches excavated wholly in and draining only uplands and that do not carry a relatively permanent flow are also generally not waters of the U. S. Wetlands adjacent to tributaries and ditches that do not have a relatively continuous flow will be regulated only if they have a significant nexus to traditionally navigable waters. A significant nexus determination will be based on hydrologic and ecological factors.

If less than 0.10 acre of impact to USACE jurisdictional wetlands are proposed, the project would likely qualify for a Regional Permit from the USACE without wetland mitigation. If wetland impacts will consist of between 0.10 acre and 1.0 acre of wetland, a Regional Permit would still be possible, but compensatory mitigation will be required at a minimum ratio of 1.5:1. Mitigation at a higher ratio (typically 3:1 or greater) would be required for impacts to High Quality Aquatic Resources (HQAR).

[1] December 2, 2008, USEPA and Department of the Army Joint Memorandum, Clean Water Act Jurisdiction Following the U. S. Supreme Court Decision in Rapanos v. United States and Carabell v. United States.

Wetland impacts greater than 1.0 acre will require an Individual Permit, with a public comment period and additional regulatory scrutiny. Required buffer widths under the Regional Permit Program are shown in Table 1. If a permit from the USACE is not required, then the USACE buffer requirements are not applicable.

Pursuant to the *2013 DuPage County Countywide Stormwater and Flood Plain Ordinance* (Ordinance), any development that affects a special management area (i.e., floodplain, wetland, wetland buffer, or waterway buffer) requires a Stormwater Management Permit. All delineated wetlands are to be classified as critical or regulatory wetlands according to the criteria defined in Section 15-85 of the Ordinance. A vegetated buffer 50 feet wide is required around all regulatory wetlands and a vegetated buffer 100 feet wide is required around all critical wetlands, unless mitigation for buffer functions is provided. Information concerning applicable regulatory requirements is provided in **Appendix III**.

Table 1. Wetland Summary Table.

Area	On-Site Size (Acres)	Off-Site Size (Acres)	Native Mean Conservatism (NMC)*	Floristic Quality Index (FQI)*	Quality**	USACE Jurisdiction	Buffer Required
1	~0.22	-	N/A	N/A	N/A	Exempt	N/A
2	~0.36	-	N/A	N/A	N/A	Exempt	N/A
3	~3.86	-	N/A	N/A	N/A	Exempt	N/A
4	~0.69	-	1.84	8.03	Non-HQAR	Y	50’
5	~0.18	N/A	2.57	11.78	Non-HQAR	Y	50’
Total	**~5.31**	**-**					

* Based on the Floristic Quality Assessment (FQA) methodology in *Plants of the Chicago Region* (Swink and Wilhelm, 1994).

** **Regulatory**= Non-HQAR Isolated Wetland (NMC ≤ 3.5 and FQI ≤ 20, DuPage County jurisdiction); **Critical**= High Quality Isolated Wetland (NMC ≥ 3.5 or FQI ≥ 20, DuPage County jurisdiction); **Non-HQAR**= Non- High Quality Aquatic Resource (NMC ≤ 3.5 and FQI ≤ 20, USACE jurisdiction); **HQAR**= High Quality Aquatic Resource (NMC ≥ 3.5 or FQI ≥ 20, USACE jurisdiction); **WOUS**= Waters of the United States (USACE jurisdiction)

Table 2. Data Point Summary Table.

Area	Data Point	Hydrophytic Vegetation?	Hydric Soils?	Wetland Hydrology?	Wetland (Y/N)
1	X09	N	N	Y	N
2	X11	N	Y	Y	N
3	X05	Y	Y	Y	N
	X06	Y	Y	Y	
4	X02	Y	Y	Y	Y
5	X04	Y	Y	Y	Y
6	X01	N	Y	N	N
7	X03	N	N	N	N
8	X07	N	Y	N	N
9	X08	Y	N	N	N
10	X10	N	N	N	N

INTRODUCTION AND BACKGROUND

The approximately 28-acre subject property was investigated by V3 Companies (V3) on September 13, 2018 to determine the presence, extent and quality of any wetlands or other areas under U.S. Army Corps of Engineers (USACE) and/or DuPage County jurisdiction. Any identified wetland boundaries are marked in the field using pink wire flags labeled "Wetland Delineation" and numbered consecutively from beginning to end. This report summarizes the results of the field investigation and provides technical documentation for all investigated areas. The delineated boundaries for Areas 1-5 were field verified by Jenna Fahey of DuPage County Stormwater Management on October 1, 2018.

The subject property is located north Harvester Road, south of North Avenue and east of Powis Road in West Chicago, DuPage County, Illinois (Section 32, 40N, 9E; 41.911444°N, -88.237904°W; West Chicago quadrangle, Figure 1).

Three wetland areas are identified on the subject property on the National Wetlands Inventory (NWI) Map (Figure 2). The wetland areas are classified as: palustrine, unconsolidated bottom, intermittently exposed, excavated (PUBGx), and palustrine, emergent, persistent, seasonally flooded (PEM1C).

Three regulatory wetlands are identified on the subject property on the DuPage County Wetlands Map (Figure 3).

The USGS Hydrologic Atlas (Figure 4) shows the presence of Kress Creek along the eastern boarder of the subject property.

The 12-Digit Hydrologic Unit Code (HUC) Map (Figure 5) shows that the subject property lies within the Middle West Branch DuPage River sub watershed (Hydrologic Unit 071200040805), which is associated with the larger DuPage River watershed.

The FEMA Flood Insurance Rate Map (FIRM) (Figure 6) identifies flood zones AE and X along the eastern portion of the subject property associated with Kress Creek.

The DuPage County Regulatory Flood Map (RFM) (Figure 7) identifies flood zones AE and X along the eastern portion of the subject property associated with Kress Creek.

Three soil series are mapped on the subject property on the Soil Survey of DuPage County, Illinois (2015) Map (Figure 8). The soil series include Drummer silty clay loam (152A), Mundelein silt loam (442A), and Orthents loamy undulating (802B). Drummer silty clay loam (152A) is listed as a hydric soil in Illinois.

Figure 9, a Google Earth aerial photograph (2018), shows the location of all identified areas and data points as collected via a handheld GPS unit.

WETLAND DELINEATION METHODS

Wetland delineations are conducted following the methods given in the *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Midwest Region*. Under the delineation procedures in this manual, an area must exhibit characteristic hydrophytic vegetation, hydric soils, and wetland hydrology to be considered a wetland. If field investigation determines that any of the three parameters are not satisfied, the area usually does not qualify as wetland. Moreover, drainage ditches excavated in dry land are generally not considered jurisdictional waters of the United States by the Corps of Engineers (preamble to 33 CFR Parts 320 through 330, *Federal Register* Vol. 56, No. 219, 41217).

As part of a delineation report, data forms and technical information are required by the U.S. Army Corps of Engineers, to document the three parameters for any area determined to be wetland. Data forms for wetlands identified at the subject property are provided in **Appendix I**. The vegetation data calculated on the data forms reflects the changes made to the National Wetland Plant List as of May 1, 2016. Representative photographs of delineated wetlands are provided in **Appendix II**. A brief description of the field methods used and a description of the three wetland parameters are provided in **Appendix IV**.

Plant species lists are compiled for each area identified, focusing on the plant communities within each identified wetland area. This accumulated floristic data is analyzed using the Floristic Quality Assessment (FQA) methodology, which is an assessment technique for a rapid quality evaluation of vegetation in a defined area. Technical names in the FQA and this report follow the nomenclature of *The National Wetland Plant List: 2014 Update of Wetland Ratings* (Lichvar *et. al.,* 2014). A detailed explanation of the Floristic Quality Assessment method is provided in **Appendix IV**.

As part of the wetland delineation assessment, Illinois Department of Natural Resources (IDNR) and US Fish and Wildlife Service (USFWS) threatened and endangered species evaluations were conducted (**Appendix V**).

The IDNR confirmed that the Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory subject propertys, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location. A copy of the termination letter from the IDNR is included in **Appendix V**.

The USFWS Section 7 consultation did not find species or critical habitat present on the subject property; however, the eastern portion of the subject property lies within a zone of high potential for the Rusty Patched Bumble Bee (**Appendix V**). In V3's professional opinion, any proposed improvements on this subject property will not have any adverse effects on the Rusty Patched Bumble Bee as the subject property is already highly disturbed. The Bee requires undisturbed soils for overwintering and nesting as well as tallgrass prairie with flowering plants that provide nectar. There is only one plant species (*Asclepias spp*) on-subject property in very low distribution that is listed by the USFWS as suitable for the Bee. A copy of the USFWS Section 7 consultation is included in **Appendix V**.

RESULTS OF THE FIELD INVESTIGATION

INVESTIGATED AREAS

Area 1 – Excavated Stormwater Management Basin

Data Point X09

Area 1 (~0.22 acres) is located in the western portion of the subject property and consists of a man-made excavated stormwater management basin collecting stormwater from the subject property where it then discharges to a stormwater sewer running along Powis Road. The basin was constructed between 1988 and 1993 as identified from historical aerials (**Appendix VI**).

Summary:

- Excavated/Man-Made Basin
- Jurisdiction: Exempt
- Quality: N/A
- Vegetated Buffer Required: N/A

Vegetation: Data Point X09 is an unvegetated excavated stormwater management basin, so the vegetation criterion is not satisfied.

Soils: Data Point X09 is a rock lined excavated stormwater management basin; therefore, the soils criterion is not satisfied.

Hydrology: Data Point X09 was inundated to a depth of 1 inch, so the hydrology criterion is satisfied.

Conclusion: Data Point X09 fails the vegetation and soils criteria; therefore, Area 1 does not qualify as wetland. Area 1 is an excavated stormwater management basin previously determined to be exempt by DuPage County Stormwater on January 16, 2015. The current USACE jurisdictional determination dated March 19, 2015 (valid until March 19, 2020) exempts Area 1 (previously identified as Area 4 in the V3 2015 Wetland Delineation & Assessment Report) from USACE jurisdiction.

Area 2 – Excavated Settling Pond

Data Point X11

Area 2 (~0.36 acres) is located in the north central portion of the subject property and is an excavated settling pond for stormwater runoff. The settling pond was constructed in 1992 as identified in **Appendix VI** (Table 7 Permitting History of Wetland Construction). DuPage County Stormwater previously determined Area 2 to be exempt on January 16, 2015. The current USACE jurisdictional determination dated March 19, 2015 (valid until March 19, 2020) exempts Area 2 (previously identified as Area 1 in the V3 2015 Wetland Delineation & Assessment Report) from USACE jurisdiction.

Summary:

- Excavated/Man-Made Pond
- Jurisdiction: Exempt
- Quality: N/A
- Vegetated Buffer Required: N/A

Vegetation: Data Point X11 is an unvegetated excavated stormwater management basin, so the vegetation criterion is not satisfied.

Soils: The soil at Data Point X11 was too saturated to retrieve and could not be classified. However, inundation of the area strongly suggests the presence of hydric soil indicators, so the soils criterion is satisfied.

Hydrology: Data Point X11 was inundated to a depth of 12+ inches, so the hydrology criterion is satisfied.

Conclusion: Data Point X11 fails the vegetation criterion; therefore, Area 2 does not qualify as wetland. Area 2 is an excavated stormwater management basin previously determined to be exempt by DuPage County Stormwater on January 16, 2015. The current USACE jurisdictional determination dated March 19, 2015 (valid until March 19, 2020) exempts Area 2 (previously identified as Area 1 in the V3 2015 Wetland Delineation & Assessment Report) from USACE jurisdiction.

Area 3 – Excavated Stormwater Management Basin

Data Points X05 and X06

Area 3 (~3.86 acres) is located in the east/central portion of the subject property and consists of a man-made excavated stormwater management basin collecting stormwater runoff from the subject property before discharging to Kress Creek. This excavated stormwater basin was constructed in 1993 as identified in **Appendix VI** (Table 7, Permitting History of Wetland Construction and Figure J).

Summary:

- Excavated/Man-Made Basin
- Jurisdiction: Exempt
- Quality: N/A
- Vegetated Buffer Required: N/A

Vegetation:

- The dominant plant species at Data Point X05 is common reed (*Phragmites australis*), velvetleaf (*Abutilon theophrasti*), and common barnyard grass (*Echinochloa crus-galli*). 100% of the dominant species are hydrophytic, so the vegetation criterion is satisfied at Data Point X05.
- The dominant plant species at Data Point X06 is narrow leaf cattail (*Typha angustifolia*). 100% of the dominant species are hydrophytic, so the vegetation criterion is satisfied at Data Point X06.

Soils:

- The soil profile at Data Point X05 consisted of 0-10 inches of black (10YR 2/1) silt loam with 5% dark yellowish brown (10YR 4/6) redox concentrations. Data Point X05 consisted of mixed fill and mulch. This profile exhibits hydric soil field indicator F6, Redox Dark Surface and satisfies the soils criterion.
- The soil profile at Data Point X06 consisted of 0-10 inches of black (10YR 2/1) silt loam with 5% grayish brown (10YR 5/2) depletions. This profile exhibits hydric soil field indicator F3, Depleted Matrix and satisfies the soils criterion.

Hydrology:

- The presence of primary wetland hydrology indicator C3, Oxidized Rhizospheres on Living Roots, at Data Point X05 satisfies the hydrology criterion.
- The soil was saturated at the surface at Data Point X06 which satisfies the hydrology criterion at Data Point X06.

Conclusion: Data Points X05 and X06 satisfy all three criteria to be considered wetland; however, Area 3 is a man-made excavated stormwater management basin and was previously determined to be exempt by DuPage County Stormwater on January 16, 2015. The current USACE jurisdictional determination dated March 19, 2015 (valid until March 19, 2020) exempts Area 3 (previously identified as Area 1 in the V3 2015 Wetland Delineation & Assessment Report) from USACE jurisdiction. Therefore Area 3 is not a wetland or Waters.

Area 4 – Emergent Wetland

Data Point X02

Area 4 (~0.69 acres) is located in the south east portion of the subject property and consists of a non-high-quality emergent wetland. The USACE Jurisdictional Determination letter dated March 19, 2015 (valid until March 19, 2020), identifies this area as a USACE jurisdictional wetland.

Summary:

- Emergent Wetland
- Jurisdiction: USACE and DuPage County
- Quality: Non-HQAR
- Vegetated Buffer Required: 50’

Vegetation: The dominant plant species at Data Point X02 are eastern cottonwood (*Populus deltoides*), glossy buckthorn (*Rhamnus alnus*), and common beggar-ticks (*Bidens frondosa*). All of the dominant species are hydrophytic, so the vegetation criterion is satisfied. The floristic quality data and plant species inventory for Area 4 are provided below.

Conservatism-Based Metrics		Additional Metrics	
Mean C (native species)	**1.84**	Species Richness (all)	27
Mean C (all species)	1.30	Species Richness (native)	19
Mean C (native trees)	0.00	% Non-native	0.30
Mean C (native shrubs)	4.00	Wet Indicator (all)	-0.67
Mean C (native herbaceous)	1.88	Wet Indicator (native)	-0.63
FQAI (native species)	**8.03**	% hydrophyte (Midwest)	0.89
FQAI (all species)	6.74	% native perennial	0.44
Adjusted FQAI	15.45	% native annual	0.22
% C value 0	0.56	% annual	0.26
% C Value 1-3	0.22	% perennial	0.70
% C value 4-6	0.22		
% C value 7-10	0.00		

Species Acronym	Species Name (NWPL/Mohlenbrock)	Species(Synonym)	Common Name	C Value	Midwest WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
ambtri	*Ambrosia trifida*	*Ambrosia trifida*	Great Ragweed	0	FAC	0	Forb	Annual	Native
bidfro	*Bidens frondosa*	*Bidens frondosa*	Devil's-Pitchfork	1	FACW	-1	Forb	Annual	Native
cirarv	*Cirsium arvense*	*CIRSIUM ARVENSE*	Canadian Thistle	0	FACU	1	Forb	Perennial	Adventive
echcru	*Echinochloa crus-galli*	*Echinochloa crusgalli*	Large Barnyard Grass	0	FACW	-1	Grass	Annual	Native
rhafra	*Frangula alnus*	*RHAMNUS FRANGULA*	Glossy False Buckthorn	0	FACW	-1	Shrub	Perennial	Adventive
geulac	*Geum laciniatum*	*Geum laciniatum*	Rough Avens	3	FACW	-1	Forb	Perennial	Native
helgro	*Helianthus grosseserratus*	*Helianthus grosseserratus*	Saw-Tooth Sunflower	4	FACW	-1	Forb	Perennial	Native
juntor	*Juncus torreyi*	*Juncus torreyi*	Torrey's Rush	2	FACW	-1	Forb	Perennial	Native
lycame	*Lycopus americanus*	*Lycopus americanus*	Cut-Leaf Water-Horehound	4	OBL	-2	Forb	Perennial	Native
lytsal	*Lythrum salicaria*	*LYTHRUM SALICARIA*	Purple Loosestrife	0	OBL	-2	Forb	Perennial	Adventive
menarv	*Mentha arvensis*	*Mentha arvensis villosa; Mentha arvensis subsp. parietariaefolia; Mentha canadensis*	American Wild Mint	5	FACW	-1	Forb	Perennial	Native
moralb	*Morus alba*	*MORUS ALBA VAR. TATARICA*	White Mulberry	0	FAC	0	Tree	Perennial	Adventive
oenbie	*Oenothera biennis*	*Oenothera biennis*	King's-Cureall	0	FACU	1	Forb	Biennial	Native
pandic	*Panicum dichotomiflorum*	*Panicum dichotomiflorum*	Fall Panic Grass	0	FACW	-1	Grass	Annual	Native
pensed	*Penthorum sedoides*	*Penthorum sedoides*	Ditch-Stonecrop	4	OBL	-2	Forb	Perennial	Native
polper	*Persicaria maculosa*	*POLYGONUM PERSICARIA*	Lady's-Thumb	0	FACW	-1	Forb	Annual	Adventive
phaaru	*Phalaris arundinacea*	*PHALARIS ARUNDINACEA*	Reed Canary Grass	0	FACW	-1	Grass	Perennial	Adventive

popdel	*Populus deltoides*	*Populus deltoides*	Eastern Cottonwood	0	FAC	0	Tree	Perennial	Native
samcan	*Sambucus nigra ssp. canadensis*	*Sambucus canadensis*	Black Elder	4	FAC	-1	Shrub	Perennial	Native
erehie	*Senecio hieraciifolius*	*Erechtites hieracifolia*	American Burnweed	0	FAC	0	Forb	Annual	Native
soldul	*Solanum dulcamara*	*SOLANUM DULCAMARA*	Climbing Nightshade	0	FAC	0	Vine	Perennial	Adventive
solalt	*Solidago altissima*	*Solidago altissima*	Tall Goldenrod	1	FACU	1	Forb	Perennial	Native
typang	*Typha angustifolia*	*TYPHA ANGUSTIFOLIA*	Narrow-Leaf Cat-Tail	0	OBL	-2	Forb	Perennial	Adventive
verhas	*Verbena hastata*	*Verbena hastata*	Simpler's-Joy	4	FACW	-1	Forb	Perennial	Native
verurt	*Verbena urticifolia*	*Verbena urticifolia var. leiocarpa*	White Vervain	2	FAC	0	Forb	Perennial	Native
vitrip	*Vitis riparia*	*Vitis riparia var. syrticola*	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native
xanstr	*Xanthium strumarium*	*Xanthium strumarium var. canadense; Xanthium strumarium var. glabratum*	Rough Cockleburr	0	FAC	0	Forb	Annual	Native

Soils: The soil profile at Data Point X02 consisted of 0-18 inches of black (10YR 2/1) silty clay loam underlain by 4 inches, to a depth of 22 inches below the surface, of dark gray (2.5Y 4/1) with 10% light olive brown (2.5Y 5/6) redoximorphic concentrations. This profile exhibits hydric soil field indicator A11, Depleted Below Dark Surface, and satisfies the soils criterion.

Hydrology: The presence of two secondary wetland hydrology indicators at Data Point X02 satisfies the hydrology criterion.

Conclusion: Data Point X02 satisfies all three criteria; therefore Area 4 qualifies as wetland, and is under USACE jurisdiction per the March 19, 2015 (valid till March 19, 2020) jurisdictional determination letter.

Area 5 – Waters of the U.S. with Wetland Fringe

Data Point X04

Area 5 (~0.18 acres) is Kress Creek and runs north to south along the eastern property boundary. A USACE jurisdictional determination letter dated March 19, 2015 (valid till March 19, 2020) identifies Area 5 (Kress Creek) as being USACE jurisdictional.

Summary:

- Waters of the U.S.
- Jurisdiction: USACE and DuPage County
- Quality: Non-HQAR
- Vegetated Buffer Required: 50’

Vegetation: The dominant plant species at Data Point X04 are common buckthorn (*Rhamnus cathartica*), common beggar-ticks (*Bidens frondosa*), and Virginia creeper (*Parthenocissus quinquefolia*).

Greater than 50% of the dominant species are hydrophytic, so the vegetation criterion is satisfied. The floristic quality data and plant species inventory for Area 5 are provided below.

Conservatism-Based Metrics		Additional Metrics	
Mean C (native species)	**2.57**	Species Richness (all)	24
Mean C (all species)	2.25	Species Richness (native)	21
Mean C (native trees)	0.50	% Non-native	0.13
Mean C (native shrubs)	4.00	Wet Indicator (all)	-0.88
Mean C (native herbaceous)	2.75	Wet Indicator (native)	-0.95
FQAI (native species)	**11.78**	% hydrophyte (Midwest)	0.92
FQAI (all species)	11.02	% native perennial	0.63
Adjusted FQAI	24.05	% native annual	0.25
% C value 0	0.21	% annual	0.25
% C Value 1-3	0.54	% perennial	0.75
% C value 4-6	0.25		
% C value 7-10	0.00		

Species Acronym	Species Name (NWPL/Mohlenbrock)	Species(Synonym)	Common Name	C Value	Midwest WET indicator	WET indicator (numeric)	Habit	Duration	Nativity
aceneg	*Acer negundo*	*Acer negundo var. violaceum*	Ash-Leaf Maple	0	FAC	0	Tree	Perennial	Native
ambtri	*Ambrosia trifida*	*Ambrosia trifida*	Great Ragweed	0	FAC	0	Forb	Annual	Native
apocan	*Apocynum cannabinum*	*Apocynum sibiricum*	Indian-Hemp	2	FAC	0	Forb	Perennial	Native
bidcer	*Bidens cernua*	*Bidens cernua*	Nodding Burr-Marigold	3	OBL	-2	Forb	Annual	Native
bidfro	*Bidens frondosa*	*Bidens frondosa*	Devil's-Pitchfork	1	FACW	-1	Forb	Annual	Native
epicol	*Epilobium coloratum*	*Epilobium coloratum*	Purple-Leaf Willowherb	3	OBL	-2	Forb	Perennial	Native
helgro	*Helianthus grosseserratus*	*Helianthus grosseserratus*	Saw-Tooth Sunflower	4	FACW	-1	Forb	Perennial	Native
leeory	*Leersia oryzoides*	*Leersia oryzoides*	Rice Cut Grass	3	OBL	-2	Grass	Perennial	Native
lemmio	*Lemna minor*	*Lemna minor*	Common Duckweed	5	OBL	-2	Forb	Annual	Native
menarv	*Mentha arvensis*	*Mentha arvensis villosa; Mentha arvensis subsp. parietariaefolia; Mentha canadensis*	American Wild Mint	5	FACW	-1	Forb	Perennial	Native
parqui	*Parthenocissus quinquefolia*	*Parthenocissus quinquefolia*	Virginia-Creeper	4	FACU	1	Vine	Perennial	Native
phrausu	*Phragmites australis ssp. australis*	*PHRAGMITES AUSTRALIS*	Common Reed	0	FACW	-1	Grass	Perennial	Adventive
pilpum	*Pilea pumila*	*Pilea pumila*	Canadian Clearweed	2	FACW	-1	Forb	Annual	Native
potnod	*Potamogeton nodosus*	*Potamogeton nodosus*	Long-Leaf Pondweed	3	OBL	-2	Forb	Perennial	Native
ranabo	*Ranunculus abortivus*	*Ranunculus abortivus*	Kidney-Leaf Buttercup	1	FACW	-1	Forb	Annual	Native
rhacat	*Rhamnus cathartica*	*RHAMNUS CATHARTICA*	European Buckthorn	0	FAC	0	Shrub	Perennial	Adventive

rhuhir	*Rhus hirta*	*Rhus typhina*	Staghorn Sumac	1	UPL	2	Tree	Perennial	Native
saglat	*Sagittaria latifolia*	*Sagittaria latifolia*	Duck-Potato	3	OBL	-2	Forb	Perennial	Native
samcan	*Sambucus nigra ssp. canadensis*	*Sambucus canadensis*	Black Elder	4	FAC	-1	Shrub	Perennial	Native
soldul	*Solanum dulcamara*	*SOLANUM DULCAMARA*	Climbing Nightshade	0	FAC	0	Vine	Perennial	Adventive
spaeur	*Sparganium eurycarpum*	*Sparganium eurycarpum*	Broad-Fruit Burr-Reed	5	OBL	-2	Forb	Perennial	Native
stupec	*Stuckenia pectinata*	*Potamogeton pectinatus*	Sago False Pondweed	2	OBL	-2	Forb	Perennial	Native
verurt	*Verbena urticifolia*	*Verbena urticifolia var. leiocarpa*	White Vervain	2	FAC	0	Forb	Perennial	Native
vitrip	*Vitis riparia*	*Vitis riparia var. syrticola*	River-Bank Grape	1	FACW	-1	Vine	Perennial	Native

Soils: The soil profile at Data Point X04 consisted of 0-8 inches of dark grayish brown (10YR 4/2) silty clay with 10% dark yellowish brown 10YR 3/6) redoximorphic concentrations. This profile exhibits hydric soil field indicator F3, Depleted Matrix, and satisfies the soils criterion.

Hydrology: Data Point X04 was inundated to a depth of 3 inches, so the hydrology criterion is satisfied.

Conclusion: Data Point X04 satisfies all three criteria; therefore Area 5 qualifies as wetland, and is under USACE jurisdiction per the March 19, 2015 (valid till March 19, 2020) jurisdictional determination.

ADDITIONAL AREAS INVESTIGATED

Area 6 – Upland

Data Point X01

Area 6 consists of the upland berm between Area 3 and Area 4 in the southeast portion of the subject property.

Vegetation: The dominant plant species at Data Point X01 are common buckthorn (*Rhamnus cathartica*), tatarica honeysuckle (*Lonicera tatarica*), tall goldenrod (*Solidago altissima*), and tall boneset (*Eupatorium altissima*). Less than 50% of the dominant species are hydrophytic so the vegetation criterion is not satisfied.

Soils The soil profile at Data Point X01 consisted of 0-12 inches of brown (10YR 5/3) silty clay loam mixed fill/gravel/asphalt underlain by 6 inches, to a depth of 18 inches below the surface, of black (10YR 2/1) silty clay loam with 5% dark yellowish brown (10YR4/6) redoximorphic concentrations. This soil profile exhibits soil field indicator A11, Depleted Below Dark Surface, and satisfies the soils criterion.

Hydrology: Neither primary nor secondary hydrology indicators were observed at Data Point X01, so the hydrology criterion is not satisfied.

Conclusion: Data Point X01 fails the vegetation and hydrology criteria; therefore, Area 6 does not qualify as wetland.

Area 7 – Upland

Data Point X03

Area 7 consists of the upland between Area 4 and Area 5 in the southeast corner of the subject property.

Vegetation: The dominant plant species at Data Point X03 are common buckthorn (*Rhamnus cathartica*), pokeweed (*Phytolacca americana*), beggars lice (*Hackelia virginiana*) and Canada thistle (*Cirsium arvense*). Less than 50% of the dominant species are hydrophytic so the vegetation criterion is not satisfied.

Soils The soil profile at Data Point X03 consisted of 0-18 inches of very dark grayish brown (10YR 3/2) silty clay loam mixed fill underlain by 2 inches, to a depth of 20 inches below the surface, of yellowish brown (10YR 5/4) silty clay loam mixed fill. The soil at this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

Hydrology: Neither primary nor secondary hydrology indicators were observed at Data Point X01, so the hydrology criterion is not satisfied.

Conclusion: Data Point X03 fails all three criteria; therefore, Area 7 does not qualify as wetland.

Area 8 – Upland

Data Point X07

Area 8 consists of the upland area located in the southeast portion of Area 3.

Vegetation: The dominant plant species at Data Point X07 are common reed (*Phragmites australis*) and ground ivy (*Glechoma hederacea*). Only 50% of the dominant species are hydrophytic so the vegetation criterion is not satisfied.

Soils The soil profile at Data Point X07 consisted of 0-6 inches of very dark grayish brown (10YR 3/2) silty clay loam, underlain by 9 inches, to a depth of 15 inches below the surface, of black (10YR 2/1) silty clay loam. Below that, to a depth of 18 inches below the surface, the soil was very dark gray (10YR 3/1) silty clay loam with 5% dark yellowish brown (10YR 4/6) redoximorphic concentrations. The soil below the fill material exhibits hydric soil field indicator A12, Thich Dark Surface, and satisfies the soils criterion.

Hydrology: Neither primary nor secondary hydrology indicators were observed at Data Point X07, so the hydrology criterion is not satisfied.

Conclusion: Data Point X07 fails the vegetation and hydrology criteria; therefore, Area 8 does not qualify as wetland.

Area 9 – Upland

Data Point X08

Area 9 consists of the upland area located along the north property boundary.

Vegetation: The dominant plant species at Data Point X08 are common reed (*Phragmites australis*), multiflora rose (*Rosa multiflora*) and sawtooth sunflower (*Helianthus grosseserratus*). Greater than 50% of the dominant species are hydrophytic so the vegetation criterion is satisfied.

Soils The soil profile at Data Point X08 consisted of 0-6 inches of black (10YR 2/1) silty clay with an impenetrable layer of rock/gravel below 6 inches. The soil at this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

Hydrology: Neither primary nor secondary hydrology indicators were observed at Data Point X08, so the hydrology criterion is not satisfied.

Conclusion: Data Point X08 fails the soils and hydrology criteria; therefore, Area 9 does not qualify as wetland.

Area 10 – Upland

Data Point X10

Area 10 consists of the upland area around Area 1.

Vegetation: The dominant plant species at Data Point X10 are Kentucky blue grass (*Poa pratensis*) and ground ivy (*Glechoma hederacea*). Only 50% of the dominant species are hydrophytic so the vegetation criterion is not satisfied.

Soils The soil profile at Data Point X10 consisted of 0-8 inches of very dark grayish brown (10YR 3/2) silty clay loam mixed fill underlain by 2 inches, to a depth of 10 inches below the surface, of brown (10YR 5/3) silty clay loam mixed fill. The soil at this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

Hydrology: Neither primary nor secondary hydrology indicators were observed at Data Point X10, so the hydrology criterion is not satisfied.

Conclusion: Data Point X10 fails all three criteria; therefore, Area 10 does not qualify as wetland.

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APPENDIX I

WETLAND DELINEATION DATA FORMS

WETLAND DETERMINATION DATA FORM - Midwest Region

City/County: West Chicago/DuPage Sampling Date: 13-Sep-18

ecycling Systems State: IL Sampling Point: **X01**

& Daniel Jablonski Section, Township, Range: S 32 T 40N R 9E

): Flat Local relief (concave, convex, none): flat

Lat.: 41.911369 Long.: -88.231476 Datum: NAD1983

er silty clay loam (152A) NWI classification: PEM1C

s on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

GS - Attach site map showing sampling point locations, transects, important features, etc.

? Yes ○ No ◉ Yes ◉ No ○ Yes ○ No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉

tation and hydrology criteria and does not qualify as wetland.

se scientific names of plants.

feet)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	= Total Cover	
size: 15 feet)			
	20	☑ 66.7%	FAC
	10	☑ 33.3%	FACU
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	30	= Total Cover	
eet)			
	25	☑ 26.3%	FACU
	70	☑ 73.7%	FACU
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	105	x 4 =	420
UPL species	0	x 5 =	0
Column Totals:	125 (A)		480 (B)

Prevalence Index = B/A = 3.840

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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Sampling Point: **X01**

e to the depth needed to document the indicator or confirm the absence of indicators.)

rix		Redox Features						
t)	%	Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
/3							Silty Clay Loam	Mixed Fill/Gravel/Asphalt
/1	95	10YR	4/6	5			Silty Clay Loam	

pletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

ce (A11)

S3)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

d):

Hydric Soil Present? Yes ◉ No ○

il field indicator A11, Depleted Below Dark Surface, and satisfies the soils criterion as hydric soils are under the Mixed

rs:

f one is required; check all that apply)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

l Imagery (B7)

e Surface (B8)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Yes ○ No ◉

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WETLAND DETERMINATION DATA FORM - Midwest Region

City/County: West Chicago/DuPage Sampling Date: 13-Sep-18

ecycling Systems State: IL Sampling Point: **X02**

& Daniel Jablonski Section, Township, Range: S 32 T 40N R 9E

): Lowland Local relief (concave, convex, none): flat

Lat.: 41.911289 Long.: -88.231406 Datum: NAD1983

er silty clay loam (152A) NWI classification: PEM1C

s on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

GS - Attach site map showing sampling point locations, transects, important features, etc.

t? Yes ◉ No ○

Yes ◉ No ○

Yes ◉ No ○

Is the Sampled Area within a Wetland? Yes ◉ No ○

ree criteria and qualifies as wetland.

se scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
)			
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	= Total Cover	
size: 15 feet)			
	20	☑ 50.0%	FAC
	20	☑ 50.0%	FACW
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
eet)	40	= Total Cover	
	40	☑ 100.0%	FACW
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	20	x 3 =	60
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	80 (A)		180 (B)

Prevalence Index = B/A = 2.250

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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Sampling Point: **X02**

e to the depth needed to document the indicator or confirm the absence of indicators.)

rix		Redox Features						
t)	%	Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
/1							Silty Clay Loam	
/1	90	2.5Y	5/6	10			Silty Clay Loam	

pletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

ce (A11)

S3)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

d):

Hydric Soil Present? Yes ◉ No ○

il field indicator A11, Depleted Below Dark Surface, and satisfies the soils criterion.

rs:

f one is required; check all that apply)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

l Imagery (B7)

e Surface (B8)

Secondary Indicators (minimum of two required

- ☑ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☑ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Yes ○ No ◉

Electronic Filing: Received, Clerk's Office 04/19/2023

WETLAND DETERMINATION DATA FORM - Midwest Region

City/County: West Chicago/DuPage Sampling Date: 13-Sep-18

ecycling Systems State: IL Sampling Point: **X03**

& Daniel Jablonski Section, Township, Range: S 32 T 40N R 9E

): Flat Local relief (concave, convex, none): flat

Lat.: 41.910895 Long.: -88.231083 Datum: NAD1983

er silty clay loam (152A) NWI classification: None

s on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

GS - Attach site map showing sampling point locations, transects, important features, etc.

t? Yes ○ No ◉

Yes ○ No ◉

Yes ○ No ◉

Is the Sampled Area within a Wetland? Yes ○ No ◉

criteria and does not qualify as wetland.

se scientific names of plants.

)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	= Total Cover	
size: 15 feet)			
	40	☑ 100.0%	FAC
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
)	40	= Total Cover	
	30	☑ 30.0%	FACU
	40	☑ 40.0%	FACU
	30	☑ 30.0%	FACU
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	100	x 4 =	400
UPL species	10	x 5 =	50
Column Totals:	150	(A)	570 (B)

Prevalence Index = B/A = 3.800

Hydrophytic Vegetation Indicators:

☐ **1 - Rapid Test for Hydrophytic Vegetation**

☐ **2 - Dominance Test is > 50%**

☐ **3 - Prevalence Index is ≤3.0** [1]

☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**

☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

Electronic Filing: Received, Clerk's Office 04/19/2023

Sampling Point: **X03**

e to the depth needed to document the indicator or confirm the absence of indicators.)

rix t)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
/2						Silty Clay Loam	Mixed Fill
/4						Silty Clay Loam	Mixed Fill

pletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

ce (A11)

S3)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

d):

Hydric Soil Present? Yes ○ No ◉

not meet a hydric soil indicator, so the soils criterion is not satisfied.

rs:

f one is required; check all that apply)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

l Imagery (B7)

e Surface (B8)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Yes ○ No ◉

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WETLAND DETERMINATION DATA FORM - Midwest Region

City/County: West Chicago/DuPage Sampling Date: 13-Sep-18

ecycling Systems State: IL Sampling Point: **X04**

& Daniel Jablonski Section, Township, Range: S 32 T 40N R 9E

): Channel (active) Local relief (concave, convex, none): flat

Lat.: 41.910826 Long.: -88.230879 Datum: NAD1983

er silty clay loam (152A) NWI classification: None

s on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

GS - Attach site map showing sampling point locations, transects, important features, etc.

? Yes ◉ No ○ Yes ◉ No ○ Yes ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○

ree criteria and qualifies as wetland.

se scientific names of plants.

)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	= Total Cover	
size: 15 feet)			
	30	☑ 100.0%	FAC
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
eet)	30	= Total Cover	
	15	☑ 100.0%	FACW
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	30	x 3 =	90
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	55 (A)		160 (B)

Prevalence Index = B/A = 2.909

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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Sampling Point: **X04**

e to the depth needed to document the indicator or confirm the absence of indicators.)

rix		Redox Features						
t)	%	Color (moist)		%	Type [1]	Loc²	Texture	Remarks
/2	90	10YR	3/6	10			Silty Clay	

pletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

- [ ] Sandy Gleyed Matrix (S4)
- [ ] Sandy Redox (S5)
- [ ] Stripped Matrix (S6)
- [ ] Loamy Mucky Mineral (F1)
- [ ] Loamy Gleyed Matrix (F2)
- [x] Depleted Matrix (F3)
- [ ] Redox Dark Surface (F6)
- [ ] Depleted Dark Surface (F7)
- [ ] Redox Depressions (F8)

ce (A11)

S3)

Indicators for Problematic Hydric Soils [3]:

- [ ] Coast Prairie Redox (A16)
- [ ] Dark Surface (S7)
- [ ] Iron Manganese Masses (F12)
- [ ] Very Shallow Dark Surface (TF12)
- [ ] Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

d):

Hydric Soil Present? Yes ◉ No ○

il field indicator F3, Depleted Matrix, and satisfies the soils criterion.

rs:

f one is required; check all that apply)

- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] True Aquatic Plants (B14)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Gauge or Well Data (D9)
- [ ] Other (Explain in Remarks)

l Imagery (B7)

e Surface (B8)

Secondary Indicators (minimum of two required

- [ ] Surface Soil Cracks (B6)
- [ ] Drainage Patterns (B10)
- [ ] Dry Season Water Table (C2)
- [ ] Crayfish Burrows (C8)
- [ ] Saturation Visible on Aerial Imagery (C9)
- [ ] Stunted or Stressed Plants (D1)
- [ ] Geomorphic Position (D2)
- [ ] FAC-Neutral Test (D5)

Yes ◉ No ○

Electronic Filing: Received, Clerk's Office 04/19/2023

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 1655 Powis Rd City/County: West Chicago/DuPage Sampling Date: 13-Sep-18

Applicant/Owner: Lakeshore Recycling Systems State: IL Sampling Point: **X05**

Investigator(s): Alicia Metzger & Daniel Jablonski Section, Township, Range: S 32 T 40N R 9E

Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° Lat.: 41.911552 Long.: -88.232968 Datum: NAD1983

Soil Map Unit Name: Drummer silty clay loam (152A) NWI classification: PUBGx

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ◉	No ○	**Is the Sampled Area within a Wetland?** Yes ◉ No ○
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ◉	No ○	

Remarks:
This location satisfies all three criteria and qualifies as wetland; however this area is a man-made/excavated Stormwater Management Basin and is not a regulated wetland or Waters.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size:)			
1. Phragmites australis	40	☑ 50.0%	FACW
2. Abutilon theophrasti	20	☑ 25.0%	FACU
3. Echinochloa crusgalli	20	☑ 25.0%	FACW
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	80	= Total Cover	
Woody Vine Stratu (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	60	x 2 =	120
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	80 (A)		200 (B)

Prevalence Index = B/A = 2.500

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.)

Greater than 50% of the dominant species are hydrophytic, so the vegetation criterion is satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: X05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR	2/1	50	10YR	4/6	5			Silt Loam	Mixed Fill (Mulch)
			50							Mulch

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

While this profile contains 50% mulch fill the area has experianced hydric conditions long enough to exhibit hydric soil field indicator F6, Redox Dark Surface, and satisfies the soils criterion.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The presence of a primary wetland hydrology indicator satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 1655 Powis Rd City/County: West Chicago/DuPage Sampling Date: 13-Sep-18

Applicant/Owner: Lakeshore Recycling Systems State: IL Sampling Point: **X06**

Investigator(s): Alicia Metzger & Daniel Jablonski Section, Township, Range: S 32 T 40N R 9E

Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° Lat.: 41.911495 Long.: -88.232234 Datum: NAD1983

Soil Map Unit Name: Drummer silty clay loam (152A) NWI classification: PEM1C

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ◉	No ○	**Is the Sampled Area within a Wetland?** **Yes ◉ No ○**
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ◉	No ○	

Remarks:
This location satisfies all three criteria and qualifies as wetland; however this area is a man-made/excavated Stormwater Management Basin and is not a regulated wetland or Waters.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5 feet)			
1. Typha angustifolia	70	☑ 100.0%	OBL
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	70	= Total Cover	
Woody Vine Stratu (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	70 (A)		70 (B)

Prevalence Index = B/A = 1.000

Hydrophytic Vegetation Indicators:

- ☑ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? **Yes ◉ No ○**

Remarks: (Include photo numbers here or on a separate sheet.)
The dominant species is hydrophytic, so the vegetation criterion is satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: X06

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		%	Redox Features Color (moist)		%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR	2/1	95	10YR	5/2	5			Silt Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

This profile exhibits hydric soil field indicator F3, Depleted Matrix, and satisfies the soils criterion.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ◉ No ○ Depth (inches): 0

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The soil was saturated at the surface which satisfies the hydrology criterion.

WETLAND DETERMINATION DATA FORM - Midwest Region

City/County: West Chicago/DuPage Sampling Date: 13-Sep-18

ecycling Systems State: IL Sampling Point: **X07**

& Daniel Jablonski Section, Township, Range: S 32 T 40N R 9E

): Mound Local relief (concave, convex, none): flat

Lat.: 41.911434 Long.: -88.231746 Datum: NAD1983

er silty clay loam (152A) NWI classification: PEM1C

s on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

GS - Attach site map showing sampling point locations, transects, important features, etc.

t? Yes ○ No ◉

Yes ◉ No ○

Yes ○ No ◉

Is the Sampled Area within a Wetland? Yes ○ No ◉

se scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
)			
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	= Total Cover	
size:)			
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
)	0	= Total Cover	
	50	☑ 71.4%	FACW
	20	☑ 28.6%	FACU
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column Totals:	70 (A)		180 (B)

Prevalence Index = B/A = 2.571

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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Sampling Point: **X07**

e to the depth needed to document the indicator or confirm the absence of indicators.)

rix		Redox Features						
t)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
/2						Silty Clay Loam	
/1						Silty Clay Loam	
/1	95	10YR	4/6	5		Silty Clay Loam	

pletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

ce (A11)

S3)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

d):

Hydric Soil Present? Yes ◉ No ○

il field indicator A12, Thick Dark Surface, and satisfies the soils criterion.

rs:

f one is required; check all that apply)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

l Imagery (B7)

e Surface (B8)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Yes ○ No ◉

Electronic Filing: Received, Clerk's Office 04/19/2023

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 1655 Powis Rd | City/County: West Chicago/DuPage | Sampling Date: 13-Sep-18

Applicant/Owner: Lakeshore Recycling Systems | State: IL | Sampling Point: **X08**

Investigator(s): Alicia Metzger & Daniel Jablonski | Section, Township, Range: S 32 T 40N R 9E

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° | Lat.: 41.912703 | Long.: -88.233745 | Datum: NAD1983

Soil Map Unit Name: Orthents loamy undulating (802B) | NWI classification: None

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ◉ No ○	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○ No ◉	
Wetland Hydrology Present?	Yes ○ No ◉	

Remarks:
This location fails the soils and hydrology criteria and does not qualify as wetland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5 feet)				
1. Phragmites australis	60	☑	42.9%	FACW
2. Rosa multiflora	40	☑	28.6%	FACU
3. Helianthus grosseserratus	40	☑	28.6%	FACW
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
	140	= Total Cover		
Woody Vine Stratu (Plot size:)				
1. Toxicodendron radicans	5	☑	100.0%	FAC
2.	0	☐	0.0%	
	5	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	5	x 3 =	15
FACU species	40	x 4 =	160
UPL species	0	x 5 =	0
Column Totals:	145 (A)		375 (B)

Prevalence Index = B/A = 2.586

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.)
Greater than 50% of the dominant species are hydrophytic, so the vegetation criterion is satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: X08

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-6	10YR 2/1						Silty Clay	Mixed Fill
6+								Impenetrable rock/gravel

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

The soil in this location does not meet a hydric soil indicator, so the soils criterion is not satisfied.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ○ No ◉ Depth (inches): _____

Water Table Present? Yes ○ No ◉ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches): _____

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Neither primary nor secondary wetland hydrology indicators were observed, so the hydrology criterion is not satisfied.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 1655 Powis Rd City/County: West Chicago/DuPage Sampling Date: 13-Sep-18

Applicant/Owner: Enter Applicant Owner State: IL Sampling Point: **X09**

Investigator(s): Alicia Metzger & Daniel Jablonski Section, Township, Range: S 32 T 40N R 9E

Landform (hillslope, terrace, etc.): Shoreline Local relief (concave, convex, none): flat

Slope: 0.0% / 0.0 ° Lat.: 41.911754 Long.: -88.237296 Datum: NAD1983

Soil Map Unit Name: Mundelein silt loam (442A) NWI classification: PUBGx

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ○	No ◉	
Wetland Hydrology Present?	Yes ◉	No ○	

Remarks:
This location fails the vegetation and soils criteria and does not qualify as wetland. This area is a rock lined stormwater retention basin

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	0	= Total Cover	
Woody Vine Stratu (Plot size:)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = 0.000

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.)
This area is an unvegetated stormwater retention basin, so the vegetation criterion is not satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: **X09**

e to the depth needed to document the indicator or confirm the absence of indicators.)

rix t)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks

pletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

ce (A11)

S3)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

d):

Hydric Soil Present? Yes ○ No ◉

mwater retention basin; therefore, the soils criterion is not satisfied

rs:

f one is required; check all that apply)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

l Imagery (B7)

e Surface (B8)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

X ◉ No ○

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WETLAND DETERMINATION DATA FORM - Midwest Region

City/County: West Chicago/DuPage Sampling Date: 13-Sep-18

ecycling Systems State: IL Sampling Point: **X10**

& Daniel Jablonski Section, Township, Range: S 32 T 40N R 9E

): Flat Local relief (concave, convex, none): flat

Lat.: 41.911709 Long.: -88.237304 Datum: NAD1983

ein silt loam (442A) NWI classification: None

s on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

GS - Attach site map showing sampling point locations, transects, important features, etc.

t? Yes ○ No ◉

Yes ○ No ◉

Yes ○ No ◉

Is the Sampled Area within a Wetland? Yes ○ No ◉

criteria and does not qualify as wetland.

se scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
)			
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	= Total Cover	
size:)			
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	= Total Cover	
eet)			
	60	☑ 54.5%	FAC
	50	☑ 45.5%	FACU
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	
	0	☐ 0.0%	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	60	x 3 =	180
FACU species	50	x 4 =	200
UPL species	0	x 5 =	0
Column Totals:	110	(A)	380 (B)

Prevalence Index = B/A = 3.455

Hydrophytic Vegetation Indicators:

☐ **1 - Rapid Test for Hydrophytic Vegetation**

☐ **2 - Dominance Test is > 50%**

☐ **3 - Prevalence Index is ≤3.0** [1]

☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**

☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

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Sampling Point: **X10**

e to the depth needed to document the indicator or confirm the absence of indicators.)

rix		Redox Features					
t)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
/2						Silty Clay Loam	Mixed Fill
/3						Silty Clay Loam	Mixed Fill

pletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

ce (A11)

S3)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

d):

Hydric Soil Present? Yes ○ No ◉

not meet a hydric soil indicator, so the soils criterion is not satisfied.

rs:

f one is required; check all that apply)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

l Imagery (B7)

e Surface (B8)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Yes ○ No ◉

Electronic Filing: Received, Clerk's Office 04/19/2023

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 1655 Powis Rd City/County: West Chicago/DuPage Sampling Date: 13-Sep-18

Applicant/Owner: Lakeshore Recycling Systems State: IL Sampling Point: **X11**

Investigator(s): Alicia Metzger & Daniel Jablonski Section, Township, Range: S 32 T 40N R 9E

Landform (hillslope, terrace, etc.): Settling basin Local relief (concave, convex, none): concave

Slope: 0.0% / 0.0 ° Lat.: 41.911921 Long.: -88.234062 Datum: NAD1983

Soil Map Unit Name: Orthents loamy undulating (802B) NWI classification: PUBGx

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Hydric Soil Present?	Yes ◉	No ○	
Wetland Hydrology Present?	Yes ◉	No ○	

Remarks:
This location fails the vegetation and soils criteria and does not qualify as wetland. This area is an excavated settling basin.

VEGETATION - Use scientific names of plants.

	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
Tree Stratum (Plot size: 30 feet)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
	0	= Total Cover	
Herb Stratum (Plot size: 5 feet)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
	0	= Total Cover	
Woody Vine Stratu (Plot size: 5 feet)			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	0 (A)		0 (B)

Prevalence Index = B/A = 0.000

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.)
This area is an unvegetated stormwater retention basin, so the vegetation criterion is not satisfied.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: **X11**

e to the depth needed to document the indicator or confirm the absence of indicators.)

rix		Redox Features					
t)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
							TSTR

pletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

ce (A11)

S3)

Indicators for Problematic Hydric Soils [3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☑ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

d):

Hydric Soil Present? Yes ◉ No ○

oo saturated to retrieve and could not be classified. However, inundation of the area strongly suggests the presence
he soils criterion is satisfied.

rs:

f one is required; check all that apply)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

l Imagery (B7)

e Surface (B8)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Yes ◉ No ○

Electronic Filing: Received, Clerk's Office 04/19/2023

APPENDIX II

REPRESENTATIVE PHOTOGRAPHS

Electronic Filing: Received, Clerk's Office 04/19/2023 000739

PHOTO 1
Date: 09/13/2018

View of Area 1, facing north.

PHOTO 2
Date: 09/13/2018

View of Area 2, facing north.

PHOTO 3
Date: 09/13/2018

View of Area 2, facing northeast.

Electronic Filing: Received, Clerk's Office 04/19/2023 3000740

PHOTO 4
Date: 09/13/2018

View of Area 3, facing northwest.

PHOTO 5
Date: 09/13/2018

View of Area 3, facing north.

PHOTO 6
Date: 09/13/2018

View of Area 3 from the upland, facing northwest.

Electronic Filing: Received, Clerk's Office 04/19/2023 000741

PHOTO 7
Date: 09/13/2018

View of Area 4 near Data Point X02, facing southeast.

PHOTO 8
Date: 09/13/2018

View of Area 4 from the upland, facing east.

PHOTO 9
Date: 09/13/2018

View of Area 5, facing north.

APPENDIX III

REGULATORY INFORMATION

REGULATORY REQUIREMENTS

U.S. ARMY CORPS OF ENGINEERS

Pursuant to Section 404 of the Clean Water Act, the U. S. Army Corps of Engineers (USACE) has jurisdiction over the placement of fill or dredged material in all jurisdictional waters of the United States. Jurisdictional areas include rivers, streams, tributary waterways, lakes, natural ponds, and wetlands adjacent to these areas. A Section 404 permit must be obtained before placing any fill material within a jurisdictional area.

Wetlands that lack a continuous surface connection through a relatively permanent tributary to traditionally navigable waters are considered isolated wetlands and are not regulated under the Clean Water Act.[1] To be considered relatively permanent a tributary must have continuous flow at least seasonally (typically at least three months). Swales and erosional features are generally not considered to be tributaries or waters of the United States. Ditches excavated wholly in and draining only uplands and that do not carry a relatively permanent flow are also generally not waters of the U. S. Wetlands adjacent to tributaries and ditches that do not have a relatively continuous flow will be regulated only if they have a significant nexus to traditionally navigable waters. A significant nexus determination will be based on hydrologic and ecological factors.

General permits, including nationwide and regional permits, are designed to expedite the processing of permits for minor non-controversial projects that are similar in nature and of minimal environmental impact. Currently, 52 nationwide permits have been issued. They became effective on March 19, 2017, and will expire on March 18, 2022.

Within the boundaries of the Chicago District, USACE, most NWPs were replaced with the Regional Permit Program (RPP), which were reissued on April 1, 2012 and will expire on April 1, 2017. Category I RPPs will generally authorize impacts of 0.50 acres or less. Category II RPPs will authorize impacts of between 0.50 acres and 1.0 acre. Any projects proposing impacts to High Quality Aquatic Resources will be processed under Category II. Compensatory wetland mitigation, at a ratio of 1.5:1, is required for all projects that impact more than 0.10 acre. Mitigation for impacts to High Quality Aquatic Resources typically is required at a higher ratio (generally 3:1 or greater).

High Quality Aquatic Resources (HQARs) are aquatic areas considered to be regionally critical due to their uniqueness, scarcity, and/or value, and other wetlands considered to perform functions important to the public interest, as defined in 33 CFR 320.4(b)(2). These resources include Advanced Identification (ADID) sites, bogs, ephemeral pools, fens, forested wetlands, sedge meadows, seeps, streams rated Class A or B in the Illinois Biological Stream Characterization study, streamside marshes, wet prairies, wetlands supporting Federal or Illinois endangered or threatened species, and wetlands with a floristic quality index of 20 or greater, or mean C-value of 3.5 or greater. These areas generally are regarded as unsuitable for dredge or fill activities. See Appendix IV for definitions of the wetland types, and criteria used to evaluate the presence of HQARs during wetland delineations.

[1] December 2, 2008, USEPA and Department of the Army Joint Memorandum, Clean Water Act Jurisdiction Following the U. S. Supreme Court Decision in Rapanos v. United States and Carabell v. United States.

Wetland impacts greater than 1.0 acre will require authorization under an individual permit (IP), which requires greater scrutiny of the proposed project by the USACE and other concerned government agencies, and a comment period from the general public.

DUPAGE COUNTY ORDINANCE

Pursuant to the 2013 *DuPage County Countywide Stormwater and Flood Plain Ordinance* (Ordinance), any development that affects a special management area (i.e., floodplain, wetland, wetland buffer, or waterway buffer) requires a Stormwater Management Permit. Jurisdictional wetland determinations for review under the ordinance are made following the methods given in the 1987 *Corps of Engineers Wetlands Delineation Manual*. Wetland delineations conducted in DuPage County do not rely on federal jurisdiction, so both adjacent and isolated wetlands are regulated. Field verification of wetland delineations is conducted by the DuPage County, or by village staff in full waiver communities.

All delineated wetlands are to be classified as critical or regulatory wetlands according to the criteria defined in Section 15-85 of the Ordinance. If any one of the criteria is satisfied, that wetland is considered Critical and mitigation will be required at a ratio of 3:1. If none of the criteria is satisfied, that wetland is considered Regulatory and mitigation will be required at a ratio of 1.5:1. The assessment criteria are listed and addressed in Appendix V.

Under the DuPage County Ordinance, a narrative description of measures taken to avoid and minimize wetland impacts is required for all wetlands greater than 0.1 acre in size. Development in or affecting a wetland can be initiated only after an applicant demonstrates that there are no practicable alternatives to impacting a wetland. According to Section 15-92 of the Ordinance, a vegetated buffer 50 feet wide is required around all preserved regulatory wetlands and a vegetated buffer 100 feet wide is required around all critical wetlands unless mitigation for buffer functions is provided.

For projects which occur in partial waiver communities, where the wetland review is conducted by the DuPage County Department of Economic Development & Planning (EDP), the Corps of Engineers has issued General Permit (GP) Number 25, *Programmatic General Permit for Activities Requiring Review under Section 404 of the Clean Water Act Within the Established Boundaries of DuPage County, Illinois*. GP 25 authorizes the EDP to conduct technical reviews on behalf of the Corps of Engineers for projects with minimal impacts to the aquatic environment, including wetlands. Upon the completion of the technical review by EDP, the Corps of Engineers will authorize a project in accordance with the General Permit. In full waiver communities, such as Downers Grove, the community engineer has authority under the ordinance “to review and approve all applications for development in all areas under its jurisdiction.” (§15-31.3 of the County Ordinance).

APPENDIX IV

DELINEATION METHODS AND FLORISTIC ANALYSIS

WETLAND DELINEATION METHODS

The site was field-inspected and plant species lists were recorded to document the vegetation types present. A wetland indicator status is assigned to each plant species based on a regional list published by the U.S. Army Corps of Engineers in 2016. The categories are based on the estimated probability that a species would be naturally encountered in a wetland. Under the *Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Midwest Region*, the area is considered to be dominated by hydrophytic vegetation and representative of a wetland plant community by one of two methods, the dominance test or the prevalence index. The dominance test is satisfied if greater than 50% of the dominant plant species in a given area have a wetland indicator status of FAC, FACW, or OBL. The prevalence index assigns a numeric value to the wetland indicator status, and uses a weighted-average of the wetland indicator status of all plant species present in the sampling area. A wetland plant community is present if the prevalence index is less than 3.0.

Plant Wetland Indicator Status Categories

Indicator Category	Symbol	Indicator Definition
Obligate Wetland Plants	OBL	Plants that occur almost always (estimated probability greater than 99%) in wetlands under natural conditions, but which may also occur rarely in non-wetlands.
Facultative Wetland Plants	FACW	Plants that usually occur in wetlands (estimated probability 67% to 99%), but occasionally are found in non-wetlands.
Facultative Plants	FAC	Plants with a similar likelihood (estimated probability 33% to 67%) of occurring in both wetlands and non-wetlands.
Facultative Upland Plants	FACU	Plants that usually occur in non-wetlands (estimated probability 67% to 99%) but occasionally are found in wetlands.
Obligate Upland Plants	UPL	Plants that occur almost always (estimated probability greater than 99%) in non-wetlands under natural conditions, but which may also occur rarely in wetlands.

In addition to being dominated by hydrophytic vegetation, each suspect wetland must also exhibit hydric soils and wetland hydrology. As defined in the Federal Register (*Federal Register, Volume 59*: July 13, 1994), “A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.” According to the National Technical Committee for Hydric Soils, documentation of the presence or absence of a hydric soil can only be determined through on-site investigation, not strictly by its classification of an area on soil survey maps. Soils are identified as hydric in the field if they possess certain indicators, as defined in the *Interim Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Midwest Region.* These field indicators are a regionally specific subset of the field indicators described in the *Field Indicators of Hydric Soils in the United States* (Version 8.0; NRCS, 2016). The absence of a field indicator in a soil does not exclude that soil from

being classified as hydric. Soil series, soil color, the presence of mottling or gleying, and depth to water table are determined and recorded in the field. These features, when present, may indicate a hydric soil when hydric soil field indicators are absent.

Determinations of hydrology are based on observations wetland hydrology indicators. There are two types of indicators, primary indicators and secondary indicators. A determination of wetland hydrology requires the presence of one primary indicator or two secondary indicators. Hydrology indicators are placed into four groups, these being observations of surface water or saturated soils, evidence of recent inundation, evidence of recent soil saturation, or evidence of other site conditions or data. A listing of the wetland hydrology indicators is provided in the table below.

Indicator	Category	
	Primary	Secondary
Group A – Observation of Surface Water or Saturated Soils		
A1 – Surface water	X	
A2 – High water table	X	
A3 – Saturation	X	
Group B – Evidence of Recent Inundation		
B1 – Water marks	X	
B2 – Sediment deposits	X	
B3 – Drift deposits	X	
B4 – Algal mat or crust	X	
B5 – Iron deposits	X	
B7 – Inundation visible on aerial imagery	X	
B8 – Sparsely vegetated concave surface	X	
B9 – Water-stained leaves	X	
B13 – Aquatic fauna	X	
B14 – True aquatic plants	X	
B6 – Surface soil cracks		X
B10 – Drainage patterns		X
Group C – Evidence of Current or Recent Soil Saturation		
C1 – Hydrogen sulfide odor	X	
C3 – Oxidized rhizospheres along living roots	X	
C4 – Presence of reduced iron	X	
C6 – Recent iron reduction in tilled soils	X	
C7 – Thin muck surface	X	
C2 – Dry-season water table		X
C8 – Crayfish burrows		X
C9 – Saturation visible on aerial imagery		X
Group D – Evidence from Other Site Conditions or Data		
D9 – Gauge or well data	X	
D1 – Stunted or stressed plants		X
D2 – Geomorphic position		X
D5 – FAC-neutral test		X

FLORISTIC QUALITY ASSESSMENT

Plant communities of the site were evaluated with the Floristic Quality Assessment (FQA) methodology, a widely-used technique used for rapid assessment of the floristic quality in a defined area or plant community. In using FQA, the presence of each plant species is recorded, generating a species inventory. This inventory is entered into computer software that was used to generate the species lists used in this report. Floristic quality calculations are also generated that provides a compilation of various floristic quality data, resulting in a determination of the floristic quality of the subject area.

The floristic quality data for an area partially indicates its quality as a natural area (i.e., relative to known or perceived pre-settlement or disturbance conditions). One indicator of the degree of disturbance or floristic quality in an area is the calculated Native Floristic Quality Index (Native FQI). A high Native FQI value indicates a high-quality natural area, but how high the Native FQI must be for an area to be of high quality is a subjective determination. In general, a wetland (or other defined area) with a Native FQI greater than 20.00 from a single observation may be considered a moderately high quality plant community. These areas have a high potential for containing more conservative or high-quality plant species. Therefore, adverse impacts to such areas, especially wetlands and subsequent proposals for compensatory mitigation, may be scrutinized carefully by the regulatory agencies.

A high number of native species with high coefficients of conservatism “C” (a subjective measure of quality based on habitat specificity and relative tolerance to disturbance; weedy species are highly disturbance tolerant, and are ranked lower) will result in a high Native FQI. The C value is based on the relative rarity of a species and/or the resiliency of a species following disturbance. Coefficients of conservatism for native plant species range from 0 for common, weedy species to 10 for rare, highly conservative species. Adventive species are not assigned a C value. Adventive species are non-native species that have entered the Chicago region since European settlement. These species generally do not lend themselves to increased floristic quality, but instead appear after a disturbance. Thus, a high proportion of these species in a given area or community may be an indication of a lower quality plant community.

The wetness coefficient (W, ranging from -5 to +5) refers to the corresponding wetland indicator status (e.g., OBL = obligate wetland species, -5; FAC = facultative species, 0; UPL = upland species, +5) for U.S. Fish and Wildlife Service Region 3 (Illinois, Michigan, Indiana, Missouri, Iowa, Wisconsin, and Minnesota). A wetland indicator status noted in brackets (e.g., [FACW]) is a modification of the Region 3 indicator status to apply locally in the 22-county Chicago region covered by *Plants of the Chicago Region*. The Wetness coefficient is useful in evaluating the general “wetness” affinity of a sampled plant community. If the average indicator status among all species present is in the FAC, FACW, or OBL classes, then the plant community may be considered hydrophytic.

HIGH QUALITY AQUATIC RESOURCES

U.S. Army Corps of Engineers, Chicago District Regional Permit Program

High Quality Aquatic Resources (HQARs) include Advanced Identification (ADID) sites (mapped in Kane, Lake and McHenry Counties), bogs, dune and swale complexes, ephemeral pools, fens, forested wetlands, sedge meadows, seeps, streams rated Class A or B in the Illinois Biological Stream Characterization study, wet prairies, wetlands supporting Federal or Illinois endangered or threatened species, and wetlands with a floristic quality index of 20 or greater, or mean C-value of 3.5 or greater. These definitions are listed below. If a given wetland meets one or more of these definitions, that wetland is considered a HQAR and a Category II Regional Permit or Individual Permit is required.

Advanced Identification (ADID) sites: Aquatic sites that have been identified by the Chicago District and U.S. Environmental Protection Agency, in advance of specific permit requests, as areas generally unsuitable for the disposal of dredged or fill material, because of a variety of factors, including high floristic values, water quality or storage functions, or similar wetland functions performed at elevated levels. ADID sites include various Waters of the U.S., including wetlands. An ADID map for the subject property is included with this report as Figure 3.

Bog: A low nutrient peatland, usually in a glacial depression, that is acidic in the surface stratum and often dominated at least in part by the genus *Sphagnum*.

Dune and Swale Complex: Areas usually parallel to the Lake Michigan shoreline and typified by sandy, linear, upland ridges alternating with low-relief wetland created over time during changes in the Lake Michigan's water levels.

Ephemeral pool: A seasonally inundated depression within a forested wetland or upland community, usually located on a moraine, glacial outwash plain, or in an area shallow to bedrock; also known locally as a "vernal pool." These areas may not be permanently vegetated.

Fen: A peatland, herbaceous (including calcareous floating mats) or wooded, with calcareous groundwater flow.

Forested wetland: A wetland dominated by native woody vegetation with at least one of the following species or genera present: *Carya* spp., *Cephalanthus occidentalis*, *Cornus alternifolia*, *Fraxinus nigra*, *Juglans cinerea*, *Nyssa sylvatica*, *Quercus* spp., *Thuja occidentalis, Betula nigra, Betula alleghaniensis, Betula papyrifera, Fagus grandifolia.*.

Sedge meadow: A wetland dominated by at least one of the following genera: *Carex*, *Calamagrostis*, *Cladium*, *Deschampsia*, *Eleocharis*, *Rynchospora*, *Scleria*, or *Eriophorum*.

Seep: A wetland, herbaceous or wooded, with saturated soil or inundation resulting from the diffuse flow of groundwater to the surface stratum. [Seeps typically occur on slopes because of blocked vertical infiltration.]

Streams rated A or B in the Illinois Biological Stream Characterization study: The historical Class A and B rating system was replaced with the new Illinois Department of Natural Resources stream classification system that can be found at:
https://www.dnr.illinois.gov/conservation/BiologicalStreamratings/Pages/default.aspx

Wet prairie: A wetland dominated by native graminoid species with a diverse indigenous forb component that is seasonally saturated and/or temporarily inundated and may resemble a fen in its best development. Species found in a high quality wet prairie include at least one of the following: *Calamagrostis canadensis*, *Spartina pectinata*, *Aster puniceus firmus*, *Beckmannia syzigachne*, *Chelone glabra*, *Eleocharis wolfii*, *Lysimachia quadrifolia*, *Oenothera perennis*, *Oenothera pilosella*, *Pedicularis lanceolata*, and *Solidago ohioensis*.

Wetlands Supporting Federal or Illinois Endangered or Threatened Species: An Agency Action Report is routinely requested from the Illinois Department of Natural Resources (IDNR) and from the U.S. Fish and Wildlife Service (USFWS) for wetland delineations. These reports indicate the likelihood of listed species (that is, those species considered legally protected as threatened or endangered) being found near or on a subject property, or possible encroachment into protected natural area reserves. If a listed species record is indicated for the site, an endangered and threatened species investigation may be required to evaluate the actual presence or absence of the species in question. This inquiry is preliminary and does not preclude the presence of otherwise unrecorded listed species.

Wetlands with a Floristic Quality Index of 20 or greater or a mean C-value of 3.5 or greater: Plant species inventories collected during wetland delineations are used to generate floristic quality values using the Floristic Quality Assessment method published in *Plants of the Chicago Region* (Swink and Wilhelm, 1994). These tables are included in this report for each of the areas identified as wetland.

STREAM CLASSIFICATION
WITHIN THE CHICAGO DISTRICT

The historical Class A and B rating system was replaced with the new Illinois Department of Natural Resources stream classification system that can be found at:

https://www.dnr.illinois.gov/conservation/BiologicalStreamratings/Pages/default.aspx

APPENDIX V

DuPage County Wetland Assessment

DUPAGE COUNTY ORDINANCE WETLAND ASSESSMENT

The information provided below addresses the additional assessment criteria for wetlands as required in DuPage County under the *DuPage County Countywide Stormwater and Flood Plain Ordinance*. Each criterion is addressed independently below, with the County criteria provided in *italics* and the assessment of each following in regular type.

a. *The wetland is identified as a critical wetland in the County's wetland inventory;*

- There are no critical wetlands identified on the subject property (Figure 3).

b. *The wetland is known to possess a Federal or State listed threatened or endangered species;*

- The Illinois Department of Natural Resources' (IDNR) Ecological Compliance Assessment Tool (EcoCAT) was used to determine the presence of known state threatened or endangered species on or near the subject property. The EcoCAT sign off letter, dated September 12, 2018, indicates there are no State threatened or endangered species or their habitat within the vicinity of the site.

- In accordance with U.S. Fish and Wildlife Service (USFWS) procedures, an analysis of information concerning federally listed species was conducted on September 14, 2018 by V3 Companies. The analysis was conducted following the Section 7 technical assistance guidelines. The USFWS Section 7 consultation did not find species or critical habitat present on the subject property. A copy of the USFWS Section 7 consultation is included.

c. *The plant community within the wetland is determined to have a native floristic quality index (FQI) of 20 or higher during a single season assessment or a native mean C-value (NMC) of 3.5 or higher, as calculated by the Swink and Wilhelm methodology.*

- A floristic inventory of Areas 4 and 5 was conducted on September 13, 2018. A copy of the floristic quality inventory for each area is provided in the delineation report.

    - The floristic quality data for Area 4 yielded a NMC value of 1.84 and an FQI value of 8.03. Based on this calculation, Area 4 does not qualify as a High Quality Aquatic Resource.
    - The floristic quality data for Area 5 yielded a NMC value of 2.57 and an FQI value of 11.78. Based on this calculation, Area 5 does not qualify as a High Quality Aquatic Resource.

d. *The initial wildlife quality value using the Modified Michigan Department of Natural Resources Method is 5.0 or higher, or alternatively, the mean rated wildlife quality (MRWQ) is determined to be 8.0 or higher, as calculated by the Ludwig wildlife habitat evaluation methodology. (If both methods are performed, the Ludwig value shall prevail*

as the determining value.)

- *The Modified Michigan Department of Natural Resource Wildlife Habitat/Use Evaluation Score Sheets* were used to calculate the MRWQ on September 13, 2018. Copies of the score sheets are included.
    - Area 4 yielded a Wildlife Habitat/Use Score of 2.0. Therefore, Area 4 does not qualify as critical habitat.
    - Area 5 yielded a Wildlife Habitat/Use Score of 3.5. Therefore, Area 5 does not qualify as critical habitat.

Conclusion

Area 4 and Area 5 qualify as regulatory wetlands/Waters according to the criteria of the *DuPage County Countywide Stormwater and Flood Plain Ordinance*.

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant:	V3 Companies Ltd.	*IDNR Project Number:*	1902894
Contact:	Daniel Jablonski	*Date:*	09/12/2018
Address:	7325 Janes Ave Woodridge, IL 60517	*Alternate Number:*	18325, 1508308
Project:	1655 Powis Rd		
Address:	1655 Powis Rd., West Chicago		

Description: The proposed location is for redevelopment of light industrial/commercial development

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

Consultation is terminated. This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Termination does not imply IDNR's authorization or endorsement.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: DuPage

Township, Range, Section:
40N, 9E, 32

IL Department of Natural Resources Contact
Bradley Hayes
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
IL Environmental Protection Agency
Bureau of Water Quality
1021 North Grand Ave East
PO Box 19276
Springfield, Illinois 62974

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

IDNR Project Number: 1902894

Terms of Use

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1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

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Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

U.S. FISH AND WILDLIFE SERVICE: SECTION 7 CONSULTATION

Project: 1655 Powis Rd., West Chicago, DuPage County, Illinois (#18352)

Analysis conducted by: Daniel Jablonski, V3 Companies, September 14, 2018

Site Description: Current landuse is an industrial recycling plant, habitat present on the site: blue heron, the recycling plant is surrounded by industry, landfill, and a municipal airport.

SPECIES	STATUS	HABITAT	SUITABLE HABITAT PRESENT?	CONCULSION
Eastern prairie fringed orchid (*Platanthera leucophaea*)	Threatened	Mesic prairies to wetlands such as sedge meadows, marsh edges, and bogs with full sun and little or no woody encroachment.	No, suitable habitat is not present. Mesic prairie, sedge meadow with no encroachment not on project site	Species and habitat not present. No further consultation is required.
Mead's milkweed (*Asclepias meadii*)	Threatened	Mesic to dry mesic upland tallgrass prairie or glade habitat adapted to drought and fire. Persists in stable late-successional prairie.	No, suitable habitat is not present. Tallgrass prairie not on project site.	Species and habitat not present. No further consultation is required.
Prairie bush clover (*Lespedeza leptostachya*)	Threatened	Dry to mesic prairies with gravelly soils.	No, suitable habitat is not present. Mesic prairie not on project site.	Species and habitat not present. No further consultation is required.
Northern long-eared bat (*Myotis septentrionalis*)	Threatened	Small crevices and cavities in caves, mines, and under the bark of dead and live trees.	No, suitable habitat is not present. Small crevices of tree species not present on project site.	Species and habitat not present. No further consultation is required.
Hine's emerald dragonfly (*Somatochlora hineana*)	Endangered	Spring fed wetlands, wet meadows, and marshes within the Designated Critical Habitat areas.	No, suitable habitat is not present. Project site not within habitat zones.	Species and critical habitat not present. No further consultation is required.
Leafy-prairie clover (*Dalea foliosa*)	Endangered	Prairie remnants with thin soil over limestone along the Des Plaines River.	No, suitable habitat is not present. Project site is not a dolomite prairie.	Species and habitat not present. No further consultation is required.
Rusty patched bumble bee (*Bombus affinis*)	Endangered	Grasslands with flowering plants from April – October, underground rodent cavities or clumps of grasses above ground as nesting sites and undisturbed soil for hibernating queens to overwinter; High Potential Zones	No, suitable habitat is not present, Project area is highly disturbed; however, is in zone of high potential.	Species and habitat not present. No further consultation is required.

Conclusion: Species and critical habitat are not present. No further consultation is required.

OBSERVER: Daniel Jablonski

DATE: 9/17/2018

LOCATION: 1655 Powis Rd.

Emergent Wetland (Area 4)

WILDLIFE HABITAT/USE EVALUATION SCORE SHEET

To assess the existing and/or potential wildlife habitat use of the subject wetland, the applicant must first complete this score sheet. The attached documentation provides examples of each scoring parameter.

A separate sheet must be completed for each wetland. The wetland system as a whole must be considered. If the wetland extends off-site, aerial photographs, observations from public access areas (roads, etc.) should be considered in the evaluation sheet.

Applicants must document their basis for scoring decisions with field surveys followed by current photographs, and other appropriate information.

A. Utilization by Wildlife

Wildlife Use	Score
Significant	3.0
Evident	2.0
Low	1.0
Occasional	0.5
Non-Existent	0.0
SUB-TOTAL =	**0.5**

Observations/Notes:
Highly degraded wetland full of invasive trees and plants. Most likely a result of past grading.

B. Interspersion of Vegetative Cover

Interspersion	Score
High	3.0
Medium	2.0
Low	1.0
SUB-TOTAL =	**1.0**

Community Type	% Cover
Emergent	20%
Scrub Shrub	60%
Wet Meadow	20%
Forested	
Aquatic	
Other	

C. Vegetative Cover to Open Water

Cover	Score
>95% Cover	0.5
76%-95% Cover, Peripheral	1.5
76%-95% Cover, Various	2.5
26%-75% Cover, Peripheral	2.0
25%-75% Cover, Patches	3.0
5%-25% Cover, Peripheral	1.0
<5% Cover	0.5
SUB-TOTAL =	**0.5**

TOTAL SCORE (A+B+C) = 2.0

Total score ≥ 5.00 wetland receives CRITICAL status

Total score < 5.00 wetland receives REGULATORY status

OBSERVER: Daniel Jablonski

DATE: 9/17/2018

LOCATION: 1655 Powis Rd.

Kress Creek (Area 5)

WILDLIFE HABITAT/USE EVALUATION SCORE SHEET

To assess the existing and/or potential wildlife habitat use of the subject wetland, the applicant must first complete this score sheet. The attached documentation provides examples of each scoring parameter.

A separate sheet must be completed for each wetland. The wetland system as a whole must be considered. If the wetland extends off-site, aerial photographs, observations from public access areas (roads, etc.) should be considered in the evaluation sheet.

Applicants must document their basis for scoring decisions with field surveys followed by current photographs, and other appropriate information.

A. Utilization by Wildlife

Wildlife Use	Score
Significant	3.0
Evident	2.0
Low	1.0
Occasional	0.5
Non-Existent	0.0
SUB-TOTAL =	**1.0**

Observations/Notes:
Channalized portion of Kress Creek receiving stormwater runoff from surrounding industrial lots

B. Interspersion of Vegetative Cover

Interspersion	Score
High	3.0
Medium	2.0
Low	1.0
SUB-TOTAL =	**1.0**

Community Type	% Cover
Emergent	40%
Scrub Shrub	30%
Wet Meadow	20%
Forested	
Aquatic	10%
Other	

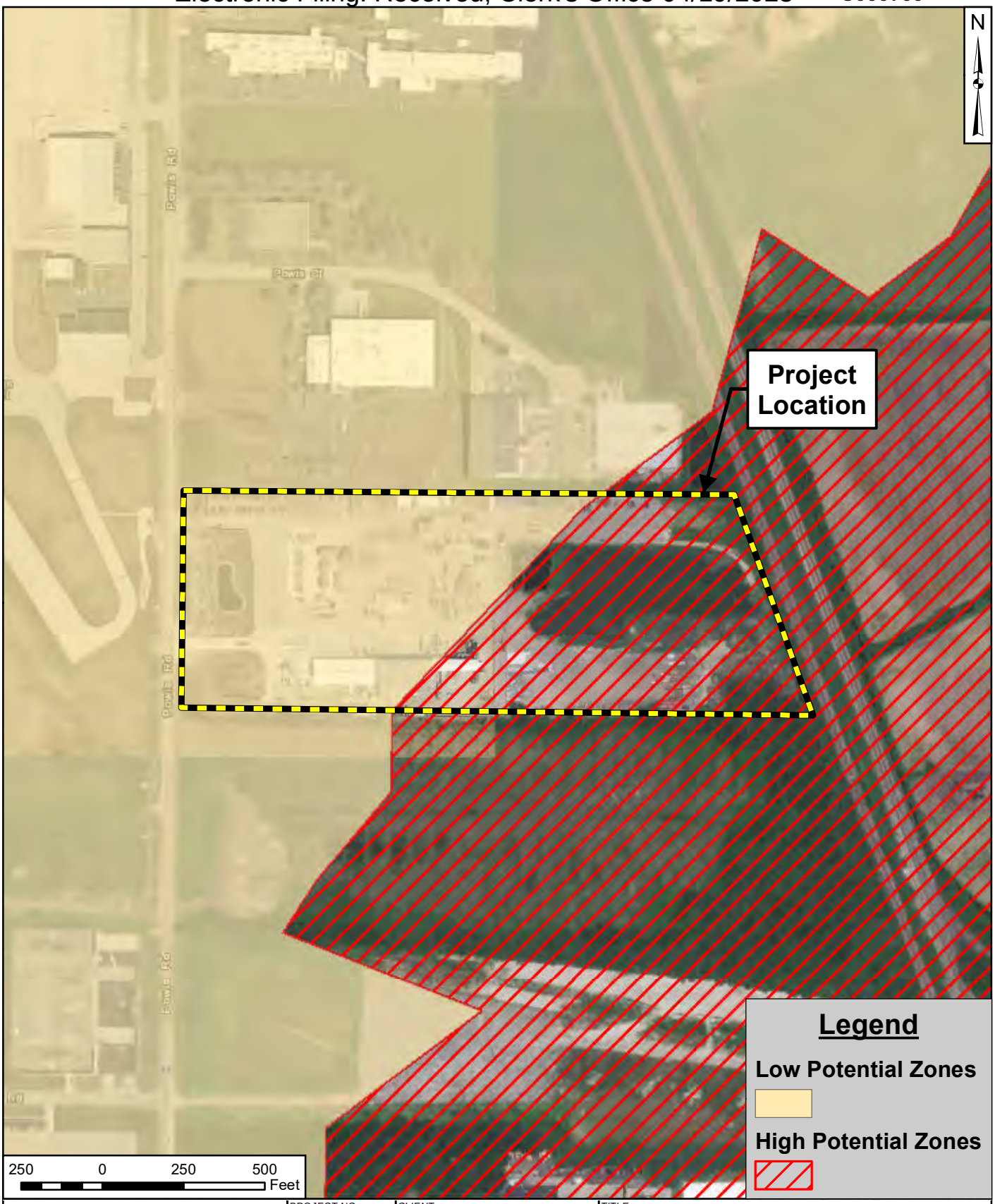
C. Vegetative Cover to Open Water

Cover	Score
>95% Cover	0.5
76%-95% Cover, Peripheral	1.5
76%-95% Cover, Various	2.5
26%-75% Cover, Peripheral	2.0
25%-75% Cover, Patches	3.0
5%-25% Cover, Peripheral	1.0
<5% Cover	0.5
SUB-TOTAL =	**1.5**

TOTAL SCORE (A+B+C) = 3.5

Total score ≥ 5.00 wetland receives CRITICAL status

Total score < 5.00 wetland receives REGULATORY status



V3 Companies
7325 Janes Avenue
Woodridge, Illinois 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

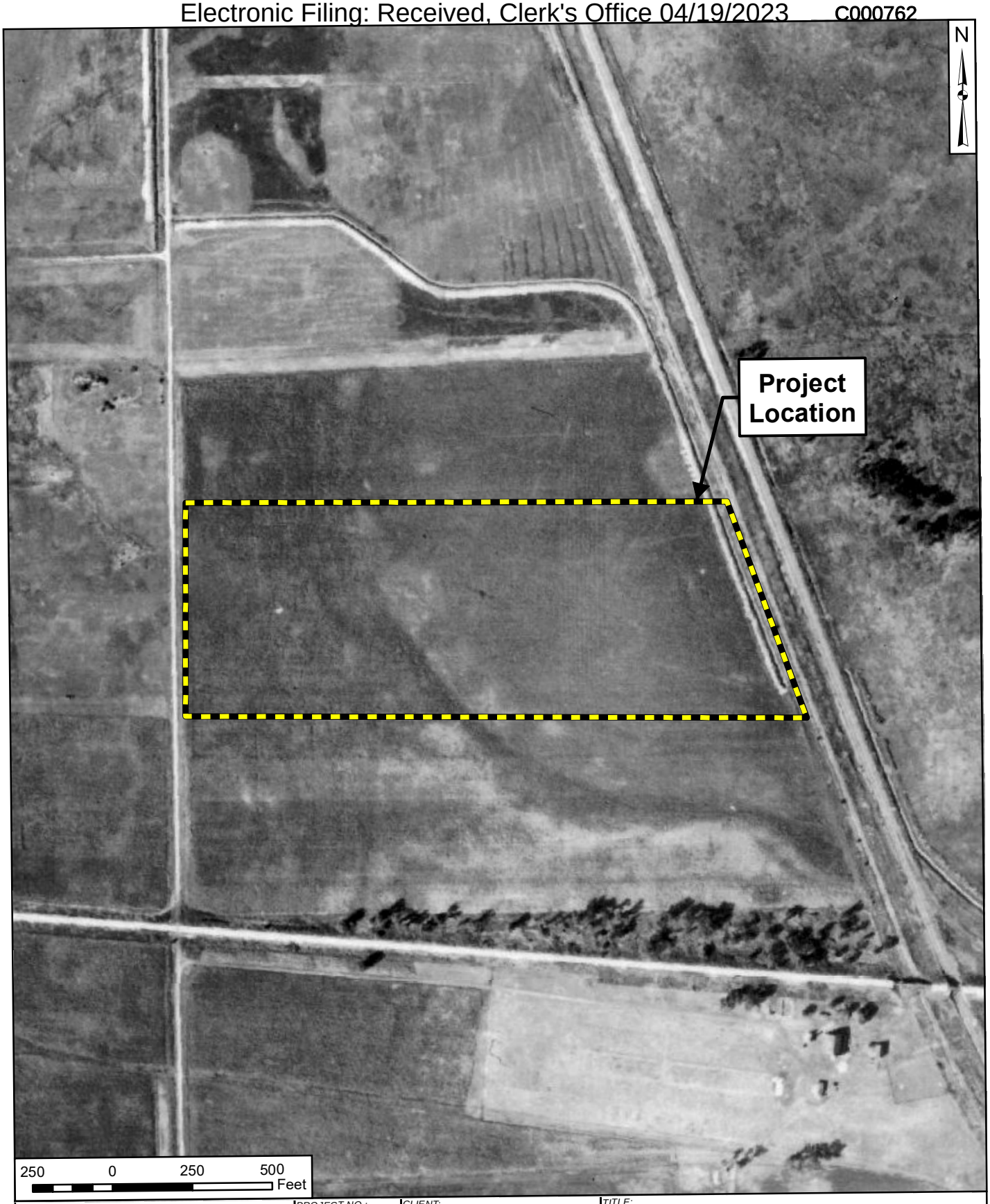
Visio, Vertere, Virtute...
"The Vision To Transform with Excellence"

PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/17/2018
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	NAIP Aerial Imagery (2017)
TITLE:	**RUSTY PATCHED BUMBLE BEE ZONES MAP**
SITE:	1655 Powis Road West Chicago, Illinois
FIGURE:	10

N:\2018\18325\Drawings\ArcGIS\Wetland\FIG10rpbb18325.mxd

APPENDIX VI

HISTORICAL REVIEW INFORMATION



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PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/17/2018
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	EDR Historical Aerial Imagery (1939)
TITLE:	**1939 HISTORICAL AERIAL IMAGERY MAP**
SITE:	1655 Powis Road West Chicago, Illinois
FIGURE:	A

N:\2018\18325\Drawings\ArcGIS\Wetland\Historical\FIGAhist39_18325.mxd

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PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/17/2018
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	EDR Historical Aerial Imagery (1952)
TITLE:	**1952 HISTORICAL AERIAL IMAGERY MAP**
SITE:	1655 Powis Road West Chicago, Illinois
FIGURE:	B

N:\2018\18325\Drawings\ArcGIS\Wetland\Historical\FIGBhist52_18325.mxd

Electronic Filing: Received, Clerk's Office 04/19/2023

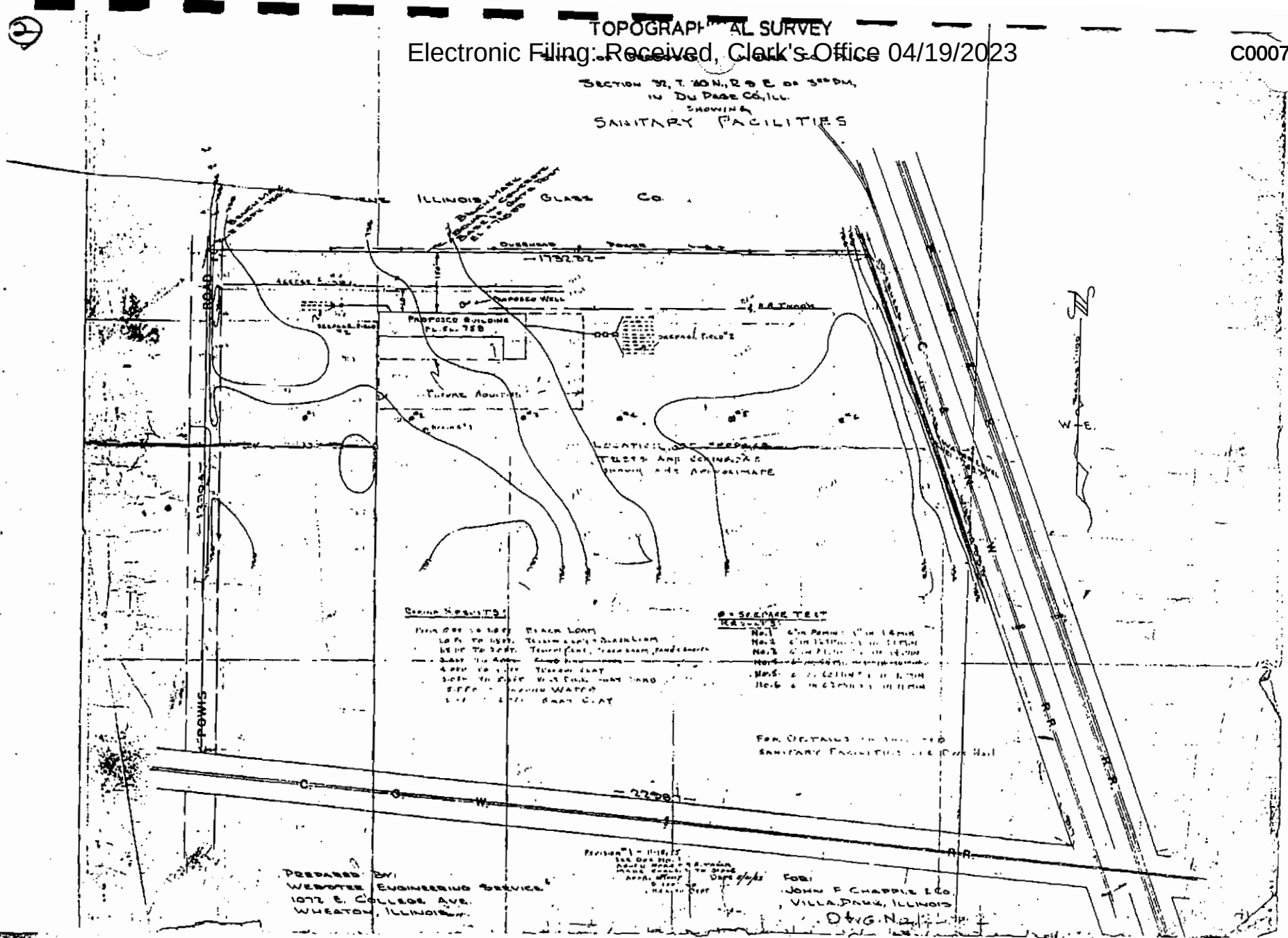

Figure C. 1955 Topographical Survey

Prepared by: Webster Engineering Service (August 1955)

Obtained From: Phase I ESA, IT Corporation, 1999

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PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/17/2018
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	EDR Historical Aerial Imagery (1962)
TITLE:	**1962 HISTORICAL AERIAL IMAGERY MAP**
SITE:	1655 Powis Road West Chicago, Illinois
FIGURE:	D

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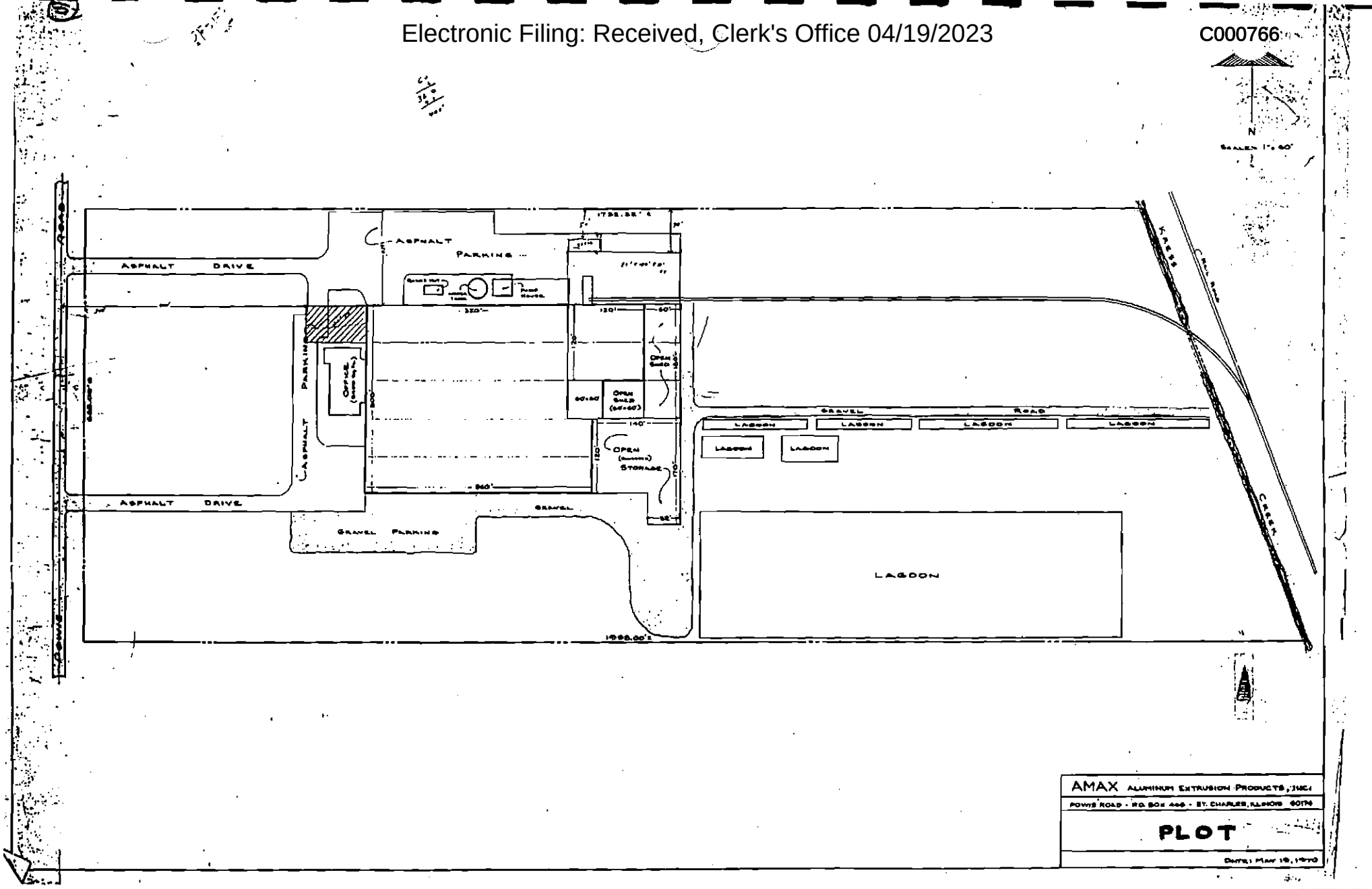
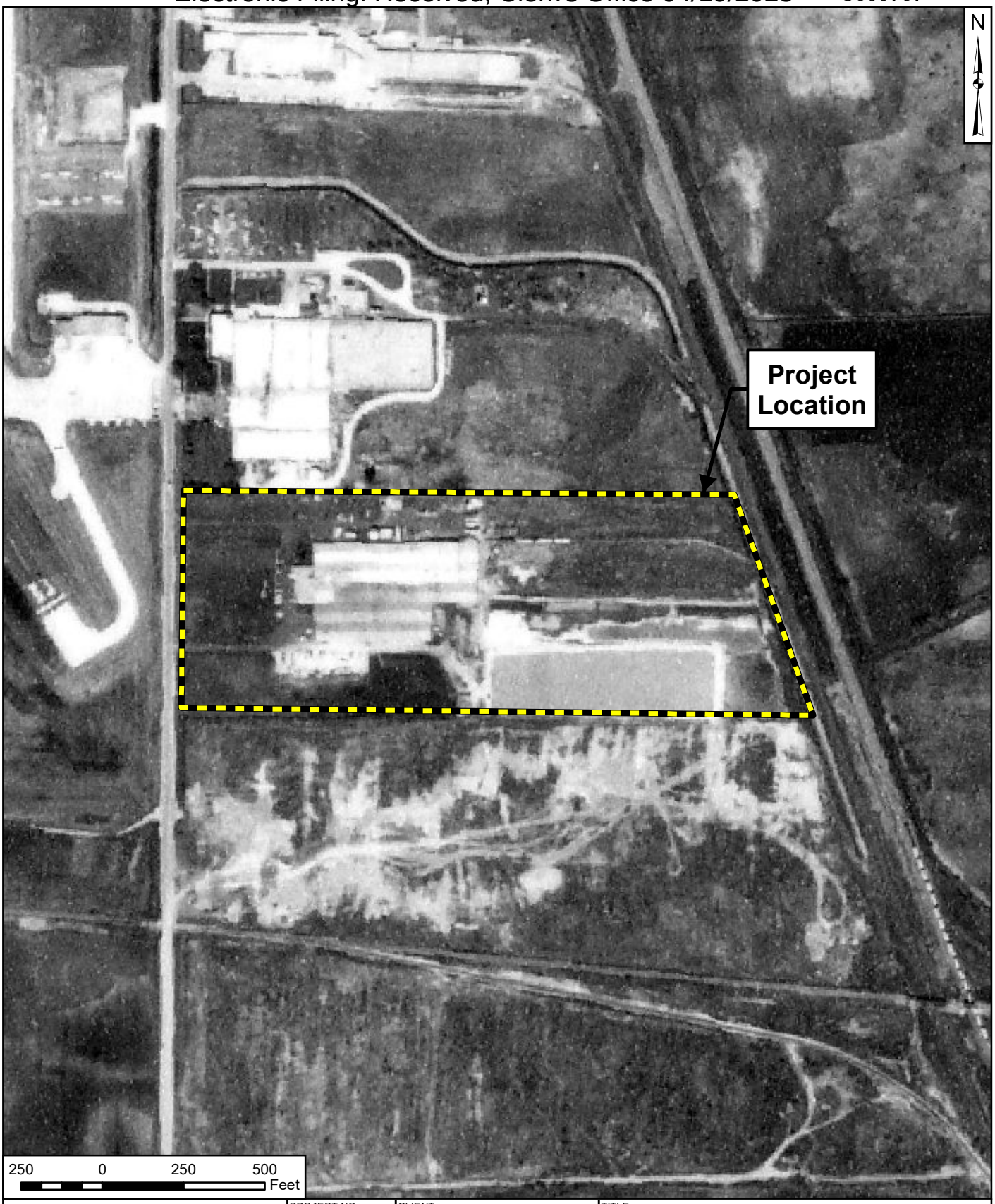


Figure E. 1970 Plot

Prepared By: R. F. Stalzer & Associates

Obtained From: Phase I ESA, IT Corporation, 1999



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PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/17/2018
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	EDR Historical Aerial Imagery (1971)
TITLE:	**1971 HISTORICAL AERIAL IMAGERY MAP**
SITE:	1655 Powis Road West Chicago, Illinois
FIGURE:	F

N:\2018\18325\Drawings\ArcGIS\Wetland\Historical\FIGFhist71_18325.mxd

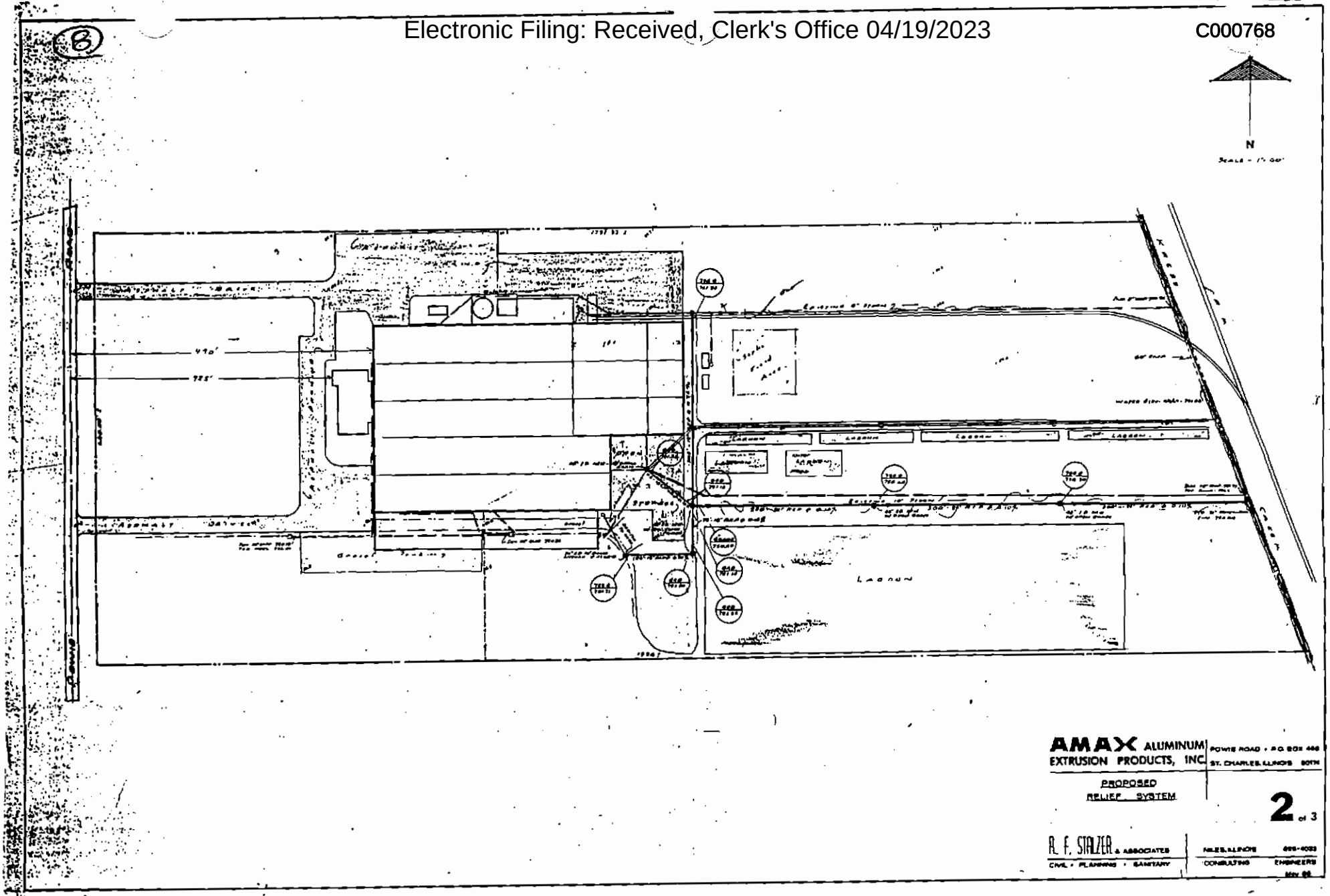

Figure G. Relief System Map

Prepared By: R.F. Stalzer & Associates

Obtained From: Phase I ESA, IT Corporation, 1999

Phone: 293-2200

Statement

October 16, 19 90

Alumax Extrusions, Inc.

One Foxfield, St. Charles, IL

In Account With

CITY OF WEST CHICAGO

City Hall - 475 Main Street
P.O. Box 488
West Chicago, IL 60185

Make checks payable to City Collector

Please return this statement with your remittance

Permit #90648 1655 Powis Rd. Stormwater treatment basin		
	Building Permit	340 00
	TOTAL	340 00

OCT 19 1990

G-6 2M

000001 (24)

BUILDING
WATER S
PLUMBER
ELECTRIC
ROOFER

DEPARTMENT OF BUILDINGS...475 MAIN ST....P.O. BOX 488...WEST CHICAGO, IL 60185

DATE 9-26-90

SEP 26 1990

APPLICATION IS HEREBY MADE FOR Construction of Stormwater Treatment Basin

000001 (24)

Figure H. 1990 Building Permit

Obtained From: City of West Chicago Building Department Records

V3 Companies
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630.724.9200 phone
630.724.9202 fax
www.v3co.com

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PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/17/2018
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	EDR Historical Aerial Imagery (1993)
TITLE:	**1993 HISTORICAL AERIAL IMAGERY MAP**
SITE:	1655 Powis Road West Chicago, Illinois
FIGURE:	J

N:\2018\18325\Drawings\ArcGIS\Wetland\Historical\FIGJhist93_18325.mxd

TABLE 7
PERMITTING HISTORY OF WETLAND CONSTRUCTION

Date of Action	Permitting Agency	Special Notes
Feb 23, 1990	U.S. Army Corps of Engineers (USACOE)	National permit issued for the construction plan to control storm water. This is the result of a permit application to potentially disturb less than 1.5 acres of wetland acres.
August 24, 1990	IEPA, Water Pollution Control Division	Construction permit issued for the storm water treatment basin. Approximate capacity of 600,000 gal. Operation of this system was to be governed by existing NPDES No. IL0037681.
August 31, 1990	IL Department of Transportation (IDOT)	Since the construction activity could potentially affect the 100 year flood plain, an investigation and planning requirement was triggered by IDOT. Based on IDOT review, no permit was required.
July 25, 1991	IEPA, Water Pollution Control Division	Evaluated revised plans for storm water basin and concluded that the system could be constructed without causing water pollution as defined by the IEPA. Required that the USACOE review the project revisions and make necessary adjustments to the original permit.
November 20, 1991	City of West Chicago	Building Permit issued for the construction project.
December 3, 1991	USACOE	Final review and approval granted.
Spring – Summer 1992	NA	Construction of settling basin and drainage improvements.
October 1, 1992	IEPA, Water Pollution Control Division	Due to the introduction of Storm Water Pollution Prevention regulations, a Notice of Intent (NOI) was submitted for the on-going construction activity.
Fall 1993 – Winter 1994	NA	Construction of storm water retention ponds.
Spring 1994	NA	Final grading & seeding
July 26, 1994	IEPA, Water Pollution Control Division	Notice of Termination of coverage under general permit. Storm water project completed.

Figure K. History of Wetland Construction
Obtained From and Prepared By: Phase I ESA, IT Corporation, 1999

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
231 SOUTH LA SALLE STREET
CHICAGO, ILLINOIS 60604-1437

REPLY TO
ATTENTION OF:

March 19, 2015

Technical Services Division
Regulatory Branch
LRC-2015-00097

SUBJECT: Jurisdictional Determination Request for a Parcel South of North Avenue (Route 64), East of Powis Road, and West of the Chicago and Northwestern Railroad in West Chicago, DuPage County, Illinois

Ken Hoving
K. Hoving Recycling & Disposal Inc.
2351 Powis Road
West Chicago, Illinois 60185

Dear Mr. Hoving:

This is in response to your request that the U.S. Army Corps of Engineers complete a jurisdictional determination for the above-referenced site submitted on your behalf by V3 Companies, Ltd. The subject project has been assigned number LRC-2015-00097. Please reference this number in all future correspondence concerning this project.

Following a review of the information you submitted, this office has determined that the subject property contains "waters of the United States". **Area 3 (Kress Creek), and the abutting wetland Area 5 are jurisdictional. Area 1 and Area 4 are exempt detention basins, while Area 2 is isolated, and therefore non-jurisdictional.** For a detailed description of our determination please refer to the enclosed decision documents. This determination covers only your project as depicted in the Jurisdictional Determination Submittal dated January 22, 2015 (with revised Wetland Delineation Map dated 02/26/2015), prepared by V3 Companies, Ltd.

This office concurs with the submitted wetland delineation, and wetland boundaries at the subject site. In the event an application is submitted for work within jurisdictional areas, a professional survey of the wetland boundary(s) will need to be prepared and shall accompany the approved wetland delineation. We do not concur with the boundaries of waters not under federal jurisdiction.

This determination is valid for a period of five (5) years from the date of the letter, unless new information warrants revision of the determination before the expiration date or a District Commander has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.

This letter is considered an approved jurisdictional determination for your subject site. If you object to this determination, you may appeal, according to 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and a Request for Appeal (RFA) form. If you request to appeal the above determination, you must submit a completed RFA form to the Great Lakes/Ohio River Division Office at the following address:

US Army Corps of Engineers
Great Lakes and Ohio River Division
550 Main Street, Room 10524
Cincinnati, Ohio 45202-3222
Regulatory Appeals Review Officer
(513) 684-6212

In order to be accepted, your RFA must be complete, meet the criteria for appeal and be received by the Division Office within sixty (60) days of the date of the NAP. If you concur with the determination in this letter, submittal of the RFA form to the Division office is not necessary.

This determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

It is your responsibility to obtain any required state, county, or local approvals for impacts to wetland areas not under the Department of the Army jurisdiction. For projects located in DuPage County, please contact the DuPage County Department of Environmental Concerns at (630) 682-6724.

Pursuant to Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers regulates the discharge of dredged or fill material into waters of the United States, including wetlands. A Department of the Army permit is required for any proposed work involving the discharge of dredged or fill material within the jurisdiction of this office. To initiate the permit process, please submit a joint permit application form along with detailed plans of the proposed work. Information concerning our program, including the application form and an application checklist, can be found at and downloaded from our website: http://www.lrc.usace.army.mil/co-r.

If you have any questions, please contact Mr. Mike Machalek of my staff by telephone at 312-846-5534 or email at Mike.J.Machalek@usace.army.mil.

Sincerely,

Digitally signed by
CHERNICH.KATHLEEN.G.123
0365616
Date: 2015.03.23 16:53:28
-05'00'

Kathleen G. Chernich
Chief, East Section
Regulatory Branch

Enclosures

Copy Furnished w/out Enclosures

DuPage County Stormwater Management (Jen Boyer)
V3 Companies, Ltd. (Scott Brejcha)

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Ken Hoving, K. Hoving Recycling & Disposal Inc.	File Number: LRC-2015-00097	Date: March 19, 2015

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
	PERMIT DENIAL	C
X	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

A. INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit or a Letter of Permission (LOP), you may sign the permit document and return it to the district commander for final authorization. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district commander. Your objections must be received by the district commander within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district commander will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district commander will send you a proffered permit for your reconsideration, as indicated in Section B below.

B. PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit or a Letter of Permission (LOP), you may sign the permit document and return it to the district commander for final authorization. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division commander. This form must be received by the division commander within 60 days of the date of this notice.

C. PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division commander. This form must be received by the division commander within 60 days of the date of this notice.

D. APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division commander. This form must be received by the division commander within 60 days of the date of this notice.

E. PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Regulatory Branch
Chicago District Corps of Engineers
231 South LaSalle Street, Suite 1500
Chicago, IL 60604-1437
Phone: (312) 846-5530
Fax: (312) 353-4110

If you only have questions regarding the appeal process you may also contact:

Division Review Officer, CELRD-PD-REG
Great Lakes and Ohio River Division
550 Main Street, Room 10524
Cincinnati, OH 45202-3222
Phone: (513) 684-6212
Fax: (513) 684-2460

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Commanders personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
_____ Signature of appellant or agent.		

FIGURES

V3 Companies 7325 Janes Avenue Woodridge, Illinois 60517 630.724.9200 phone 630.724.9202 fax www.v3co.com	PROJECT NO.: 18325	CLIENT: Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053	TITLE: **PROJECT LOCATION MAP**	
	CREATED BY: AMM			
	DATE: 09/17/2018	BASE LAYER: ESRI World Street Map	SITE: 1655 Powis Road West Chicago, Illinois	FIGURE: 1
Visio, Vertere, Virtute... *"The Vision To Transform with Excellence"*	SCALE: See Scale Bar			

N:\2018\18325\Drawings\ArcGIS\Wetland\FIG1loc18325.mxd

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C000779

V3 Companies 7325 Janes Avenue Woodridge, Illinois 60517 630.724.9200 phone 630.724.9202 fax www.v3co.com	PROJECT NO.: 18325 CREATED BY: AMM	CLIENT: Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053	TITLE: **NATIONAL W INVENTORY**
	DATE: 09/17/2018	BASE LAYER: USGS Topographic Map West Chicago Quadrangle (2018)	SITE: 1655 Powis West Chicago,
Visio, Vertere, Virtute... *"The Vision To Transform with Excellence"*	SCALE: See Scale Bar		

N:\2018\18325\Drawing

V3 Companies
7325 Janes Avenue
Woodridge, Illinois 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

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"The Vision To Transform with Excellence"

PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/17/2018
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	USGS Topographic Map West Chicago Quadrangle (2018)
TITLE:	**DUPAGE COUNTY WETLANDS MAP**
SITE:	1655 Powis Road West Chicago, Illinois
FIGURE:	3

N:\2018\18325\Drawings\ArcGIS\Wetland\FIG3dupwet18325.mxd

V3 Companies
7325 Janes Avenue
Woodridge, Illinois 60517
630.724.9200 phone
630.724.9202 fax
www.v3co.com

Visio, Vertere, Virtute...
"The Vision To Transform with Excellence"

PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/17/2018
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	USGS Hydrologic Atlas West Chicago Quadrangle (1965)
TITLE:	**USGS HYDROLOGIC ATLAS**
SITE:	1655 Powis Road West Chicago, Illinois
FIGURE:	4

N:\2018\18325\Drawings\ArcGIS\Wetland\FIG4hydro18325.mxd

C000782

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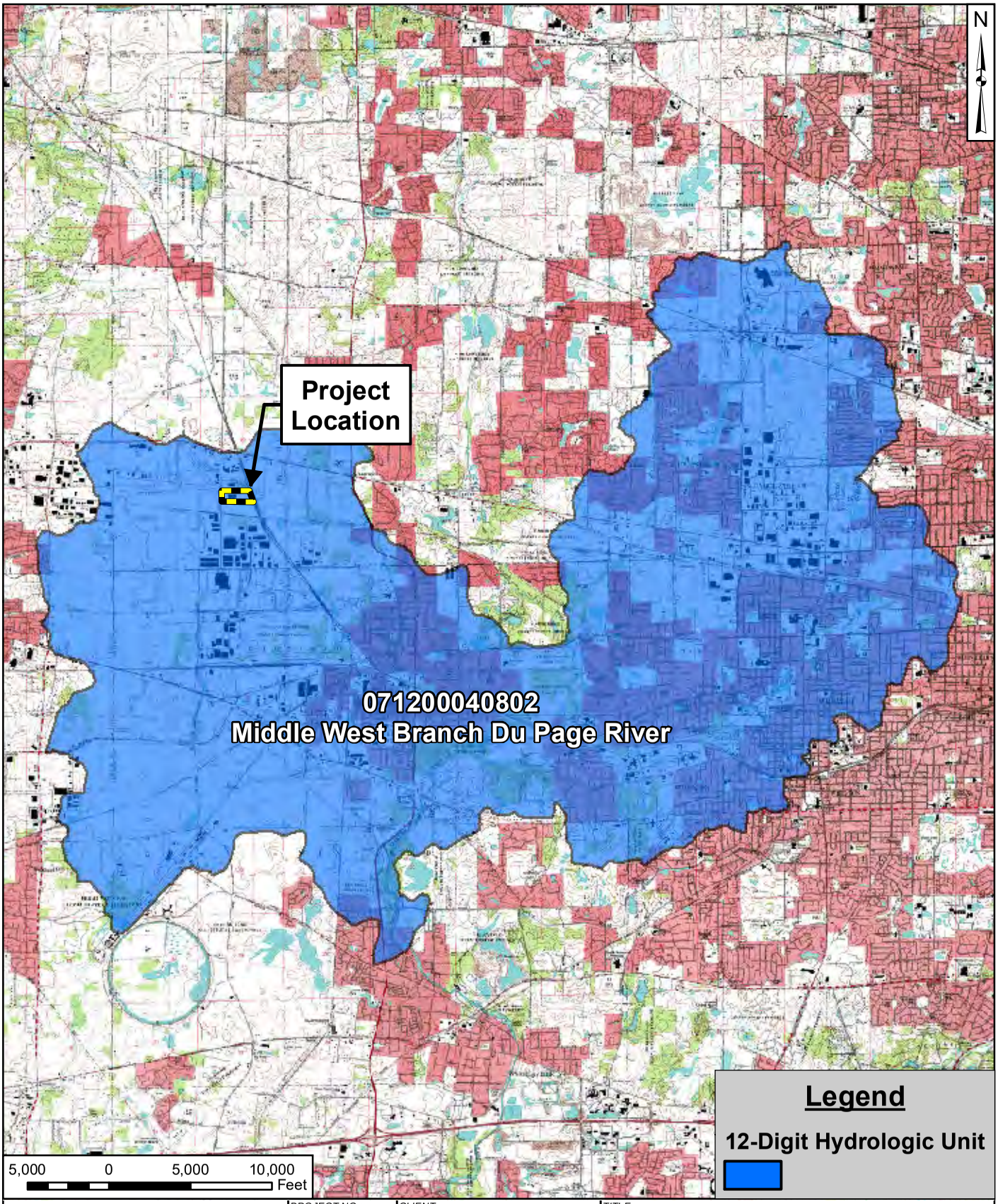

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Woodridge, Illinois 60517
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630.724.9202 fax
www.v3co.com

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PROJECT NO.: 18325

CREATED BY: AMM

DATE: 09/17/2018

SCALE: See Scale Bar

CLIENT: Lakeshore Recycling Systems
6132 Oakton Street
Morton Grove, IL 60053

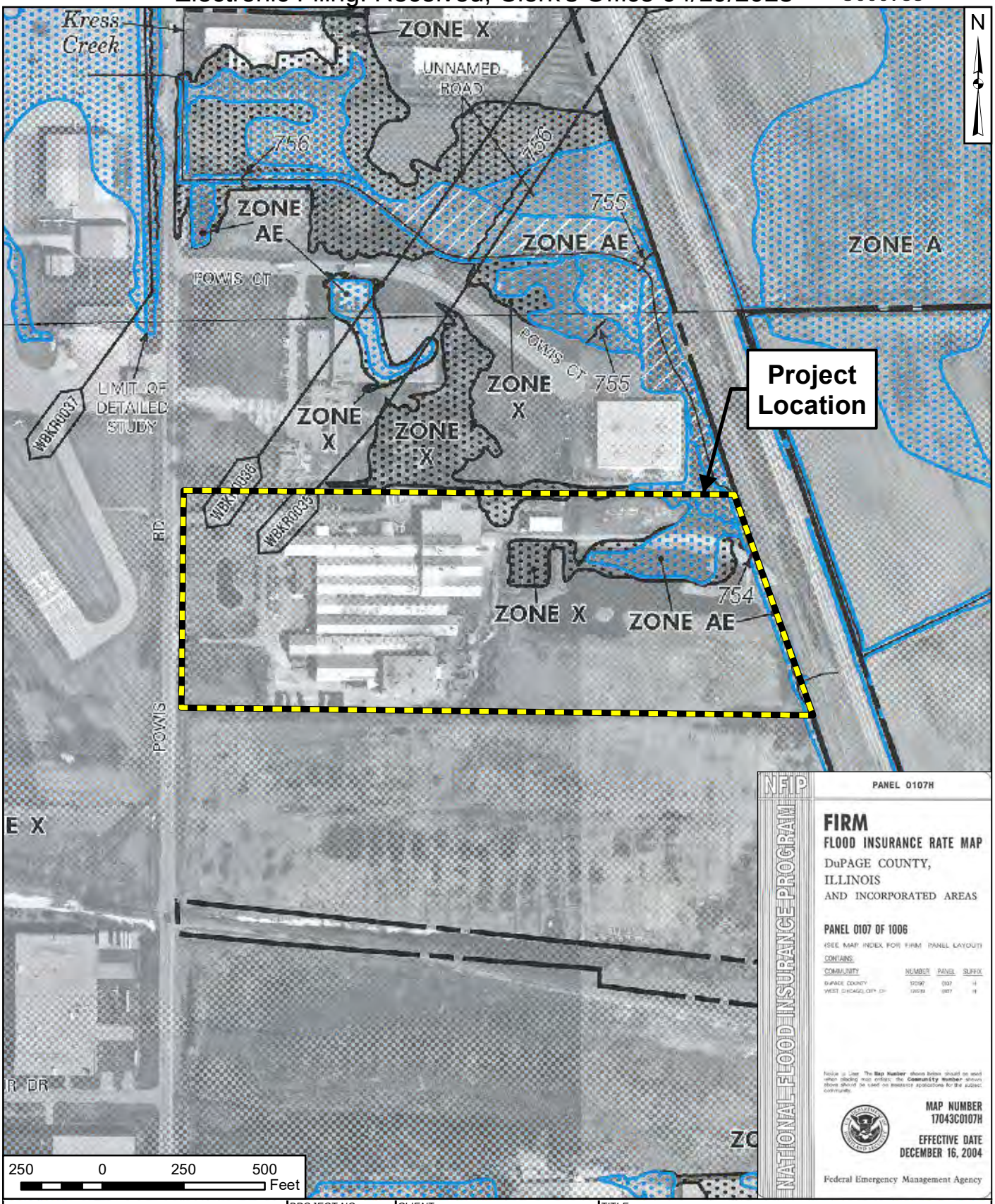
BASE LAYER: USGS Topographic Map
DuPage County, Illinois
(2002)

TITLE: **12-DIGIT HYDROLOGIC UNIT CODE (HUC) MAP**

SITE: 1655 Powis Road
West Chicago, Illinois

FIGURE: 5

N:\2018\18325\Drawings\ArcGIS\Wetland\FIG5huc18325.mxd



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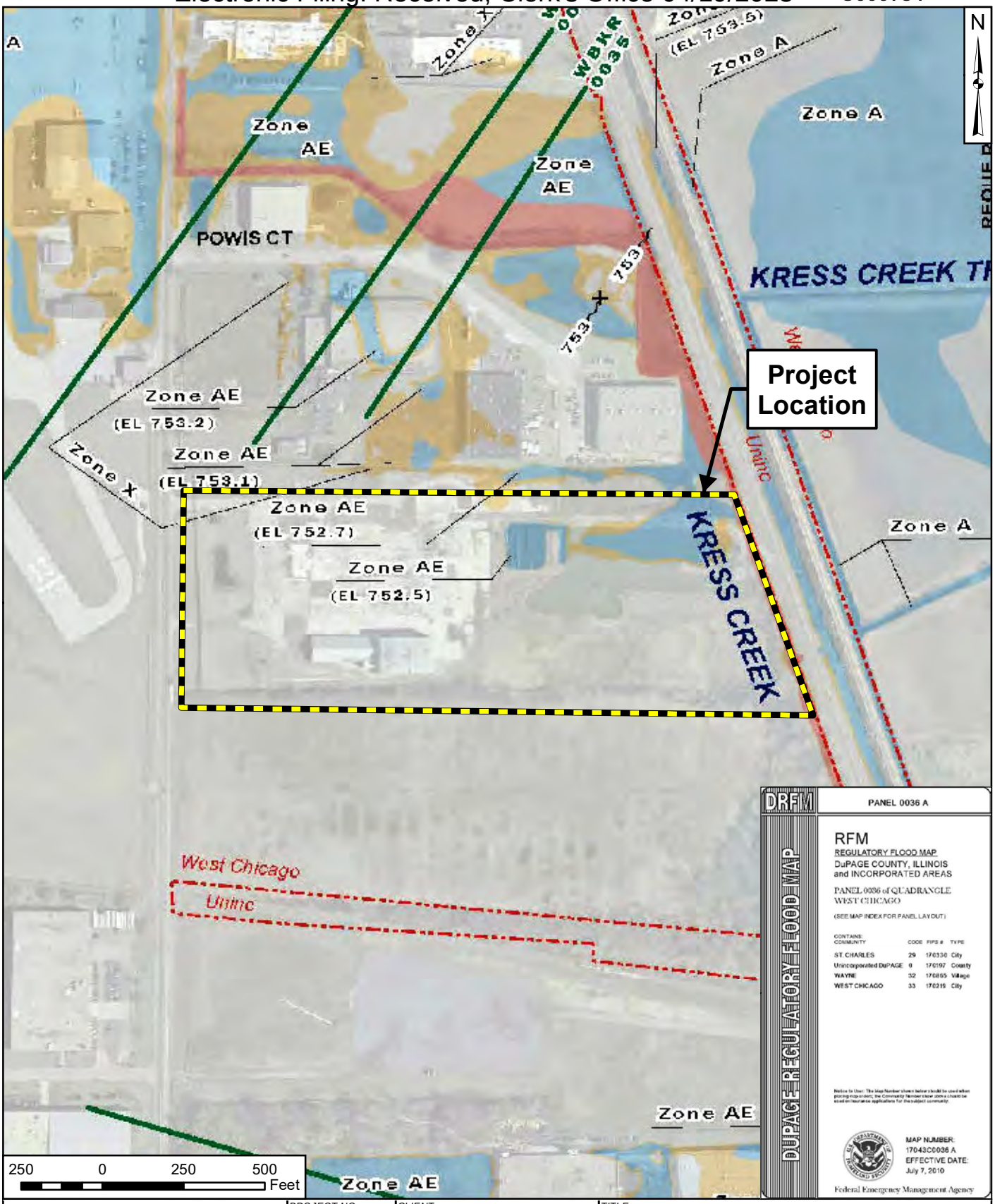
PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/17/2018
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	FEMA FIRM Panel 17043C0107H
TITLE:	**FEMA FLOOD INSURANCE RATE MAP (FIRM)**
SITE:	1655 Powis Road West Chicago, Illinois
FIGURE:	6

N:\2018\18325\Drawings\ArcGIS\Wetland\FIG6firm18325.mxd



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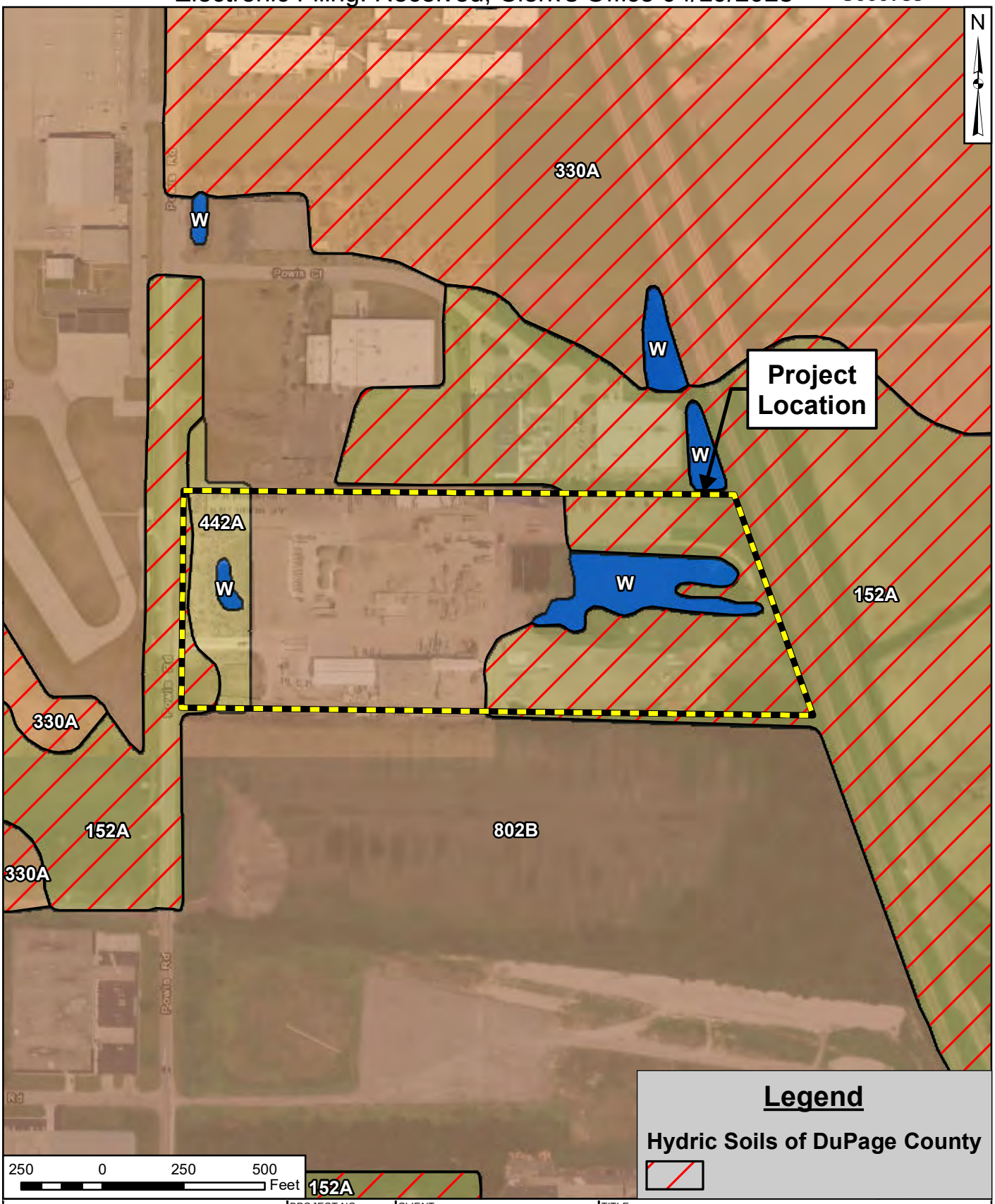
PROJECT NO.: 18325	CLIENT: Lakeshore Recycling Systems, 6132 Oakton Street, Morton Grove, IL 60053	TITLE: **DUPAGE COUNTY REGULATORY FLOOD MAP (RFM)**	
CREATED BY: AMM			
DATE: 09/17/2018	BASE LAYER: DuPage County RFM Panel 17043C0036 A	SITE: 1655 Powis Road, West Chicago, Illinois	FIGURE: 7
SCALE: See Scale Bar			

N:\2018\18325\Drawings\ArcGIS\Wetland\FIG7rfm18325.mxd



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PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/17/2018
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	NAIP Aerial Imagery (2017)
TITLE:	**SOIL SURVEY OF DUPAGE COUNTY, ILLINOIS (2015) MAP**
SITE:	1655 Powis Road West Chicago, Illinois
FIGURE:	8

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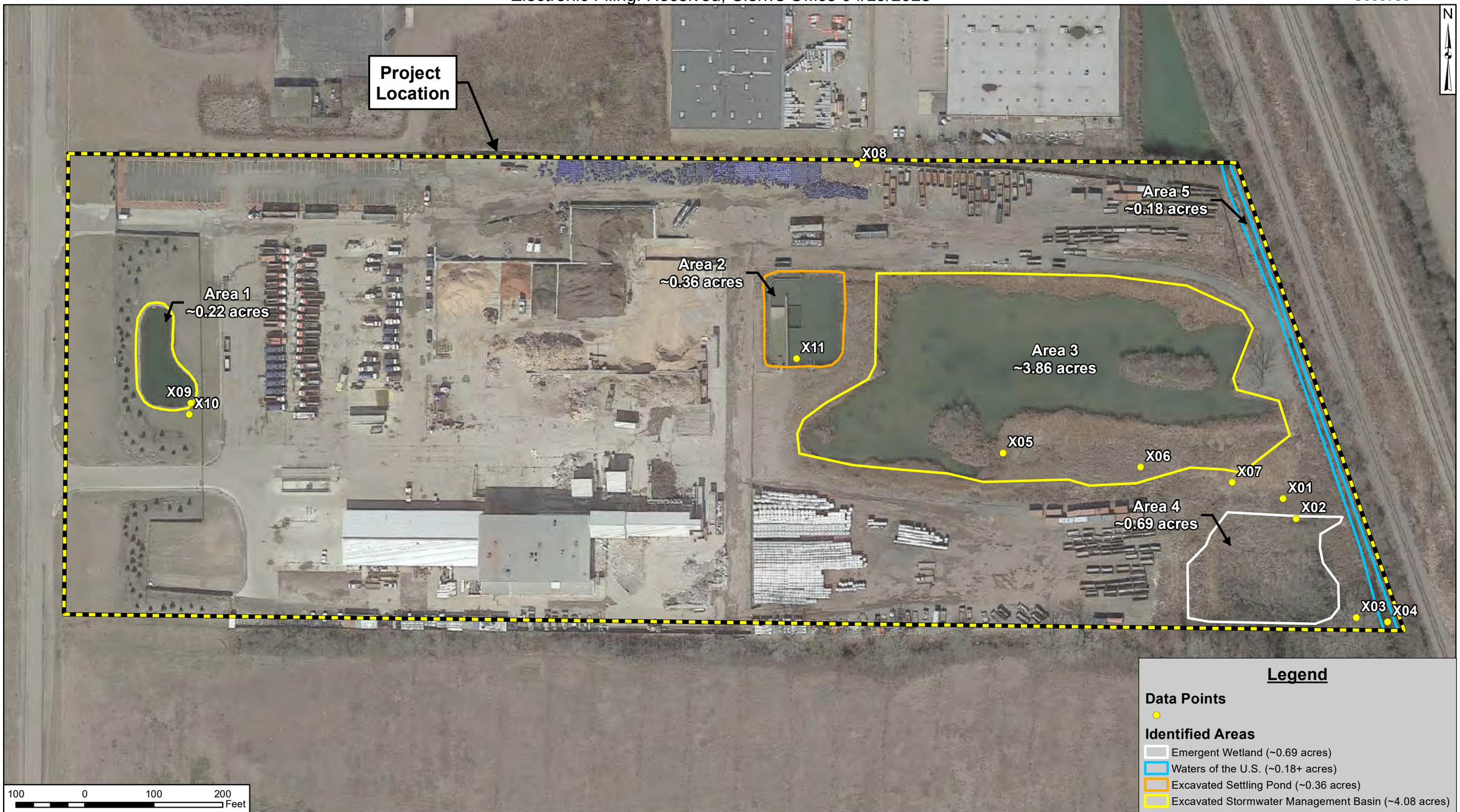

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PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/19/18
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	Google Earth Aerial Imagery (2018)
SITE:	1655 Powis Road West Chicago, Illinois
TITLE:	**WETLAND DELINEATION MAP**
FIGURE:	9

N:\2018\18325\Drawings\ArcGIS\Wetland\FIG9delin18325.mxd

Tab 5

Buffer Submittal
(See Tab 4)

Tab 8

Buffer Restoration Plan

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PROJECT NO.: 18325
CREATED BY: AMM
DATE: 09/12/2019
SCALE: See Scale Bar

CLIENT: Lakeshore Recycling Systems
6132 Oakton Street
Morton Grove, IL 60053

BASE LAYER: Google Earth Aerial Imagery (2018)

TITLE: **BUFFER/FLOODPLAIN RESTORATION PLAN**

SITE: 1655 Powis Road
West Chicago, Illinois

FIGURE: B

N:\2018\18325\Drawings\ArcGIS\Wetland\Buffer Mitigation\FIGBrest18325.mxd

Tab 9

Wetland Buffer Restoration Plan Summary and
Maintenance & Monitoring Plan

WETLAND BUFFER /FLOODPLAIN RESTORATION PLAN SUMMARY AND MAINTENANCE & MONITORING PLAN

PROJECT SITE:

1655 POWIS ROAD
WEST CHICAGO, DUPAGE COUNTY, ILLINOIS

PREPARED FOR:

LAKESHORE RECYCLING SYSTEMS
6132 OAKTON STREET
MORTON GROVE, IL 60053

PREPARED BY:

V3 COMPANIES OF ILLINOIS, LTD.
7325 JANES AVENUE
WOODRIDGE, ILLINOIS 60517

February 20, 2019
Revised: September 16, 2019
Revised: November 6, 2019

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CONSTRUCTION SPECIFICATIONS 1
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EROSION CONTROL BLANKET SPECIFICATIONS 3
MANAGEMENT & MONITORING PLAN 3
WETLAND BUFFER MANAGEMENT 3
PERFORMANCE STANDARDS 4
MONITORING 5

APPENDICES

APPENDIX I EXHIBIT A: EXISTING BUFFER CONDITIONS MAP
APPENDIX II EXHIBIT B: BUFFER RESTORATION PLAN
APPENDIX III ESTIMATE OF PROBABLE COST

INTRODUCTION

The Wetland Buffer Restoration Plan Summary and Management & Monitoring Plan has been prepared on behalf of Mr. K.J. Loerop, of Lakeshore Recycling Systems, 1655 Powis Road, West Chicago, DuPage County, Illinois is located north of Harvester Road, south of North Avenue and east of Powis Road in West Chicago, DuPage County, Illinois (Section 32, 40N, 9E; 41.911444°N, -88.237904°W; West Chicago quadrangle.)

The proposed planting plan for the 50-foot-wide wetland buffer and floodplain associated with the unauthorized activities along the western side of Kress Creek is provided in Appendix 1. Any fill/stone that was placed within the buffer/floodplain will be removed and topdressed with clean topsoil. Any areas disturbed within the buffer/floodplain as a result of fill removal will be seeded with a fast-establishing native seed mix with cover crop (Avena sativa) to promote soil stabilization. Following excavation, topdressing, seeding, and blanketing, pods of native shrubs will be installed along the western side of the buffer as identified on the Buffer/floodplain Restoration Plan.

The vegetation within the 50-foot buffer, and that surrounding the two disturbed /filled areas within the buffer are dominated by non-native invasive species. Species typical of the buffer consist of: reed canary grass (Phalaris arundinacea), common reed (Phragmites australis), common buckthorn (Rhamnus cathartica), honeysuckle (Lonicera tatarica), canada thistle (Cirsium arvense), and burdock (Arctium minus). Pods of hardy native shrubs and fast establishing native seed are proposed to restore any lost function attributed to the buffer/floodplain disturbance.

CONSTRUCTION AND REVEGETATION

CONSTRUCTION SPECIFICATIONS

The specifications listed below are provided to promote construction of a suitable soil condition for desirable vegetation establishment.

1. The Excavation Contractor is required to remove all stone/fill placed within the 50’ wetland buffer and floodplain.
2. All disturbed areas (stone/fill) within the 50’ wetland buffer and floodplain shall be over-excavated a minimum of one foot below the final grade to allow for placement of topdress material, unless a one foot thick topsoil layer is present following excavation to proposed final grade.
3. If topdress material needs to be imported the material shall contain an organic matter content of 3% or more and a clay content of 27% or less.
4. The Excavation Contractor is required to establish a smooth and level surface with clods no greater than 2 inches in diameter, and a surface with minimal compaction.
5. All trash, construction debris, sticks, roots, and other deleterious materials shall be removed from the planting areas.

SHRUB PLANTING SPECIFICATIONS

1. The Planting Contractor shall furnish, transport, and install all shrubs as shown on the plan.
2. Installation of shrubs shall be conducted between April 15 and May 31 or September 15 and October 31 following construction activities.
3. Shrubs shall be well branched, well formed, sound, vigorous, healthy planting material free from disease, sunscald, windburn, abrasion, and harmful insects or insect eggs and having healthy, normal, and undamaged root systems.
4. All shrubs shall be thoroughly watered following installation, to eliminate air pockets around roots, settling, and to soak the surrounding soil.
5. All shrubs shall be properly mulched to beyond the shrub's dripline.
6. All shrubs shall be transported to the site in a covered trailer and/or covered by a landscape tarp to prevent windburn.
7. All shrubs shall be subject to inspection by DuPage County or its representative.
8. Planting holes shall be over excavated to reduce soil compaction around the root ball to promote root growth.
9. Shrubs shall be properly planted with the trunk/root flare slightly above grade.
10. Prior to planting and throughout the first year of establishment the area surrounding the planted shrubs should be weed whipped to minimize vegetation height to reduce light and water competition.
11. At the end of the third year of monitoring, the Planting Contractor shall provide a guarantee that 100% of the proposed shrubs shall be alive and in healthy condition. Survivorship shall be reviewed by the Planting Contractor and DuPage County and/or it's representatives during a site inspection at the end of the third year of monitoring. All replacements shall be for dead and partially dead shrubs, be of the same kind and size as originally planted, and shall be made at no additional cost. Partially dead shrubs are shrubs with greater than 30% of the crown dead.

SHRUB MIX

Shrubs shall be planted in groups of three allowing ample space between plantings to allow species to grow to their heathy mature size. Species from Appendix 2 shall be installed in areas with correct soil and hydrologic conditions for each given species.

NATIVE SEEDING SPECIFICATIONS

1. The seeding contractor shall furnish, transport, and install the prairie seed mix as specified for the respective area shown on the planting plan
2. Seeding activities of the permanent matrices shall be performed after the seedbed has been properly prepared and following shrub installation, as applicable, between March 15 and June 15 or between October 1st and ending when snow cover exceeds a 2-inch depth or areas are covered with ice.
3. If construction activities are finished outside the permanent seeding window, then the area shall be stabilized with the temporary cover crop. Erosion control blanket shall not be installed during

this time as it will interfere with permanent seeding. The permanent seeding and erosion control blanket installation must be completed in the next available window.

4. Seed shall be surface sown with a broadcast seeder or native drop seeder.
5. All seed sources shall be within a 200-mile radius of the project site.
6. Seeds shall be true to name and variety.
7. Seeding shall only occur in areas that will receive blanket installation on the same day

EROSION CONTROL BLANKET SPECIFICATIONS

North American Green (NAG) S75BN shall be installed over all disturbed areas within the 50' wetland buffer/floodplain. All areas to be blanked shall be broadcast seeded with the specified native seed mix (Appendix 2) and lightly raked in to promote good seed/soil contact. The blanket shall be installed and secured with staples following the manufacture's specifications.

MANAGEMENT & MONITORING PLAN

This Buffer Restoration Plan Summary & Management and Monitoring Plan (MMP) for the wetland buffer/floodplain located at 1655 Powis Road establishes a means by which the naturalized buffer may be evaluated relative to pre-established goals and performance standards.

The duration of the monitoring program is three years, beginning with the completion of shrub installation, native seeding, and erosion control. The three-year management and monitoring program will be the responsibility of the applicants, Lakeshore Recycling Systems of 6132 Oakton Street, Morton Grove, DuPage County Illinois, or their successors and assigns.

WETLAND BUFFER MANAGEMENT

Proper management is critical for successful establishment of the proposed buffer/floodplain community. Irrigation and periodic mowing of surrounding vegetation are commonly used as management techniques for shrub establishment.

Mowing/Herbicide. During shrub installation the footprint of each shrub shall be weed whipped as low as possible to help the shrubs establish by reducing competition for water and light. Following installation, the mulched area around the shrubs shall be kept clean of vegetation by herbicide application, hand pulling and/or weed whipping, as well as the area directly next to the mulch shall be weed whipped to limit vegetation height. If herbicide is used, great care needs to be taken to limit any and all overspray and/or vapor drift so as to not adversely affect the health of the planted shrubs. In order to maintain surrounding vegetation height mowing/herbicide application shall take place in approximately six-week intervals during the growing season.

First Year Watering. Following the initial watering in of the shrubs directly after installation a watering schedule shall be implemented. Watering shall be conducted on a weekly basis (weather dependent) for a three-month period following the last installation date and/or as needed to limit desiccation and achieve maximum survivorship within the first year of establishment.

Pruning and Shrub Maintenance. During the first year of establishment if the restoration contractor feels maintenance activities such as but not limited to pruning or fertilization will improve shrub health these adaptive activities can be incorporated into the management plan.

Herbicide Application. Management of the vegetation in all areas should include selective application of herbicide to control aggressive plant species, such as, but not limited to, reed canary grass (Phalaris arundinacea), purple loosestrife (Lythrum salicaria), common reed (Phragmites australis), thistles (Cirsium spp.), teasel (Dipsacus spp.), and sweet clovers (Melilotus spp.). These species, including others, can displace desirable species, thereby reducing floristic diversity in the naturalized areas. Controlling these species will be required to achieve the performance standards for the project.

A determination regarding the type of herbicide to be used should be made when it is known which nuisance species are present on the site. Depending on the target weed species, a selective herbicide may be available. The choice of herbicide and timing of herbicide application will be made by a trained, experienced professional based on the target weed species and conditions.

It is recommended that a minimum of four annual weed control application periods are conducted throughout the three-year period. Below is a general guideline on the suggested schedule and target species for the application periods:

- Application Period One (early spring – April/May): problematic species such as, but not limited to, reed canary grass, red/white clover, cool season adventive grasses.
- Application Period Two (late spring to early summer – May/June): problematic species such as, but not limited to, teasel, white/yellow sweet clover, thistle.
- Application Period Three (mid to late summer – July/August): problematic species such as, but not limited to, tall goldenrod, hairy aster, ragweed, purple loosestrife.
- Application Period Four (late summer and fall – September/October): problematic species such as, but not limited to, reed canary grass, thistle, common reed, red/white clover, cool season grasses.

PERFORMANCE STANDARDS

Performance standards are established for all proposed projects involving naturalized areas so that the relative success of creation and enhancement efforts may be evaluated. If the performance standards are not achieved by the end of the one-year management and monitoring program, the permittee is responsible for correction of any deficiencies through further management activities, which may include replanting.

Wetland Buffer Performance Standards

1. Within 3 months of native seed installation, at least 85% of the buffer/floodplain area, as measured by aerial coverage, shall be vegetated with native seed and/or cover crop. A minimum 90% vegetative coverage shall be maintained throughout, and at the end of the three-year management period.

2. At the end of the first year of the monitoring period, all seeded areas shall achieve a minimum of 10% native coverage. None of the three most dominant species can be non-naïve and/or invasive.
3. At the end of the first growing season 100% of the planted shrubs shall be alive and in healthy condition. Any trees to be replaced shall have an additional 1-year survivorship assed on them.
4. At the end of the second year of the monitoring period, all seeded areas shall achieve a minimum 25% native vegetative coverage. None of the three most dominant species can be non-naïve and/or invasive.
5. At the end of the third year of the monitoring period, all seeded areas shall achieve a minimum 75% native vegetative coverage. None of the three most dominant species can be non-naïve and/or invasive.
6. At the end of the third year of monitoring period the shrub and seeded areas as a whole shall achieve a Floristic Quality Index of 15 or greater.

MONITORING

Vegetation Monitoring. Vegetation monitoring in the wetland buffer/floodplain will be conducted during the three-year period beginning immediately after seed and shrub installation. Ocular estimation will be used to calculate approximate vegetative and species coverage data. The vegetative monitoring inspections will be conducted twice per year (May/June and August/September). In addition, an inventory of all plant species present within the seeded areas will be collected and will be used to calculate a native FQI and determine seed mix presence. The planting plan will be used to identify planting areas as well as species to determine the survivorship of the planted shrubs at the end of the first growing season.

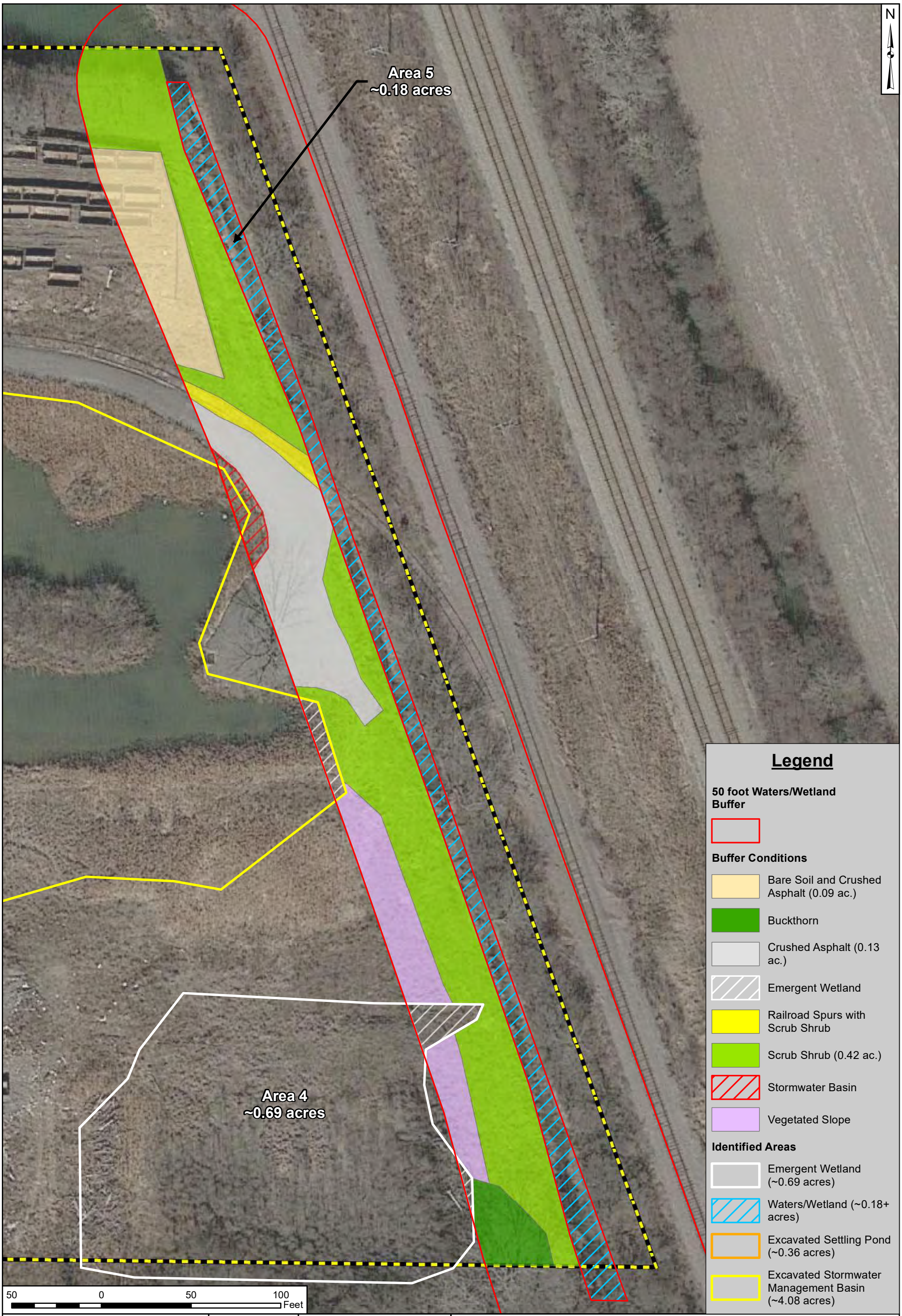
Monitoring Report. An end of growing season memo will be submitted to DuPage County SWM by January 31 of each year during the three-year period or until performance standards are met and signoff is achieved.

The end of growing season memo must include a review of site progression towards meeting the performance standards or if performance standards are met. More specifically, the memo must contain the following information, which will be based on data collected during the first growing season.

1. A summary of management activities conducted during the year.
2. Representative photographs depicting general site conditions and construction/planting activities.
3. Shrub survivorship by area and species as indicated on the planting plan.
4. Provide aerial coverage of the seeded cover crop areas and phot documentation.
5. Identify species and areas to be re-planted of 100% survivorship is not achieved within the first growing season.
6. Complete species list of planted/seeded areas as well as native FQI.
7. Evaluate the status of the areas relative to the performance standards.

APPENDIX I

EXHIBITS



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PROJECT NO.: 18325

CREATED BY: AMM

DATE: 11/26/2018

SCALE: See Scale Bar

CLIENT: Lakeshore Recycling Systems
6132 Oakton Street
Morton Grove, IL 60053

BASE LAYER: Google Earth Aerial Imagery (2018)

TITLE: **EXISTING BUFFER CONDITIONS MAP**

SITE: 1655 Powis Road
West Chicago, Illinois

FIGURE: A

N:\2018\18325\Drawings\ArcGIS\Wetland\FIG10buff18325.mxd

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PROJECT NO.:	18325
CREATED BY:	AMM
DATE:	09/12/2019
SCALE:	See Scale Bar
CLIENT:	Lakeshore Recycling Systems 6132 Oakton Street Morton Grove, IL 60053
BASE LAYER:	Google Earth Aerial Imagery (2018)
TITLE:	**BUFFER/FLOODPLAIN RESTORATION PLAN**
SITE:	1655 Powis Road West Chicago, Illinois
FIGURE:	B

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Electronic Filing: Received, Clerk's Office 04/19/2023
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APPENDIX II

NATIVE SEED AND SHRUB MIXES

PRAIRIE SEED MIX (0.22 ac)			
Type	Species	Common Name	Seeding Rate (lbs/ac)
Forbs	*Aster laevis*	Smooth Blue Aster	0.250
	Aster novae-angliae	New England Aster	0.250
	Astragalus canadensis	Canadian Milk Vetch	0.250
	Cassia fasciculata	Partridge Pea	0.250
	Coreopsis lanceolata	Sand Coreopsis	0.125
	Coreopsis tripteris	Tall Coreopsis	0.125
	Desmodium illinoense	Illinois Tick-Trefoil	0.125
	Echinacea pallida	Pale Purple Coneflower	0.125
	Echinacea purpurea	Broad-leaved Pur. Coneflower	0.300
	Eryngium yuccifolium	Rattlesnake Master	0.125
	Heliopsis helianthoides	False Sunflower	0.188
	Monarda fistulosa	Wild Bergamot	0.188
	Lespedeza capitata	Round-Headed Bush Clover	0.125
	Penstemon digitalis	Foxglove Beard Tongue	0.188
	Petalostemum purpureum	Purple Prairie Clover	0.125
	Ratibida pinnata	Yellow Coneflower	0.250
	Rudbeckia hirta	Black-eyed Susan	0.250
	Rudbeckia subtomentosa	Sweet Black-eyed Susan	0.250
	Silphium perfoliatum	Cup Plant	0.125
	Tradescantia ohiensis	Ohio Spiderwort	0.125
	Vernonia fasciculata	Ironweed	0.188
	Zizia aurea	Golden Alexanders	0.125
		sub total	4.052
Grasses & Sedges	*Andropogon scoparius*	Little Bluestem	5.000
	Andropogon gerardii	Big Bluestem	4.000
	Bouteloua curtipendula	Side-oats Grama	7.000
	Carex bicknellii	Bicknells Sedge	0.125
	Carex brevior	Shorter Sedge	0.125
	Carex molesta	Field Oval Sedge	0.125
	Carex vulpinoidea	Fox Sedge	0.250
	Elymus canadensis	Canada Wild Rye	3.000
	Elymus virginicus	Virginia Wild Rye	3.000
	Panicum virgatum	Switch Grass	1.500
		sub total	24.125
		Total Permanent Species:	**28.177**
Cover	*Avena sativa*	Seed Oats	32.000

SHRUB SPECIES PLANTING LIST (18 Total)		
Scientific Name	Common Name	Size
Amerlanchier interior	Juneberry	5 Gallon Container
Cephalanthus occidentalis	Buttonbush	5 Gallon Container
Cornus serices	Red-Twid Dogwood	5 Gallon Container
Euonymus atropurpureus	Wahoo	5 Gallon Container
Physocarpus opulifolius	Ninebark	5 Gallon Container
Sambucus nigra	Elderberry	5 Gallon Container
Viburnum lentago	Nannyberry	5 Gallon Container
Viburnum prunifolium	Blackhaw	5 Gallon Container

APPENDIX III

OPINION OF PROBABLE COST FOR NATIVE PLANTINGS, MAINTENANCE & MONITORING

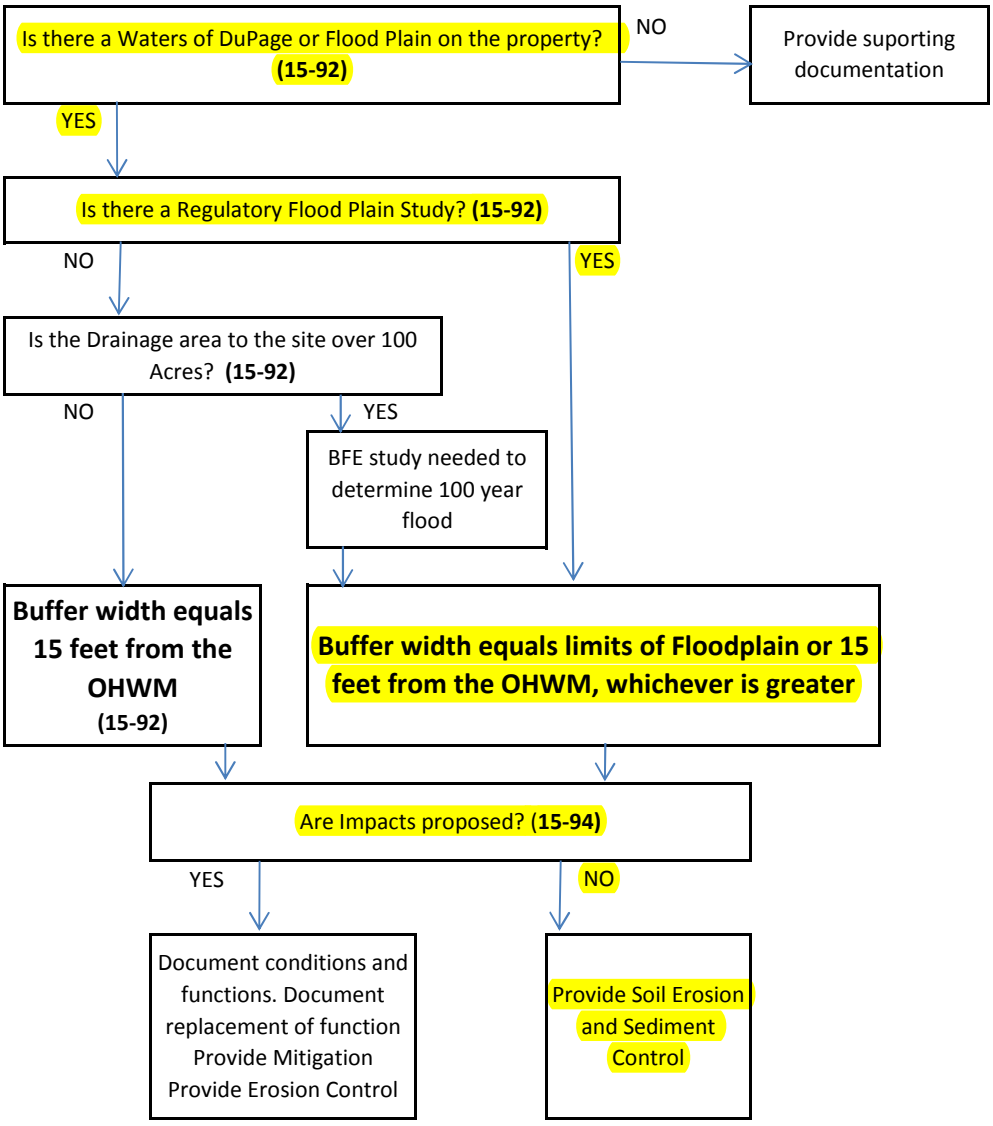
OPINION OF PROBABLE COST				
1655 Powis Road Wetland Buffer Planting, Maintenance, Monitoring, & Reporting West Chicago, DuPage County, Illinois				
	Quantity	Units	Price	Cost
1.0 Native Shrub Installation	18	LS	$ 4,675.00	$ 4,675.00
2.0 Erosion Control Blanket	0.25AC	LS	$ 2,875.00	$ 2,875.00
3.0 Prairie Seeding	0.25AC	LS	$ 1,525.00	$ 1,525.00
4.0 Irrigation and Maintenance	30	Each	$ 200.00	$ 6,000.00
5.0 Monitoring and Reporting	3	Each	$ 1,900.00	$ 5,700.00
6.0 3-Year Weed Control	3	Year	$ 2,750.00	$ 8,250.00
7.0 Split Rail Fence	410	Feet	$ 22.00	$ 9,020.00
			TOTAL	**$ 38,045.00**

TAB 5

WATERWAY BUFFER

TAB 5--RIPARIAN BUFFER

3/4/2015



TAB 5. WATERWAY BUFFER

There are identified waters of DuPage and/or flood plain on the property, as identified on Drawing C100 - Existing Site Conditions (Tab 8, Attachment 8-1). Per Section 15-92 of the Ordinance, a regulatory flood plain study has been completed. No impacts are proposed to the defined flood plains. The wetland buffer of Kress Creek will being re-established in accordance with the V3 report included as Attachment 4-1 in Tab 4. Soil erosion and sediment controls, both during and post-construction, will be provided, as discussed in Tabs 6 and 7. Refer to Attachment 4-1 for more information regarding buffers and restoration. Figure B in Attachment 4-1 provides the Buffer Restoration Plan.

TAB 6

POST-CONSTRUCTION BEST MANAGEMENT PRACTICES

Information for this tab intentionally omitted.

TAB 7

STORMWATER EROSION AND SEDIMENT CONTROLS

Information for this tab intentionally omitted.

TAB 8

MAPS

TAB 8. MAPS

The following maps, figures, plans, and drawings have been provided in this submittal. Plans and drawings are provided to standard engineering scale.

ID	Title	Location in Report
Figure 2-1	Stormwater Facilities Map	Tab 2
V3 Figure 1	Project Location Map	Tab 4, Attachment 4-1
V3 Figure 2	National Wetlands Inventory Map	Tab 4, Attachment 4-1
V3 Figure 3	DuPage County Wetlands Map	Tab 4, Attachment 4-1
V3 Figure 4	USGS Hydrologic Atlas	Tab 4, Attachment 4-1
V3 Figure 5	12-Digit Hydrologic Unit Code (HUC) Map	Tab 4, Attachment 4-1
V3 Figure 6	FEMA Flood Insurance Rate Map (FIRM)	Tab 4, Attachment 4-1
V3 Figure 7	DuPage County Regulatory Flood Map (RFM)	Tab 4, Attachment 4-1
V3 Figure 8	Hydric Soils of DuPage County	Tab 4, Attachment 4-1
V3 Figure 9	Wetland Delineation Map	Tab 4, Attachment 4-1
V3 Figure A	Existing Buffer Conditions Map	Tab 4, Attachment 4-1
V3 Figure B	Buffer Restoration Plan	Tab 4, Attachment 4-1
Plan Set	Construction Drawings	Tab 8, Attachment 8-1
C000	Cover Sheet	
C100	Existing Site Conditions Overall	
C101	Existing Site Conditions West	
C102	Existing Site Conditions East	
C103	Demolition Plan West	
C104	Demolition Plan East	
C200	Site Plan Overall	
C201	Site Plan West	
C202	Site Plan East	
C203	Paving and Geometric Plan West	
C204	Paving and Geometric Plan East	
C300	Grading and Drainage Plan West	
C301	Grading and Drainage Plan East	
C500	Utilities West	
C501	Utilities East	
C600	Soil Erosion, Sediment Control and Restoration Plan West	
C601	Soil Erosion, Sediment Control and Restoration Plan East	
C900	Details	

ID	Title	Location in Report
C901	Details	
C902	Details	
C903	Details	
C904	Site Specifications	
C905	Site Specifications	
C906	Site Specifications	
L1.0	Final Landscape Plan	
L1.1	Final Landscape Plan	
L2.0	Landscape Notes and Details	
PH1.0	Photometric Plan	
PH1.1	Photometric Details	

As-built drawings signed and sealed by either a professional engineer or a professional land surveyor, as appropriate, will be provided upon completion of construction.

Electronic Filing: Received, Clerk's Office 04/19/2023

C000814

LAKESHORE RECYCLING SYSTEMS, LLC

WEST DuPAGE RECYCLING & TRANSFER FACILITY

1655 POWIS ROAD
WEST CHICAGO, ILLINOIS
SITE IMPROVEMENT PLANS

LEGEND

- STORM MANHOLE
- CATCH BASIN
- INLET
- FLARED END SECTION
- STORM STRUCTURE NOT LOCATED
- SANITARY MANHOLE
- CLEAN OUT
- WATER MANHOLE
- WATER VALVE
- FIRE HYDRANT
- POWER POLE
- LIGHT POLE
- ELECTRIC BOX
- AC UNIT
- ELECTRIC CONTROL CABINET
- ELECTRIC TRANSFORMER
- GAS METER
- FIBER OPTIC PULL BOX
- BOLLARD
- STALL COUNT
- × 644.25 SPOT GRADE
- CONIFEROUS BUSH
- DECIDUOUS TREE
- PROPERTY LINE
- EASEMENT LINE
- ADJACENT RIGHT–OF–WAY (APPROX.)
- SETBACK LINE
- CONTOUR W/ ELEVATION
- ST — STORM SEWER
- SAN — SANITARY SEWER
- W — 8" DIP WATER LINE (UNCONFIRMED)
- UG–E — BURIED ELEC. LINE
- RAILROAD TRACKS
- WOOD FENCE
- CHAIN LINK FENCE
- WIRE/METAL FENCE
- 100–YR FIS BFE=752.25
- 10–YR FIS BFE=751.50
- WETLAND BUFFER
- DELINEATED POND/WETLAND
- ST — PROPOSED STORM SEWER
- SAN — PROPOSED SANITARY SEWER
- W — PROPOSED WATER SERVICE
- G — PROPOSED GAS
- UG–E — PROPOSED ELECTRIC
- COMM — PROPOSED COMMUNICATIONS
- × 644.25 PROPOSED SPOT GRADE
- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- SF — SF — PROPOSED SILT FENCE
- OCF — PROPOSED ORANGE CONSTRUCTION FENCE
- PROPOSED COIR LOG DITCH CHECK
- PROPOSED RIPRAP
- PROPOSED CATCH BASIN
- PROPOSED INLET
- PROPOSED SANITARY MANHOLE
- PROPOSED CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED GAS METER
- PROPOSED ELECTRIC METER
- PROPOSED OIL WATER SEPARATOR
- PROPOSED STALL COUNT
- PROPOSED FLARED END SECTION
- PROPOSED EROSION CONTROL BLANKET
- PROPOSED WETLAND BUFFER VEGETATION
- PROPOSED INLET PROTECTION
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED LIGHT DUTY PAVEMENT
- * DEMO CONCRETE PAVEMENT
- * DEMO ASPHALT PAVEMENT
- * DEMO MIXED AGGREGATE PAVEMENT
- * DEMOLITION LINEAR FEATURE

* DEMO HATCH ON SHEETS C103 & C104 ONLY

COUNTY MAP SOURCE:
ILLINOIS STATE GEOLOGICAL SURVEY

LOCATION KEY MAP

NOT TO SCALE

SOURCE: GOOGLE EARTH , IMAGE DATE 03/17/2018

SITE MAP

SCALE: 1" = 200'

LOCATION: SECTION 32, TOWNSHIP 40N, RANGE 9E

LIST OF DRAWINGS

C000 COVER SHEET
C100 EXISTING SITE CONDITIONS OVERALL
C101 EXISTING SITE CONDITIONS WEST
C102 EXISTING SITE CONDITIONS EAST
C103 DEMOLITION PLAN WEST
C104 DEMOLITION PLAN EAST
C200 SITE PLAN OVERALL
C201 SITE PLAN WEST
C202 SITE PLAN EAST
C203 PAVING AND GEOMETRIC PLAN WEST
C204 PAVING AND GEOMETRIC PLAN EAST
C300 GRADING AND DRAINAGE PLAN WEST
C301 GRADING AND DRAINAGE PLAN EAST
C500 UTILITIES WEST
C501 UTILITIES EAST
C600 SOIL EROSION, SEDIMENT CONTROL AND RESTORATION PLAN WEST
C601 SOIL EROSION, SEDIMENT CONTROL AND RESTORATION PLAN EAST
C900 DETAILS
C901 DETAILS
C902 DETAILS
C903 DETIALS
C904 SITE SPECIFICATIONS
C905 SITE SPECIFICATIONS
C906 SITE SPECIFICATIONS
L1.0 FINAL LANDSCAPE PLAN
L1.1 FINAL LANDSCAPE PLAN
L2.0 LANDSCAPE NOTES AND DETAILS
PH1.0 PHOTOMETRIC PLAN
PH1.1 PHOTOMETRIC DETAILS

SITE DEVELOPMENT ZONING DATA

NET SITE ACREAGE:	27.75 ACRES
ZONING:	M – PLANNED UNIT DEVELOPMENT(PUD)
ZONING TO THE NORTH:	M
ZONING TO THE WEST:	A
ZONING TO THE SOUTH:	A
ZONING TO THE EAST:	ER–1 (UNION PACIFIC RR)
SETBACKS:	REQUIRED
FRONT:	40 FEET
SIDE: (M,A)	9 & 15 FEET
REAR: (NON–RESIDENTIAL)	20 FEET

PROJECT CONTACT INFORMATION

SITE OPERATOR
LAKESHORE RECYCLING SYSTEMS, LLC
PH: (708) 774–9301
CONTACT: RICHARD GOLF

SURVEYOR
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
1203 E. DIEHL ROAD, SUITE 200
NAPERVILLE, IL 60563
PH: (630) 963–6026
FX: (630) 963–6027
CONTACT: DOUGLAS MCCLINTIC, P.L.S.

VILLAGE
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293–2255
MAYOR: RUBEN PINEDA
PUBLIC WORKS: ROBERT FLATTER
COMMUNITY DEVELOPMENT: TOM DABAREINER
ENGINEER: STEVE PERTZBORN

CIVIL ENGINEER
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
1203 E. DIEHL ROAD, SUITE 200
NAPERVILLE, IL 60563
PH: (630) 963–6026
FX: (630) 963–6027
CONTACT: DAVID A. KAMANO, P.E., LEED AP

UTILITY COMPANIES

ELECTRIC SERVICE
COMED
PH: (877)–426–6331

SANITARY
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293–2255
PUBLIC WORKS: ROBERT FLATTER

GAS
NICOR
PH: (888) 642–6748

WATER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293–2255
PUBLIC WORKS: ROBERT FLATTER

STORM SEWER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293–2255
PUBLIC WORKS: ROBERT FLATTER

PERFORMANCE STANDARDS

THESE SITE IMPROVEMENTS SHALL MEET THE PERFORMANCE STANDARDS OF THE CITY OF WEST CHICAGO AND DUPAGE COUNTY.

BENCHMARKS

BM 1
"+"CUT, CONTROL POINT 8
ELEVATION = 756.28 (NAVD 88)

BM 2
REBAR, CONTROL POINT 5
ELEVATION = 758.60 (NAVD 88)

BM 3
REBAR, CONTROL POINT 6
ELEVATION = 755.04 (NAVD 88)

DUPAGE CO. PID DK 3273
aka WEST CHICAGO WC105
BRASS DISK, NE CORNER OF POWIS ROAD
AND POWIS COURT
ELEVATION = 757.10 (NAVD 88)

DUPAGE CO. PID DK3275
aka WEST CHICAGO WC 160
BRASS DISK, W SIDE HOWARD DRIVE 300' S OF
HOWARD DRIVE.
ELEVATION = 751.73 (NAVD 88)

BASIS OF BEARING

THE HORIZONTAL DATUM IS THE ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE NAD 83 AND THE VERTICAL DATUM IS NAVD 88.

PROJECT NARRATIVE

LAKESHORE RECYCLING SYSTEMS IS PROPOSING TO IMPROVE THE EXISTING CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING FACILITY BY RECONFIGURING OUTSIDE STORAGE AND OPERATIONAL AREAS, PAVING OUTSIDE STORAGE AND OPERATIONAL AREAS, ADDING AND IMPROVING EXISTING PARKING, EXPANDING THE MAIN SORTING BUILDING EASTWARD AND NORTHWARD (INCLUDING THE ADDITION OF A LOADING PIT AND WEIGH SCALES), ADDING A PREVIOUSLY APPROVED SECOND SCALE ADJACENT TO THE EXISTING SCALE, AND ADDING A NEW PORTA–LET CLEANING AND MAINTENANCE BUILDING.

ENGINEER'S CERTIFICATE

STATE OF ILLINOIS }
} S.S.
COUNTY OF DUPAGE }

I, DAVID A. KAMANO, AN ILLINOIS PROFESSIONAL ENGINEER, DO HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC., ILLINOIS LICENSED PROFESSIONAL DESIGN FIRM NO. 184.004002, LICENSE EXPIRES APRIL 30, 2021, UNDER MY PERSONAL DIRECTION FOR THE EXCLUSIVE USE OF THE CLIENT NOTED HEREON. REPRODUCTION OR USE BY THIRD PARTIES IS STRICTLY PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE UNDERSIGNED.

GIVEN UNDER MY HAND AND SEAL AT NAPERVILLE, ILLINOIS, THIS ??? DAY OF APRIL, 2019.

DAVID A. KAMANO
ILLINOIS PROFESSIONAL ENGINEER NO. 062.057977
LICENSE EXPIRES NOVEMBER 30, 2019.
*HAND SIGNATURE ON FILE

Call Before You Dig
JULIE ILLINOIS ONE-CALL SYSTEM

ILLINOIS LAW REQUIRES ANYONE DIGGING TO CALL JULIE AT 1–800–892–0123 AT LEAST 48 HOURS/TWO WORKING DAYS PRIOR TO THE START OF EXCAVATION AND THE PROJECT MUST BEGIN WITHIN 14 CALENDAR DAYS FROM THE CALL.

DAVID A. KAMANO
57977
LICENSED PROFESSIONAL ENGINEER
OF
ILLINOIS

REVISION RECORD

NO	DATE	DESCRIPTION
1	05/07/2019	CITY AND COUNTY REVIEW COMMENTS
2	11/05/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC
WEST DUPAGE RECYCLING & TRANSFER
1655 POWIS ROAD
WEST CHICAGO, IL

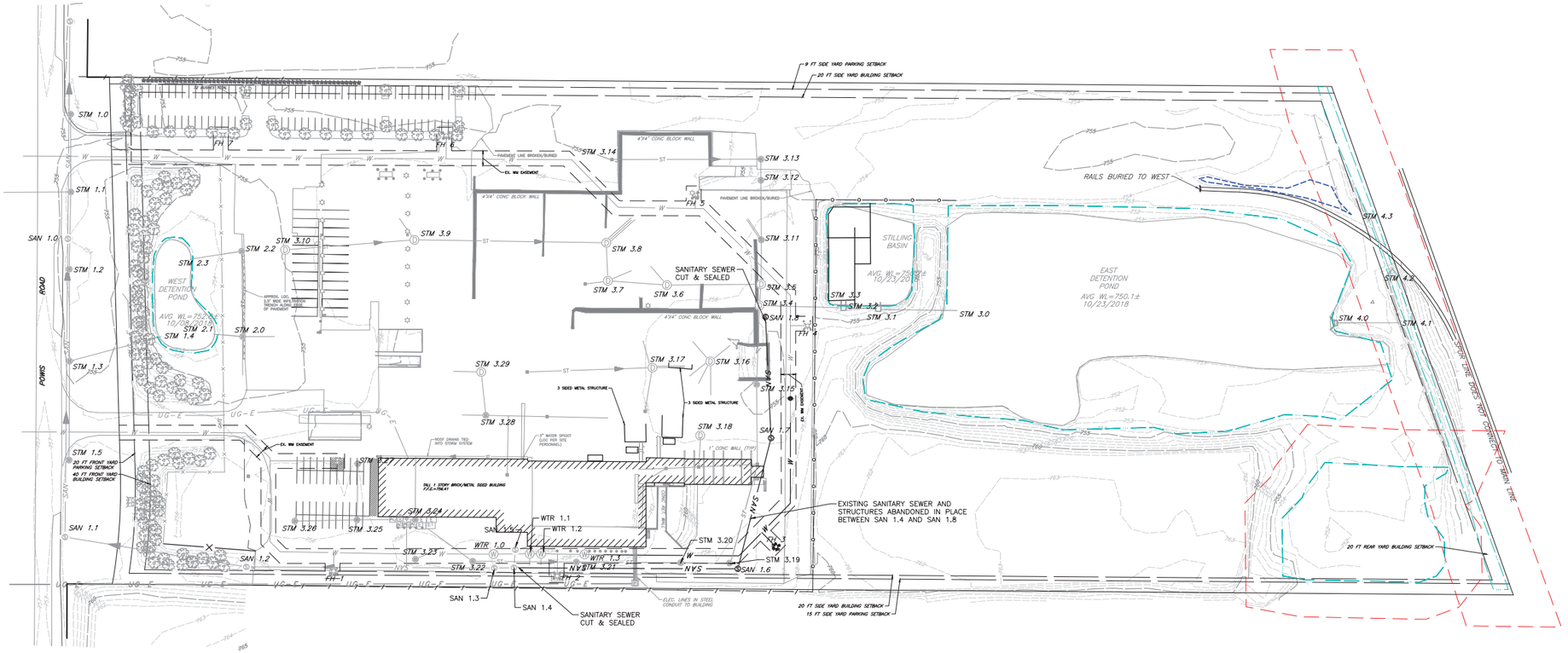
COVER SHEET

DATE:	04/02/2019
DRAWN BY:	S.N/CP/V
CHECKED BY:	DAK
DWG SCALE:	NTS
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

DRAWING NO.:
C000
SHEET 1 OF 26

P:\2016\163-899\~CAD\Dwg\C004-Construction Plan Set\163899-C004-C000-Cover Sheet.dwg[C000] LS[11/6/2019 - mkeel] - LP: 11/6/2019 12:44 PM

NORTH



UTILITY STRUCTURE LIST

SANITARY

SAN 1.0 SANITARY MANHOLE
RIM=754.04
12" PVC S/N INV=743.34
(FLOW N)

SAN 1.1 SANITARY MANHOLE
RIM=755.78
12" PVC N INV=744.28
8" PVC E INV=744.28
(FLOW N)

SAN 1.2 SANITARY MANHOLE
RIM=756.41
8" PVC E/MNW INV=745.01

SAN 1.3 SANITARY MANHOLE
RIM=756.15
BOTTOM OF STRUCTURE INV=746.50

SAN 1.4 SANITARY MANHOLE
RIM=756.13
8" PVC E/W INV=746.53
6" PVC N INV=748.13

SAN 1.5 SANITARY MANHOLE
RIM=756.38
6" PVC N/E INV=751.88
6" PVC S INV=750.28

SAN 1.6 MANHOLE
ABANDONED BELOW GRADE

SAN 1.7 MANHOLE
ABANDONED BELOW GRADE

SAN 1.8 MANHOLE
RIM=755.41
UNKNOWN USE, FILLED WITH WATER

WATER

WTR 1.0 VALVE VAULT
RIM=756.08
E/W T/P=750.28
FILLED W/WATER

WTR 1.1 VALVE VAULT
RIM=756.36
PIPE RUNS N/S & E/W T/P=750.46
FILLED W/WATER

WTR 1.2 VALVE VAULT
RIM=756.27
PIPE RUNS N/S & E/W T/P=750.17
FILLED W/WATER

WTR 1.3 VALVE VAULT
RIM=756.02
E/W T/P=750.32
FILLED W/WATER

FH 1 – FH 7

STORM

STM 1.0 CB BEEHIVE
RIM=753.26
12" RCP S INV=750.46

STM 1.1 CB BEEHIVE
RIM=753.99
12" RCP N INV=750.09
12" RCP S INV=750.09
12" RCP W INV=749.89

STM 1.2 CB BEEHIVE
RIM=753.00
12" RCP S/N INV=750.30

STM 1.3 CB BEEHIVE
RIM=753.87
12" RCP N INV=750.97
4" PVC NE INV=751.07
12" RCP S INV=751.07

STM 1.4 8" PVC
INV=752.20

STM 1.5 CB BEEHIVE
RIM=755.09
12" RCP N INV=751.59

STM 2.0 CB BEEHIVE
RIM=753.99
6" PVC S INV=752.49
8" PVC W INV=752.49

STM 2.1 8" PVC
INV=752.23

STM 2.2 CB BEEHIVE
RIM=754.07
6" PVC N INV=752.57
6" PVC E INV=752.57
6" PVC S INV=752.87
8" PVC W INV=752.47

STM 2.3 6" PVC
INV=752.22

STM 3.0 36" RCP E
INV=749.32

STM 3.1 SQUARE METAL GRADE LID (30"X30")
RIM=754.55
36" RCP W INV=748.72
36" RCP E INV=748.72

STM 3.2 36" RCP E
INV=749.21

STM 3.3 SQUARE METAL GRATE LID (30"X30")
RIM=754.57
60" CMP W INV=747.15

STM 3.4 SQUARE STORM STRUCTURE
RIM=755.22
24" N INV=750.22
60" E INV=749.47
18" S INV=750.62
18" S INV=749.47
STRUCTURE IS APPROXIMATELY 6'X6' SQUARE CONCRETE BOX
FILLED W/WATER

STM 3.5 STORM MANHOLE
RIM=755.73
N INV=749.7±
24" RCP S INV=750.43
18" RCP W INV=750.43
FILLED W/WATER

STM 3.6 STORM MANHOLE
RIM=756.35
8" NW INV=753.85
18" RCP E INV=751.05
W INV=751.0±
FILLED W/WATER

STM 3.7 STORM MANHOLE
RIM=756.34
10" PVC N INV=751.41
12" PVC NE INV=744.24
18" PVC E INV=751.94
12" PVC W INV=754.54
FILLED W/WATER

STM 3.8 STORM MANHOLE
RIM=756.54
8" RCP NE INV=751.84
8" RCP NE INV=751.84
12" RCP S INV=751.64
12" RCP W INV=751.74
6" RCP NE INV=752.94
FILLED W/WATER

STM 3.9 STORM MANHOLE
RIM=756.64
4" PVC MNW INV=753.74
10" PVC E INV=753.44
6" PVC SW INV=753.44
SAN LID ON STRUCTURE
FILLED W/WATER

STM 3.10 STORM MANHOLE
RIM=755.01
6" CLAY E INV=753.31
6" CLAY S INV=753.31
SAN LID ON STRUCTURE

STM 3.11 STORM MANHOLE
RIM=755.03
8" PVC N INV=752.23
S INV=749.6±
8" PVC NW INV=750.53 (SIDE BY SIDE)
8" PVC NW INV=750.53 (SIDE BY SIDE)
FILLED W/WATER

STM 3.12 STORM MANHOLE
RIM=751.92
8" PVC N INV=750.42
8" PVC S INV=750.32
FILLED W/WATER

STM 3.13 STORM MANHOLE
RIM=753.16
8" PVC S/W INV=750.56
FILLED W/WATER

STM 3.14 INLET
INACCESSIBLE

STM 3.15 STORM MANHOLE
RIM=754.69
18" PVC N INV=750.99
S INV=750.9±
FILLED W/WATER

STM 3.16 STORM MANHOLE
RIM=755.12
NNE INV=751.22 (SEE BELOW)
10" PVC S INV=749.72
12" PVC SSW INV=751.12
4" PVC SW INV=753.52
10" PVC NW INV=749.72 (BROKEN PIPE)
FILLED W/WATER
NNE INV HAS A "BELL" HOUSING TURNED DOWNWARD UNDER WATER

STM 3.17 STORM MANHOLE
RIM=755.81
18" PVC E INV=751.81
6" PVC E INV=752.01
6" PVC S INV=752.11
10" PVC SSW INV=753.01
6" PVC NNW INV=752.01
FILLED W/WATER

STM 3.18 STORM STRUCTURE
RIM=755.85
S INV=752.5±
FILLED W/WATER

STM 3.19 STORM MANHOLE
RIM=755.31
12" PVC NE/W INV=751.61

STM 3.20 STORM MANHOLE
RIM=755.25
12" DIP E/W INV=751.90
FILLED W/WATER

STM 3.21 STORM MANHOLE
RIM=755.52
12" DIP E/W INV=752.22

STM 3.22 STORM MANHOLE
RIM=755.46
12" PVC NE/E INV=752.26

STM 3.23 STORM MANHOLE
RIM=755.60
12" PVC NE INV=753.0

STM 3.24 STORM MANHOLE
RIM=756.20
8" PVC W INV=753.10
10" PVC N INV=753.45
12" PVC SE INV=752.90

STM 3.25 STORM MANHOLE
RIM=755.70
8" PVC W/N/E INV=753.20

STM 3.26 STORM MANHOLE
RIM=755.37
8" PVC E INV=753.37

STM 3.27 STORM MANHOLE
RIM=755.97
8" PVC S INV=753.27

STM 3.28 STORM MANHOLE
RIM=756.48
INV N INACCESSIBLE
12" PVC E INV=752.18
10" PVC W INV=752.48

STM 3.29 STORM MANHOLE
RIM=756.40
8" PVC S/W INV=754.20
FILLED W/WATER

STM 4.0 STORM CONTROL RELEASE CONCRETE STRUCTURE W/FLAP GATE AND WING WALLS INTO RETENTION AREA (30"X30" GRATE LID)
RIM=753.35
8" STEEL PIPE IN MOVABLE FLAP GATE–CURRENT INV=750.54
30" RCP E INV=749.06

STM 4.1 30" RCP W
INV=748.37

STM 4.2 60" CMP NW
INV=747.06

STM 4.3 60" CMP SE
INV=747.82

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

SCALE IN FEET
0 80 160

REVISION RECORD

NO	DATE	DESCRIPTION
1	05/07/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

EXISTING CONDITIONS OVERALL

DATE:	03/18/2019
DWG SCALE:	1" = 80'
PROJECT NO:	165-899.0004
DRAWN BY:	SJV/CPIV
CHECKED BY:	DAK
APPROVED BY:	JEH

DRAWING NO.:
C100
SHEET 2 OF 26

P:\2016\165-899\~CAD\Dwg\C100-Existing Conditions Overall.dwg[165899-C100] LS (10/29/2019 - mikal) - LP: 11/6/2019 12:41 PM

NORTH

20 FT SIDE YARD BUILDING SETBACK
9 FT SIDE YARD PARKING SETBACK
72 BUSHES TOTAL
ASPHALT
LANDSCAPED AREA
STM 1.0
STM 1.1
SAN 1.0
STM 1.2
STM 1.3
STM 1.4
STM 1.5
20 FT FRONT YARD PARKING SETBACK
40 FT FRONT YARD BUILDING SETBACK
POWIS ROAD
GRAVEL
NON-JURISDICTIONAL WETLAND BOUNDARY
WEST DETENTION POND
AVG WL=752.8± 10/08/2018
STM 2.0
STM 2.1
STM 2.2
STM 2.3
APPROX. LOC. 2.5' WIDE INFILTRATION TRENCH ALONG EDGE OF PAVEMENT
PAVEMENT LINE BROKEN/BURIED
EX. WM EASEMENT
TANK
CONC
4'X4' CONC BLOCK WALL
STM 3.9
STM 3.10
STM 3.8
STM 3.7
STM 3.6
STM 3.5
STM 3.4
STM 3.3
STM 3.2
STM 3.1
STM 3.11
STM 3.12
STM 3.13
STM 3.14
STM 3.15
STM 3.16
STM 3.17
STM 3.18
STM 3.19
STM 3.20
STM 3.21
STM 3.22
STM 3.23
STM 3.24
STM 3.25
STM 3.26
STM 3.27
STM 3.29
C & D MATERIAL STORAGE AREA
SANITARY SEWER CUT AND SEALED
ELEC. SERVICE AVAILABLE
3 SIDED METAL STRUCTURE
ROOF DRAINS TIED INTO STORM SYSTEM
3" WATER SPIGOT (LOC PER SITE PERSONNEL)
TALL 1 STORY BRICK/METAL SIDED BUILDING F.F.E.=756.41
EXISTING SANITARY SEWER AND STRUCTURES ABANDONED IN PLACE BETWEEN SAN 1.4 AND SAN 1.8
1' CONC WALL (TYP)
SAN 1.1
SAN 1.2
SAN 1.3
SAN 1.4
SAN 1.5
SAN 1.6
SAN 1.7
SAN 1.8
WTR 1.0
WTR 1.1
WTR 1.2
WTR 1.3
NYS
UG-E
SANITARY SEWER CUT AND SEALED
ELEC. LINES IN STEEL CONDUIT TO BUILDING
20 FT SIDE YARD BUILDING SETBACK
15 FT SIDE YARD PARKING SETBACK
MATCHLINE
EX. WM EASEMENT

SCALE IN FEET
0 40 80

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
333 Baldwin Road · Pittsburgh, PA 15205
412-429-2324 · 800-365-2324
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

EXISTING CONDITIONS WEST

DATE:	03/18/2019
DWG SCALE:	1"=40'
DRAWN BY:	S.N/CP/V
CHECKED BY:	DAK
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

DRAWING NO.: C101
SHEET 3 OF 26

P:\2016\163-899\~CAD\Dwg\C104-Construction Plan Set\163899-C104-C101-Existing Conditions West.dwg[163899-C101] | 1/5/19 4:24 PM | LP | 11/9/2019 12:44 PM

NORTH

9 FT SIDE YARD PARKING SETBACK
20 FT SIDE YARD BUILDING SETBACK
STILLING BASIN DIVIDES TO REMAIN (TYP.)
MATCHLINE
STM 3.13
STM 3.12
IE BROKEN/BURIED
STM 3.11
STM 3.5
STM 3.4
SAN 1.8
STM 3.15
SAN
NVS
EX. WM EASEMENT
(TYP)
SAN 1.7
ASPHALT
CONC
MATCHLINE
STILLING BASIN
AVG WL=750.7±
10/23/2018
STM 3.3
STM 3.2
STM 3.1
STM 3.0
EAST DETENTION POND
AVG WL=750.1±
10/23/2018
SANITARY SEWER CUT & SEALED
RAILS BURIED TO WEST
50 FT BUFFER WATERS OF THE US
JURISDICTIONAL WETLAND BOUNDARY
100-YR FIS BFE = 752.40
HYDRAULICALLY CONNECTED TO FLOODWATERS
KRESS CREEK
CANADIAN NATIONAL RAILWAY
STM 4.3
STM 4.2
STM 4.1
STM 4.0
SPUR LINE DOES NOT CONNECT TO MAIN LINE
10-YR FIS BFE = 751.50
(NOT HYDRAULICALLY CONNECTED TO FLOODWATERS.)
100-YR FIS BFE = 752.40
(NOT HYDRAULICALLY CONNECTED TO FLOODWATERS.)
NON-JURISDICTIONAL WETLAND BOUNDARY
JURISDICTIONAL WETLAND BOUNDARY
20 FT REAR YARD BUILDING SETBACK
CANADIAN NATIONAL RAILWAY
20 FT SIDE YARD BUILDING SETBACK
15 FT SIDE YARD PARKING SETBACK
50 FT BUFFER EMERGENT WETLAND

SCALE IN FEET
0 40 80

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

P:\2016\163-899\~CAD\Dwg\C004-Construction Plan Set\163899-C004-C102-Existing Conditions East.dwg[163899-C102 LS](11/6/2019 - mikej) - LP: 11/6/2019 12:44 PM

REVISION RECORD

NO	DATE	DESCRIPTION
1	11/06/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

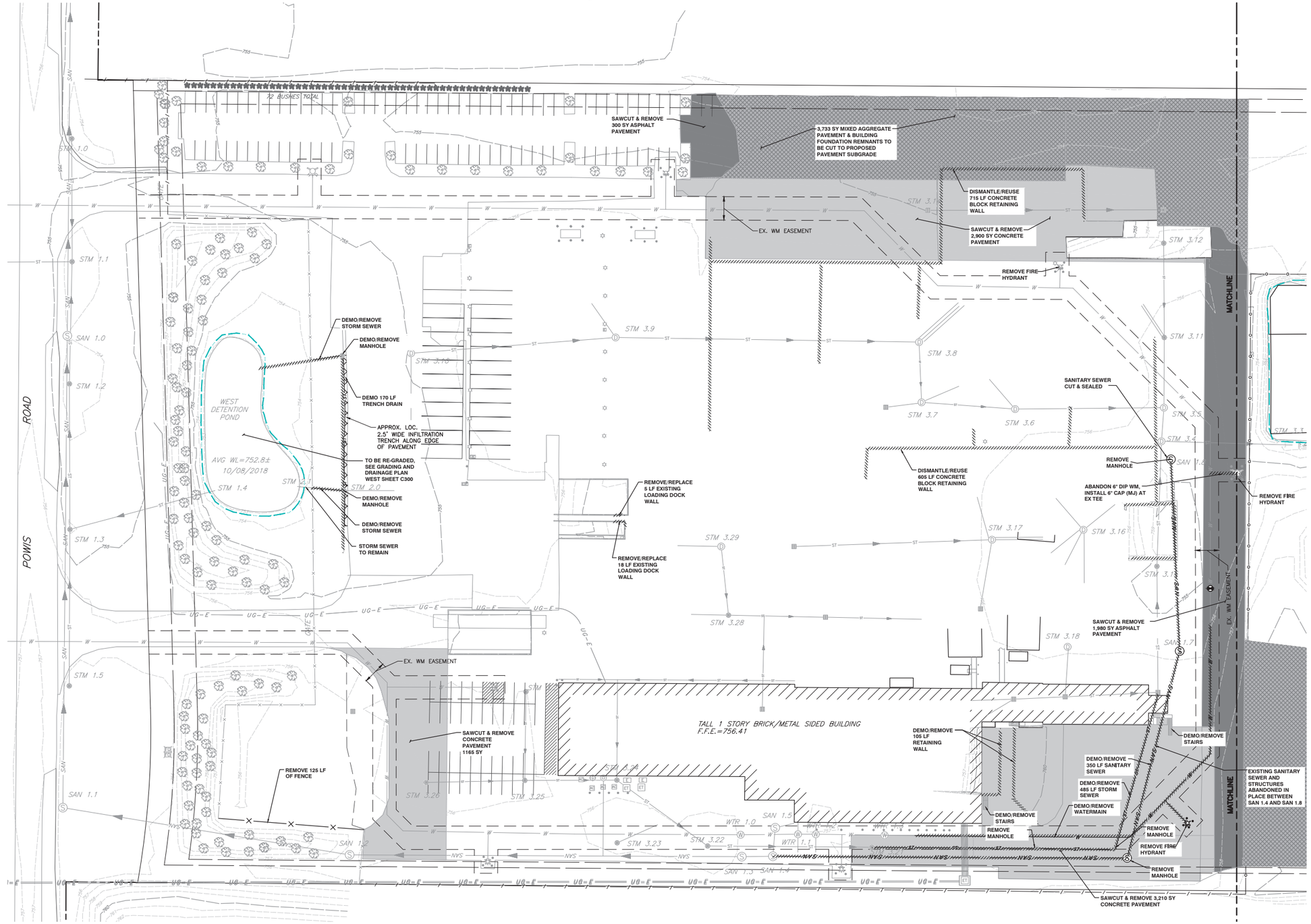
EXISTING CONDITIONS EAST

DATE:	03/18/2019
DRAWN BY:	SJV/CPIV
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

DRAWING NO.:
C102
SHEET 4 OF 26

C000818

NORTH



REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

NOTES:

1. ALL EXISTING FIRE HYDRANTS TO BE REMOVED SHALL BE DELIVERED TO CITY OF WEST CHICAGO PUBLIC WORKS FACILITY AT 1400 W. HAWTHORNE LANE, WEST CHICAGO, IL 60185.
2. THE CITY WILL NOT ALLOW EXISTING CITY WATERMAIN TO BE SHUT DOWN AND PROVISIONS SHOULD BE MADE TO ENSURE WATERMAIN REMAINS IN-SERVICE AT ALL TIMES. THE USE OF A LINE STOP OR OTHER AWWA APPROVED METHOD IS REQUIRED TO KEEP THE CITY'S WATERMAIN(S) ACTIVE.
3. PROVISIONS MUST BE MADE TO ENSURE SANITARY SEWER SERVICE IS NOT INTERRUPTED DURING CONSTRUCTION.
4. ALL ABANDONED WATER AND SEWER MAINS SHALL BE COMPLETELY REMOVED OR CAPPED AND FILLED WITH SLURRY.
5. ANY HYDRANTS ABANDONED MUST HAVE THEIR LEADS REMOVED TO THE WATERMAIN AND BE PROPERLY CAPPED AND ABANDONED.

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION
1	03/07/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
555 Butterfield Road, Suite 300 - Lombard, IL 60148
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

DEMOLITION PLAN WEST

DATE:	03/18/2019
DRAWN BY:	SJV/CPW
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

DRAWING NO.: C103

SHEET 5 OF 26

P:\2016\163-899 - CADD\Dwg\CDP-Construction Plan Set\163899-C103 Demolition Plan West.dwg 163899-C103 15T(19/19/2019 - mike) - LP: 11/8/2019 12:44 PM

P:\2016\163-899\--CAD\Dwg\C104--Construction Plan Set\163899--C104--C104 Demolition Plan East.dwg(163899--C104) LS(10/29/2019 - mklus) - LPt 11/6/2019 12:44 PM

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/09/2018 AND 01/2019 BY CHA, A RW ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM)
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TERRACON. ONLY VISIBLE UTILITY STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER DEPTH IN STRUCTURES. ESTIMATED STRUCTURE LOCATIONS ARE PROVIDED WITHOUT STRUCTURE NUMBER.

NORTH

EX. WM EASEMENT

3 SANITARY SEWER CUTS SEALED

STILLING BASIN

AVG WL=750.2± 10/23/2018

STM 3.0

STM 3.1

STM 3.2

STM 3.3

STM 3.4

STM 3.5

STM 3.6

STM 3.7

STM 3.8

STM 3.9

STM 3.10

STM 3.11

STM 3.12

SAN

SAN MH

CUT AND REMOVE TOP OF STORM SEWER AFTER POND REGRADING HAS BEEN COMPLETED

ISLAND TO BE REMOVED. SEE GRADING AND DRAINAGE PLAN SHEET 301

10,600 SY MINED OUT AREA TO BE CUT TO PROPOSED SUBGRADE

EAST DETENTION POND

AVG WL=750.1± 10/23/2018

TO BE REGRADED. SEE GRADING AND DRAINAGE PLAN SHEET 301

RAILS BURIED TO WEST

ISLAND TO BE REMOVED. SEE GRADING AND DRAINAGE PLAN SHEET 301

DEMO/REMOVE 438 SY ASPHALT PAVEMENT

DEMO/REMOVE 698 SY ASPHALT PAVEMENT

DEMO STORM 412 LF SEWER

DEMO/REMOVE STRUCTURE CONTROL (TYP) STRUCTURE PROPOSED TO BE REMOVED AFTER PROPOSED CONTROL STRUCTURE HAS BEEN PLACED

STM 4.0

STM 4.1

STM 4.2

STM 4.3

STM 4.4

STM 4.5

STM 4.6

STM 4.7

STM 4.8

STM 4.9

STM 4.10

STM 4.11

STM 4.12

STM 4.13

STM 4.14

STM 4.15

STM 4.16

STM 4.17

STM 4.18

STM 4.19

STM 4.20

STM 4.21

STM 4.22

STM 4.23

STM 4.24

STM 4.25

STM 4.26

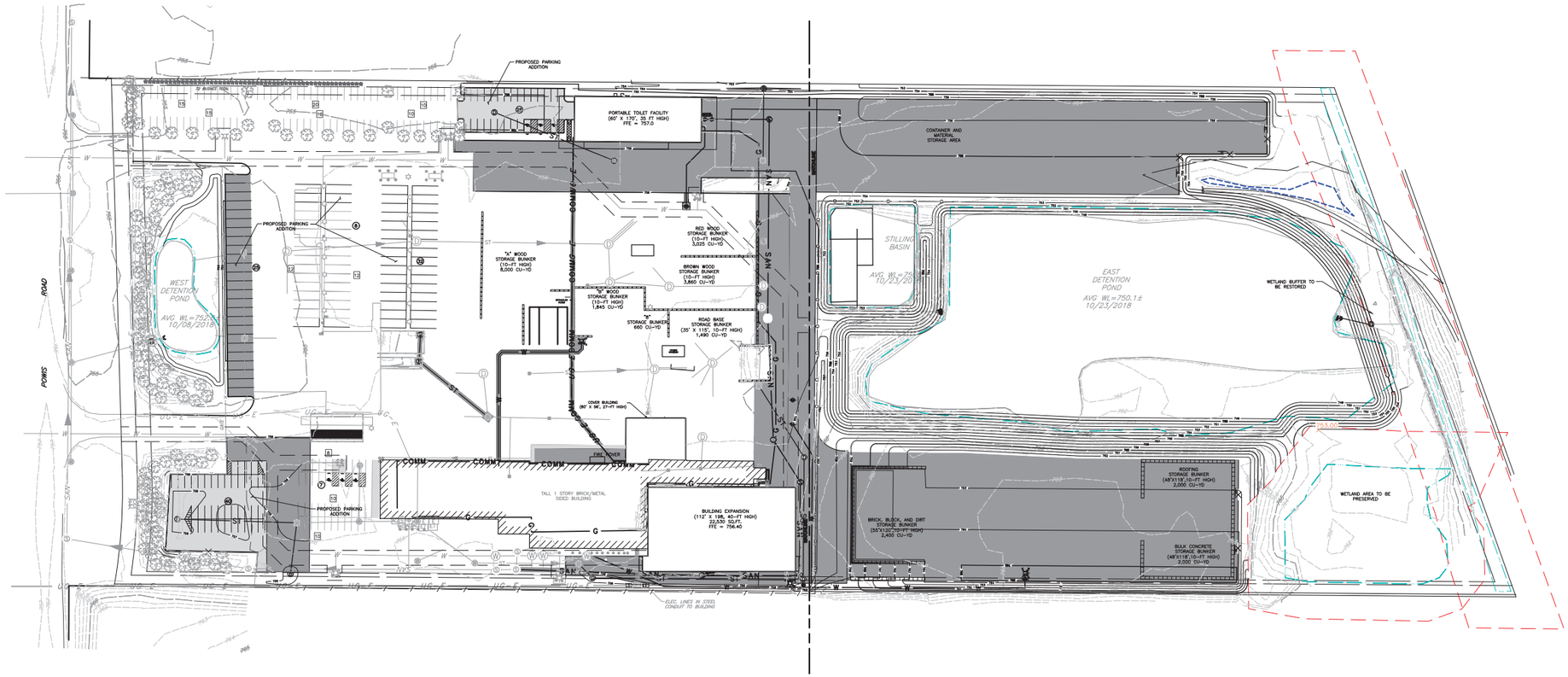
STM 4.27

STM 4.28

STM 4.29

STM

NORTH



REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
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SCALE IN FEET
0 80 160

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
555 Butterfield Road, Suite 300 - Lombard, IL 60148
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

SITE PLAN OVERALL

DATE: 04/02/2019 | DRAWN BY: SJV/CPIV
DWG. SCALE: 1"=80' | CHECKED BY: DAK
PROJECT NO: 163-899.0004
APPROVED BY: JEH

DRAWING NO.: C200
SHEET 7 OF 26

P:\2016\163-899 - C400\Dwg\CIVil-Construction Plan Set\163899-CIVil-C200 Site Plan Overall.dwg[C200] (3/19/2019 - mike) - LP: 11/6/2019 12:14 PM

C000821

NORTH

72 BUSHES TOTAL

LIGHT DUTY PAVEMENT

SEE LANDSCAPE PLAN FOR PROPOSED LANDSCAPE IMPROVEMENTS (TYP.)

HVAC EQUIPMENT (TYP.) DESIGN TO BE FINALIZED

ADA ACCESSIBLE RAMP

CONCRETE PAVEMENT STANDARD

CONCRETE WALKWAY

PARKING STOP BLOCKS (TYP. OF 6)

PORTABLE TOILET FACILITY (60' X 170', 35 FT HIGH) FFE = 757.0

RAMP TO BLDG FLOOR

757.0

756.0

HANDICAP PARKING SIGN (TYP. OF 6)

ADA ACCESSIBLE RAMP

EX. WM EASEMENT

HEAVY DUTY PAVEMENT

125 LF PROPOSED WALL MATCH EX.

RED WOOD STORAGE BUNKER (10-FT HIGH) 3,025 CU-YD

VERMEER GRINDER

"A" WOOD STORAGE BUNKER (10-FT HIGH) 8,000 CU-YD

BROWN WOOD STORAGE BUNKER (10-FT HIGH) 3,860 CU-YD

"B" WOOD STORAGE BUNKER (10-FT HIGH) 1,845 CU-YD

"8" STORAGE BUNKER 660 CU-YD

ROAD BASE STORAGE BUNKER (35' X 115', 10-FT HIGH) 1,490 CU-YD

CRUMBO SHREDDER

DEHYDRATION PITS

COVER BUILDING (80' X 56', 27-FT HIGH)

HEAVY DUTY PAVEMENT

WEST DETENTION POND

AVG. WL=752.8± 10/08/2018

HEAVY DUTY PAVEMENT

LIGHT DUTY PAVEMENT

EX. WM EASEMENT

PARKING STOP BLOCKS (TYP. OF 6)

HANDICAP PARKING SIGN (TYP. OF 6)

END OF FENCE REMOVE/REPLACEMENT

BEGIN FENCE REMOVAL AND REPLACEMENT

CONCRETE PAVEMENT STANDARD

FIRE ROVER

CONCRETE STAIRS AND LANDING (SEE ARCH. PLANS)

TALL 1 STORY BRICK/METAL SIDED BUILDING

BUILDING EXPANSION (112' X 198, 40-FT HIGH) 22,530 SQ.FT. FFE = 756.40

SEE LANDSCAPE PLAN FOR PROPOSED LANDSCAPE IMPROVEMENTS (TYP.)

HEAVY DUTY PAVEMENT

ELEC. LINES IN STEEL CONDUIT TO BUILDING

CONCRETE LOADING PIT WITH RAMPS (SEE ARCH. PLANS)

POWIS ROAD

MATCHLINE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
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SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION
1	05/07/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

SITE PLAN WEST

DATE:	04/02/2019
DRAWN BY:	SJV/CPV
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

DRAWING NO.: C201

SHEET 8 OF 26

P:\2016\163-899\--2400\Dwg\CIVIL\Construction Plan Set\163899-CVL-Construction Plan Set.dwg, 11/9/2019 12:45 PM, mikal, - JP: 11/9/2019 - LST:10/29/2019 - mikal)

NORTH

CONTAINER AND MATERIAL STORAGE AREA

WETLAND BUFFER AREA TO BE REVEGETATED

STILLING BASIN

AVG. WL=750.7±
10/23/2018

EAST DETENTION POND

AVG. WL=750.1±
10/23/2018

PRESERVED WETLAND AREA

ROOFING STORAGE BUNKER
(48'X118', 10-FT HIGH)
2,000 CU-YD

HEAVY DUTY PAVEMENT

BRICK, BLOCK, & DIRT STORAGE BUNKER
(54'X120', 10-FT HIGH)
2,400 CU-YD

BULK CONCRETE STORAGE BUNKER
(48'X118', 10-FT HIGH)
2,000 CU-YD

MATCHLINE

EX. WM EASEMENT

SCALE IN FEET
0 40 80

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
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REVISION RECORD

NO	DATE	DESCRIPTION
1	05/07/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

SITE PLAN EAST

DATE:	04/02/2019
DRAWN BY:	SJV/CPIV
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

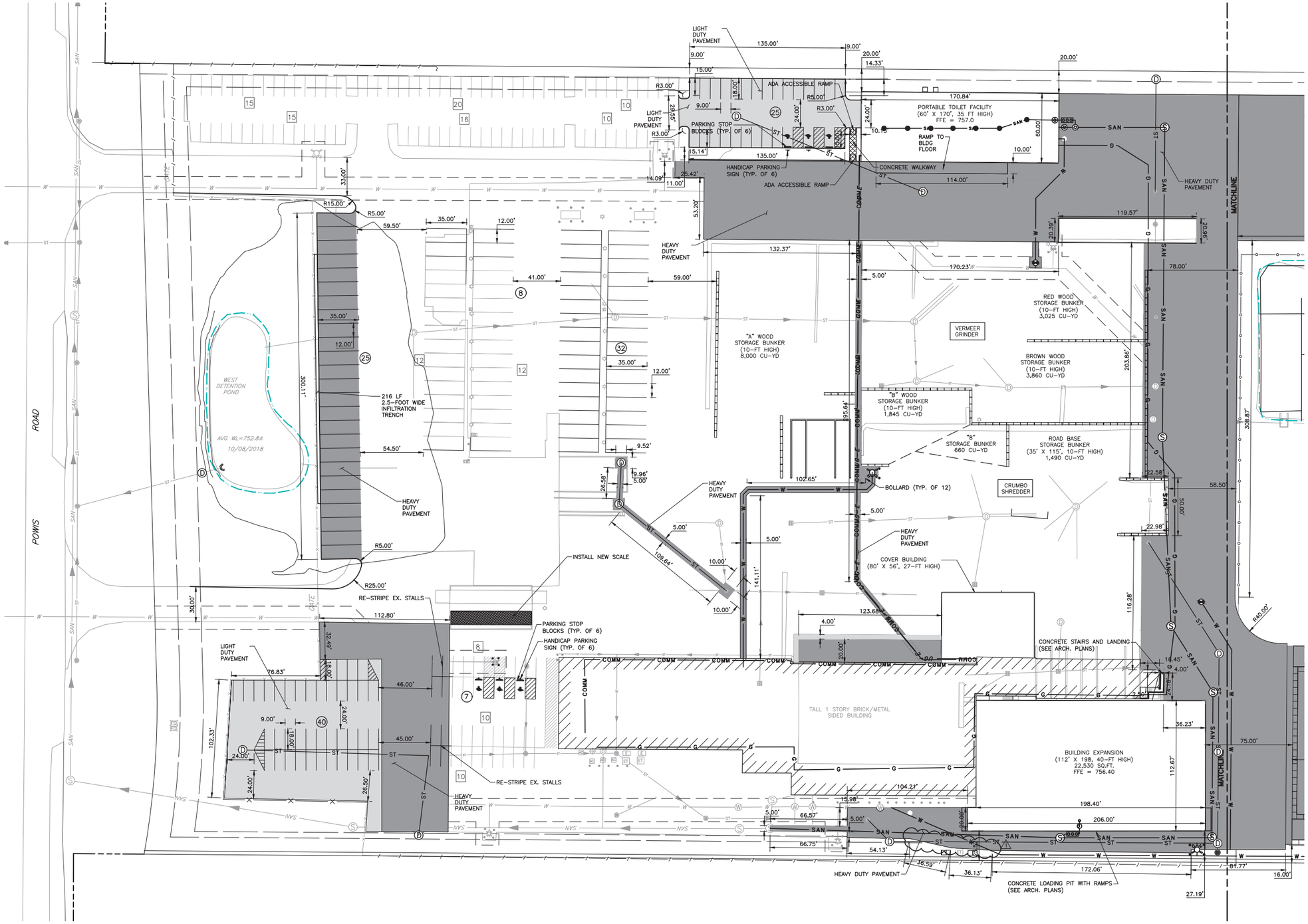
DRAWING NO.: C202

SHEET 9 OF 26

P:\2016\163-899\~CAD\Dwg\C#04-Construction Plan Set\163899-C#04-C202 Site Plan East.dwg(C202 LS(10/29/2019 - mikeu) - LP: 11/6/2019 12:45 PM

C000823

NORTH



REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
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NOTES

1. PROPOSED RIMS AND INVERTS FOR EXISTING STORM STRUCTURES THAT WERE UNABLE TO BE SURVEYED SHALL BE CONFIRMED BY THE CONTRACTOR. IF EXISTING STRUCTURES ARE UNABLE TO BE REUSED, THEY SHALL BE REMOVED AND REPLACED.
2. SEE LANDSCAPE PLAN (SHEETS L100 & L200) FOR LANDSCAPE REQUIREMENTS.

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION
1	05/07/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

PAVING AND GEOMETRIC PLAN WEST

DATE:	04/02/2019
DWG. SCALE:	1"=40'
PROJECT NO:	163-999.0004
DRAWN BY:	SJV/CPW
CHECKED BY:	DAK
APPROVED BY:	JEH

DRAWING NO.:
C203
SHEET 10 OF 26

P:\2016\163-999 - C400\Dwg\CIVIL-Construction Plan Set\163999-CIVIL-C203 Geometric Plan West.dwg(C203) LS(10/29/2019 - mike) - LP: 11/6/2019 12:45 PM

NORTH

CONTAINER AND MATERIAL STORAGE AREA

HEAVY DUTY PAVEMENT

MATCHLINE

20.00'

1.00' (TYP.)

126.00'

120.00'

455.00'

SIGN (TYP.) (SEE NOTE 2)

244 LF OF SPLIT RAIL FENCE

78.00'

STILLING BASIN

AVG WL=750.7±
10/23/2018

EAST DETENTION POND

AVG WL=750.1±
10/23/2018

58.50'

EX. WM EASEMENT

R40.00'

172.00'

HEAVY DUTY PAVEMENT

75.00'

520.00'

BRICK, BLOCK, & DIRT STORAGE BUNKER
(54'X120', 10-FT HIGH)
2,400 CU-YD

ROOFING STORAGE BUNKER
(48'X113', 10-FT HIGH)
2,000 CU-YD

BULKY CONCRETE STORAGE BUNKER
(48'X113', 10-FT HIGH)
2,000 CU-YD

165 LF OF SPLIT RAIL FENCE

166.00'

27.19'

16.00'

16.00'

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

NOTES

1. PROPOSED RIMS AND INVERTS FOR EXISTING STORM STRUCTURES THAT WERE UNABLE TO BE SURVEYED SHALL BE CONFIRMED BY THE CONTRACTOR. IF EXISTING STRUCTURES ARE UNABLE TO BE REUSED, THEY SHALL BE REMOVED AND REPLACED.

1 2. SIGN SHALL READ "NATIVE PLANTINGS, NO MOWING, NO DUMPING"

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION
1	05/07/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS PLANS
1655 POWIS ROAD
WEST CHICAGO, IL

PAVING AND GEOMETRIC PLAN EAST

DATE:	04/02/2019
DRAWN BY:	SJV/ CPW
DWG. SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

DRAWING NO.: C204

SHEET 11 OF 26

PLOT DATE: 05/02/2019 - 12:42 PM
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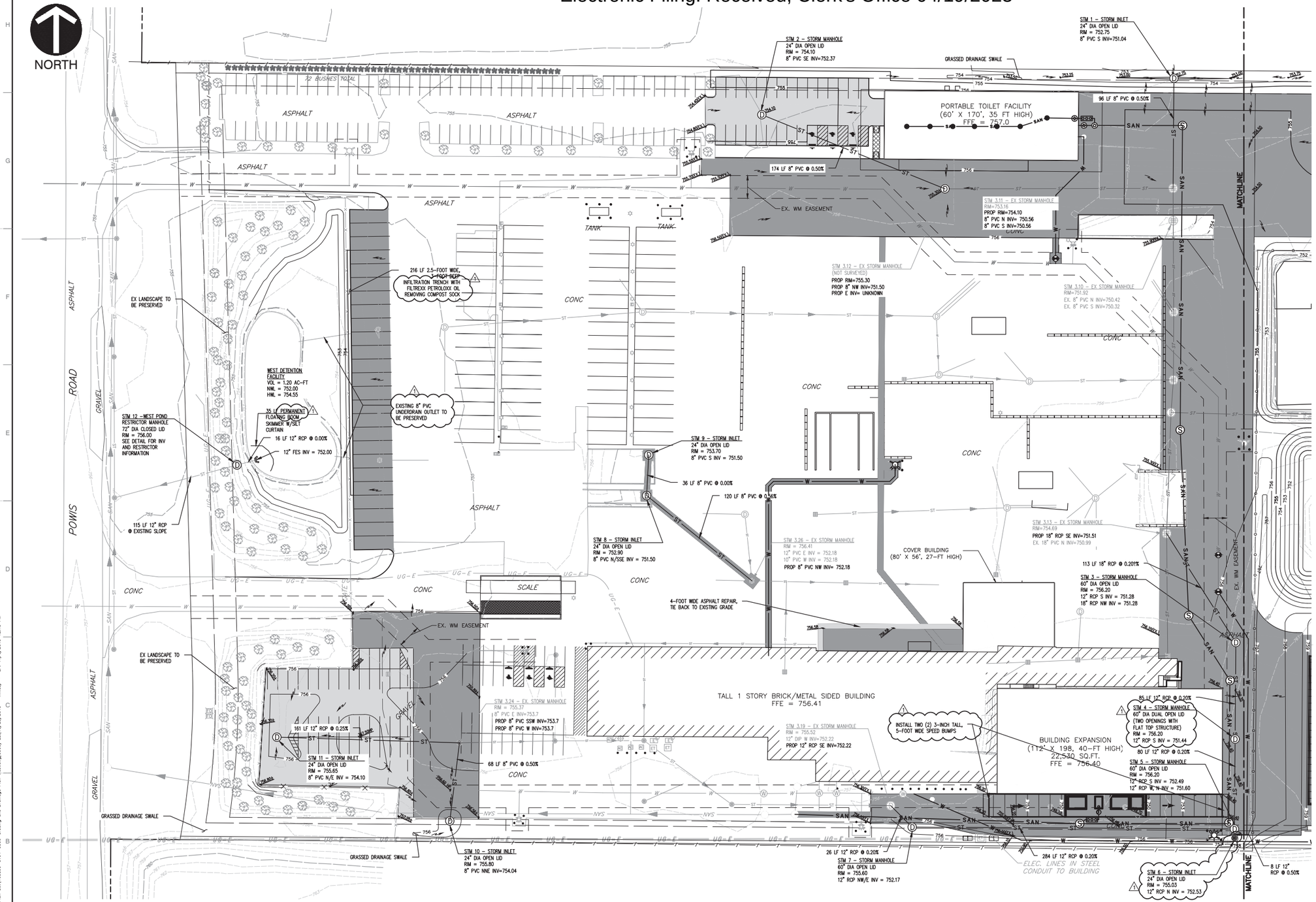
C000825



NOTES:

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATION IN THE ILLINOIS URBAN MANUAL, LATEST EDITION. SEE THE STORMWATER POLLUTION PREVENTION PLAN PREPARED BY ROAKE AND ASSOCIATES, INC.
2. ALL GRADES DEPICTED ARE FINISHED GRADES. IN NON-PAVED AREAS, THE CONTRACTOR SHALL SUBTRACT 6 INCHES (0.5 FEET) TO ALLOW FOR TOPSOIL/MULCH MATERIAL PLACEMENT. THE BEST MANAGEMENT PRACTICE FACILITY SHALL RECEIVE 12 INCHES OF PULVERIZED TOPSOIL FROM FINISHED GRADE 699 TO 701 (MINIMUM).
3. THE CONTRACTOR SHALL PROVIDE INLET FILTER BASKETS IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLANS FOR ALL OPEN LID STRUCTURES TO MINIMIZE INTRUSION OF DEBRIS/SILT INTO THE STORM SEWER SYSTEM.
4. THE ESTIMATED CONSTRUCTION SCHEDULE IS AS FOLLOWS:

GRADING	OCTOBER 2019
PAVING	OCTOBER 2019
GROUND STABILIZATION/ SODDING	APRIL 2020
LANDSCAPING	MAY 2020

5. LANDSCAPE MATERIALS SHALL BE INSTALLED AS SOON AS POSSIBLE TO STABILIZE SITE. WHERE PROPOSED SLOPES EXCEED 4 TO 1, LOW/NO MAINTENANCE GROUND COVER SHALL BE INSTALLED. SEE LANDSCAPE PLANS FOR DETAILS.
6. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE INSPECTED WEEKLY AND AFTER EACH 1/2" RAINFALL EVENT OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN THEIR FUNCTION.
7. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
8. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE CITY OF WEST CHICAGO.
9. EAST DETENTION FACILITY SHALL BE DEWATERED PRIOR TO UTILITY INSTALLATION AND EAST HALF REGRADING OPERATIONS. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS, FIELD BAGS, OR SILT TRAPS PRIOR TO RELEASE. DEWATERING OF THE EAST POND SHALL BE PERFOMED DURING DRY WEATHER CONDITIONS.
10. CONCRETE TRUCKS SHALL NOT BE PERMITTED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON SITE. SPECIFIC AREAS FOR THIS ACTIVITY SHALL BE DESIGNATED BY THE CONTRACTOR AND PROVIDED WITH ADEQUATE SILTATION BASINS AND OTHER FACILITES TO ASSURE THAT DISCHARGE IS CONTAINED AND CLEANSED BEFORE ENTERING THE RECEIVING STORM SEWER SYSTEM
11. ALL ADJACENT STREETS SHOULD BE KEPT CLEAR OF MUD/DEBRIS. THE CONTRACTOR SHALL INSPECT THE STREETS DAILY AND CLEAN THEM AS NECESSARY.
12. STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCK PILES, NOT BEING ACTIVELY WORKED AND TO REMAIN IN PLACE 14 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING. THE PROPOSED BERMS MUST BE STABILIZED IMMEDIATELY AFTER FINAL GRADING. STRAW MULCH WITH NETTING OR EROSION CONTROL BLANKET SHALL BE USED ON SIDE SLOPE AND SUMMIT.

Stage - Storage - Discharge West Pond Table

Contour (feet)	Area (acre)	Storage Volume (acre-feet)	Cumulative Storage Volume (acre-feet)	Area (square miles)	Discharge (cfs)
752.00	0.23	0.00	0.00	0.000	0.00
753.00	0.39	0.31	0.31	0.001	0.15
754.00	0.470	0.43	0.74	0.001	0.20
754.55	0.950	0.46	1.20	0.001	0.25

SCALE IN FEET
0 40 80

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

NOTES

1. PROPOSED RIMS AND INVERTS FOR EXISTING STORM STRUCTURES THAT WERE UNABLE TO BE SURVEYED SHALL BE CONFIRMED BY THE CONTRACTOR. IF EXISTING STRUCTURES ARE UNABLE TO BE REUSED, THEY SHALL BE REMOVED AND REPLACED.

REVISION RECORD

NO	DATE	DESCRIPTION
1	09/07/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

GRADING AND DRAINAGE PLAN WEST

DATE:	03/18/2019
DWG SCALE:	1"=40'
DRAWN BY:	SJV/CPV
CHECKED BY:	DAK
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

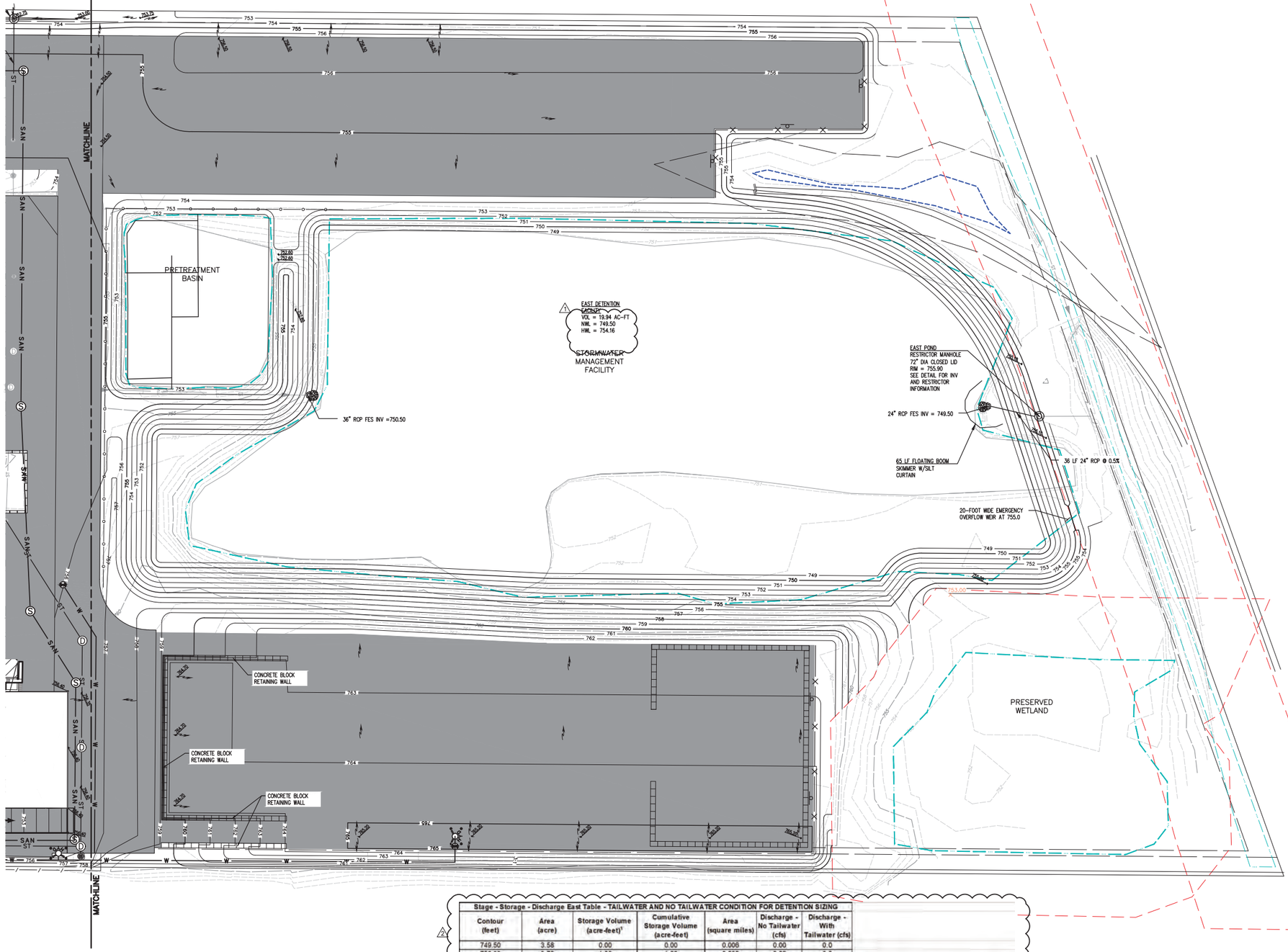
DRAWING NO.: C300
SHEET 12 OF 26

P:\2016\163-899\~2400\Dwg\C04-Construction Plan Set\163899-C04-C300-Grading and Drainage Plan West.dwg(C300) 10/10/2019 - mike] - LP: 11/6/2019 12:45 PM

Electronic Filing: Received, Clerk's Office 04/19/2023

C000826

NORTH



NOTES:

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATION IN THE ILLINOIS URBAN MANUAL, LATEST EDITION. SEE THE STORMWATER POLLUTION PREVENTION PLAN PREPARED BY ROAKE AND ASSOCIATES, INC.
2. ALL GRADES DEPICTED ARE FINISHED GRADES. IN NON-PAVED AREAS, THE CONTRACTOR SHALL SUBTRACT 6 INCHES (0.5 FEET) TO ALLOW FOR TOPSOIL/MULCH MATERIAL PLACEMENT. THE BEST MANAGEMENT PRACTICE FACILITY SHALL RECEIVE 12 INCHES OF PULVERIZED TOPSOIL FROM FINISHED GRADE 699 TO 701 (MINIMUM).
3. THE CONTRACTOR SHALL PROVIDE INLET FILTER BASKETS IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLANS FOR ALL OPEN LID STRUCTURES TO MINIMIZE INTRUSION OF DEBRIS/SILT INTO THE STORM SEWER SYSTEM.
4. THE ESTIMATED CONSTRUCTION SCHEDULE IS AS FOLLOWS:

GRADING	OCTOBER 2019
PAVING	OCTOBER 2019
GROUND STABILIZATION/ SODDING	APRIL 2020
LANDSCAPING	MAY 2020

5. LANDSCAPE MATERIALS SHALL BE INSTALLED AS SOON AS POSSIBLE TO STABILIZE SITE. WHERE PROPOSED SLOPES EXCEED 4 TO 1, LOW/NO MAINTENANCE GROUND COVER SHALL BE INSTALLED. SEE LANDSCAPE PLANS FOR DETAILS.
6. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE INSPECTED WEEKLY AND AFTER EACH 1/2" RAINFALL EVENT OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN THEIR FUNCTION.
7. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
8. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE CITY OF WEST CHICAGO.
9. EAST DETENTION FACILITY SHALL BE DEWATERED PRIOR TO UTILITY INSTALLATION AND EAST HALF REGRADING OPERATIONS. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS, FIELD BAGS, OR SILT TRAPS PRIOR TO RELEASE. DEWATERING OF THE EAST POND SHALL BE PERFOMED DURING DRY WEATHER CONDITIONS.
10. CONCRETE TRUCKS SHALL NOT BE PERMITTED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON SITE. SPECIFIC AREAS FOR THIS ACTIVITY SHALL BE DESIGNATED BY THE CONTRACTOR AND PROVIDED WITH ADEQUATE SILTATION BASINS AND OTHER FACILITIES TO ASSURE THAT DISCHARGE IS CONTAINED AND CLEANSED BEFORE ENTERING THE RECEIVING STORM SEWER SYSTEM
11. ALL ADJACENT STREETS SHOULD BE KEPT CLEAR OF MUD/DEBRIS. THE CONTRACTOR SHALL INSPECT THE STREETS DAILY AND CLEAN THEM AS NECESSARY.
12. STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCK PILES, NOT BEING ACTIVELY WORKED AND TO REMAIN IN PLACE 14 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING. THE PROPOSED BERMS MUST BE STABILIZED IMMEDIATELY AFTER FINAL GRADING. STRAW MULCH WITH NETTING OR EROSION CONTROL BLANKET SHALL BE USED ON SIDE SLOPE AND SUMMIT.

Stage - Storage - Discharge East Table - TAILWATER AND NO TAILWATER CONDITION FOR DETENTION SIZING

Contour (feet)	Area (acre)	Storage Volume (acre-feet)[1]	Cumulative Storage Volume (acre-feet)	Area (square miles)	Discharge - No Tailwater (cfs)	Discharge - With Tailwater (cfs)	
749.50	3.58	0.00	0.00	0.006	0.00	0.0	
750.00	3.75	1.83	1.83	0.006	0.62	0.0	
751.00	3.92	3.84	5.67	0.006	1.50	0.0	
752.00	4.10	4.01	9.68	0.008	2.02	0.0	*2.23 cfs at 752.47 elevation (no tailwater condition)
753.00	4.69	8.61	14.28	0.007	--	1.18	
754.00	4.97	4.83	19.11	0.008	--	1.81	*1.89 cfs at 754.16 (tailwater conditions)
755.00	5.25	5.11	24.22	0.008	--	--	*see note 3
755.10	5.30	5.65	24.76	0.008	--	--	*see note 3

NOTES:
1. Acre-feet of storage per contour interval approximated by multiplying the average contour acreage between the interval, times contour depth.
2. Tributary area to East Pond is 22.47 acres, therefore, allowable release shall not exceed 2.247 cfs.
3. 100-year high water level is dictated by tailwater condition model and is 754.16. There is no release above 754.16 for the 100-year tailwater model condition

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

NOTES

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SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION
1	09/27/2019	CITY AND COUNTY REVIEW COMMENTS
2	11/06/2019	CITY AND COUNTY REVISION COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

GRADING AND DRAINAGE PLAN EAST

DATE: 03/18/2019 | DRAWN BY: SJV/CPIV
DWG SCALE: 1"=40' | CHECKED BY: DAK
PROJECT NO: 163-899.0004
APPROVED BY: JEH

DRAWING NO.: C301
SHEET 13 OF 26

P:\2016\163-899\~CAD\Dwg\C404-Construction Plan Set\163899-C404-C301-Grading and Drainage Plan East.dwg(C301) LS(11/6/2019 - mikej) - LP: 11/6/2019 12:45 PM

C000827

NORTH

ASPHALT
ROAD
POWIS
GRAVEL
CONC
SCALE
WEST DETENTION POND
AVG. WL=752.8± 10/08/2018
EXISTING PUBLIC WATERMAIN
TANK
EX. WM EASEMENT
EXISTING VALVE NO. 1 (WEST SIDE OF POWIS, NOT SHOWN)
EXISTING VALVE NO. 2 (WEST SIDE OF POWIS, NOT SHOWN)
SEE SHEET C501 FOR UTILITY CROSSING DETAILS (TYP.)
PORTA-POTTY FACILITY (60' X 170', 35 FT HIGH) FFE = 757.0
CITY TO CONFIRM METER REQUIREMENTS
OIL-WATER SEPARATOR RIM = 756.5 INV E= 750.96 INV W= 750.96
SAN 7 – SANITARY CLEANOUT RIM=756.3 INV=750.85
SAN 6 – SANITARY MANHOLE 60" DIA CLOSED LID RIM = 754.8 INV = 750.56
SAN 8 – SANITARY CLEANOUT RIM = 756.5
6 LF 6" PVC @ 1.00%
27 LF 6" DIP
77 LF 8" PVC @ 0.40%
SIAMESE CONNECTION #1
6" 45° BEND (MJ)
35 LF 6" DIP
56 LF 6" DIP
PROPOSED PRIVATE WATERMAIN
2 LF 6" DIP
268 LF 8" PVC @ 0.40%
VALVE VAULT NO. 3 PRESSURE CONNECTION 8" TAPPING VALVE IN 60" VAULT RIM = 756.5±
GAS/COMM LINES TO BE INSTALLED IN THE SAME TRENCH
SAN 5 – SANITARY MANHOLE RIM = 755.41 8" PVC S INV=749.47 (ASSUMED) PROP 8" PVC N INV=749.47
6"X3" RECEIVER (MJ) AND 3" TO 2" BRASS FPT FITTING
WOODFORD MODEL V200 W/2" OUTLET (SEE NOTE #1)
6 LF 3" DIP
103 LF 3" DIP
TWO (2) 3" 45° BENDS
144 LF 3" DIP
EX. 164 LF OF ASSUMED 8" PVC AT 0.40% SEE NOTE #2
164 LF 8" PVC @ 0.40%
VALVE VAULT NO. 1 CUT-IN CONNECTION 8" GATE VALVE IN 60" VAULT RIM = 756.0'
8" 45° BEND (MJ)
LINE STOP 1
50 LF 8" DIP
SAN 4 – SANITARY MANHOLE RIM = UNKNOWN 8" PVC N INV=748.81 (ASSUMED) PROP 8" PVC SE INV=748.81
68 LF 8" PVC @ 0.40%
8" 45° BEND (MJ)
PROPOSED PUBLIC WATERMAIN
171 LF 8" DIP
126 LF 8" PVC @ 0.40%
SIAMESE CONNECTION #2
SAN 2 – SANITARY MANHOLE 60" DIA CLOSED LID RIM = 756.30 INV = 748.04
SAN 1 – SANITARY MANHOLE 60" DIA CLOSED LID RIM = 756.50 8" PVC E/W INV=747.51 NE INV=747.8±
100 LF 8" DIP
OIL-WATER SEPARATOR RIM = 756.55 INV E= 747.70 INV W= 747.70
SAN 3 – SANITARY MANHOLE 60" DIA CLOSED LID RIM = 756.35 INV = 748.54
BUILDING EXPANSION (112' X 198, 40-FT HIGH) 22,530 SQ.FT. FFE = 756.40
EXISTING VALVE NO. WTR 1.3
CUT-IN CONNECTION
8" 45° BEND (MJ)
263 LF 8" CL 52 DIP (TYP.)
132 LF 8" PVC @ 0.40%
8"X8"X6" TEE (MJ)
FIRE HYDRANT #1 GRADE RING=757.4± 8"X8"X6" TEE
251 LF 8" PVC @ 0.40%
SAN 1.4 – EX. SANITARY MANHOLE RIM = 756.13 6" PVC N INV=748.13 8" PVC W INV=746.53 PROP 8" PVC E INV=746.51 SEE NOTE 5
PROPOSED PRIVATE WATERMAIN
COVER BUILDING (80' X 56', 10-FT HIGH)
ELEC/COMM LINES TO BE IN THE SAME TRENCH
3" WATER SPIGOT (LOC. PER SITE PLAN/MEP)
ROOF DRAINS TIED INTO STORM SYSTEM
RECONFIGURE INTERNAL PLUMBING TO GO UNDERGROUND INSIDE BUILDING AND CONNECT TO EXISTING BUILDING WATER LINE ON EXTERIOR. CONFIRM EXISTING WATER LINE LOCATION IN BUILDING
GAS/COMM INTERNAL ROUTING SHOWN FOR REFERENCE ONLY
MATCHLINE
EX. WM EASEMENT

WATER MAIN INSTALLATION SEQUENCE

1. CLOSE EXISTING VALVE WTR 1.3, INSTALL LINE STOP NO. 1. SERVICE IS STILL ACTIVE TO THE EXISTING BUILDING AND ALL FIRE HYDRANTS ARE ACTIVE EXCEPT FH 3. BUILDLING MAINTAINS COVERAGE FROM A MINIMUM OF TWO FIRE HYDRANTS.
2. DRAIN EXISTING WATER FROM FH 3, THEN BAG FH 3.
3. PERFORM CU-IN CONNECTION AND INSTALL VALVE VAULT NO. 1.
4. INSTALL WATER MAIN AND FIRE HYDRANTS NO. 1 AND NO. 2.
5. PERFORM CU-IN CONNECTION LOCATED JUST EAST OF EXISTING VALVE WTR 1.3.
6. REMOVE LINE STOP 1.
7. FLUSH NEW WATER MAIN THROUGH NEW FH 1 AND FH 2 BY OPENING EXISTING VALVE WTR 1.3 AND VALVE VAULT NO. 1.
8. PRESSURE TEST BETWEEN EXISTING VALVE WTR 1.3, VALVE VAULT NO. 1, AND FH 2 HYDRANT LEAD.
9. INSTALL WHIPS AT EACH END OF THE NEW SYSTEM AND CHLORINATE. CLOSE EXISTING VALVE WTR 1.3, AND VALVE VAULT NO. 1.
10. AFTER TWO (2) DAYS OF SUCCESSFUL SAMPLES, FLUSH SYSTEM AND LEAVE OPEN EXISTING VALVE WTR 1.3 AND VALVE VAULT NO. 1.

NOTES

1. YARD HYDRANT TO BE HOUSED IN A 4" DIAMETER PRECAST BARREL SECTION WITH FLAT TOP AND CLOSED LID AND 6" CA-7 BEDDING BOTTOM. YARD HYDRANT SHALL BE LABELED "NON-POTABLE WATER AND NOT USED FOR DRINKING PURPOSES" ON THE LID OR AS ADJACENT SIGN.
2. NOT ALL SANITARY SEWER LOCATIONS CONFIRMED. CONTRACTOR SHALL INSTALL REPLACEMENT SEWER IF THE EXISTING SEWER IS NOT REUSABLE. SANITARY MANHOLES SHALL SIMILARLY BE REPLACED IF FOUND UNUSABLE.
3. ALL UNDERGROUND WATER MAINS THAT ARE TO BE UTILIZED FOR FIRE PROTECTION SHALL BE PROPERLY FLUSHED. THE FIRE PREVENTION BUREAU SHALL WITNESS THE FLUSH. ALL WATER MAINS WHICH ARE CONNECTED TO THE CITY OF WEST CHICAGO WATER MAIN SYSTEM WILL REQUIRE A REPRESENTATIVE FROM THE CITY OF WEST CHICAGO'S UTILITY DIVISION BE PRESENT DURING THE FLUSHING TO OPERATE THE VALVES AND CONTROL THE FLOW.
4. ALL UNDERGROUND WATER MAINS FOR FIRE PROTECTION USE SHALL BE HYDRO TESTED AT TWO HUNDRED (200) LBS. FOR TWO (2) HOURS, AFTER THE MAINS HAVE BEEN FLUSHED.
   - 4.1. THE CONTRACTOR SHALL PERFORM A PRETEST PRIOR TO SCHEDULING THE TEST TO BE WITNESSED.
   - 4.2. THE CONTRACTOR SHALL HAVE ALL THE NECESSARY EQUIPMENT ON SITE TO PERFORM THE HYDRO TEST AND RECOVERY TEST
   - 4.3. THE CONTRACTOR SHALL PROPERLY FILL OUT A CONTRACTORS MATERIAL & TEST CERTIFICATE FOR UNDERGROUND PIPING. THE CERTIFICATE SHALL BE ON SITE AND A COPY GIVEN TO THE INSPECTOR AT THE END OF THE TEST.
   - 4.4. THE CONTRACTOR SHALL CONTACT THE FIRE PREVENTION BUREAU @ 630-231-2123 TO SCHEDULE THE TEST. PROVIDE FORTY-EIGHT (48) HOURS' NOTICE FOR TESTING.
5. PROVISIONS SHALL BE MADE TO MAINTAIN SANITARY SEWER SERVICE. CONTRACTOR SHALL MINIMIZE DOWN-TIME TO INSTALL NEW CONNECTION TO SANITARY MANHOLE NO. 1.4.
6. POTABLE WATER SOURCE IS MUNICIPAL (CITY OF WEST CHICAGO)
7. MATERIALS SHALL CONFORM TO CITY OF WEST CHICAGO REQUIREMENTS - SEE SHEET C904.
8. INSTALL WATER MAIN PROTECTION WHERE REQUIRED PER ILLINOIS STANDARD SEWER AND WATER MAIN SPECIFICATIONS.

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED 1.20.15, AS-BUILT DATE JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES. ESTIMATED STRUCTURE LOCATIONS ARE PROVIDED WITHOUT STRUCTURE NUMBER.

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION
1	09/07/2019	CITY AND COUNTY REVIEW COMMENTS
2	11/05/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
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LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

UTILITIES WEST

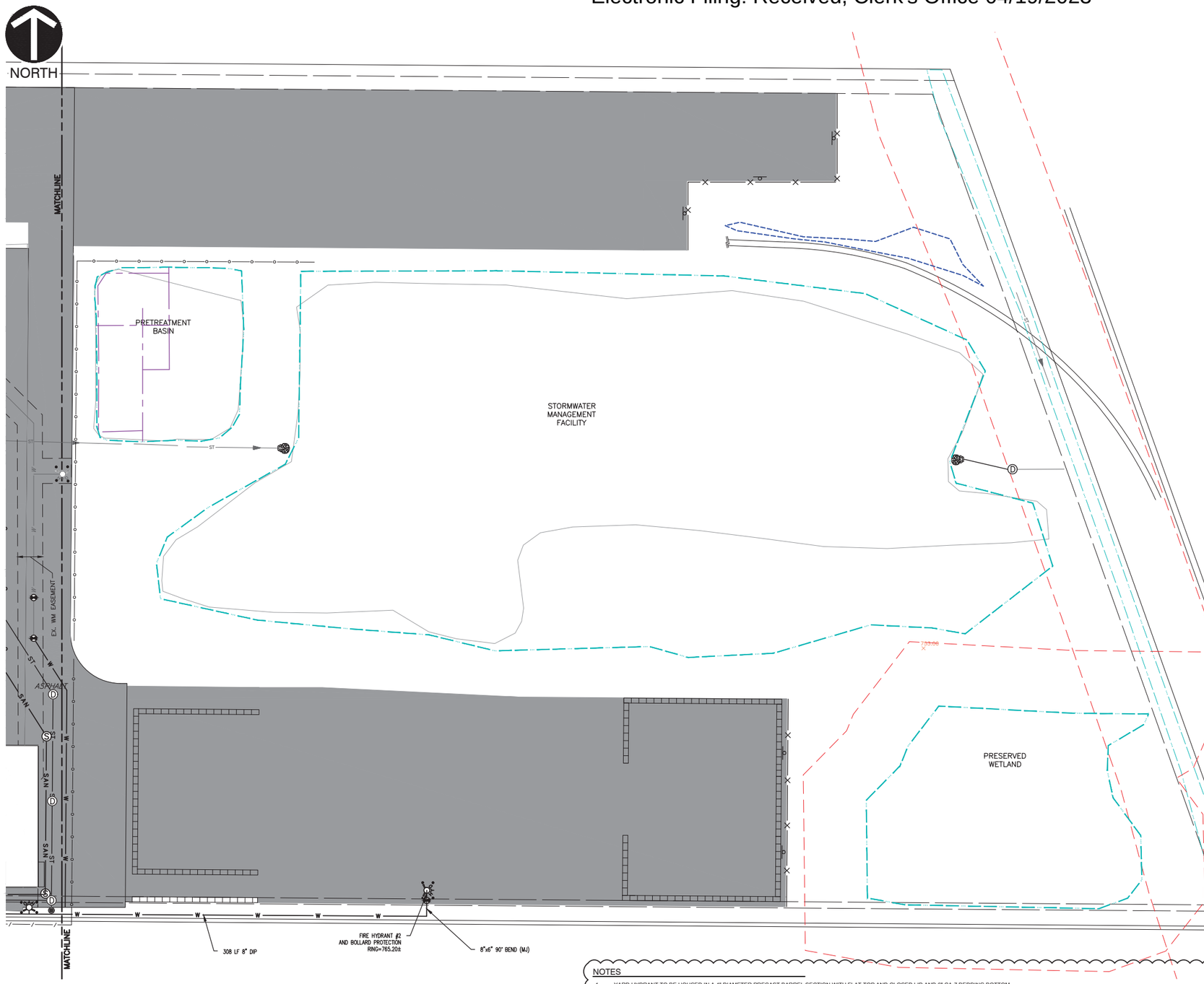
DATE:	03/18/2019
DRAWN BY:	SJV
CHECKED BY:	DAK
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

DRAWING NO.: C500
SHEET 14 OF 26

P:\2016\163-899\~CAD\Dwg\CIVIL-Construction Plan Set\163899-CIV04-C500 Utilities West.dwg[C500] LS(11/6/2019 - mike) - LP: 11/6/2019 12:46 PM

Electronic Filing: Received, Clerk's Office 04/19/2023

C000828



UTILITY CROSSING TABLE

1	FINISH GRADE = 756.3				
	12" STM	TOP = 753.8	BTM = 752.8	1.5'	
	6" WTR	TOP = 751.3	BTM = 750.8		
2	FINISH GRADE = 756.5				
	8" STM	TOP = 754.2	BTM = 753.5	2.5'	
	SAN	TOP = 751.0	BTM = 750.5		
3	FINISH GRADE = 756.1				
	12" STM	TOP = 752.2	BTM = 751.2	4.3'	
	8" SAN	TOP = 746.9	BTM = 746.2		
4	FINISH GRADE = 756.1				
	8" WTR	TOP = 751.1	BTM = 750.4	3.3'	
	8" SAN	TOP = 747.1	BTM = 746.4		
5	FINISH GRADE = 756.2				
	12" STM	TOP = 753.0	BTM = 752.0	1.5'	A
	8" WTR	TOP = 750.5	BTM = 749.8		
6	FINISH GRADE = 755.0				
	2" GAS	TOP = 752.5	BTM = 752.3	3.5'	
	8" SAN	TOP = 748.8	BTM = 748.1		
7	FINISH GRADE = 755.0				
	2" GAS	TOP = 752.5	BTM = 752.3	0.9'	
	18" STM	TOP = 751.4	BTM = 749.9		
8	FINISH GRADE = 754.9				
	18" STM	TOP = 752.9	BTM = 751.4	1.7'	
	8" SAN	TOP = 749.7	BTM = 749.0		
9	FINISH GRADE = 755.3				
	2" GAS	TOP = 752.8	BTM = 752.6	3.2'	
	8" SAN	TOP = 749.4	BTM = 748.7		
10	FINISH GRADE = 755.7				
	8" WTR	TOP = 750.8	BTM = 750.1	0.4'	
	8" SAN	TOP = 749.7	BTM = 749.0		
11	FINISH GRADE = 755.7				
	2" GAS	TOP = 753.2	BTM = 753.0	2.3'	
	8" WTR	TOP = 750.7	BTM = 750.0		
12	FINISH GRADE = 753.3				
	2" GAS	TOP = 751.5	BTM = 751.3	0.8'	
	8" STM	TOP = 750.5	BTM = 749.8		

*SEE SHEET C500 FOR UTILITY CROSSING LOCATIONS

UTILITY CROSSING TABLE

13	FINISH GRADE = 754.8				
	8" STM	TOP = 751.4	BTM = 750.8	0.3'	
	8" SAN	TOP = 750.5	BTM = 749.8		
14	FINISH GRADE = 753.6				
	2" GAS	TOP = 751.1	BTM = 750.9	2.3'	
	6" WTR	TOP = 748.6	BTM = 748.0		
15	FINISH GRADE = 756.2				
	8" STM	TOP = 751.7	BTM = 751.0	1.5'	A
	6" WTR	TOP = 749.5	BTM = 749.0		
16	FINISH GRADE = 754.9				
	2" COMM	TOP = 753.4	BTM = 753.2	0.8'	
	3" ELEC	TOP = 752.4	BTM = 752.1	0.3'	
	8" STM	TOP = 751.8	BTM = 751.1		
17	FINISH GRADE = 755.3				
	2" COMM	TOP = 753.8	BTM = 753.6	0.8'	
	3" ELEC	TOP = 752.8	BTM = 752.5	2.2'	
	6" WTR	TOP = 750.3	BTM = 749.7		
18	FINISH GRADE = 756.6				
	2" COMM	TOP = 755.1	BTM = 754.9	0.8'	
	3" ELEC	TOP = 754.1	BTM = 753.8	1.8'	
	12" STM	TOP = 752.0	BTM = 751.0		
19	FINISH GRADE = 756.4				
	2" COMM	TOP = 754.9	BTM = 754.7	0.8'	
	3" ELEC	TOP = 753.9	BTM = 753.6	2.2'	
	3" WTR	TOP = 751.4	BTM = 751.1		
20	FINISH GRADE = 756.4				
	2" COMM	TOP = 754.9	BTM = 754.7	0.8'	
	3" ELEC	TOP = 753.9	BTM = 753.6	1.1'	
	6" STM	TOP = 752.5	BTM = 752.0		
21	FINISH GRADE = 756.5				
	2" COMM	TOP = 755.0	BTM = 754.8	0.8'	
	3" ELEC	TOP = 754.0	BTM = 753.7	2.1'	
	12" STM	TOP = 751.6	BTM = 750.6		
22	FINISH GRADE = 756.5				
	12" STM	TOP = 753.1	BTM = 752.1	1.5'	A
	3" WTR	TOP = 750.6	BTM = 750.3		
23	FINISH GRADE = 756.5				
	8" STM	TOP = 753.9	BTM = 750.2	1.7'	
	6" WTR	TOP = 751.5	BTM = 751.0		
24	FINISH GRADE = 756.2				
	2" ELEC	TOP = 753.7	BTM = 753.5	1.5'	
	12" STM	TOP = 752.0	BTM = 751.0	1.5'	
	8" WTR	TOP = 749.5	BTM = 748.8	1.6'	
	8" SAN	TOP = 747.2	BTM = 746.5		

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

NOTES

1. YARD HYDRANT TO BE HOUSED IN A 4" DIAMETER PRECAST BARREL SECTION WITH FLAT TOP AND CLOSED LID AND 6" CA-7 BEDDING BOTTOM.
2. NOT ALL SANITARY SEWER LOCATIONS CONFIRMED. CONTRACTOR SHALL INSTALL REPLACEMENT SEWER IF THE EXISTING SEWER IS NOT REUSABLE. SANITARY MANHOLES SHALL SIMILARLY BE REPLACED IF FOUND UNUSABLE.
3. ALL UNDERGROUND WATER MAINS THAT ARE TO BE UTILIZED FOR FIRE PROTECTION SHALL BE PROPERLY FLUSHED. THE FIRE PREVENTION BUREAU SHALL WITNESS THE FLUSH. ALL WATER MAINS WHICH ARE CONNECTED TO THE CITY OF WEST CHICAGO WATER MAIN SYSTEM WILL REQUIRE A REPRESENTATIVE FROM THE CITY OF WEST CHICAGO'S UTILITY DIVISION BE PRESENT DURING THE FLUSHING TO OPERATE THE VALVES AND CONTROL THE FLOW.
4. ALL UNDERGROUND WATER MAINS FOR FIRE PROTECTION USE SHALL BE HYDRO TESTED AT TWO HUNDRED (200) LBS. FOR TWO (2) HOURS, AFTER THE MAINS HAVE BEEN FLUSHED.
   - 4.1. THE CONTRACTOR SHALL PERFORM A PRETEST PRIOR TO SCHEDULING THE TEST TO BE WITNESSED.
   - 4.2. THE CONTRACTOR SHALL HAVE ALL THE NECESSARY EQUIPMENT ON SITE TO PERFORM THE HYDRO TEST AND RECOVERY TEST
   - 4.3. THE CONTRACTOR SHALL PROPERLY FILL OUT A CONTRACTORS MATERIAL & TEST CERTIFICATE FOR UNDERGROUND PIPING. THE CERTIFICATE SHALL BE ON SITE AND A COPY GIVEN TO THE INSPECTOR AT THE END OF THE TEST.
   - 4.4. THE CONTRACTOR SHALL CONTACT THE FIRE PREVENTION BUREAU @ 630-231-2123 TO SCHEDULE THE TEST. PROVIDE FORTY-EIGHT (48) HOURS' NOTICE FOR TESTING.
5. PROVISIONS SHALL BE MADE TO MAINTAIN SANITARY SEWER SERVICE. CONTRACTOR SHALL MINIMIZE DOWN-TIME TO INSTALL NEW CONNECTION TO SANITARY MANHOLE NO. 1.4.
6. POTABLE WATER SOURCE IS MUNICIPAL (CITY OF WEST CHICAGO)
7. MATERIALS SHALL CONFORM TO CITY OF WEST CHICAGO REQUIREMENTS - SEE SHEET C904.
8. INSTALL WATER MAIN PROTECTION WHERE REQUIRED PER ILLINOIS STANDARD SEWER AND WATER MAIN SPECIFICATIONS.

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION
1	09/07/2019	CITY AND COUNTY REVIEW COMMENTS
2	11/06/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

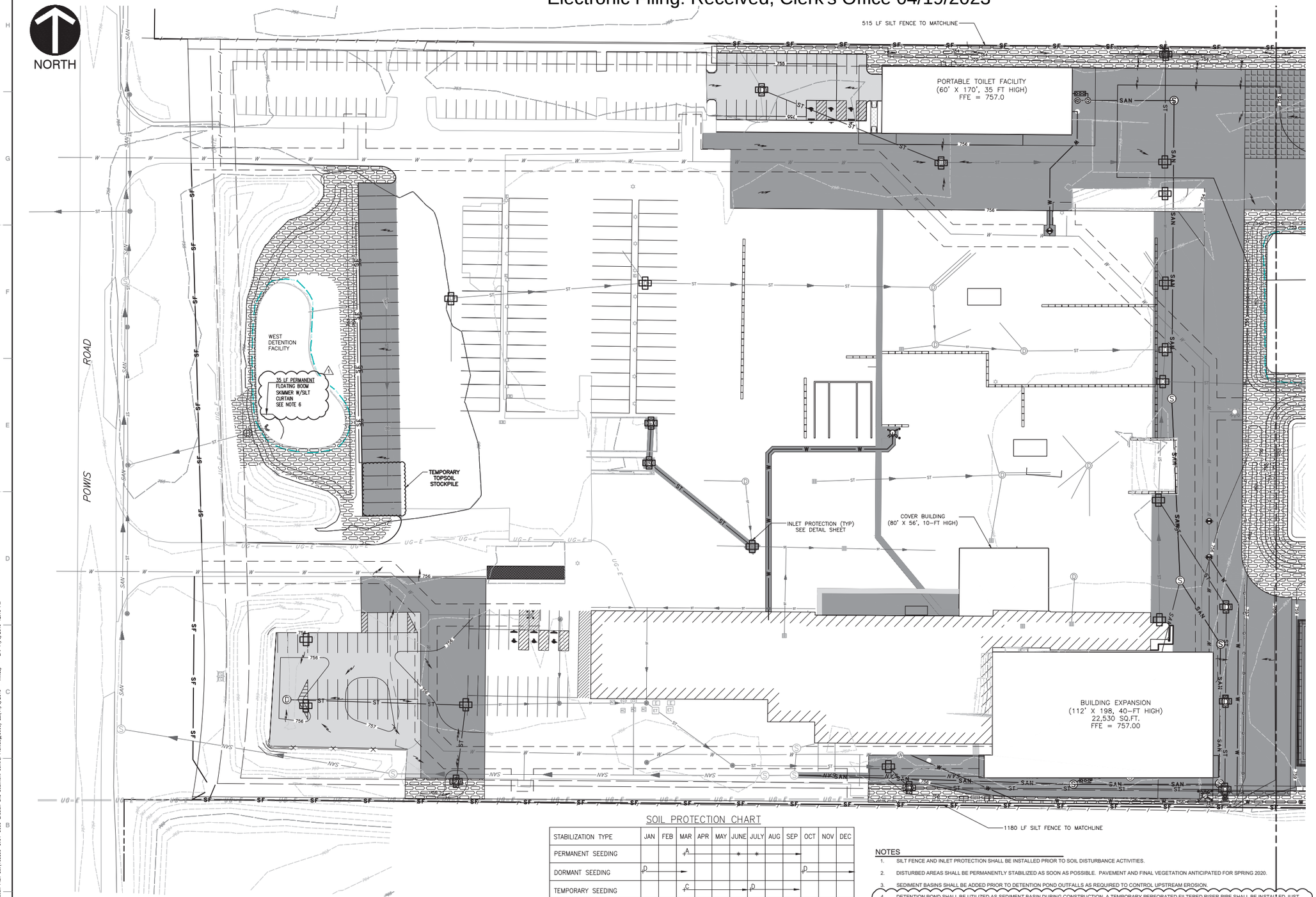
LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

UTILITIES EAST

DATE:	03/18/2019
DWG SCALE:	1"=40'
DRAWN BY:	SJV/CPIV
CHECKED BY:	DAK
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

DRAWING NO.:
C501
SHEET 15 OF 26

P:\2016\163-899\~CAD\Dwg\C404-Construction Plan Set\163899-C404-C501 Utilities East.dwg(C501 UEast.dwg) LS: 11/6/2019 12:46 PM - mikej



REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

SOIL PROTECTION CHART

STABILIZATION TYPE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDING			A			*	*					
DORMANT SEEDING	D									D		
TEMPORARY SEEDING			C				D					
SODDING			E**									
MULCHING	F											

A. KENTUCKY BLUEGRASS 90 LBS/AC MIXED WITH PERENNIAL RYEGRASS 30 LBS/AC
B. KENTUCKY BLUEGRASS 135 LBS/AC MIXED WITH PERENNIAL RYEGRASS 45 LBS/AC +2 TONS STRAW MULCH/AC
C. SPRING OATS 100 LBS/ACRE
D. WHEAT OR CEREAL RYE 150 LBS./ACRE
E. SOD
F. STRAW MULCH 2 TONS/ACRE
* IRRIGATION NEEDED DURING JUNE AND JULY
** IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD

NOTES

1. SILT FENCE AND INLET PROTECTION SHALL BE INSTALLED PRIOR TO SOIL DISTURBANCE ACTIVITIES.
2. DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED AS SOON AS POSSIBLE. PAVEMENT AND FINAL VEGETATION ANTICIPATED FOR SPRING 2020.
3. SEDIMENT BASINS SHALL BE ADDED PRIOR TO DETENTION POND OUTFALLS AS REQUIRED TO CONTROL UPSTREAM EROSION.
4. DETENTION POND SHALL BE UTILIZED AS SEDIMENT BASIN DURING CONSTRUCTION. A TEMPORARY PERFORATED FILTERED RISER PIPE SHALL BE INSTALLED JUST BEFORE THE PERMANENT OUTLET FLARED END SECTION AND SHALL INCLUDE A TEE OUTLET TO CONVEY FILTERED WATER TO THE OUTLET.
5. NO MATERIAL STORAGE OR STOCKPILES SHALL BE PLACED WITHIN THE FLOODPLAIN LIMITS.
6. PERMANENT FUTURE BOOM WILL BE AN ELASTIC TYPE 1 STILLWATER SCREEN TURBIDITY CURTAIN EQUIPPED WITH 5" PIG OIL-ONLY ABSORBENT BOOMS (OR EQUIVALENT) ALONG THE FULL LENGTH OF THE TOP OF THE CURTAIN.

PHASE PLAN SCHEDULE

PHASE I - SITE PREP AND DEMO SEPTEMBER 2019

PHASE II - GRADING AND CONSTRUCTION BEGIN OCTOBER 2019

PHASE III - FINAL GRADING AND VEGETATION BEGIN APRIL 2020

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION
1	04/01/19	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.ceinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

EROSION AND SEDIMENT CONTROL AND RESTORATION PLAN WEST

DATE:	04/15/2019
DRAWN BY:	SJV/CAC
DWG SCALE:	1"=40'
CHECKED BY:	CAC
PROJECT NO.	163-899.0004
APPROVED BY:	JEH

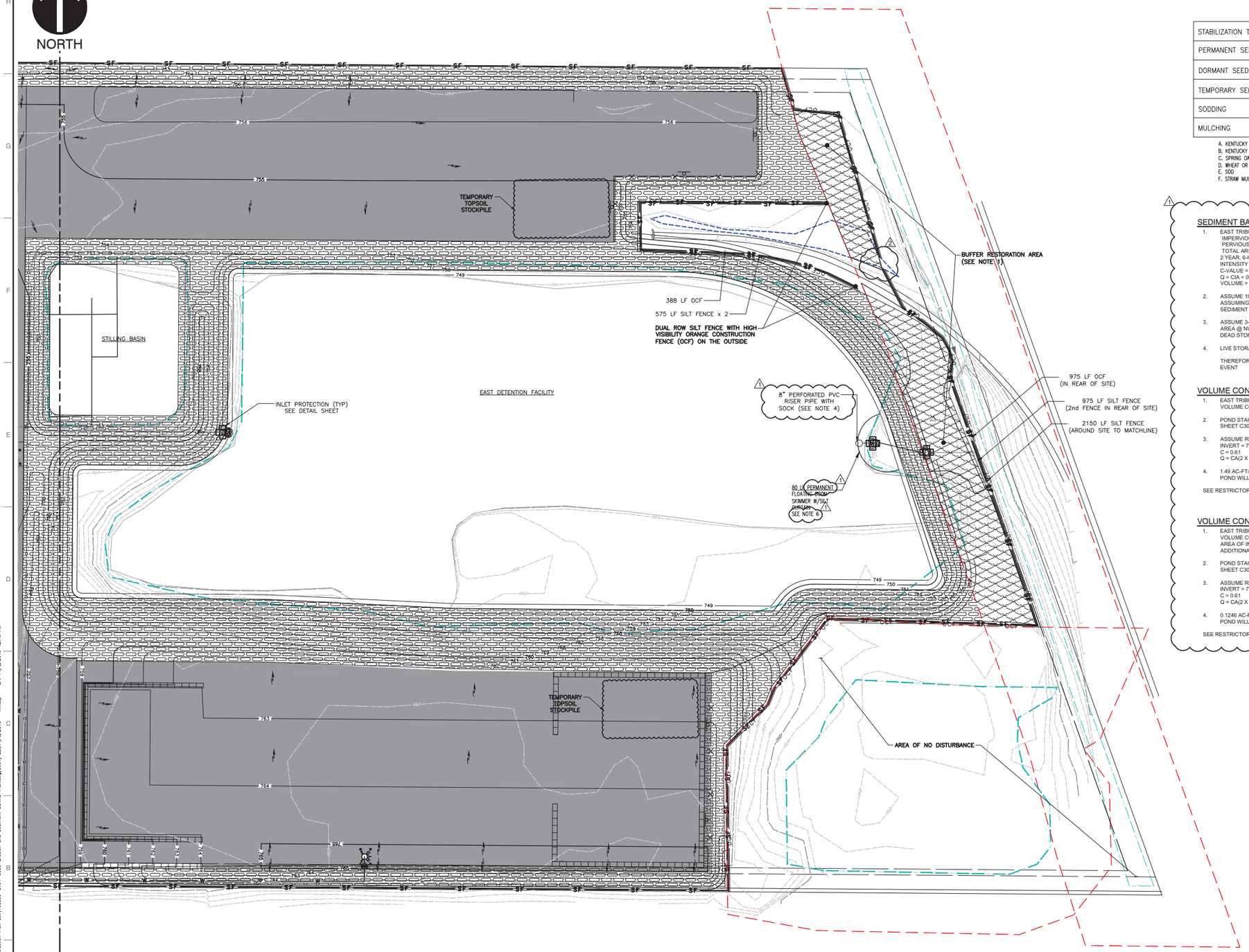
DRAWING NO.:
C600
SHEET 16 OF 26

P:\2016\163-899\--CAD\Dwg\CIVIL-Construction Plan Set\163899--CIVIL-C600-Erosion and Sediment Control Plan.dwg[C600] LS(11)(6/2019 - mkraus) - LP: 11/6/2019 12:46 PM

Electronic Filing: Received, Clerk's Office 04/19/2023

C000830

NORTH



SOIL PROTECTION CHART

STABILIZATION TYPE	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDING			A			*	*					
DORMANT SEEDING	D								D			
TEMPORARY SEEDING			C				D					
SODDING			E**									
MULCHING	F											

A. KENTUCKY BLUEGRASS 90 LBS/AC MIXED WITH PERENNIAL RYEGRASS 30 LBS/AC
B. KENTUCKY BLUEGRASS 135 LBS/AC MIXED WITH PERENNIAL RYEGRASS 45 LBS/AC +2 TONS STRAW MULCH/AC
C. SPRING OATS 100 LBS/ACRE
D. WHEAT OR CEREAL RYE 150 LBS./ACRE
E. SOD
F. STRAW MULCH 2 TONS/ACRE
* IRRIGATION NEEDED DURING JUNE AND JULY
IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD

SEDIMENT BASIN CALCULATION

1. EAST TRIBUTARY AREA = DA3 + DA4 + DA5
   IMPERVIOUS AREA = 9.69AC + 1.62AC + 2.99AC = 14.3 AC
   PERVIOUS AREA = 0.67AC + 0.30AC + 2.83AC = 3.8 AC
   TOTAL AREA = 14.3AC + 3.8AC + 4.1AC (AREA OF WATER IN DA5) = 22.2 AC
   2 YEAR, 6-HOUR STORM EVENT = 2.28 IN. = 0.19 FT.
   INTENSITY = 2.28IN./6 HR. = 0.38 IN/HR = 0.0000088 FT/SEC
   C-VALUE = [((14.3AC X 0.98) + (3.8AC X 0.35))/22.2AC] = 0.69
   Q = CIA = 0.69 X 0.0000088 FT/SEC X 22.2 AC = 0.0001348 AC-FT/S
   VOLUME = 0.0001348 AC-FT/S X 6 HR = **2.9 AC-FT**
2. ASSUME 193LBS/AC X 22.23AC = 4290.39 LBS
   ASSUMING 100 LB/CF
   SEDIMENT LOAD ESTIMATE = 4290.39LBS/100LB/CF = 42.90CF = 0.00098 AC-FT
3. ASSUME 3-FT DEAD WATER POOL
   AREA @ NWL = 3.7 AC
   DEAD STORAGE AVAILABLE = 3FT X 3.7AC = 11.1 AC-FT
4. LIVE STORAGE AVAILABLE = 11.8 AC-FT

   THEREFORE BOTH DEAD AND LIVE STORAGE AREA ADEQUATE TO ACCOMMODATE THE 2 YEAR, 6-HOUR STORM EVENT

VOLUME CONTROL CALCULATION - EAST POND

1. EAST TRIBUTARY IMPERVIOUS AREA = 14.3AC (SEE ABOVE FOR CALCULATION)
   VOLUME CONTROL STORAGE REQUIRED = 14.3AC X (1.25IN/12IN) = 1.49 AC-FT
2. POND STAGE AT 1.49 AC-FT = 749.9 FT (INTERPOLATED FROM STAGE-STORAGE-DISCHARGE EAST TABLE ON SHEET C301)
3. ASSUME RESTRICTOR SIZE = 3.5 IN
   INVERT = 749.5 FT
   C = 0.61
   Q = CA(2 X G X H)^1/2 = 0.292083 CFS
4. 1.49 AC-FT/ 0.292083 CFS = 61.7 HRS
   POND WILL DEWATER IN 61.7 HRS, ORIFICE IS SIZED APPROPRIATELY.

SEE RESTRICTOR DETAIL ON SHEET C903 FOR VOLUME CONTROL WEIR WALL AND RESTRICTOR.

VOLUME CONTROL CALCULATION - WEST POND

1. EAST TRIBUTARY IMPERVIOUS AREA = 1.49 AC (DA2)
   VOLUME CONTROL STORAGE REQUIRED = 1.49AC X (1.25IN/12IN) = 0.155 AC-FT
   AREA OF INFILTRATION TRENCH = 216' X 2.45' X 2.5' = 0.0304 AC-FT
   ADDITIONAL VOLUME CONTROL STORAGE NEEDED = 0.155 AC-FT - 0.0304 AC-FT = 0.1246 AC-FT
2. POND STAGE AT 0.1246 AC-FT = 752.4 FT (INTERPOLATED FROM STAGE-STORAGE-DISCHARGE WEST TABLE ON SHEET C300)
3. ASSUME RESTRICTOR SIZE = 1.0 IN
   INVERT = 752.0 FT
   C = 0.61
   Q = CA(2 X G X H)^1/2 = 0.023843 CFS
4. 0.1246 AC-FT/ 0.023843 CFS = 63.2 HRS
   POND WILL DEWATER IN 63.2 HRS, ORIFICE IS SIZED APPROPRIATELY.

SEE RESTRICTOR DETAIL ON SHEET C903 FOR VOLUME CONTROL WEIR WALL AND RESTRICTOR.

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
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NOTES

1. REFER TO "WETLAND BUFFER RESTORATION PLAN SUMMARY AND MAINTENANCE & MONITORING PLAN", BY V3 COMPANIES, DATED FEBRUARY 20, 2019, FOR BUFFER RESTORATION PLAN AND SPECIFICATIONS.
2. SILT FENCE AND INLET PROTECTION SHALL BE INSTALLED PRIOR TO SOIL DISTURBANCE ACTIVITIES.
3. DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED AS SOON AS POSSIBLE. PAVEMENT AND FINAL VEGETATION ANTICIPATED FOR SPRING 2020.
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SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION
1	06/07/2019	CITY AND COUNTY REVIEW COMMENTS
2	11/08/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.ceinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

EROSION AND SEDIMENT CONTROL AND RESTORATION PLAN EAST

DATE:	04/15/2019
DWG SCALE:	1"=40'
DRAWN BY:	SJV/CAC
CHECKED BY:	CAC
PROJECT NO:	163-699.0004
APPROVED BY:	JEH

DRAWING NO.:
C601
SHEET 17 OF 26

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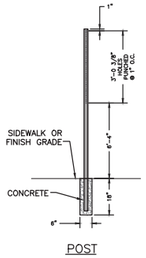

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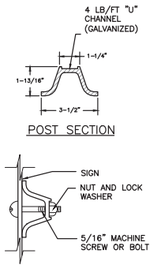
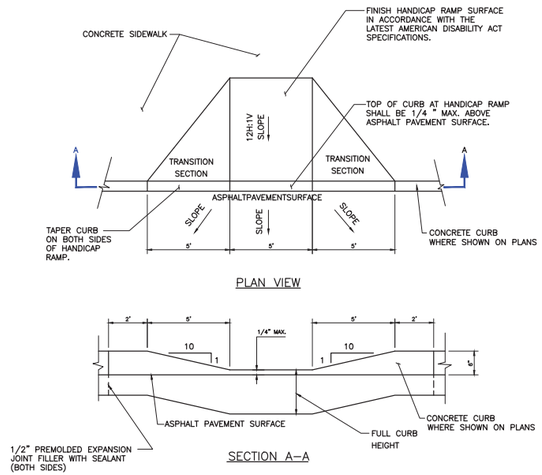


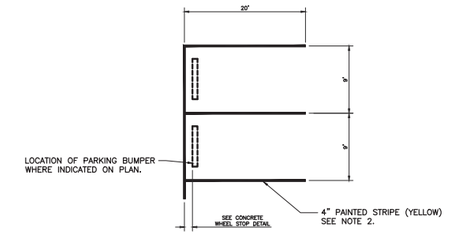
MOUNTING

PARTIAL ELEVATION

ACCESSIBLE PARKING SIGNS
NOT TO SCALE



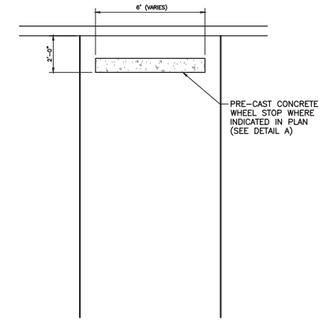
HANDICAP RAMP
NOT TO SCALE

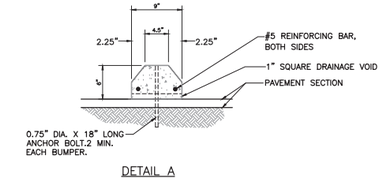


NOTES:

1. END PARKING STALLS ADJACENT TO CURB AND GUTTER OR PRECAST CURB SHALL HAVE A MINIMUM WIDTH OF 9.0' MEASURED FROM FACE OF CURB.
2. YELLOW PAINT FOR PARKING STALLS AND TRAFFIC CONTROL SYMBOLS SHALL BE SHERWIN WILLIAMS S–W TRAFFIC MARKING SERIES B–29Y2 OR AN APPROVED EQUAL.

90* PARKING STALL
NOT TO SCALE





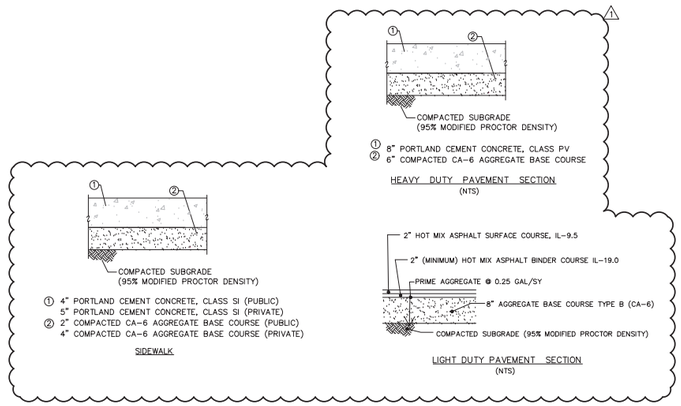
DETAIL A

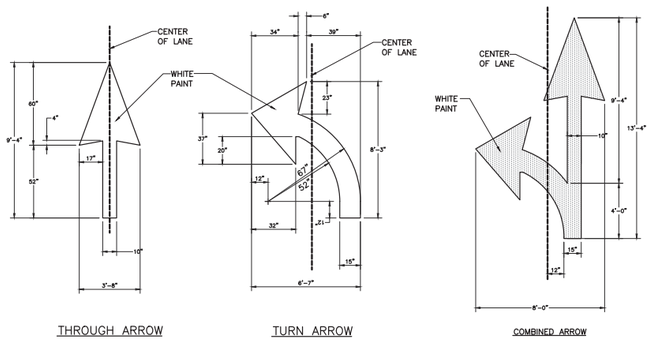
CONCRETE WHEEL STOP
NOT TO SCALE

NOTES:

1. PROVIDE TACK COAT ALONG SAWCUT TO BIND EXISTING PAVEMENT TO NEW PAVEMENT. FOR AREAS WITH PATCHING AND OVERLAY, PROVIDE TACK COAT TO BIND EXISTING PAVEMENT WITH NEW ASPHALT.

PAVEMENT SAWCUT
NOT TO SCALE



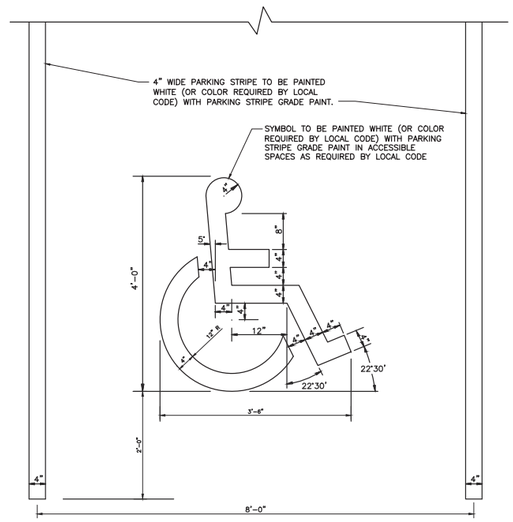


THROUGH ARROW TURN ARROW COMBINED ARROW

NOTE:

1. REFER TO LOCAL REGULATION FOR PROPER PAINT TYPE AND COLOR.

PAVEMENT ARROWS
NOT TO SCALE



ACCESSIBLE PARKING SYMBOL
NOT TO SCALE

REVISION RECORD

NO	DATE	DESCRIPTION
1	05/07/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
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LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

DETAILS

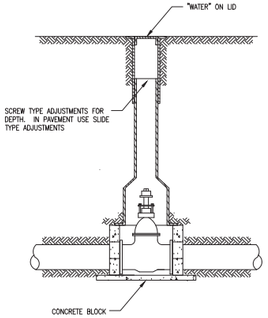
DATE:	04/02/2019
DWG SCALE:	N/A
PROJECT NO:	163-899.0004
DRAWN BY:	S.N/ CP/V
CHECKED BY:	DAK
APPROVED BY:	JEH

DRAWING NO.:
C900
SHEET 18 OF 26

P:\2016\163-899\~2400\Dwg\C404-Construction Plan Set\163899-C404-C900-Details.dwg[C900] LS(11/6/2019 - mikal) - LP: 11/6/2019 12:47 PM

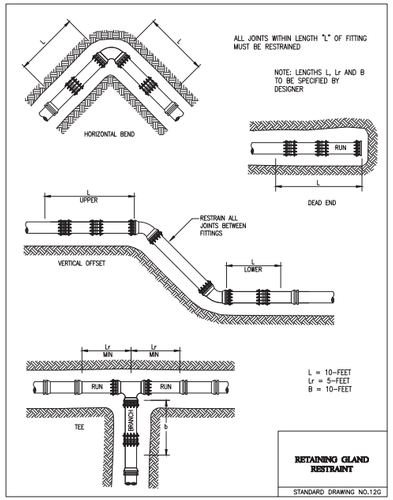
Electronic Filing: Received, Clerk's Office 04/19/2023

C000832



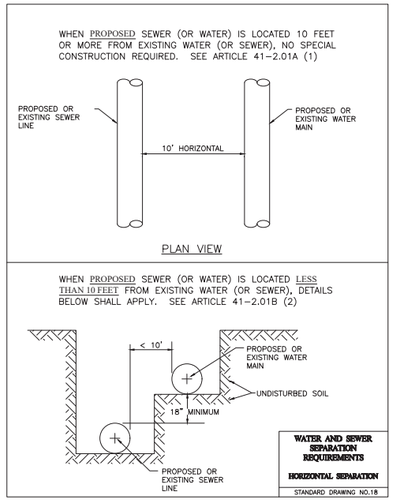
TYPICAL VALVE BOX INSTALLATION

STANDARD DRAWING NO.14



RETAINING GLAND RESTRAINT

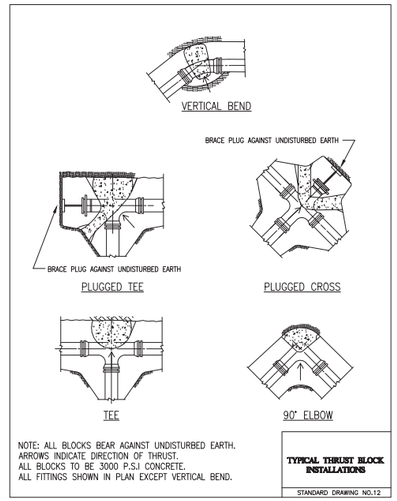
STANDARD DRAWING NO.12G



WATER AND SEWER SEPARATION REQUIREMENTS

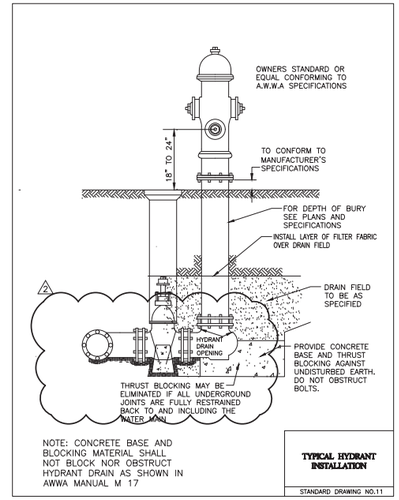
HORIZONTAL SEPARATION

STANDARD DRAWING NO.18



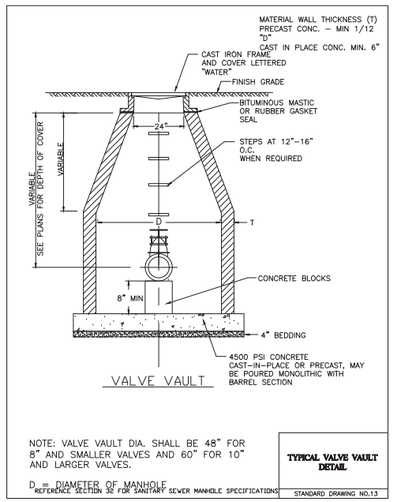
TYPICAL THRUST BLOCK INSTALLATIONS

STANDARD DRAWING NO.12



TYPICAL HYDRANT INSTALLATION

STANDARD DRAWING NO.11



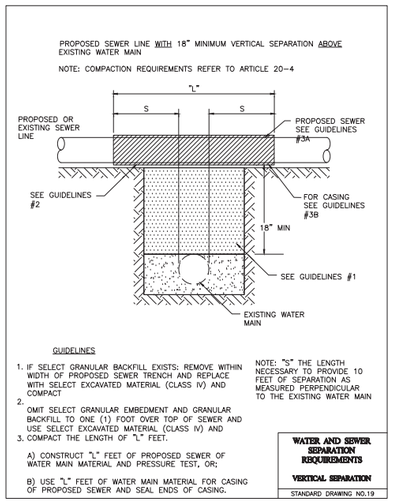
NOTE: VALVE VAULT DIA. SHALL BE 48" FOR 8" AND SMALLER VALVES AND 60" FOR 10" AND LARGER VALVES.

D = DIAMETER OF MANHOLE

REFERENCE SECTION 32 FOR SANITARY SEWER MANHOLE SPECIFICATIONS

TYPICAL VALVE VAULT DETAIL

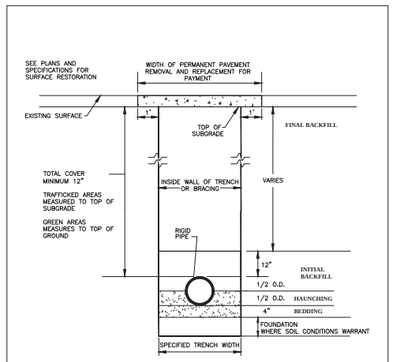
STANDARD DRAWING NO.13



WATER AND SEWER SEPARATION REQUIREMENTS

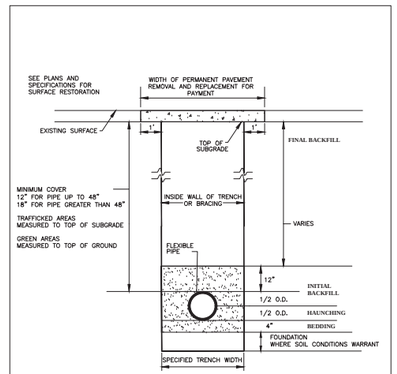
VERTICAL SEPARATION

STANDARD DRAWING NO.19



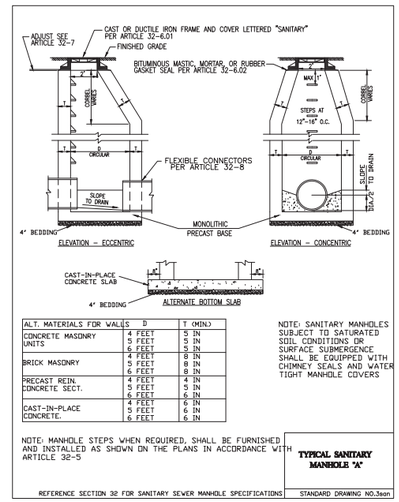
RIGID PIPE INSTALLATION DETAIL

STANDARD DRAWING NO.1



FLEXIBLE PIPE INSTALLATION DETAIL

STANDARD DRAWING NO.2



ALT. MATERIALS FOR WALLS	D	T (MIN.)
CONCRETE MASONRY UNITS	4 FEET	5 IN
	5 FEET	5 IN
	6 FEET	5 IN
BRICK MASONRY	4 FEET	8 IN
	5 FEET	8 IN
	6 FEET	8 IN
PRECAST REIN. CONCRETE SECT.	4 FEET	4 IN
	5 FEET	5 IN
	6 FEET	6 IN
CAST-IN-PLACE CONCRETE.	4 FEET	6 IN
	5 FEET	6 IN
	6 FEET	6 IN

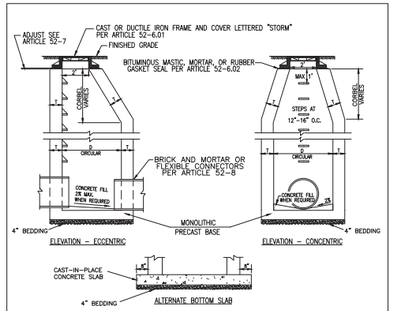
NOTE: SANITARY MANHOLES SUBJECT TO SATURATED SOIL CONDITIONS OR SURFACE SUBMERGENCE SHALL BE EQUIPPED WITH CHIMNEY SEALS AND WATER TIGHT MANHOLE COVERS

NOTE: MANHOLE STEPS WHEN REQUIRED, SHALL BE FURNISHED AND INSTALLED AS SHOWN ON THE PLANS IN ACCORDANCE WITH ARTICLE 32-5

REFERENCE SECTION 32 FOR SANITARY SEWER MANHOLE SPECIFICATIONS

TYPICAL SANITARY MANHOLE "A"

STANDARD DRAWING NO.3san



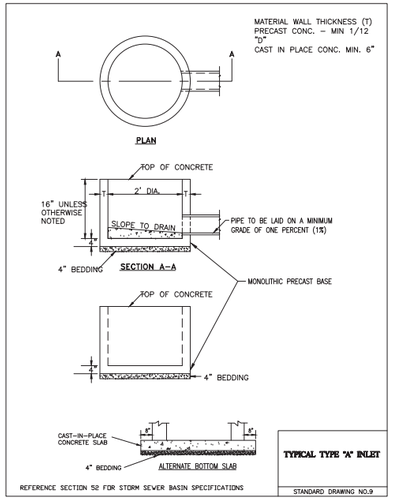
ALT. MATERIALS FOR WALLS	D	T (MIN.)
CONCRETE MASONRY UNITS	4 FEET	5 IN
	5 FEET	5 IN
	6 FEET	5 IN
BRICK MASONRY	4 FEET	8 IN
	5 FEET	8 IN
	6 FEET	8 IN
PRECAST REIN. CONCRETE SECT.	4 FEET	4 IN
	5 FEET	5 IN
	6 FEET	6 IN
CAST-IN-PLACE CONCRETE.	4 FEET	6 IN
	5 FEET	6 IN
	6 FEET	6 IN

MANHOLE STEPS WHEN REQUIRED, SHALL BE FURNISHED AND INSTALLED AS SHOWN ON THE PLAN IN ACCORDANCE WITH ARTICLE 52-5

REFERENCE SECTION 52 FOR STORM SEWER MANHOLE SPECIFICATIONS

TYPICAL STORM MANHOLE "A"

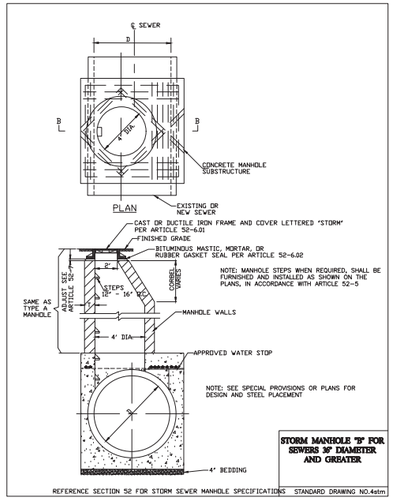
STANDARD DRAWING NO.3stm



REFERENCE SECTION 52 FOR STORM SEWER BASIN SPECIFICATIONS

TYPICAL TYPE "A" INLET

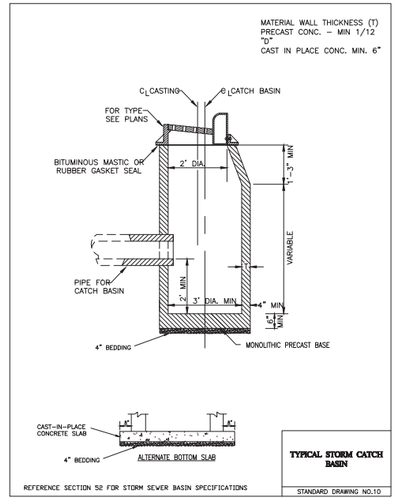
STANDARD DRAWING NO.9



REFERENCE SECTION 52 FOR STORM SEWER MANHOLE SPECIFICATIONS

STORM MANHOLE "B" FOR SEWERS 36" DIAMETER AND GREATER

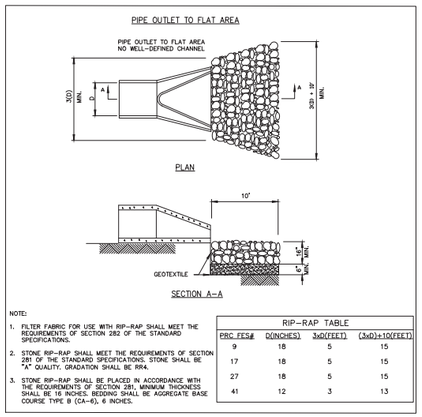
STANDARD DRAWING NO.4stm



REFERENCE SECTION 52 FOR STORM SEWER BASIN SPECIFICATIONS

TYPICAL STORM CATCH BASIN

STANDARD DRAWING NO.10



NOTE:

1. FILTER FABRIC FOR USE WITH RIP-RAP SHALL MEET THE REQUIREMENTS OF SECTION 282 OF THE STANDARD SPECIFICATIONS.
2. STONE RIP-RAP SHALL MEET THE REQUIREMENTS OF SECTION 281 OF THE STANDARD SPECIFICATIONS. STONE SHALL BE "A" QUALITY. GRADATION SHALL BE RR4.
3. STONE RIP-RAP SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 281. MINIMUM THICKNESS SHALL BE 15 INCHES. BEDDING SHALL BE AGGREGATE BASE COURSE TYPE B (CA-6), 6 INCHES.

RIP-RAP TABLE			
PRC FES#	D(INCHES)	3xD(FEET)	(3xD)+10(FEET)
9	18	5	15
17	18	5	15
27	18	5	15
41	12	3	13

REVISION RECORD

NO	DATE	DESCRIPTION
1	11/05/2019	CITY AND COUNTY REVISION COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

DETAILS

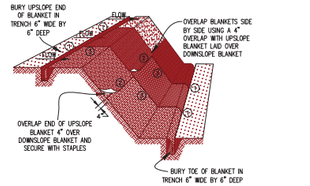
DATE: 04/02/2019 | DRAWN BY: SJV/CPIV
DWG SCALE: N/A | CHECKED BY: DAK
PROJECT NO.: 163-999.0004
APPROVED BY: JEH

DRAWING NO.: **C901**

SHEET 19 OF 26

P:\2016\163-999\~CAD\Dwg\CIVIL-Construction Plan Set\163999-CIV04-CP00-Details.dwg[C901] LSC 11/6/2019 - 12:47 PM (mikej) - JS: 11/6/2019

AUTOCAD2006

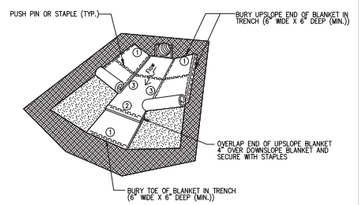


NOTES:

1. Staples shall be placed in a diamond pattern at 2 per s.y. for stitched blankets. Non-stitched shall use 4 staples per s.y. of material. This equates to 200 staples with stitched blanket and 400 staples with non-stitched blanket per 100 s.y. of material.
2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
4. All anchor slots shall be stapled at approximately 12" intervals.

08/30/11	EROSION CONTROL BLANKET INSTALLATION DETAILS	Designed: — — — — Drawn & Checked: — — — — Revised: — — — — Approved: — — — —

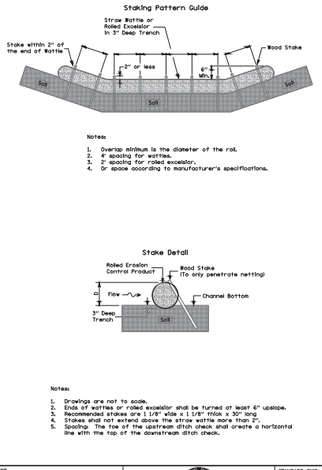
EROSION CONTROL BLANKET–TURF REINFORCEMENT MAT (TRM)



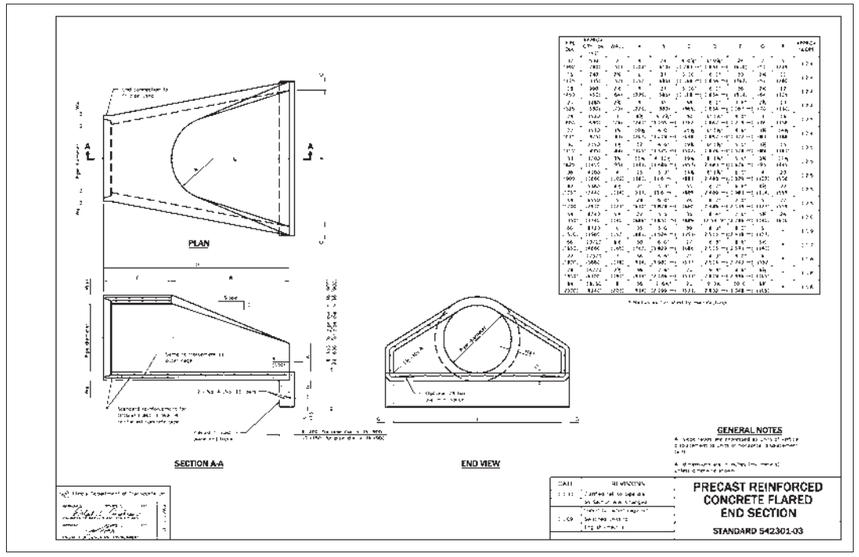
*Note:
1. For sandy soil conditions, staple or push pin shall be a minimum 8 inches.

REFERENCE		STANDARD DWG. NO.
Project		IUM-531
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 02-22-2011
Approved ____ Date ____		

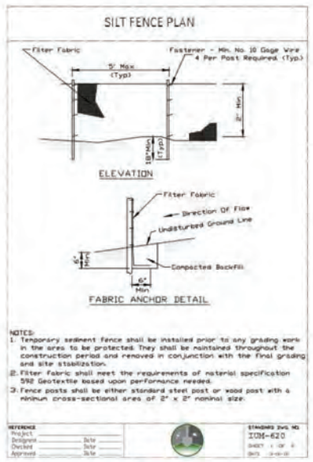
ROLLED EROSION CONTROL PRODUCTS



REFERENCE		STANDARD DWG. NO.
Project		IUM-514
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 2-19-18
Approved ____ Date ____		



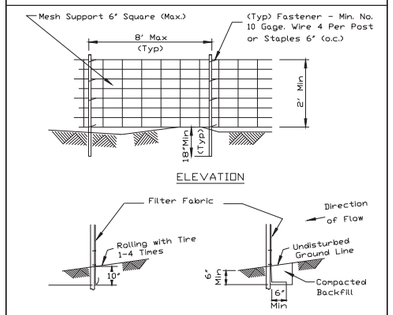
SILT FENCE PLAN



NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile based upon performance needed.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 2" x 2" nominal size.

REFERENCE		STANDARD DWG. NO.
Project		IUM-620
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 3-16-2012
Approved ____ Date ____		

SILT FENCE WITH WIRE SUPPORT PLAN

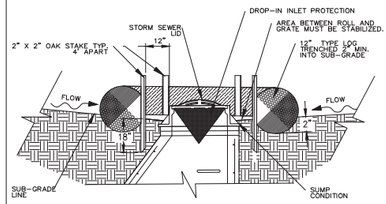


NOTES:
1. Silt Fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization. Silt fence shall be placed on the flattest area available.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1, Class 2 with equivalent opening size of at least 30 for nonwoven and 40 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.

REFERENCE		STANDARD DWG. NO.
Project		IUM-620A(W)
Designed ____ Date ____		SHEET 1 OF 2
Checked ____ Date ____		DATE 3-16-2012
Approved ____ Date ____		

INLET PROTECTION LOG TYPE

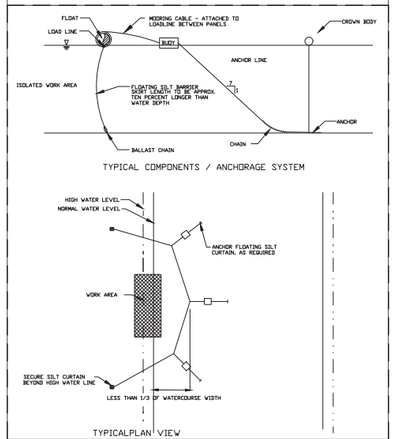
NOT TO SCALE



NOTES:
1. 2" x 2" nominal hardwood stakes, 4 foot minimum length, driven into ground approximately 18 inches, stakes driven a minimum width of 12 inches away from the drop inlet.
2. Area inside the log, from edge of fabric to structure, must be stabilized with erosion control blanket, Turf Reinforcement Mat, Geotextile 592 Table 2 Class 2 or CA-7 stone.
3. The maximum distance between the stakes should be 4 feet.
4. A maintenance schedule must maintain a sediment accumulation of less than 50% of the height of the log.

REFERENCE		STANDARD DWG. NO.
Project		IUM-562
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 11-30-2015
Approved ____ Date ____		

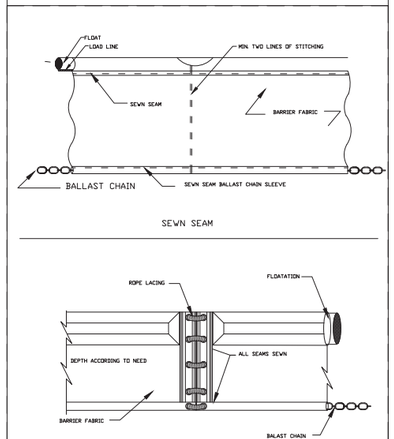
FLOATING SILT CURTAIN - TYPICAL LAYOUT



Maximum flow for waterbody shall be less than 5fps.
Isolated work area shall not exceed more than 1/3 stream width.
Silt curtain shall be placed parallel to stream flow.

REFERENCE		STANDARD DWG. NO.
Project		IUM-617A
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 1-06-2012
Approved ____ Date ____		

FLOATING SILT CURTAIN - PANEL CONNECTORS



REFERENCE		STANDARD DWG. NO.
Project		IUM-617B
Designed ____ Date ____		SHEET 1 OF 1
Checked ____ Date ____		DATE 1-06-2012
Approved ____ Date ____		

REVISION RECORD			
NO	DATE	DESCRIPTION	

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

DETAILS

DATE:	04/02/2019
DRAWN BY:	SJV/CPIV
DWG. SCALE:	N/A
CHECKED BY:	DAK
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

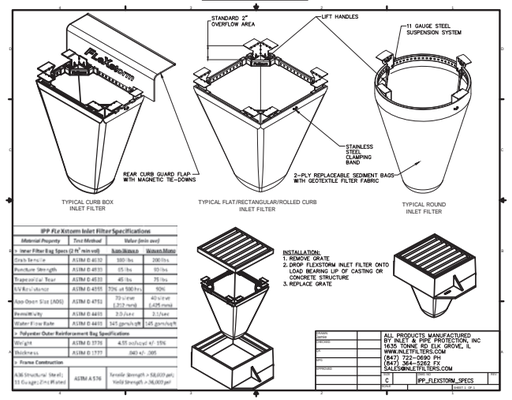
DRAWING NO.: C902

SHEET 20 OF 26

P:\2016\163-899-0400\Dwg\CIVIL-Construction Plan Set\163899-CIVIL-C900-Details.dwg[C902] LSJ 11/6/2019 - 12:47 PM - mikej - LP: 11/6/2019

Electronic Filing: Received, Clerk's Office 04/19/2023

INLET PROTECTION



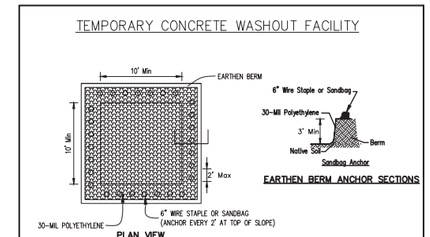
IPP FLEXstorm Inlet Filter Specifications			
Material Property	Test Method	Value (min ave)	
• Inner Filter Bag Specs (2 ft² min roll)		Non-Woven	Woven Fabric
Grab Tensile	ASTM D 4632	380 lbs	280 lbs
Puncture Strength	ASTM D 4833	175 lbs	130 lbs
Trapezoidal Tear	ASTM D 4533	405 lbs	75 lbs
UV Resistance	ASTM D 4355	70% at 500 hrs	90%
Apparent Opening Size (AOS)	ASTM D 4751	70 U.S. sieve (.212 mm)	40 U.S. sieve (.425 mm)
Permeability	ASTM D 4491	3.0 cm/s	2.5 cm/s
Water Flow Rate	ASTM D 4491	540 gpm/sq ft	475 gpm/sq ft
• Polyester Outer Reinforcement Bag Specifications			
Weight	ASTM D 3776	4.35 oz/yd sq +/- 15%	
Thickness	ASTM D 1777	.040 +/- .005	
• Frame Construction			
4.38 Structural Steel (1 Straight 2 Hinged)	ASTM A 576	Tensile Strength = 58,000 psi; Yield Strength = 36,000 psi	

INSTALLATION:
1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE

ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC
1635 YONNE RD ELK GROVE, IL
(847) 364-5262 PH
(847) 727-0690 PH
(847) 364-5262 FX
SALES@INLETFILTERS.COM

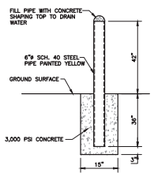
IPP_FLEXSTORM_SPECS

TEMPORARY CONCRETE WASHOUT FACILITY

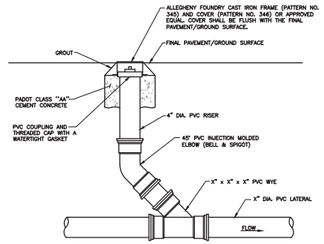


NOTES:

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

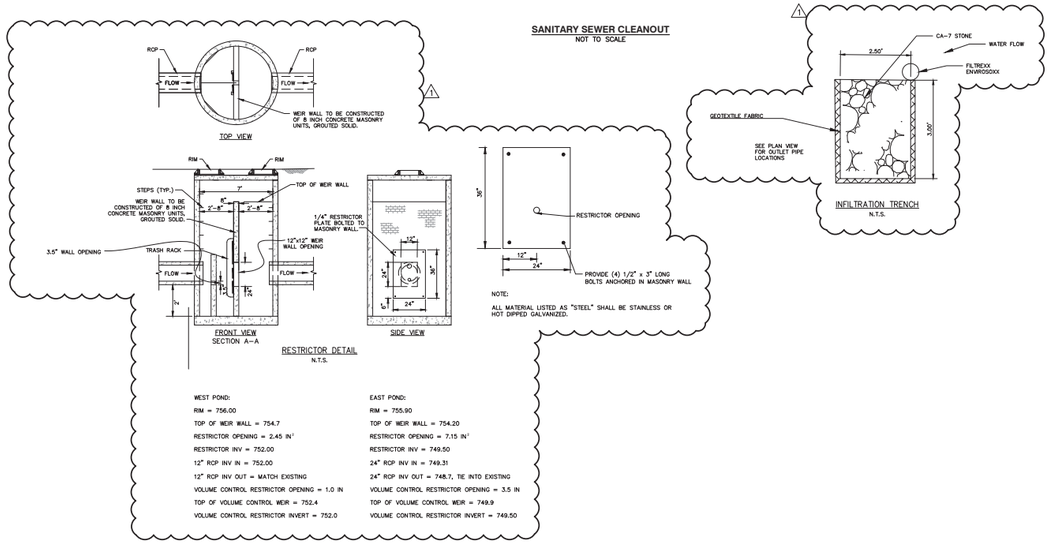


PIPE BOLLARD
NOT TO SCALE



NOTES:
1. THIS DETAIL APPLIES TO STORM AND SANITARY SEWER CLEANOUTS WITH APPROPRIATE CHANGES TO WYE AND PIPE SIZES.
2. ALL PVC PIPE AND FITTINGS SHALL BE SDR 35 WITH RUBBER GASKETED JOINTS.
3. THE CLASS "AA" CEMENT CONCRETE SHALL SATISFY THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 704.

SANITARY SEWER CLEANOUT
NOT TO SCALE



WEST POND:	EAST POND:
RIM = 756.00	RIM = 755.90
TOP OF WEIR WALL = 754.7	TOP OF WEIR WALL = 754.20
RESTRICTOR OPENING = 2.45 IN²	RESTRICTOR OPENING = 7.15 IN²
RESTRICTOR INV = 752.00	RESTRICTOR INV = 749.50
12" RCP INV IN = 752.00	24" RCP INV IN = 749.31
12" RCP INV OUT = MATCH EXISTING	24" RCP INV OUT = 748.7, TIE INTO EXISTING
VOLUME CONTROL RESTRICTOR OPENING = 1.0 IN	VOLUME CONTROL RESTRICTOR OPENING = 3.5 IN
TOP OF VOLUME CONTROL WEIR = 752.4	TOP OF VOLUME CONTROL WEIR = 749.9
VOLUME CONTROL RESTRICTOR INVERT = 752.0	VOLUME CONTROL RESTRICTOR INVERT = 749.50

PART 1.00 GENERAL

1.1 INTRODUCTION

A. The VortClarex® system, with the performance specifications as described in Section 2.2, shall remove essentially all free and dispersed, non-emulsified oil and settleable solids from an oil/water mixture at the specified flow rates and operating temperatures. The system design shall utilize the difference in specific gravity between oil and water (i.e., buoyancy force) to separate these fluids. The separation process shall be enhanced through the use of proprietary VortClarex coalescing media. The separator shall be designed to receive non-emulsified oily water by gravity or pumped flow and shall process it on a once-through basis. The system shall be a single wall, rectangular tank installed below grade.

1.2 DESCRIPTION

The VortClarex system shall be housed within a rectangular, precast reinforced concrete tank. Within the precast concrete vault, parallel-corrugated plate coalescing media shall be utilized to provide enhanced gravity separation of oil and water mixtures. The separator shall include a baffled inlet compartment, separation chamber, and clean water outlet chamber.

A. INLET COMPARTMENT
The inlet compartment shall be of sufficient volume to effectively reduce influent suspended solids, dissipate energy and begin separation. The inlet shall be comprised of a non-clog diffuser to distribute the flow across the width of the separation chamber. A sediment baffle will be provided to retain settleable solids and prevent sediment from entering the separation chamber.

B. SEPARATION CHAMBER
The oil separation chamber shall contain VortClarex coalescing media. The parallel corrugated plates shall be at a 45° angle with respect to longitudinal axis of the plate corrugations, and spaced ½-inch (13 mm) apart for removal of free oil 60 microns in size or greater, and settleable solids. System configuration shall not promote solids buildup on the plates, which may increase velocities and result in the discharge of an effluent of unacceptable quality.

Laminar flow with a Reynolds Number of less than 500 shall be maintained throughout the coalescing media over the range of operating flow rates (treatment through maximum conveyance flow), to prevent re-entrainment of oils with water. Flow through the coalescing media shall be cross-flow perpendicular to plate corrugations so that the oil collects and coalesces at the high point of corrugations and rises to the top of the media pack without clogging.

C. CLEAN WATER OUTLET CHAMBER
An oil retention baffle or inverted T-pipe section shall be provided to prevent free-floating oil from exiting the system.

D. PIPE CONNECTIONS
Internal SDR 35 piping shall extend through the external precast concrete wall of the vault. Influent and effluent pipes shall be connected to the VortClarex® pipe system by means of a Ferno type coupling.

1.3 QUALITY CONTROL INSPECTION

A. The quality of materials, the process of manufacture, and the finished sections shall be subject to inspection by the Engineer. Such inspection may be made at the place of manufacture, or on the work site after delivery, or at both places, and the sections shall be subject to rejection at any time if material conditions fail to meet any of the specification requirements, even though sample sections may have been accepted as satisfactory at the place of manufacture. Sections rejected after delivery to the site shall be marked for identification and shall be removed from the site at once. All sections that have been damaged beyond repair during delivery will be rejected and, if already installed, shall be repaired to the Engineer's acceptance level, if permitted, or removed and replaced, entirely at the manufacturer's expense.

B. All sections shall be inspected for general appearance, dimensions, soundness, etc. The surface shall be dense, close-textured and free of blisters, cracks, roughness and exposure of reinforcement.

C. Imperfections may be repaired, subject to the acceptance of the Engineer, after demonstration by the manufacturer that strong and permanent repairs result. Repairs shall be carefully inspected before final acceptance. Cement mortar used for repairs shall have a minimum compressive strength of 4,000 psi (28 MPa) at the end of 7 days and 5,000 psi (34 MPa) at the end of 28 days when tested in 3-inch (76 mm) by 6-inch (152 mm) cylinders stored in the standard manner. Epoxy mortar may be utilized for repairs.

1.4 SUBMITTALS

A. The Contractor shall be provided with dimensional drawings and, when specified, utilize these drawings as the basis for preparation of shop drawings showing details for construction, reinforcing, joints and any cast-in-place appurtenances. Shop drawings shall be annotated to indicate all materials to be used and all applicable standards for materials, required tests of materials and design assumptions for structural analysis. Shop drawings shall be prepared at a scale of not less than 3/16-inches per foot (1:75).

PART 2.00 PRODUCTS

2.1 MATERIALS AND DESIGN

A. Concrete for the precast VortClarex system shall conform to ASTM C 857 and C 858 and meet the following additional requirements:
1. The exterior wall thickness shall not be less than 6-inches (152 mm) or as shown on the dimensional drawings prepared by Contech Engineered Solutions LLC. In all cases the wall thickness shall be no less than the minimum thickness necessary to sustain HS20 (MS18) loading requirements as determined by a Licensed Professional Engineer.
2. Sections shall have tongue-and-groove joints or shiplap joints and be sealed with a butyl mastic sealant designed to be resistant to fuel and oil such as ConSeal™ Brand CS-440 or approved equal. All joints will be above the resting water level.
3. Cement shall be Type II Portland cement, or approved equal, conforming to ASTM C 150.
4. All precast concrete sections shall be cured by an approved method. Sections shall not be shipped until the concrete has attained a compressive strength of 4,000 psi (28 MPa) or until 5 days after fabrication and/or repair, whichever is longer.

B. Coalescing media shall be manufactured by Facet International and be made of calcium carbonate filled polypropylene corrugated plates, with corrugation angles no less than 45° with respect to longitudinal axis of the plate corrugations. Plates shall be spaced at ½-inch (13 mm) intervals and be stacked and bound together with sturdy rods and supports to form modular plate packs.

C. Polyurethane elastomeric sealant shall comply with ASTM D-412 and GSA Specification TT-S-00230C, Type II, Class A and ASTM C-920, Type S, Grade NS.

E. Manhole frames and covers shall be provided by the manufacturer in the numbers and configurations as shown on the dimensional drawings prepared by Contech.

E. Hatchways shall be provided by the manufacturer in the numbers and configurations as shown on the dimensional drawings prepared by Contech. Hatchways shall be made of Cast Iron, steel or aluminum, and shall meet HS20-44 (MS18) loading requirements.

F. Brick or masonry used to build the casting and hatchway frames to grade shall conform to ASTM C 32 or ASTM C 139 and shall be installed in conformance with all local requirements.

2.2 MANUFACTURER

The manufacturer of said VortClarex system shall have been regularly engaged in the engineering design and production of systems for the physical treatment of stormwater runoff for a minimum of 5 years.

Each VortClarex system shall be manufactured by Contech, or approved equal.

PART 3.00 EXECUTION

3.1 INSTALLATION

A. Each VortClarex system shall be constructed according to the sizes shown on the drawings and as specified herein. Install at elevations and locations shown on the drawings or as otherwise directed by the engineer.

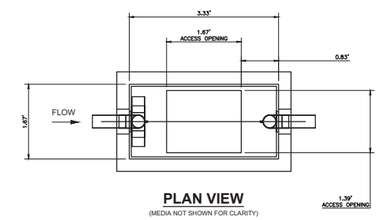
B. Place the precast base unit on a granular subbase of minimum thickness of 6 inches (152 mm) after compaction or of greater thickness and compaction if specified elsewhere. The granular subbase shall be checked for level prior to setting and the precast base section of the vault shall be checked for level at all four corners after it is set. If the slope from any corner to any other corner exceeds 0.5% the base section shall be removed and the granular subbase material re-leveled.

C. Prior to setting subsequent sections place ConSeal™ brand CS-440 butyl mastic sealant, or approved equal in conformance with ASTM C 990-91, along the construction joint in the section that is already in place.

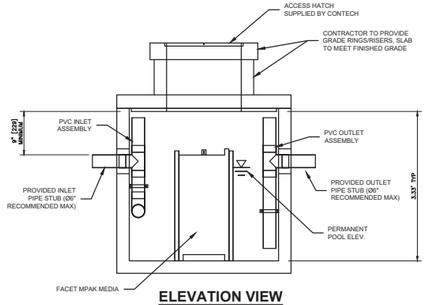
D. After setting the precast roof section of the VortClarex system, set riser sections to the height required to bring the cast iron manhole covers or hatches to grade, so that the sections are vertical and in true alignment with a ½-inch (6 mm) maximum tolerance allowed. Backfill in a careful manner, bringing the fill up in 6-inch (152 mm) lifts on all sides. If leaks appear, clean the inside joints and caulk with lead wool to the satisfaction of the Engineer. Precast sections shall be set in a manner that will result in a watertight joint. In all instances, installation of the VortClarex system shall conform to ASTM specification C 891 "Standard Practice for Installation of Underground Precast Utility Structures".

E. Holes made in the concrete sections for handling or other purposes shall be plugged with a non-shrink grout or by using grout in combination with concrete plugs.

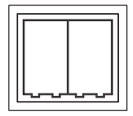
VCL30 DESIGN NOTES
VCL30 RATED TREATMENT CAPACITY IS 110 GPM [6.93 l/s]. OR PER LOCAL REGULATIONS. IF THE SITE CONDITIONS EXCEED RATED TREATMENT CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.
THE VORTCLAREX SYSTEM SHALL REMOVE ESSENTIALLY ALL FREE AND DISPERSED NON-EMULSIFIED OIL FROM THE WATER STREAM AND PRODUCE A DESIRED EFFLUENT BASED ON AN OIL DROPLET TYPICAL OF THE SITE.
THE VORTCLAREX SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH STOKES LAW AND API BULLETIN NO. 421.
THE STANDARD INLET/OUTLET CONFIGURATION IS SHOWN. FOR OTHER CONFIGURATION OPTIONS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com



PLAN VIEW
(MEDIA NOT SHOWN FOR CLARITY)



ELEVATION VIEW



30" x 36" [762 x 914] ACCESS HATCH

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. VORTCLAREX WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET AASHTO M306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION
5. INLET AND OUTLET PIPES MUST BE PERPENDICULAR TO THE VAULT TO ALLOW CONNECTION WITH PROVIDED PIPE STUBS.
6. FLOW LINE IN AND OUT OF THE VORTCLAREX IS RECOMMENDED TO BE AT THE SAME ELEVATION.
7. ALTERNATE UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

INSTALLATION NOTES
1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE VORTCLAREX STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE AND INSTALL FERNCO, OR EQUIVALENT, COUPLER TO MATE EXISTING TRUNKLINE TO THE PROVIDED PIPE STUBS. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
513-645-7000 Fax: 513-645-7993

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com

VORTCLAREX VCL30
STANDARD DETAIL

REVISION RECORD

NO	DATE	DESCRIPTION
1	09/07/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

DETAILS

DATE:	04/02/2019
DWG SCALE:	N/A
DRAWN BY:	SJV/CPV
CHECKED BY:	DAK
PROJECT NO:	163-895.0004
APPROVED BY:	JEH

DRAWING NO.:
C903
SHEET 21 OF 26

P:\2016\163-895\--2400\Dwg\C904-Construction Plan Set\163895-C904--2900--Details.dwg(C903) LS(1):6/2019 - mikal - LD: 11/6/2019 12:48 PM

C000835

Received, Clerk's Office 04/19/2023

Electronic Filing:

CITY OF WEST CHICAGO
PUBLIC IMPROVEMENT MATERIALS LIST (2/20 0REV.)

WATER

1. PIPE

CLASS 52 DUCTILE IRON, CEMENT LINED ASPHALTIC COATING OR PAINT, PUSH ON JOINTS, POLYETHYLENE ENCASED WITH TAPED JOINTS. ALL PVC PIPE SHALL CONFORM TO AWWA C-900/DUCS, AND ONLY BE USED UPON CITY APPROVAL. ALL POLYETHYLENE PIPE SHALL CONFORM TO AWWA C-906 SPECS AND ONLY BE USED UPON CITY APPROVAL

2. MAIN LINES VALVE

VALVES - SHALL BE RESILIENT WEDGE TYPE, RATED FOR 250 PSI WORKING PRESSURE AND MEET AWWA C-509 AND C-515 SPECS. VALVES SHALL HAVE FACTORY INSTALLED 304 STAINLESS STEEL EXTERIOR BOLTING. ALL INTERNAL AND EXTERNAL SURFACES SHALL HAVE A FUSION BONDED EPOXY COATING. VALVES SHALL BE AMERICAN FLOW CONTROL, CLOW, EAST JORDAN, DEMUELLER, SPECIAL STRUCTURES MAY BE REQUIRED FOR LARGER VALVES.

BUTTERFLY VALVES - REQUIRE SPECIAL APPROVAL BY CITY ENGINEER - SHALL BE HTHIGH CLOW SERIES 4500 MJ OR DENLY PRATT GROUND HOG. ALL VALVES SHALL HAVE "OPTIONAL" EPOXY COATING CONFORMED TO AWWA C550 SPECS, AND BE SUPPLIED WITH 2" OPERATING NUT. ALL EXTERIOR BOLTS WILL BE FACTORY INSTALLED 304 STAINLESS STEEL.

VALVE OPERATING NUTS TO BE 1)PICK THAN 7 - MAY REQUIRE VALVE OPERATING ROD EXTENSIONS

3. INSERTION VALVES

UNITED STATES PIPE AND FOUNDRY COMPANY INSERTION VALVE WITH SLEEVE AND RETAINER RINGS.
PART NUMBER 910314

TEAM VALVE, WITH 304 STAINLESS STEEL TRIM.

HYDRA-STOP-INSTA-VALVE 2 56/P ATRIOT, WITH STAINLESS STEEL TRIM

4. LIVE STOP FITTINGS- UP TO AND INCLUDING 12"

TRIPLE T AP/O MIDLASS - MFG. BY TYLO - ALL 304 STAINLESS BODY /BRANCH OR NOZZLE AND FLANGES. ALL BOLT TRIM SHALL ALSO BE STAINLESS INCLUDING NUTS AND WASHERS. BUNA-N OR SBR RUBBER GASKET MATERIAL IS ACCEPTED

JCM 660 - ALL 304/STAINLESS BODY - BRANCH OR NOZZLE AND FLANGES. ALL BOLT TRIM SHALL ALSO BE 304 STAINLESS INCLUDING NUTS AND WASHERS. BUNA-N OR SBR RUBBER GASKET MATERIAL IS ACCEPTED

HYDRA STOP/SIX 25F PATRIOT SERIES™ - ALL 304 STAINLESS BODY, BRANCH OR NOZZLE AND FLANGES. ALL BOLT TRIM SHALL ALSO BE 304 STAINLESS INCLUDING NUTS AND WASHERS. BUNA-N OR SBR RUBBER GASKET MATERIAL IS ACCEPTED

LINE STOPS LARGER THAN 12" WILL REQUIRE SUBMITTAL AND APPROVAL OF THE PUBLIC WORKS DIRECTOR/ CITY ENGINEER. ONLY ALL STAINLESS FITTINGS WILL BE DIRECT BURY, ALL OTHERS WILL REQUIRE A MANCAST STRUCTURE.

5. VALVE VAULTS

PRE-CAST CONCRETE, NEENAH R 1772 TYPE "B" LID OR EJIW 1022-1 HD
"WATER" AND "CITY OF WEST CHICAGO" TO BE CAST INTO LID.
EZ-STICK GASKET OR EQUAL SHALL BE INSTALLED AT ALL JOINTS
EXTERNAL JOINT SEALS TO BE MAC-WRAP OR EQUIVALENT
3" DIAMETER FOR VALVES 16" AND LARGER
3" DIAMETER FOR ALL PRESSURE CONNECTIONS UP TO 12"
3" DIAMETER FOR ALL INSERTION VALVES UP TO 12"
NO STEPS
CONCRETE ADJUSTING RINGS NOT TO EXCEED 12" IN HEIGHT AND 3 IN NUMBER. RUBBER MASTIC SHALL BE INSTALLED BETWEEN EACH JOINT.

6. HOSE HYDRANTS

WATEROUS PACER 250 OR EAST JORDAN 5SB WITH 304 STAINLESS STEEL TRIM AND BREAKAWAY TRAFFIC FLANGE, ASSEMBLY SHALL BE FACTORY PAINTED WITH TWO COATS OF RUBBER ASPHALTUM AND BE FLANGED ON GL. ALL HYDRANTS SHALLGED 6X. 25' OF 6 BARREL WATER MAIN SHALL BE INSTALLED ON LOCATED HYDRANT TEES WHERE AVAILABLE. ALL MJ FITTINGS WILL REQUIRE MEGALUG. PAINT COATING FOR FIRE HYDRANTS SHALL BE SHERWIN WILLIAMS BRAND, INDUSTRIAL URETHANE ALKYD ENAMEL, SHERLIS B 65-4 150. COLOR FOR HYDRANTS ON POTABLE DISTRIBUTION MAINS SHALL BE SAFETY YELLOW. COLOR FOR HYDRANTS ON RAW WATERMAINS SHALL BE SAFETY GREEN.

7. AUXILIARY VALVE BOXES

EAST JORDAN SERIES 8550 OR TYLER 60 84 SERIES ADJUSTABLE CAST IRON WITH "WATER" CAST IN TO LID. VALVE BOX STABILIZERS WILL BE EAST JORDAN NO. 50725 OR ADAPTER INC RUBBER DOUGHNUTS.

8. FITTINGS

AMERICAN DUCTILE IRON CO, TYLER OR US PIPE CLASS 3 MECHANICAL JOINT ALL FITTINGS SHALL HAVE EIBA A MEGALUG RETAINER GLANDS. SLEEVES SHALL BE DUCTILE OR CAST IRON SE - CUTTING IN SLEEVES SHALL BE MUELLER, CLOW, AMERICAN FLOW CONTROL OR TYLER MECHANICAL JOINT. WHERE APPLICABLE, ALL HYDRANT TEES ON 12" OR LARGER WATER MAIN SHALL BE "LOCKING." NO BELL REPAIR CLAMPS WILL BE ALLOWED

BOLTS FOR MJ FITTINGS - FLUOROCARBON COATED COR-TEN STEEL T-BOLTS AND NUTS.

9. TAPPING TEE FOR DUCTILE IRON PIPE

MUELLER CAST IRON MJ #H615, AMERICAN FLOW CONTROL DUCTILE IRON SERIES 2800, TYLER/UNION DUCTILE IRON, US PIPE DUCTILE IRON T-9

TAPPING TEE FOR PVC PIPE
ROMAC INDUSTRY, INC. BUILT WITH 304 STAINLESS STEEL FLANGE, CASCADE CST-EX

10. CASINGS

OF NECESSARY DIAMETER, THICKNESS, AND LENGTH TO MEET ALL APPLICABLE REQUIREMENTS OF THE SPECIFIC AGENCY - CITY, COUNTY, STATE OR RAILWAY. CASING SPACERS TO BE CASCADE MODEL CSS OR APPROVED EQUAL. MATCHING CASING SIZE TO PIPE SIZE. CASING END SEALS TO BE CASCADE MODEL CCES OR APPROVED EQUAL, MOTARING OF CASING ENDS SUBJECT ONLY TO PRE-APPROVAL. ALL POSI-JOINTS IN CASING SHALL HAVE "FIELD LOCK GASKETS." ANNULAR SPACE WITHIN CASING MAY REQUIRE FILLING BY SPECIFIC AGENCY. MINIMUM CASING WALL THICKNESS - ¼ INCH

11. LOCATING WIRE

SHALL BE USED ON ANY PVC OR HDPE WATERMAIN

HIGH-FLEX-OPEN TRENCH - TRACER WIRE FOR OPEN-TRENCH INSTALLATION SHALL BE A 12 AWG SOLID, PRO-TRACE ® HF-CCS PE45 CONDUCTOR SHALL BE SOFT DRAWN, 27% IACS, COPPER CLAD STEEL, UTILIZING A AISI 1006 LOW CARBON STEEL CORE (REQUIRED TO MEET BREAK LOAD AND FLEXIBILITY), WITH BREAK LOAD OF 282 LBS (510MI PSI). CONDUCTOR SHALL BE EXTRUDED WITH A 45 MIL, HIGH DENSITY POLYETHYLENE, AND MEET THE APWA COLOR CODE OF THE BURIED UTILITY LINE. TRACER WIRE SHALL BE RATED FOR DIRECT BURIAL USE AT 30 VOLTS AND ROHS COMPLIANT.

DIRECTIONAL DRILLING - TRACER WIRE FOR DIRECTIONAL BORING INSTALLATION SHALL BE A 12 AWG SOLID, PRO-TRACE ® HDD-CCS PE45 CONDUCTOR SHALL BE HARD DRAWN, 21% IACS, COPPER CLAD STEEL, UTILIZING A AISI 1065 HIGH CARBON STEEL CORE (REQUIRED TO MEET BREAK LOADS, WITH RATED BREAK LOAD OF 1,330 LBS. (260.000 PSI). CONDUCTOR SHALL BE EXTRUDED WITH A 65 MIL, HIGH-DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HMW-HDPE) PURSUANT TO ASTM D1248 STANDARD.

CONNECTORS - SHALL BE PRO-TRACE ® TW.

12. **TEST HOOKUPS**

IN VALVE BOXES EVERY 400 FEET OR HDPO ® HIS VIEW TEST STATION. THE MARKER POST SHALL BE TRIANGULAR IN SHAPE, WITH EACH SIDE A MINIMUM OF 3" WIDTH. OVERALL LENGTH SHALL BE 120". POST SHALL BE EXTRUDED RESNPOCY ™ OR SIMILAR THERMOPLASTIC MATERIAL. C-UP TO BE FUSED OR STAPLED TO THE TOP.
THE TEST STATION CAP SHALL BE LOCKABLE. THE TERMINAL BOARD HAS THREE STAINLESS STEEL TERMINALS.
POST SHALL INCLUDE THREE DECALS - ONE PER SIDE. TEXT "WARNING WATER PIPELINE" SHALL BE PRINTED. DECALS ARE TO CONTAIN OPERATOR NAME AND 24HR EMERGENCY PHONE NUMBER.
TEST WIRES SHALL BE A MINIMUM OF 7" WIRE.
POST SHALL BE INSTALLED VIA DIRECT BURY. TRACER WIRES ARE TO BE RUN THROUGH THE HOLE IN THE POST BASE AND ATTACHED TO THE TERMINAL BOARD WITH EACH WIRE ATTACHED TO A SEPARATE TERMINAL. POST BASE IS TO BE ATTACHED TO THE POST VIA SELF-TAPPING SCREWS.

NOTE: TYPE OF TEST STATION WILL BE DETERMINED BY THE CITY ENGINEER.

13. WARNING TAPE

DETECTABLE METALLIC UNDERGROUND TAPE (BURIED WATER LINE) TWO FEET (2') ABOVE PIPE.

14. WATER SERVICE

TYPE "K" COPPER 2" AND LESS, INSTALLED AS ONE CONTINUOUS PIECE FROM MAIN TO B-BOX.
DUCTILE IRON 3" AND LARGER.

15. B-BOX

¾", 1", & 1 ¼ " - TYLER/VO. 6540 WITH VITELLO OR EQUIVALENT CONCRETE B-BOX PAD

1 ½" & 2" - TYLER 6500 WITH TYLER 8 500 ENLARGED BASE OR MUELLER NO. H 10243 FOOTPIECE. FOR ENLARGED FOOT, A BROCK MAY BE USED FOR LEG BASE.

16. CORPORATION STOP

¾" AND 1" - FORD F-600 SERIES OR MUELLER H 15003 BOTH SHALL HAVE FLARED COPPER OUTLET AND AWWA CC THREAD INLET.

1 ¼" - FORD F-650 OR F-1000 SERIES OR MUELLER 15000 SERIES BOTH SHALL HAVE AWWA CC THREAD INLET BUT MAY HAVE A FLARE OR COMPRESSION OUTLET.

1 ½" AND 2" - FORD FB-600 SERIES OR MUELLER 300 SERIES. BOTH SHALL HAVE A WWA CC THREAD INLET BUT MAY HAVE A FLARE OR COMPRESSION OUTLET

17. ROUND WAY- CURB STOP

¾" AND 1" - FORD B-22 SERIES OR MUELLER H-15204

1 ½", 1 ½" AND 2" - FORD "B" SERIES OR MUELLER 300 SERIES. FLARED OR COMPRESSION ARE ACCEPTABLE.

18. PACK FITTINGS-BRASS

ONLY FORD OR MUELLER PACK FITTINGS ACCEPTABLE.

19. SERVICE SADDLES

ALL NON-DIRECT TAPS 1 ½ AND 2" SHALL USE SMITH BLAIR #372, CASCADE #CSCI, OR FORD FS13.
ONLY 1 ½ AND 2" TAPS CAN BE MADE INDIRECT.

CITY OF WEST CHICAGO
PUBLIC IMPROVEMENT MATERIALS LIST (2/20 0REV.) - CONT.

SANITARY SEWER

1. PIPE

PVC SDR 26/1/P TO 12' DEPTH, SDR 21 UP TO 21' DEPTH, SDR 18 OVER 21' DEPTH, SERVICES TO MATCH SEWER MAIN CLASS
WARNING TAPE - DETECTABLE METALLIC UNDERGROUND TAPE (BURIED SEWER LINE), INSTALLED 2' ABOVE PIPE.

2. MANHOLES

PRECAST CONCRETE, NEENAH R 1772 TYPE "B" SELF SEALING LID OR EJIW 1022-1 HD
"SANITARY" AND "CITY OF WEST CHICAGO" TO BE CAST INTO LID. "SANITARY FORCEMAIN" AND "CITY OF WEST CHICAGO" TO BE CAST INTO LIDS FOR AIR RELEASE VAULTS AND CLEANOUT MANHOLES
EZ-STICK GASKET OR EQUAL SHALL BE INSTALLED AT ALL JOINTS
EXTERNAL CHIMNEY SEALS TO BE CANUSA, INFORBELD, MARMAC SURSEAL, OR APPROVED EQUIVALENT.
EXTERNAL JOINT SEALS TO BE MAC-WRAP OR EQUIVALENT
CONCRETE ADJUSTING RINGS NOT TO EXCEED 12" IN HEIGHT AND 3 IN NUMBER. RUBBER MASTIC SHALL BE INSTALLED BETWEEN EACH JOINT.
NO STEPS

3. FORCE MAIN

PVC DR 18/C-900.
FITTINGS - EPOXY LINED DUCTILE IRON WITH EIBA# MEGALUG 2000 PV JUSTRAINT, OR HARCO PVC C-907 BLUE PUSH FITTINGS, OR MULTI FITTINGS PVC C-907 BLUE (BUTT, BOTH MATING 4000 PUSH ON PVC COMPOUND WITH EIBA SERIES 2600 RESTRAINT WITH ALL STAINLESS BOLTING.

NOTE - ANY PIPING CHANGES MUST BE SUBMITTED AND APPROVED BY PUBLIC WORKS DIRECTOR/CITY ENGINEER.

4. LOCATING WIRE

USED ON ANY PVC FORCE MAIN.

HIGHFLEXOPEN TRENCH - TRACER WIRE FOR OPEN-TRENCH INSTALLATION SHALL BE A 12 AWG SOLID, PRO-TRACE ® HF-CCS PE45 CONDUCTOR SHALL BE SOFT DRAWN, 27% IACS, COPPER CLAD STEEL, UTILIZING A AISI 1006 LOW CARBON STEEL CORE (REQUIRED TO MEET BREAK LOAD AND FLEXIBILITY), WITH BREAK LOAD OF 282 LBS (510MI PSI). CONDUCTOR SHALL BE EXTRUDED WITH A 45 MIL, HIGH DENSITY POLYETHYLENE, AND MEET THE APWA COLOR CODE OF THE BURIED UTILITY LINE. TRACER WIRE SHALL BE RATED FOR DIRECT BURIAL USE AT 30 VOLTS AND ROHS COMPLIANT.

DIRECTIONAL DRILLING - TRACER WIRE FOR DIRECTIONAL BORING INSTALLATION SHALL BE A 12 AWG SOLID, PRO-TRACE ® HDD-CCS PE45 CONDUCTOR SHALL BE HARD DRAWN, 21% IACS, COPPER CLAD STEEL, UTILIZING A AISI 1065 HIGH CARBON STEEL CORE (REQUIRED TO MEET BREAK LOADS, WITH RATED BREAK LOAD OF 1,330 LBS. (260.000 PSI). CONDUCTOR SHALL BE EXTRUDED WITH A 65 MIL, HIGH-DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HMW-HDPE) PURSUANT TO ASTM D1248 STANDARD.

CONNECTORS - SHALL BE PRO-TRACE ® TW.

5. TEST HOOKUPS

IN VALVE BOXES EVERY 400 FEET OR HDPO ® HIS VIEW TEST STATION. THE MARKER POST SHALL BE TRIANGULAR IN SHAPE, WITH EACH SIDE A MINIMUM OF 3" WIDTH. OVERALL LENGTH SHALL BE 120". POST SHALL BE EXTRUDED RESNPOCY ™ OR SIMILAR THERMOPLASTIC MATERIAL. C-UP TO BE FUSED OR STAPLED TO THE TOP.
THE TEST STATION CAP SHALL BE LOCKABLE. THE TERMINAL BOARD HAS THREE STAINLESS STEEL TERMINALS.
POST SHALL INCLUDE THREE DECALS - ONE PER SIDE. TEXT "WARNING SEWER PIPELINE" SHALL BE PRINTED. DECALS ARE TO CONTAIN OPERATOR NAME AND 24HR EMERGENCY PHONE NUMBER.
TEST WIRES SHALL BE A MINIMUM OF 7" WIRE.
POST SHALL BE INSTALLED VIA DIRECT BURY. TRACER WIRES ARE TO BE RUN THROUGH THE HOLE IN THE POST BASE AND ATTACHED TO THE TERMINAL BOARD WITH EACH WIRE ATTACHED TO A SEPARATE TERMINAL. POST BASE IS TO BE ATTACHED TO THE POST VIA SELF-TAPPING SCREWS.

NOTE: TYPE OF TEST STATION WILL BE DETERMINED BY THE CITY ENGINEER.

6. WARNING TAPE

DITECTABLE METALLIC UNDERGROUND TAPE (BURIED SEWER LINE), INSTALLED 2' ABOVE PIPE.

5. CASINGS

OF THE NECESSARY DIAMETER, THICKNESS, AND LENGTH TO MEET ALL APPLICABLE REQUIREMENTS OF OTHER INVOLVED AGENCIES (IDOT, RAILROAD, ETC)
CASING SPACERS TO BE CASCADE MODEL CSS OR APPROVED EQUAL
CASING END SEALS TO BE CASCADE MODEL CCES END SEALS OR APPROVED EQUAL

6. SERVICE FITTINGS

INSERTA TEE 8 MJSG. OR INSERTA WYE-B BY INSERTA FITTINGS CO.
KOR-N-TEE 8 MJSG. BY TRELLEBORG ENGINEERED PRODUCTS

APPROVED EQUALS WILL REQUIRE SUBMITTAL AND APPROVAL BY THE PUBLIC WORKS DIRECTOR /CITY ENGINEER

7. COUPLINGS & ADAPTORS

NON-SHEAR TYPE, EITHER STAINLESS BAND OR PVC SHELL

STORM SEWER

1. PIPE

REINFORCED CONCRETE PIPE WITH RUBBER GASKET JOINTS, OR DUCTILE IRON, CLASS 52.
PVC SDR 26 IF APPROVED BY CITY ENGINEER ON AN PROJECT SPECIFIC BASIS

2. MANHOLES

PRECAST CONCRETE, NEENAH R 1772 2 TYPE "B" LID OR EJIW 1022-1 HD
"STORM" AND "CITY OF WEST CHICAGO" TO BE CAST IN TO LID

3. INLETS AND CATCH BASINS

PRECAST CONCRETE WITH THE APPROPRIATE FRAME AND LID AS FOLLOWS
IN CURBS - NEENAH R 3281- AL OR EJIW 7210, WITH VANE GRATE ON FLOW THROUGH STRUCTURES AND AT DOUBLE STRUCTURES AT SAG LOCATIONS. NEENAH TYPE C OR EJIW TYPE 5M GR GRATE TO BE USED AT ALL OTHER LOCATIONS. EJIW TYPE M GRATE TO BE USED IF STRUCTURE WITHIN DRIVEWAY.
NON CURB AREAS - NEENAH R 2502 B WITH TYPE "D" GRATE OR EJIW 1022 WITH TYPE M1 GRATE

STREET LIGHTS

1. RESIDENTIAL STREETS (IT ANDARD)

LUMINAIRE	COOPER/ TRUFY LIGHTING TRADITIONAIRE, OR EQUAL. POST TOP MOUNTED, WITH PHOTOCARBONATE LENS PANEL, MODEL NUMBER UTR 15 S P 233 4 J P
LAMP	WESTINGHOUSE HIGH PRESSURE SODIUM, ANSI DESIGNATION H38G -150/R, 150 WATT, 2600 HOUR RATED LIFE.
POLE	HAPCO MODEL S TYLE 76, CATALOG NUMBER 76-09F OR EQUAL, BRUSHED ALUMINUM WITH FACTORY INSTALLED LADDER RIST AND 3" X 5" SPECIAL HANDHOLE (MODIFICATION 156). 24" DIAMETER CONCRETE FOUNDATION, 5' DEEP, WITH ANCHOR BOLT COVERS ON POLE BASE 24" DIAMETER CONCRETE FOUNDATION, 5' DEEP, WITH REINFORCEMENT CAGE OF 6-#5 VERTICALS, AND 4 #3 HORIZONTAL TIES AT 12 INCH MAXIMUM SPACING
CABLE & POWER SUPPLY TO LUMINAIRE	BOTH CONDUCTORS SHALL BE SINGLE CONDUCTOR, UNDERGROUND FEEDER AND BRANCH CIRCUIT CABLE, RATED COPPER GROUND, TYPE USE INSULATED COPPER CONDUCTOR, #10 VOLT CABLE, AND MINIMUM AWG SIZE 6 OR OF THE SIZE REQUIRED BASED ON USE OF 350 WATT LUMINAIRE, IN 240 VOLT INDUCT OR CONDUIT EACH LIGHT TO BE CONNECTED DIRECTLY TO UTILITY PEDESTAL

2. RESIDENTIAL STREETS (ALTERNATIVE DECORATIVE)

LUMINAIRE	ANTIQUE STREET LAMPS, INC. CAPITOL SERIES OR EQUAL, HIGH PRESSURE SODIUM WITH CLEAR TEXTURED POLYCARBONATE ACORN GLOBE, POST TOP MOUNTED
POLE	ANTIQUE STREET LAMPS, INC. CAPITOL SERIES OR EQUAL, FIBERGLASS REINFORCED POLYESTER, WITH STANDARD HANDHOLE POLE SHALL BE 14' TALL WITH 10' MOUNTING HEIGHT WITH 10 FOOT ARM POLE HAS 10" "BRAND WITH LUMINAIRES 10-FT 24" DIAMETER CONCRETE FOUNDATION 5' DEEP, WITH REINFORCEMENT CAGE OF 6-#5 VERTICALS, AND #4 HORIZONTAL TIES AT 12 INCH SPACING, WITH 4-5/8" ANCHOR BOLTS COLOR TO MATCH "CUSTOMER GREY"
LAMP	WESTINGHOUSE HIGH PRESSURE SODIUM, ANSI DESIGNATION H38G-150/R, 150 WATT, 24,000 HOUR RATED LIFE.
CABLE & POWER SUPPLY TO LUMINAIRE	BOTH CONDUCTORS SHALL BE SINGLE CONDUCTOR, UNDERGROUND FEEDER AND BRANCH CIRCUIT CABLE, RATED COPPER GROUND, TYPE USE INSULATED COPPER CONDUCTOR, #10 VOLT CABLE, AND MINIMUM AWG SIZE 6 OR OF THE SIZE REQUIRED BASED ON USE OF 350 WATT LUMINAIRE, IN 240 VOLT INDUCT OR CONDUIT EACH LIGHT TO BE CONNECTED DIRECTLY TO UTILITY PEDESTAL

3. COLLECTOR STREETS

LUMINAIRE	GE LIGHTING SYSTEMS POWR/DOOR LUMINAIRE OR EQUAL, WITH CUTOFF OPTICS MODEL NUMBER M5AC25 S O A G M C 2 1
POLE	VALMONT MODEL #51-3103088S005 OR ISAPCO MODEL #51-532, OR EQUAL. TAPERED ALUMINUM, 30'FOOT MOUNTING HEIGHT WITH 10'FOOT ARM BREAKAWAY COUPLING AND SKIRT REQUIRED IF SPEED LIMIT IS 40 MPH OR HIGHER 30" DIAMETER CONCRETE FOUNDATION 5' DEEP, WITH REINFORCEMENT CAGE OF 6-#5 VERTICALS, AND #4 HORIZONTAL TIES AT 12 INCH MAXIMUM SPACING
CABLE & POWER SUPPLY TO LUMINAIRE	SAME AS RESIDENTIAL EXCEPT CONDUCTOR SIZE SHALL BE AS REQUIRED BASED ON VOLTAGE DROP CALCULATION

CITY OF WEST CHICAGO
PUBLIC IMPROVEMENT MATERIALS LIST (2/20 0REV.) - CONT

WATER

STREET NAME SIGNS

1. POST

2" DIAMETER GALVANIZED STEEL POST, 11 FOOT LONG, SUPPORTED IN 24" OF CONCRETE, BURIED 3 FEET. SIGNS CAN ALSO BE BANDED TO 5 STREET LIGHT POLES (MINIMUM MOUNTING HEIGHT 7 FEET FROM BOTTOM OF SIGN TO NEAR EDGE OF PAVEMENT.)

2. SIGN

0.080 GAUGE ALUMINUM BLANKS - 8 INCHES BY LENGTH TO ACCOMMODATE STREET NAME. ENGINEER GRADE REFLECTIVE GR HEN BACKING WITH SILVER HIGH INTENSITY LETTERING 6 INCH HIEGHT FOR STREET NAME AND 3 INCH FOR AVENUE, STREET, ETC.

STOP SIGNS

1. POST

2 LBS GALVANIZED U-CHANNEL 12-FOOT POST, BURIED 3 FEET. SIGNS CAN ALSO BE BANDED TO 5 TR HT LIGHT POLES (MINIMUM MOUNTING HEIGHT 7 FEET FROM BOTTOM OF SIGN TO NEAR EDGE OF PAVEMENT).

2. SIGN

0.080 GAUGE ALUMINUM BLANKS - 30 INCH X 30 INCH WITH HIGH INTENSITY SHEETING

SIDEWALKS

1. TACTILE DETECTABLE WARNING SURFACE

DETECTABLE WARNING PANELS SHALL BE "EZ-SET TILE" AS MANUF ACTURED BY DETECTABLE WARNING SYSTEMS, INC. PANELS REQUIRED FOR USE IN PUBLIC SIDEWALKS SHALL BE CAST IN PLACE AND BROCK RED IN COLOR.

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NO.	DATE	REVISION RECORD DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

SITE SPECIFICATIONS

DSN.	04/03/2023	Drawn By:	SJ/TCP/H
CHKD. SCALE:		CHECKED BY:	DAK
PROJECT NO.			162-899.0004
APPROVED BY:			JSH

DRAWING NO.
C904
SHEET 22 OF 26

PLOT BY: KAT - PLOT DATE: 4/3/2023 - 10:56:47 AM - LAYOUT: C904 - XREFS: ...\Xrefs\Site.dwg

Electronic Filing: Received, Clerk's Office 04/19/2023

GENERAL NOTES

1. GENERAL NOTES

A. (1) THE SITE IS LOCATED IN THE NORTHWEST 1/4 OF SECTION 13, TOWNSHIP 39 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN THE CITY OF WEST CHICAGO, DUPAGE COUNTY, ILLINOIS. (2) THE SITE IS BOUNDED BY INDUSTRIAL PROPERTIES TO THE NORTH, EAST AND WEST, AND BY THE CANADIAN PACIFIC RAILWAY TO THE SOUTH. (3) THE SITE IS CURRENTLY OCCUPIED BY AN EXISTING RECYCLING FACILITY AND ASSOCIATED PARKING AND DRIVE AISLES. (4) THE SITE IS ZONED I-1 (INDUSTRIAL DISTRICT). (5) THE SITE IS APPROXIMATELY 10.1 GROSS ACRES IN AREA. (6) THE SITE IS LOCATED IN FLOOD ZONE X (AREAS OF MINIMAL FLOOD HAZARD) AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 17043C0178H, EFFECTIVE DATE 8/1/2019.

B. (1) THE PROJECT CONSISTS OF THE CONSTRUCTION OF A NEW RECYCLING FACILITY, INCLUDING THE DEMOLITION OF EXISTING STRUCTURES AND PAVEMENT, CONSTRUCTION OF NEW BUILDINGS, PAVEMENT, UTILITIES, AND STORMWATER MANAGEMENT FACILITIES. (2) THE PROJECT ALSO INCLUDES THE CONSTRUCTION OF A NEW ENTRANCE DRIVE FROM POWIS ROAD. (3) THE PROJECT WILL BE CONSTRUCTED IN ONE PHASE.

C. (1) THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND ALL UTILITY COMPANIES TO MAINTAIN UNINTERRUPTED SERVICE TO ALL EXISTING BUILDINGS AND UTILITIES DURING CONSTRUCTION, UNLESS OTHERWISE APPROVED BY THE OWNER AND THE UTILITY COMPANY. (2) THE CONTRACTOR SHALL NOTIFY THE OWNER AND ALL UTILITY COMPANIES AT LEAST 72 HOURS IN ADVANCE OF ANY PLANNED INTERRUPTION OF SERVICE.

D. (1) THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING BUILDINGS AT ALL TIMES. (2) THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING UTILITY STRUCTURES AT ALL TIMES.

E. (1) THE CONTRACTOR SHALL COORDINATE ALL MATERIALS AND WORKMANSHIP FOR A PREBUILT, 3 STALL GALVANIZED STEEL ENCLOSURE WITH THE OWNER AND THE GOVERNING AGENCIES.

F. (1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ALL IMPROVEMENTS SHOWN ON THE PLANS AND REFERENCED HEREIN. THE PLANS AND SPECIFICATIONS SHALL BE CONSIDERED COMPLEMENTARY AND WHAT IS REQUIRED BY ONE SHALL BE BINDING AS IF REQUIRED BY BOTH. (2) THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE PLANS AND SPECIFICATIONS. (3) THE CONTRACTOR SHALL NOT TAKE ADVANTAGE OF ANY APPARENT ERROR OR OMISSION IN THE PLANS OR SPECIFICATIONS. IN THE EVENT THE CONTRACTOR DISCOVERS AN ERROR OR OMISSION, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND OBTAIN CLARIFICATION BEFORE PROCEEDING WITH THE WORK.

G. (1) THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND APPROVALS REQUIRED FOR THE CONSTRUCTION OF THE PROJECT, INCLUDING BUT NOT LIMITED TO, THE NPDES PERMIT FOR STORMWATER DISCHARGES DURING CONSTRUCTION, AND ANY PERMITS REQUIRED BY THE CITY OF WEST CHICAGO. (2) THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE PERMITS AND APPROVALS.

H. (1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ALL IMPROVEMENTS IN ACCORDANCE WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS. (2) THE CONTRACTOR SHALL OBTAIN COPIES OF ALL APPLICABLE STANDARDS AND SPECIFICATIONS PRIOR TO BEGINNING CONSTRUCTION. (3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ALL IMPROVEMENTS IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARDS AND SPECIFICATIONS, UNLESS OTHERWISE DIRECTED BY THE GOVERNING AGENCY.

I. (1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT. (2) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF PERSONS AND PROPERTY AT THE SITE AND FOR COMPLIANCE WITH ALL APPLICABLE SAFETY REGULATIONS. (3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. (4) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE OR INJURY TO PERSONS OR PROPERTY THAT OCCURS AS A RESULT OF THE CONTRACTOR'S OPERATIONS OR THOSE OF ITS SUBCONTRACTORS.

J. (1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, EXCAVATION, SHORING, DEWATERING, AND TRENCH SAFETY. (2) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, EXCAVATION, SHORING, DEWATERING, AND TRENCH SAFETY.

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M. (1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, EXCAVATION, SHORING, DEWATERING, AND TRENCH SAFETY.

2. SITE ADMINISTRATION & REGULATIONS

A. (1) EXCEPT AS MODIFIED BY THE FOLLOWING PROJECT TECHNICAL SPECIFICATIONS, ALL EARTHWORK, UTILITY AND CONSTRUCTION REQUIREMENTS SHALL BE IN CONFORMANCE WITH THE MATERIAL, INSTALLATION AND TESTING REQUIREMENTS OF THE CITY OF WEST CHICAGO AND THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION. (2) THE CONTRACTOR SHALL OBTAIN COPIES OF ALL APPLICABLE STANDARDS AND SPECIFICATIONS PRIOR TO BEGINNING CONSTRUCTION. (3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ALL IMPROVEMENTS IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARDS AND SPECIFICATIONS, UNLESS OTHERWISE DIRECTED BY THE GOVERNING AGENCY.

B. SITE CLEARING

(1) CONSTRUCTION SITE ELEVATIONS AND TOPOGRAPHIC INFORMATION SHOWN ON THE PLANS ARE BASED ON AERIAL TOPOGRAPHIC SURVEY DATA. (2) THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND ELEVATIONS IN THE FIELD PRIOR TO CONSTRUCTION. (3) THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS. (4) THE CONTRACTOR SHALL NOT PROCEED WITH CONSTRUCTION IN AREAS WHERE DISCREPANCIES EXIST UNTIL THEY HAVE BEEN RESOLVED BY THE ENGINEER.

C. (1) THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, STRUCTURES, AND FEATURES NOT DESIGNATED FOR REMOVAL OR RELOCATION. (2) THE CONTRACTOR SHALL REPAIR OR REPLACE, AT NO COST TO THE OWNER, ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS TO EXISTING UTILITIES, STRUCTURES, OR FEATURES. (3) THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND ALL UTILITY COMPANIES BEFORE BEGINNING CONSTRUCTION TO LOCATE AND MARK EXISTING UTILITIES.

D. (1) THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, STRUCTURES, AND FEATURES NOT DESIGNATED FOR REMOVAL OR RELOCATION. (2) THE CONTRACTOR SHALL REPAIR OR REPLACE, AT NO COST TO THE OWNER, ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS TO EXISTING UTILITIES, STRUCTURES, OR FEATURES. (3) THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND ALL UTILITY COMPANIES BEFORE BEGINNING CONSTRUCTION TO LOCATE AND MARK EXISTING UTILITIES.

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3. MATERIAL SOURCES, STOCKPILING AND HAUL ROUTES

A. (1) EXCEPT WHERE DESCRIBED BY THE FOLLOWING PROJECT TECHNICAL SPECIFICATIONS, ALL EARTHWORK, UTILITY AND CONSTRUCTION REQUIREMENTS SHALL BE IN CONFORMANCE WITH THE MATERIAL, INSTALLATION AND TESTING REQUIREMENTS OF THE CITY OF WEST CHICAGO AND THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION. (2) THE CONTRACTOR SHALL OBTAIN COPIES OF ALL APPLICABLE STANDARDS AND SPECIFICATIONS PRIOR TO BEGINNING CONSTRUCTION. (3) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING ALL IMPROVEMENTS IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARDS AND SPECIFICATIONS, UNLESS OTHERWISE DIRECTED BY THE GOVERNING AGENCY.

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4. SANITARY SEWER SYSTEMS

A. (1) SANITARY SEWER MAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

B. (1) SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

C. SANITARY SEWER SYSTEMS

(1) (a) SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

D. (1) (a) SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

E. (1) (a) SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

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L. (1) (a) SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

M. (1) (a) SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

5. STORMWATER SYSTEMS

A. (1) (a) STORMWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

B. (1) (a) STORMWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

C. (1) (a) STORMWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

D. (1) (a) STORMWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

E. (1) (a) STORMWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

F. (1) (a) STORMWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

G. (1) (a) STORMWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

H. (1) (a) STORMWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

I. (1) (a) STORMWATER MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WEST CHICAGO REQUIREMENTS.

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DRAWING NO:	C905	
SHEET	82 OF 86	

SITE SPECIFICATIONS

DATE:	04/02/2019	DRAWN BY:	SJV/CPIV
DWG SCALE:	N/A	CHECKED BY:	DAK
PROJECT NO:			163-899.0004
APPROVED BY:			JEH

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

REVISION RECORD

NO	DATE	DESCRIPTION

Electronic Filing: Received, Clerk's Office 04/19/2023

P:\2016\163-899\--CAD\Dwg\CI\C4--Construction Plan Set\163899--CI04--C904--Site Specifications.dwg[C906] LSJr(9/26/2019 - mbluej) - LP: 11/6/2019 12:48 PM

B. WATER SUPPLY SYSTEMS

(1) WATER MAINS AND SERVICE LINES SHALL BE DUCTILE IRON PIPE AND SHALL CONFORM TO AWWA C151/A21.51.

(2) ALL VALVES AND HOUSINGS SHALL BE AS SPECIFIED BY THE CITY OF WEST CHICAGO PUBLIC WORKS DEPARTMENT.

(3) ALL VALVES SHALL BE IN ACCORDANCE WITH THE CITY OF WEST CHICAGO PUBLIC WORKS DEPARTMENT.

(4) ALL VALVES SHALL BE IN ACCORDANCE WITH AWWA C509/C515.

(5) WATER LINES SHALL BE INSTALLED TO A MINIMUM DEPTH OF 5.5' BELOW FINISHED GRADE.

(6) WATER LINES SHALL BE INSTALLED TO PROVIDE A MINIMUM HORIZONTAL SEPARATION OF 10' FROM ANY SANITARY OR STORM SEWER.

(7) WATER LINES SHALL BE INSTALLED TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 18" FROM ANY SANITARY OR STORM SEWER.

(8) CONTRACTOR SHALL COORDINATE WITH CITY OF WEST CHICAGO PUBLIC WORKS DEPARTMENT FOR CONSTRUCTION INSPECTION AND TESTING.

C. CONSTRUCTION WATER

(1) CONSTRUCTION WATER SHALL BE OBTAINED FROM A HYDRANT PROVIDED BY THE CITY OF WEST CHICAGO PUBLIC WORKS DEPARTMENT.

(2) CONTRACTOR SHALL OBTAIN A HYDRANT METER FROM THE CITY OF WEST CHICAGO PUBLIC WORKS DEPARTMENT.

(3) ALL EQUIPMENT, HARDWARE SHALL BE REPLACED OR CLEANED AND DISINFECTED IF FOUND CONTAMINATED DURING CONSTRUCTION.

(4) PRIOR TO REMOVAL OF TEMPORARY WATER SUPPLY, CONTRACTOR SHALL BE CLEANED OF ANY AND ALL DEBRIS AND CONTAMINANTS.

D. CONSTRUCTION WATER

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(4) PRIOR TO REMOVAL OF TEMPORARY WATER SUPPLY, CONTRACTOR SHALL BE CLEANED OF ANY AND ALL DEBRIS AND CONTAMINANTS.

E. WATER DISINFECTION

(1) ALL PIPING AND APPURTENANCES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651.

(2) ALL CONNECTIONS TO EXISTING WATER MAINS SHALL BE PERFORMED BY CITY OF WEST CHICAGO PUBLIC WORKS DEPARTMENT.

(3) DISINFECTION OF WATER MAINS SHALL BE IN ACCORDANCE WITH THE CITY OF WEST CHICAGO PUBLIC WORKS DEPARTMENT.

F. WATER MAIN TESTING

(1) WHEN NEW PIPING FROM CONSTRUCTION SITE HAS NOT BEEN IN SERVICE, A TRAFFIC HAZARD OR A DANGER TO THE HEALTH OR COMFORT TO PERSONS DOWNSTREAM, IT SHALL BE CONSTRUED AS EITHER PERMANENTLY OR TEMPORARILY UNPROVIDED. UPON THE STATE OF

(2) EXCEPT PROCEDURES FOR ACTIVE CONSTRUCTION AREAS SHALL BE EIGHT (8) UNDER CONTROL OF MEMBERS OF WATERWAYS DEPARTMENT AND APPLICATION OF CALCIUM CHLORIDE. APPLICATION AND REPETITION RATES SHALL BE AS NECESSARY FOR EFFECTIVE

(3) WHEN CITY PROCEDURE FROM EXISTING AREAS, WATERING CONTROL CALCIUM CHLORIDE AND WATER CONDITIONS PRESENT EFFECTIVE HYGIENIC CONTROL SUCH AREAS SHALL BE TEMPERATURE BY THE APPLICATION OF

(4) INTERRUPTION OF SERVICE NOTIFICATION PROBLEMS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROBLEM IF BE LOCATED.

G. CONCRETE

(1) CONCRETE SHALL BE CLASS SI CONCRETE AND SHALL BE PLACED ON THE SUBGRADE PRIOR TO INSTALLATION OF THE ROOT STANDARD SPECIFICATIONS, EXCEPT

(2) DOOR STANDARDS FOR BOARDWALK SHALL BE HARDWOOD WITH A MINIMUM FLAMMER FINICE 2 SQ. DOOR DOOR FROM THE STOCKPILE AREA MAINTENANCE TO CONSTRUCTION SHALL BE

(3) DOOR STANDARDS TODAY WILL BE HARDWOOD DOOR CONSTRUCTION AND SHALL BE STORED AFTER CONSTRUCTION OF THE STOCKPILE

H. CONCRETE

(1) CONCRETE SHALL BE AS SPECIFIED IN THE ROOT STANDARD SPECIFICATIONS, EXCEPT

(2) ALL CONCRETE SHALL BE PLACED ON THE SUBGRADE PRIOR TO INSTALLATION OF THE ROOT STANDARD SPECIFICATIONS

I. TOPSOIL PLACEMENT AND VEGETATIVE COVER

(1) TOPSOIL SHALL BE PLACED ON ALL DISTURBED AREAS TO A MINIMUM DEPTH OF 4" AFTER SETTLEMENT AND SHALL BE FREE OF STONES, ROOTS, STUMPS AND OTHER DEBRIS. TOPSOIL SHALL BE PLACED ON ALL DISTURBED AREAS TO A MINIMUM DEPTH OF 4" AFTER SETTLEMENT AND SHALL BE FREE OF STONES, ROOTS, STUMPS AND OTHER DEBRIS.

(2) SEED SHALL BE PLACED ON ALL DISTURBED AREAS AT A RATE OF 5 LBS/1000 SF. SEED SHALL BE PLACED ON ALL DISTURBED AREAS AT A RATE OF 5 LBS/1000 SF.

(3) SEED SHALL BE PLACED ON ALL DISTURBED AREAS AT A RATE OF 5 LBS/1000 SF. SEED SHALL BE PLACED ON ALL DISTURBED AREAS AT A RATE OF 5 LBS/1000 SF.

(4) SEED SHALL BE PLACED ON ALL DISTURBED AREAS AT A RATE OF 5 LBS/1000 SF. SEED SHALL BE PLACED ON ALL DISTURBED AREAS AT A RATE OF 5 LBS/1000 SF.

(5) WHEN ASSOCIATED IN THE BANK OR RECORDED BY ENGINEER, SEEDED SLOPES SHALL BE PROTECTED BY JUTE/WOVEN CLOTH. THE AREAS WITH A WOODED FIBER MATRIX, STABILIZED FIBER MATRIX OR FLEXIBLE GROWTH MEDIUM PRODUCT APPLIED AT A RATE

(6) THE SEEDED AREAS SHALL BE PROTECTED WITH A WOOD, CELLULOSE FIBER, RECYCLED CELLULOSE, OR WOOD FIBER MULCH APPLIED AT A RATE OF 1,500 LBS/ACRE. THE TYPE OF PRODUCT TO BE USED SHALL BE AS SPECIFIED ON THE PLANS. THE SEEDED AREAS SHALL BE PROTECTED WITH A WOOD, CELLULOSE FIBER, RECYCLED CELLULOSE, OR WOOD FIBER MULCH APPLIED AT A RATE OF 1,500 LBS/ACRE. THE TYPE OF PRODUCT TO BE USED SHALL BE AS SPECIFIED ON THE PLANS.

M. PERMANENT VEGETATIVE COVERS

(1) SEEDING SHALL BE PERFORMED BETWEEN APRIL 1 AND MAY 15 OR AUGUST 15 AND OCTOBER 15. OTHER SEEDING DATES MAY BE PERMITTED BY THE ENGINEER.

(2) VEGETATIVE MEDIA COVER EXISTS LAWNS DAMAGED BY CONSTRUCTION ACTIVITIES, BUT NOT WITHIN THE PROJECT DISTURBED LIMITS, SHALL BE SEEDED WITH ZOOT GLASS 10 SEED MATTHEW LINCLIBC ACRES, UNLESS A DIFFERENT TYPE OF SEED MIXTURE IS INDICATED ON THE PLANS.

N. RECREATIONAL FACILITIES

(1) RECREATIONAL FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ROOT STANDARD SPECIFICATIONS, EXCEPT AS FURTHER DESCRIBED HEREIN.

TYPE 1: KNITTED STRAW FIBER BLANKET WITH LIGHTWEIGHT NETTING

TYPE 2: MAT OF WOOD FIBER MATERIAL WITH STRAW FIBERS INCORPORATED INTO THE MAT, WITH LIGHTWEIGHT NETTING

TYPE 3: KNITTED STRAW FIBER BLANKET WITH A POLYPROPYLENE NET

TYPE 4: KNITTED COCONUT FIBER BLANKET WITH A FINE HEAVYWEIGHT NET

O. EROSION CONTROL SEEDS

(1) ALL SEEDS SHALL BE SPECIFIED BY BOTANICAL NAME, VARIETY AND PURITY REQUIREMENTS IN ACCORDANCE WITH THE ROOT STANDARD SPECIFICATIONS.

(2) SEEDING SHALL BE PERFORMED BETWEEN APRIL 1 AND MAY 15 OR AUGUST 15 AND OCTOBER 15. OTHER SEEDING DATES MAY BE PERMITTED BY THE ENGINEER.

(3) SEEDING SHALL BE PERFORMED BETWEEN APRIL 1 AND MAY 15 OR AUGUST 15 AND OCTOBER 15. OTHER SEEDING DATES MAY BE PERMITTED BY THE ENGINEER.

(4) SEEDING SHALL BE PERFORMED BETWEEN APRIL 1 AND MAY 15 OR AUGUST 15 AND OCTOBER 15. OTHER SEEDING DATES MAY BE PERMITTED BY THE ENGINEER.

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P. PERMANENT SEEDING

(1) PERMANENT SEEDING ON THE PLANS SHALL BE PERFORMED BY CONTRACTOR ACTIVITIES SHALL BE RECORDED BY THE PROPER APPLICATION OF FERTILIZER & NUTRIENTS. SEED SHALL BE APPLIED AT A RATE OF 5 LBS/1000 SF. SEED SHALL BE APPLIED AT A RATE OF 5 LBS/1000 SF.

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(3) SEEDING SHALL BE PERFORMED BETWEEN APRIL 1 AND MAY 15 OR AUGUST 15 AND OCTOBER 15. OTHER SEEDING DATES MAY BE PERMITTED BY THE ENGINEER.

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Q. TEMPORARY SEEDING

(1) TEMPORARY SEEDING ON THE PLANS SHALL BE PERFORMED BY CONTRACTOR ACTIVITIES SHALL BE RECORDED BY THE PROPER APPLICATION OF FERTILIZER & NUTRIENTS. SEED SHALL BE APPLIED AT A RATE OF 5 LBS/1000 SF. SEED SHALL BE APPLIED AT A RATE OF 5 LBS/1000 SF.

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R. MAINTENANCE

(1) CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE PLANTINGS AND SEEDING FOR A MINIMUM OF 2 YEARS AFTER INITIAL PLANTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE PLANTINGS AND SEEDING FOR A MINIMUM OF 2 YEARS AFTER INITIAL PLANTING.

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S. MAINTENANCE RESPONSIBILITIES AND REQUIREMENTS

A. GENERAL

(1) THE CONTRACTOR SHALL TAKE ESSENTIAL AND NECESSARY MEASURES TO CONTROL THE EROSION AND SEDIMENT CONTROL ACTIVITIES. THESE MEASURES SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE ILLINOIS URBAN MANUAL AND THE ROOT STANDARD SPECIFICATIONS.

(2) PRACTICES, NOT STANDARDS OR SPECIFICATIONS, THESE ESSENTIAL AND NECESSARY MEASURES SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE ILLINOIS URBAN MANUAL AND THE ROOT STANDARD SPECIFICATIONS.

(3) CONTRACTOR SHALL MAINTAIN ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND THE ROOT STANDARD SPECIFICATIONS.

(4) CONTRACTOR SHALL MAINTAIN ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND THE ROOT STANDARD SPECIFICATIONS.

(5) CONTRACTOR SHALL MAINTAIN ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND THE ROOT STANDARD SPECIFICATIONS.

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B. INSTALLATION PRACTICES

(1) THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS AND MADE NAMED UNTIL SOIL SURFACES HAVE BEEN STABILIZED WITH GRASS OR OTHER TYPES OF PERMANENT COVER. SUCH BARRIERS SHALL BE HELD INTACT, CLEANED AND MAINTAINED IN GOOD CONDITION AS DIRECTED BY THE PLANS.

(2) THE SITE ANTICIPATION FOR THE PLANS, CREATE ANY OTHER MEASURES THAT ANTICIPATE TO BE NECESSARY TO PREVENT EROSION AND SEDIMENT CONTROL ACTIVITIES. THESE ENGINEER DESIGNATED SHALL BE PERFORMED AT THE DIRECTION OF THE ENGINEER.

(3) CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL MEANS SEEDED UNDER THE CONTRACT, INCLUDING ALL SEED BEARD, WATERING SEED BEING, AND REMOVE DEBRIS AND TRUE SATISFACTORY GROWTH OF VEGETATION ON ALL SEEDED AREAS.

(4) CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL MEANS SEEDED UNDER THE CONTRACT, INCLUDING ALL SEED BEARD, WATERING SEED BEING, AND REMOVE DEBRIS AND TRUE SATISFACTORY GROWTH OF VEGETATION ON ALL SEEDED AREAS.

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C. DEPENDENT REMEDIES

(1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL MEANS SEEDED UNDER THE CONTRACT, INCLUDING ALL SEED BEARD, WATERING SEED BEING, AND REMOVE DEBRIS AND TRUE SATISFACTORY GROWTH OF VEGETATION ON ALL SEEDED AREAS.

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D. PERMANENT SEEDING

(1) PERMANENT SEEDING ON THE PLANS SHALL BE PERFORMED BY CONTRACTOR ACTIVITIES SHALL BE RECORDED BY THE PROPER APPLICATION OF FERTILIZER & NUTRIENTS. SEED SHALL BE APPLIED AT A RATE OF 5 LBS/1000 SF. SEED SHALL BE APPLIED AT A RATE OF 5 LBS/1000 SF.

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H. MAINTENANCE

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J. MAINTENANCE

(1) CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE PLANTINGS AND SEEDING FOR A MINIMUM OF 2 YEARS AFTER INITIAL PLANTING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE PLANTINGS AND SEEDING FOR A MINIMUM OF 2 YEARS AFTER INITIAL PLANTING.

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K. EROSION CONTROL SEEDING AND MULCHING

(1) EROSION CONTROL SEEDING AND MULCHING SHALL BE PERFORMED BY CONTRACTOR ACTIVITIES SHALL BE RECORDED BY THE PROPER APPLICATION OF FERTILIZER & NUTRIENTS. SEED SHALL BE APPLIED AT A RATE OF 5 LBS/1000 SF. SEED SHALL BE APPLIED AT A RATE OF 5 LBS/1000 SF.

(2) SEEDING SHALL BE PERFORMED BETWEEN APRIL 1 AND MAY 15 OR AUGUST 15 AND OCTOBER 15. OTHER SEEDING DATES MAY BE PERMITTED BY THE ENGINEER.

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L. REMOVAL

(1) TEMPORARY SEEDING ON THE PLANS SHALL BE PERFORMED BY CONTRACTOR ACTIVITIES SHALL BE RECORDED BY THE PROPER APPLICATION OF FERTILIZER & NUTRIENTS. SEED SHALL BE APPLIED AT A RATE OF 5 LBS/1000 SF. SEED SHALL BE APPLIED AT A RATE OF 5 LBS/1000 SF.

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(3) SEEDING SHALL BE PERFORMED BETWEEN APRIL 1 AND MAY 15 OR AUGU

TAB 9

MAINTENANCE AND MONITORING

Information for this tab intentionally omitted.

TAB 10

SECURITY

Information for this tab intentionally omitted.

TAB 11

VARIANCE

TAB 11. VARIANCE

There are no variances requested to the Ordinance for this report submittal.

APPENDIX 2-F2

DUPAGE COUNTY AUTHORIZATION FOR STORMWATER CERTIFICATION

DUPAGE COUNTY

STORMWATER MANAGEMENT

630-407-6700
stormwatermgmt@dupageco.org

www.dupageco.org/swm

Watershed Management
Water Quality
Floodplain Mapping
Regulatory Services
Flood Operations & Maintenance

December 06, 2019

TO: Tom Dabareiner, 475 Main Street
City of West Chicago, , West Chicago, IL 60185

RE: Authorization for Stormwater Management Certification No. SM2019-0061
Community Tracking No: 19-34-0003
West DuPage Recycling & Transfer Station
Waiver Community: West Chicago - Partial
PPN: 0132101004 0132200001

(NOTE: THIS IS NOT A PERMIT - A Building Permit must be picked up prior to any on site work.)

DuPage County Stormwater Management received the following stormwater application/submittal:

Applicant : Richard Golf, Lakeshore Recycling Systems, 6132 West Oakton Street , Morton Grove, IL 60053

Owner : Peter Bates, Oscar (IL) LLC, c/o W.P. Carey Inc.,, New York, NY 100201607

Project Location :
1655 Powis West Chicago IL
The project is located on the east side of Powis Road, north of Hawthorne Lane, and south of North Avenue, within the corporate limits of the City of West Chicago, DuPage County, Illinois.

Stormwater Certification :
Be advised that your community holds a partial waiver of enforcement status from the DuPage County Countywide Stormwater and Floodplain Ordinance. As such, your community is responsible to review and approve applications for stormwater management issues. Therefore, for the above referenced development project, our office has only reviewed and provided Authorization relating to the floodway, floodplain, wetland, or buffer. All approvals pertaining to the stormwater management facilities and post construction best management practices shall be done by your community, unless requested otherwise.

Staff has completed its review of this application and hereby authorizes the attached documents for compliance with the May 2019 DuPage County Countywide Stormwater and Floodplain Ordinance. Based upon our Authorization of the documents listed on the attachment, your community may issue a Stormwater Management Certification for the above referenced development, with the attached general and special conditions.

Respectfully,

Clayton Heffter, Stormwater Permitting Manager
421 N. County Farm Road, Wheaton, IL 60187

Love Blue. Live Green.
DuPage County

DUPAGE COUNTY STORMWATER MANAGEMENT AUTHORIZATION LETTER ATTACHMENT

Stormwater Management Certification Application No: SM2019-0061
West DuPage Recycling & Transfer Station
Waiver Community: West Chicago - Partial
Community Tracking Number: 19-34-0003

Project Coordinator: David Winklebleck 630-407-6678

PROJECT DESCRIPTION :

Work includes reconfiguration of the recycling facility with new pavement, parking lot improvements, building expansion, construction of a new building, sediment and erosion control measures, and all associated grading and restoration.

CERTIFIED DOCUMENTS:

1. Stormwater Management Certification Application, as assigned Tracking No. SM2019-0061/19-34-0003.
2. Stormwater report entitled "Stormwater Report, West DuPage Recycling & Transfer Station, 1655 Powis Road, West Chicago, Illinois, 60185," as prepared by Civil & Environmental Consultants, Inc. for Lakeshore Recycling Systems, LLC, dated June 2019, with latest revision dated November 2019.
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SPECIAL CONDITIONS OF PERMIT:

1. The following performance standard will apply to the enhancement plantings: "At the end of the third year of monitoring, 100% of the proposed shrubs shall be alive and in healthy condition.

GENERAL CONDITIONS:

1. Per Section 15-58.B of the CSFPO, temporary erosion and sediment control measures shall be functional and consistent with Article VII of the CSFPO and the NPDES Stormwater Permit in effect prior to land disturbance activities. Therefore, the developer shall notify the City of West Chicago and request/receive a site inspection of all required sediment and erosion control devices, prior to the commencement of construction activities.
2. Per Section 15-27.C.3, site runoff storage and compensatory storage facilities shall be either constructed before or concurrently with general construction. The facilities shall be functional prior to or concurrent with any building construction that increases a site's total impervious area.

3. Per Section 15-40.A of the CSFPO, the requirement for Record Drawings (Section 15-47.B) applies to all developments that construct stormwater facilities, or include wetland, buffer or flood plain onsite. Therefore, upon construction of the development, as-built drawings of the site must be submitted to the City of West Chicago for review and approval. The as-built drawings must be prepared, signed and sealed by an Illinois registered land surveyor or professional engineer.
4. Per Article VI "Performance Security and Easements", Section 15-54.A "General Security Requirements" of the CSFPO, the developer shall, prior to the issuance of a Stormwater Management Certification and in accordance with Section 15-40.D, post performance security. It is our understanding that the City of West Chicago will collect and maintain appropriate development securities as required by ordinance for the subject development. Please note that no less than $41,849.50 for wetland and buffer plantings must be retained by the City of West Chicago until written authorization to reduce this amount in accordance with the ordinance is granted by DuPage County.
5. Per section 15-55 of the CSFPO, access for inspection and maintenance of site runoff storage facilities, compensatory storage facilities, and storm sewers covered by the certification shall be through a grant of easement. Therefore, a Plat of Easement document, which represents as-built conditions, should be approved by the City of West Chicago. The following should be incorporated into said document:
    a. Public Utility and Drainage Easements need to be provided over/about the on-site storm sewer system, and over land drainage swales, which are necessary to convey the 100 year storm runoff to stormwater management facilities.
    b. A Stormwater Management Easement needs to be granted over the limits of the stormwater management facilities.
    c. Public Utility and Drainage Easement provisions need to be incorporated into the Plat.
    d. Stormwater Management Easement provisions need to be incorporated into the Plat.
    e. Maintenance responsibility provisions, for the stormwater management facility, should be provided on the Plat of Subdivision or other recorded document.
6. Per Section 15-47.C of the CSFPO, an informational note acknowledging the presence of on-site wetlands, buffers, floodplains, or PCBMPs with drainage areas 1 acre or greater, shall be recorded against the title to alert all future owners and shall reference the Stormwater Management Certification number. This note shall be carried forward to titles on all affected properties in the event that the original property is subdivided.
7. Per Section 15-54.A.5, the developer shall grant the County, or Waiver Community, a temporary easement which authorizes, but does not obligate, the County, or Waiver Community, to access the development site to perform or complete any act or work the developer is required to do by the Stormwater Certification.

cc:
Richard Golf, Lakeshore Recycling Systems, 6132 West Oakton St, Morton Grove, IL 60053
Peter Bates, Oscar (IL) LLC c/o W.P. Carey Inc, 50 Rockefeller Plaza , NY, NY 10020
Dave Kamano, Civil & Environmental Consultants, 1230 E Diehl Rd, Ste 200, Naperville, IL 60563
File : SM2019-0061/19-34-0003

DUPAGE COUNTY STORMWATER MANAGEMENT CERTIFICATION APPLICATION (1/2)

1. Community and Status	2. Date of Application	3. Stormwater Application No. (to be assigned by community)	4. DuPage County Tracking No.
West Chicago ☐ Non ☑ Partial ☐ Complete		1 9 3 4 0 0 0 3	SM2019-0061

5. Applicant:
Name: Richard Golf
Company Name: Lakeshore Recycling Systems, Inc.
Address: 6132 West Oakton Street
City, ST, Zip: Morton Grove, IL, 60053
Phone: 708-774-9301
Email: RGolf@LRSRecycles.com

6. Owner:
Name: Peter Bates
Company Name: Oscar (IL) LLC
Address: c/o W.P. Carey Inc., 50 Rockefeller Plaza
City, ST, Zip: New York, NY, 10020-1607
Phone: 212-492-1129
Email: PBates@WPCarey.com

7. Description of Proposed Development: Improve the existing construction and demolition debris recycling facility by reconfiguring outside storage and operational areas, paving outside storage and operational areas, adding and improving existing parking, expanding the main sorting building eastward (including the addition of a loading pit and weigh scales), the addition of a previously approved second scale adjacent to the existing scale, and the addition of a new porta-potty cleaning and maintenance building.

8. Location of Development:
Address: 1655 Powis Road
Municipality: West Chicago
Watershed Planning Area & Trib: DuPage River/Kress Creek

9. Legal Description
32 (¼ Section) 40N (Township) 9E (Range)
PIN 01 . 32 . 101 . 004
PIN 01 . 32 . 200 . 001

10. Check all of the conditions which apply:
☑ Flood Plain ☑ Stormwater Detention ☑ Best Management Practices ☑ Soil Erosion & Sediment Control
☑ Wetland ☑ Wetland Buffer ☐ Riparian Buffer

11. Acknowledgement of On-Site Infiltration PCBMPs
I acknowledge that I have used my best effort to identify zones for which on-site infiltration are prohibited for Post Construction Best Management Practices (PCBMPs) in accordance with the Ordinance (15-63.B)

Signature of Applicant — Richard Golf (Print Name) — 4/19/19 (Date)

12. Freedom of Information Act (FOIA)
I acknowledge that all architects' drawings, engineers' technical submissions and other construction-related technical documents containing stormwater management information submitted with this application may be made available for inspection or copying by the County, notwithstanding 5 ILCS 140/7(1)(k), upon the written request for such materials. Such productions will be restricted to the following parties: i) the Applicant ii) any subsequent owner of the subject property; or iii) any governmental unit having planning or drainage jurisdiction within 1 and ½ mile of the subject property.

Signature of Applicant — Richard Golf (Print Name) — 4/19/19 (Date)
Signature of Owner — Peter Bates (Print Name) — 6/14/19 (Date)

13. Statement of Opinion for Minimum Criteria for Stormwater Management
I am a Professional Engineer under the employment of the Applicant. It is my professional opinion that the development meets the minimum criteria for stormwater management in accordance with the Ordinance (15-36)

Signature of Professional Engineer — David A. Kamano, P.E., LEED AP (Print Name) — 4/19/19 (Date)

____ Community Copy ____ DuPage County SM Copy ____ Applicant Copy

DUPAGE COUNTY STORMWATER MANAGEMENT CERTIFICATION APPLICATION (2/2)

Community Tracking No: 1 9 3 4 0 0 0 3 | **DuPage County Tracking No:** SM2019-0061

14. Statement of Opinion for Presence of Flood Plain, Wetlands, and Buffers (15-47-A.5)

☑ I acknowledge the presence of flood plain ☐ I deny the presence of flood plain	☑ I acknowledge the presence of wetlands. ☐ I deny the presence of wetlands.	☑ I acknowledge the presence of buffers ☐ I deny the presence of buffers
Signature of Qualified Professional — Date: 4/19/19	Signature of Qualified Professional — Date: 4/19/19	Signature of Qualified Professional — Date: 4/19/19
David A. Kamano, P.E., LEED AP	David A. Kamano, P E., LEED AP	David A. Kamano, P.E., LEED AP
Printed Name	Printed Name	Printed Name

15. Soil Erosion & Sediment Control Submittal Requirements (15-50.B)
(For developments with less than 1 acre of land disturbance that are not part of a larger common plan)

I certify that the development meets the soil erosion and sediment control design criteria found in Article VII have been met.

Signature of Qualified Designer — David A. Kamano, P.E., LEED AP (Print Name) — Date

16. Soil Erosion & Sediment Control Requirements (15-59.W) **(For developments with land disturbing activities greater than 1 acre)**

I acknowledge that the site complies with the IEPA NPDES ILR10 Permit.

Signature of Applicant — Richard Golf (Print Name) — Date: 4/19/19

17. Acknowledgement of Required As-Built Plans (15-47 B)

I acknowledge that a record drawing signed by either a Professional Engineer or a Professional Land Surveyor depicting the as-constructed size rim, and invert elevations of pipes, stormwater structures and culverts, and contours and flood storage volumes of all required basins of the major stormwater systems and minor stormwater systems shall be submitted for review and approval upon completion of the stormwater facilities.

Signature of Owner — Peter Bates (Print Name) — Date: 6/17/19

18. Intentional Misrepresentation Under Penalty of Perjury

I declare that I have examined and/or made this application and rider, and it is true and correct to the best of my knowledge and belief. I realize that the information that I have affirmed hereon forms a basis for the issuance of the stormwater management certification(s) herein applied for and approval of plans in connection therewith shall not be construed to permit any construction upon said premises or use thereof in violation of any provision of any applicable ordinance or to excuse the owner or his successors in title from complying therewith. The Owner and Applicant each understand and agree to construct said improvement n compliance with all provisions of the applicable ordinances.

Signature of Applicant — Richard Golf (Print Name) — Date: 4/19/19

Signature of Owner — Peter Bates (Print Name) — Date: 6/14/19

DO NOTWRITE BELOW THIS LINE

19. Security (15-54)

Stormwater Facilities	$
Wetlands/Natural Area	$
SE/SC	$
Total	$

20. Stormwater Fees

Community Review	$
DCSM Review	$ 5,297.50
Fee-in-Lieu $ (Wetland)	$ (BMP)

Seal/Stamp
Certifications expire December 31st of the third year of Certification or Authorization whichever is earlier

AUTHORIZED
BY: CCH - 2CE
DEC 06 2019
SWP# SM2019-0061
19-34-0003
DuPAGE CO. - ECONOMIC DEVELOPMENT & PLANNING - ENVIRONMENTAL CONCERNS

21. Final Approvals (See Certification letter for special conditions and general conditions.)

	Date	Approved by/title
Community Certification		
County Authorization	12/6/19	Clayton Heffter 2CE

____ Community Copy ____ DuPage County SM Copy ____ Applicant Copy

APPENDIX 2-F3

WEST CHICAGO SITE DEVELOPMENT PERMIT

Electronic Filing: Received, Clerk's Office 04/19/2023

C000849

City of West Chicago

BUILDING PERMIT

Address 1655 Powis

No. 19070060

Date 11-20-20

Owner LAKE

Contractor Shore

Address

Construction SITE

REQUIRED INSPECTIONS LISTED BELOW

(Call 293-2200 x131 - 24 hours prior to inspection.)

1. FOOTINGS (prior to pouring)
2. FOUNDATIONS (prior to backfilling)
3. SLABS (prior to pouring)
4. ROUGH-IN ELECTRICAL, PLUMBING, HEATING & FRAMING (prior to closing in ceilings, walls & slabs)
5. SEWER LINE & WATER SERVICE (prior to backfilling)
6. CHIMNEYS & FIREPLACES (prior to closing in masonry or walls)
7. INSULATION (prior to dry walling)
8. FINAL INSPECTION OF BUILDING & PREMISES (prior to issuance of Certificate of Occupancy)

NO OCCUPANCY PRIOR TO CERTIFICATE OF OCCUPANCY

John W Stickman

Building Official

** Permit expires in 6 months if work has not begun, otherwise 1 year for work to be complete.**

THIS CARD MUST BE DISPLAYED ON FRONT OF JOB

CITY OF WEST CHICAGO

RECVD BY: CMDV 02000029931
PAYOR: LAKESHORE
TODAY'S DATE: 11/24/20
REGISTER DATE: 11/25/20 TIME: 10:23

DESCRIPTION	AMOUNT
CUST ID:19070060	
ENGREVFEE	$25,444.01
CUST ID:19070060	
INSP	$25,444.01
CUST ID:19070060	
SW	$1,575.00
TOTAL DUE:	$52,463.02
CHECK PAID:	$52,463.02
CHECK NO: 51124	
TENDERED:	$52,463.02
CHANGE:	$.00

Lakeshore Recycling Systems LLC **51124**

VENDOR NO: CITY018 NAME: CITY OF WEST CHICAGO CHECK DATE: 11/19/2020

REFERENCE	INVOICE DATE	DESC	GROSS AMT	DISCOUNT	NET AMOUNT PAID
PERMIT FEE 11192020	11/19/2020		52,463.02	0.00	52,463.02
TOTAL >			52,463.02	0.00	52,463.02

INVOICE INVOICE INVOICE INVOICE INVOICE INVOICE INVOICE INVOICE

CITY OF WEST CHICAGO
PERMIT INVOICE

PINUMBER	01-32-101-002
INVOICE DATE	11/20/2020
REFERENCE ID	19070060
SITE ADDRESS	1655 POWIS RD
SUBDIVISION	
CITY	WEST CHICAGO
IMPACT AREA	
OWNER	KKKLK, LLC
ADDRESS	2351 POWIS RD
CITY/STATE/ZIP	WEST CHICAGO, IL 60185
CONTRACTOR	KKKLK, LLC
ADDRESS	2351 POWIS RD
CITY/STATE/ZIP	WEST CHICAGO, IL 60185

FEE	DESCRIPTION	FEE	ACCT
ENGREVFEE	ENG SERVICE FEE	25444.01	362000
INSP	ENG INSPECTION FEE	25444.01	362000
SW	ENG STORMWATER	1575.00	362000
		52,463.02	

DUPAGE COUNTY

STORMWATER MANAGEMENT

630-407-6700
stormwatermgmt@dupageco.org

www.dupageco.org/swm

Watershed Management
Water Quality
Floodplain Mapping
Regulatory Services
Flood Operations & Maintenance

December 06, 2019

TO: Tom Dabareiner, 475 Main Street
City of West Chicago, , West Chicago, IL 60185

RE: Authorization for Stormwater Management Certification No. SM2019-0061
Community Tracking No: 19-34-0003
West DuPage Recycling & Transfer Station
Waiver Community: West Chicago - Partial
PPN: 0132101004 0132200001

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Love Where You Live Green.
DuPage County

Respectfully,

Clayton Heffter, Stormwater Permitting Manager
421 N. County Farm Road, Wheaton, IL 60187

DUPAGE COUNTY STORMWATER MANAGEMENT AUTHORIZATION LETTER ATTACHMENT

Stormwater Management Certification Application No: SM2019-0061
West DuPage Recycling & Transfer Station
Waiver Community: West Chicago - Partial
Community Tracking Number: 19-34-0003

Project Coordinator: David Winklebleck 630-407-6678

PROJECT DESCRIPTION :

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Peter Bates, Oscar (IL) LLC c/o W.P. Carey Inc, 50 Rockefeller Plaza , NY, NY 10020
Dave Kamano, Civil & Environmental Consultants, 1230 E Diehl Rd, Ste 200,
Naperville, IL 60563
File : SM2019-0061/19-34-0003

DUPAGE COUNTY STORMWATER MANAGEMENT CERTIFICATION APPLICATION (1/2)

1. Community and Status	2. Date of Application	3. Stormwater Application No. (to be assigned by community)	4. DuPage County Tracking No.
West Chicago ☐ Non ☑ Partial ☐ Complete	6/20/19	1 9 3 4 0 0 0 3	SM2019-0061 Bill No. 19070060

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Name: Richard Golf
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Address: 6132 West Oakton Street
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32 (¼ Section) 40N (Township) 9E (Range)
PIN 01 - 32 - 101 - 004
PIN 01 - 32 - 200 - 001

10. Check all of the conditions which apply:
☑ Flood Plain ☑ Stormwater Detention ☑ Best Management Practices ☑ Soil Erosion & Sediment Control
☑ Wetland ☑ Wetland Buffer ☐ Riparian Buffer

11. Acknowledgement of On-Site Infiltration PCBMPs
I acknowledge that I have used my best effort to identify zones for which on-site infiltration are prohibited for Post Construction Best Management Practices (PCBMPs) in accordance with the Ordinance (15-63.B)

Richard Golf — Signature of Applicant
Richard Golf — Print Name
4/19/19 — Date

12. Freedom of Information Act (FOIA)
I acknowledge that all architects' drawings, engineers' technical submissions and other construction-related technical documents containing stormwater management information submitted with this application may be made available for inspection or copying by the County, notwithstanding 5 ILCS 140/7(1)(k), upon the written request for such materials. Such productions will be restricted to the following parties: i) the Applicant ii) any subsequent owner of the subject property; or iii) any governmental unit having planning or drainage jurisdiction within 1 and ½ mile of the subject property.

Richard Golf — Signature of Applicant
Richard Golf — Print Name
4/19/19 — Date

Peter Bates — Signature of Owner
Peter Bates — Print Name
6/14/19 — Date

13. Statement of Opinion for Minimum Criteria for Stormwater Management
I am a Professional Engineer under the employment of the Applicant. It is my professional opinion that the development meets the minimum criteria for stormwater management in accordance with the Ordinance (15-36)

Signature of Professional Engineer
David A. Kamano, P.E., LEED AP — Print Name
4/19/19 — Date

____ Community Copy ____ DuPage County SM Copy ____ Applicant Copy

DUPAGE COUNTY STORMWATER MANAGEMENT CERTIFICATION APPLICATION (2/2)

Community Tracking No: 1 9 3 4 0 0 0 3 | **DuPage County Tracking No:** SM2019-0061

14. Statement of Opinion for Presence of Flood Plain, Wetlands, and Buffers (15-47-A.5) BLDG No. 1407006.0

I acknowledge the presence of flood plain. / I deny the presence of flood plain.	I acknowledge the presence of wetlands. / I deny the presence of wetlands.	I acknowledge the presence of buffers. / I deny the presence of buffers.
Signature of Qualified Professional: [signature] Date: 4/19/19	Signature of Qualified Professional: [signature] Date: 4/19/19	Signature of Qualified Professional: [signature] Date: 4/19/19
David A. Kamano, P.E., LEED AP (Printed Name)	David A. Kamano, P.E., LEED AP (Printed Name)	David A. Kamano, P.E., LEED AP (Printed Name)

15. Soil Erosion & Sediment Control Submittal Requirements (15-50.B)
(For developments with less than 1 acre of land disturbance that are not part of a larger common plan)

I certify that the development meets the soil erosion and sediment control design criteria found in Article VII have been met.

Signature of Qualified Designer | David A. Kamano, P.E., LEED AP (Print Name) | Date

16. Soil Erosion & Sediment Control Requirements (15-59.W) **(For developments with land disturbing activities greater than 1 acre)**

I acknowledge that the site complies with the IEPA NPDES ILR10 Permit.

Signature of Applicant: [signature] | Richard Golf (Print Name) | Date: 4/19/19

17. Acknowledgement of Required As-Built Plans (15-47.B)

I acknowledge that a record drawing signed by either a Professional Engineer or a Professional Land Surveyor depicting the as-constructed size rim, and invert elevations of pipes, stormwater structures and culverts, and contours and flood storage volumes of all required basins of the major stormwater systems and minor stormwater systems shall be submitted for review and approval upon completion of the stormwater facilities.

Signature of Owner: [signature] | Peter Bates (Print Name) | Date: 6/17/19

18. Intentional Misrepresentation Under Penalty of Perjury

I declare that I have examined and/or made this application and rider, and it is true and correct to the best of my knowledge and belief. I realize that the information that I have affirmed hereon forms a basis for the issuance of the stormwater management certification(s) herein applied for and approval of plans in connection therewith shall not be construed to permit any construction upon said premises or use thereof in violation of any provision of any applicable ordinance or to excuse the owner or his successors in title from complying therewith. The Owner and Applicant each understand and agree to construct said improvement n compliance with all provisions of the applicable ordinances.

Signature of Applicant: [signature] | Richard Golf (Print Name) | Date: 4/19/19

Signature of Owner: [signature] | Peter Bates (Print Name) | Date: 6/14/19

DO NOTWRITE BELOW THIS LINE

19. Security (15-54)

Stormwater Facilities	$
Wetlands/Natural Area	$
SE/SC	$
Total	$ 278,396.71

20. Stormwater Fees

Community Review	$ 132,613.71	
DCSM Review	$ 5,297.50	
Fee-in-Lieu	$ N/A (Wetland)	$ N/A (BMP)

Seal/Stamp
Certifications expire December 31st of the third year of Certification or Authorization, whichever is earlier

AUTHORIZED
BY: CCH - 2CE
DEC 06 2019
SWP# SM2019-0061
19-34-0003
DuPAGE CO. - ECONOMIC DEVELOPMENT & PLANNING - ENVIRONMENTAL CONCERNS

21. Final Approvals (See Certification letter for special conditions and general conditions.)

	Date	Approved by/title
Community Certification	5/26/20	[signature] CIVIL ENG
County Authorization	12/6/19	Clayton Hefftler 2CE

____ Community Copy ____ DuPage County SM Copy ____ Applicant Copy

11/19/2020		
Building Permit No.: 19070060		
Stormwater Permit No.: 19-34-0003		
ADDRESS:		
Lake Shore Recycling Addition PHASE 1 ONLY		
1655 Powis Road		
West Chicago, IL 60185		
COST ESTIMATE		
Demolition/ Site Preparation		
Concrete Block Wall Removal/Relocation	$0.00	
Building Slab Concrete Removal	$0.00	
Concrete Wall Removal	$0.00	
Stair Removal	$0.00	
Pavement Sawcut	$0.00	
Concrete Pavement Removal	$0.00	
Asphalt Pavement Removal	$0.00	
Earthwork - Topsoil Strip, stockpile, respread	$5,625.00	
Earthwork - Excavate and Regrade on site	$37,500.00	
Earthwork - Excavate & Haul-off as CCDD	$60,000.00	
Erosion and Sediment Controls		
Silt Fence	$10,094.00	$10,094.00
Orange Cosntruction Fence	$3,712.50	$3,712.50
Inlet Protection - Temporary	$600.00	$600.00
Pavement Construction		
Light Duty Pavement	$0.00	
Heavy Duty Pavement	$610,423.33	
Concrte Sidewalk, 5"	$0.00	
Bollard	$0.00	
Pavement Striping, linear	$0.00	
Pavement Striping, ADA symbol	$0.00	
ADA Sign	$0.00	
Wheel Stops	$0.00	
Truck Scale	$0.00	
Stormwater Controls		
Storm Structure Removal	$300.00	
Storm Outlet Control structure Removal	$500.00	$500.00
Sorm Sewer Remoal / Abandonment	$150.00	
Infiltration trench Remoal / Abandonment	$0.00	
Storm Sewer, 8" PVC	$0.00	
Storm Sewer, 12" RCP	$0.00	
Storm Sewer, 18" RCP	$2,500.00	
Storm Sewer, 24" RCP	$4,800.00	
Storm Sewer, FES, 12" RCP	$250.00	
Storm Sewer, FES, 24" RCP	$900.00	
Storm Sewer, FES, 36" RCP	$600.00	
Storm Inlet, 24" Dia, w/ frame and grate	$0.00	
Storm Manhole, 60" Dia, w/ frame and grate	$3,000.00	$3,000.00
Storm Restrictor Structure, 72" dia with spillway wall and restrictor plate	$6,000.00	$6,000.00
Utilities Cosntruction		
Sanitary Structure Removal	$0.00	
Fire Hydrant Remoal	$0.00	
Sanitary Sewer Removal / Abandonment	$0.00	
Water Main Removal / Abandonment	$0.00	
Sanitary Sewer, 6" SDR26 PVC	$0.00	
Sanitary Sewer, 8" SDR26 PVC	$0.00	
Santary Manhole, 60" Dia, w/ frame and grate	$0.00	
Oil Water Separator	$0.00	
Sanitary Sewer Cleanout	$0.00	
Water Main, 6" Ductile Iron Pipe, Class 52	$0.00	$0.00
Water Main, 8" Ductile Iron Pipe, Class 52	$0.00	$0.00
Ductile Iron Fittings	$0.00	$0.00
Fire Hydrant w/ 6" auxilliary valve	$0.00	$0.00
Yard Hydrant	$0.00	
Gas Service	$0.00	
Electrical Service	$0.00	
Communications Line	$0.00	
Trench Backfill	$0.00	$0.00
Post-Construction BMPs		
Rip Rap Inlet/Outlet Protection - Permanent	$400.00	$400.00
Aggregate Infiltration Trench	$0.00	$0.00
Floating boom skimmer with silt curtain	$650.00	$650.00
Site Restoration		
Seeding, IDOT Class 1A Sallt Tolerant Lawn mixture	$6,401.06	$6,401.06
Wetland Buffer Re-establishment	$15,302.40	$15,302.40
Erosion Control Blanket	$9,434.38	$9,434.38
Landscaping Improvements	$3,750.00	
Total	$782,892.67	$56,094.34
SECURITY (125% LOC - PUBLIC IMPROVEMENTS, EARTHWORK, STORM SEWER, EROSION CONTROL, SWMR MGMT)		**$70,117.93**
ENGINEERING FEES		
Plan Review Fee		
Single Family Lots (Infill)	$790.00	$0.00
Single Family Lots (Subdivision)	$525.00	$0.00
Staff Reviewed Plans - 3.25% of Approved Cost Estimate for 3 Reviews	$25,444.01	$25,444.01
Staff Reviewed Plans - 0.5% of Approved Cost Estimate for each Subsequent Review (no. of reviews beyond 3)	0	$0.00
Consultant Review Fee + 25%	$0.00	$0.00
ENGINEERING INSPECTION FEE		
Single Family Lots	$265.00	$0.00
Non-single Family Lots (3.25% of the Engineer's estimate of cost)	$25,444.01	$25,444.01
STORMWATER PERMIT FEE		
Proposal that does not require stormwater management report	$525.00	$525.00
Proposal that does require stormwater management report	$2,100.00	$0.00
Proposal that is over 10 acres ($2,100 plus $20 per acre for every acre or portion thereof over 10 acres)	$0.00	$0.00
Best Management Practice Fee - Commercial	$1,050.00	$1,050.00
Best Management Practice Fee - Single Family	$265.00	$0.00
WORK IN RIGHT-OF-WAY		
Impacting Pavement (Including $10,500.00 refundable deposit)	$525.00	$0.00
Not Impacting Pavement (Including $2,625.00 refundable deposit)	$265.00	$0.00
Driveway only permit see Section 3.1		
FIELD CHANGE PERMIT (5% of approved Cost Estimate minimum $525.00)	$525.00	$0.00
ATTORNEY FEE	$0.00	$0.00
TOTAL FEES		**$52,463.02**

Electronic Filing: Received, Clerk's Office 04/19/2023 C000859

Project: West DuPage Recycling and Transfer Facility
Location: West Chicago, IL
Project #: 163-899

Estimated By: DAK Date: 5/28/2019
Checked By: CAC Date: 6/7/2019
Revised: DAK Date: 11/18/2020

CITY OF WEST CHICAGO
ENGINEERING DEPT
☒ Approved
☐ Not Approved-Resubmit
☐ Approved As Noted
11/9/20

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST - SITE IMPROVEMENTS - TOTAL

ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE ($)	TOTAL	NOTES	COST SOURCE	11-18-20 NOTES
1.00	**Demolition/Site Preparation**							
1.01	Concrete Block Wall Removal / Relocation	421	LF	$0.00	$0.00	Will be handled by operator - assume no work by contractor	3	
1.02	Building Slab Concrete Removal	0	CY	$75.00	$0.00	Assume 6" of concrete is removed at 3,733 SY "mixed aggregate pavement and building foundation remnants" area at north central part of site	1,3	
1.03	Concrete Wall Removal	0	LF	$100.00	$0.00	Assumes 12" wide, 10ft high concrete walls	1,3	
1.04	Stair Removal	0	EA	$250.00	$0.00	Assumes 12" wide, 10ft high concrete walls	3	
1.05	Pavement Sawcut	0	LF	$2.00	$0.00		1,3	
1.06	Concrete Pavement Removal	0	SY	$12.50	$0.00		1,3	
1.07	Asphalt Pavement Removal	0	SY	$7.50	$0.00		1,2,3	
1.08	Earthwork - Topsoil strip, stockpile, respread	1,125	CY	$5.00	$5,625.00	Topsoil to be cut and respread in areas to be vegetated	2,3	assume 75% will occur as part of east side pavement and pond construction
1.09	Earthwork - Excavate and Regrade on site	3,750	CY	$10.00	$37,500.00	Earth to be excavated and relocated on-site, does not include existing pavement and base removal necessary to install new pavement.	2,3	assume 75% will occur as part of east side pavement and pond construction
1.10	Earthwork - Excavate & Haul-Off as CCDD	3,750	CY	$16.00	$60,000.00	Approximately 5,000 cy excess cut, does not include existing pavement and base removal necessary to install new pavement.	3	assume 75% will occur as part of east side pavement and pond construction
				1.00 Demolition/Site Preparation Subtotal:	**$103,125.00**			
2.00	**Erosion and Sediment Controls**							
2.01	Silt Fence	2,884	LF	$3.50	$10,094.00	Includes double silt fence at wetland and floodplain areas	3	
2.02	Orange Construction Fence	1,485	LF	$2.50	$3,712.50	Along wetland and floodplains areas	1,3	
2.03	Inlet Protection - Temporary	4	EA	$150.00	$600.00		1,3	assume 75% will occur as part of east side pavement and pond construction
				2.00 Erosion and Sediment Controls Subtotal:	**$14,406.50**			
3.00	**Pavement Construction**							
3.01	Light Duty Pavement	0	SY	$25.00	$0.00	Assumes 4" asphalt over 8" stone	1,2,3	
3.02	Heavy Duty Pavement	17,441	SY	$35.00	$610,423.33	Assumes 6" asphalt over 12" stone, or 8" concrete over 6" stone	1,2,3	
3.03	Concrete Sidewalk, 5"	0	SF	$5.00	$0.00		3	
3.04	Bollard	0	EA	$250.00	$0.00	Assume 8" diameter	3	
3.05	Pavement Striping, linear	0	LF	$1.50	$0.00	Assume 4" wide	1,3	
3.06	Pavement Striping, ADA symbol	0	EA	$200.00	$0.00	Assume 4" wide	3	
3.07	ADA Sign	0	EA	$150.00	$0.00	Assume standard signage	3	
3.08	Wheel Stops	0	EA	$300.00	$0.00	Assume reinforced concrete	3	
3.09	Truck Scale	0	EA	$25,000.00	$0.00		3	
				3.00 Pavement Construction Subtotal:	**$610,423.33**			
4.00	**Stormwater Controls**							
4.01	Storm Structure Removal	1	EA	$300.00	$300.00		1,3	
4.02	Storm Outlet Control Structure Removal	1	EA	$500.00	$500.00		1,3	
4.03	Storm Sewer Removal / Abandonment	75	LF	$2.00	$150.00	Assume cap/abandon in place	3	
4.06	Infiltration Trench Removal / Abandonment	0	LF	$0.00	$0.00	Assume this is "left in place" and built upon for new pavement	3	
4.07	Storm Sewer, 8" PVC	0	LF	$30.00	$0.00		1,2,3	
4.08	Storm Sewer, 12" RCP	0	LF	$40.00	$0.00		1,2,3	
4.09	Storm Sewer, 18" RCP	50	LF	$50.00	$2,500.00		1,2,3	
4.10	Storm Sewer, 24" RCP	80	LF	$60.00	$4,800.00		1,2,3	
4.11	Storm Sewer, Flared End Section, 12" RCP	1	EA	$250.00	$250.00		1,3	
4.12	Storm Sewer, Flared End Section, 24" RCP	2	EA	$450.00	$900.00		1,3	
4.13	Storm Sewer, Flared End Section, 36" RCP	1	EA	$600.00	$600.00		1,3	
4.14	Storm Inlet, 24" Dia, w/ frame and grate	0	EA	$1,250.00	$0.00		1,3	
4.15	Storm Manhole, 60" Dia, w/ frame and grate	1	EA	$3,000.00	$3,000.00		1,3	
4.16	Storm Restrictor Structure, 72" dia with spillway wall and restrictor plate	1	EA	$6,000.00	$6,000.00		3	
				4.00 Stormwater Controls Subtotal:	**$19,000.00**			
5.00	**Utilities Construction**							
5.01	Sanitary Structure Removal	0	EA	$500.00	$0.00		1,3	
5.02	Fire Hydrant Removal	0	EA	$250.00	$0.00		3	
4.04	Sanitary Sewer Removal / Abandonment	0	LF	$4.00	$0.00	Assume cap/abandon in place	3	
4.05	Water Main Removal / Abandonment	0	LF	$2.00	$0.00	Assume cap/abandon in place	3	
4.06	Sanitary Sewer, 6" SDR26 PVC	0	LF	$30.00	$0.00	Connection between cleanouts and OWS and building included in building costs	2,3	
4.07	Sanitary Sewer, 8" SDR26 PVC	0	LF	$50.00	$0.00		2,3	
4.08	Sanitary Manhole, 60" Dia, w/ frame and grate	0	EA	$4,000.00	$0.00		3	
4.09	Oil Water Separator	0	EA	$12,500.00	$0.00	Vortclarex VCL30	3	
4.10	Sanitary Sewer Cleanout	0	EA	$250.00	$0.00		3	
4.11	Water Main, 6" Ductile Iron Pipe, Class 52	0	LF	$60.00	$0.00		3	
4.12	Water Main, 8" Ductile Iron Pipe, Class 52	0	LF	$85.00	$0.00		3	
4.13	Ductile Iron Fittings	0	LS	$5,000.00	$0.00	Assumes reuse of existing fittings, plus additional fittings as necessary	3	
4.14	Fire Hydrant w/ 6" auxiliary valve	0	EA	$3,500.00	$0.00	Assume 6' depth	3	
4.15	Yard Hydrant	0	EA	$1,500.00	$0.00	Assume 6' depth	3	
4.16	Gas Service	0	LF	$7.50	$0.00	Gas service install through site	3	
4.17	Electrical Service	0	LF	$5.00	$0.00	Size/material undetermined	3	
4.18	Communications Line	0	LF	$2.50	$0.00	Size/material undetermined	3	
4.19	Trench Backfill	0	CY	$15.00	$0.00	Assumes all underground utilities require trench backfill. Assume 4 feet height above utility to bottom of pavement section and 4 foot width along all utilities.	1,3	
				6.00 Utilities Construction Subtotal:	**$0.00**			
6.00	**Post-Construction BMPs**							
6.01	Rip Rap Inlet/Outlet Protection - Permanent	2	EA	$200.00	$400.00		3	
6.02	Aggregate Infiltration Trench	0	LF	$6.00	$0.00		3	
6.03	Floating boom skimmer with silt curtain	65	LF	$10.00	$650.00	PCBMP at east pond outlet	3	
				6.00 PCBMPs Subtotal:	**$1,050.00**			
7.00	**Site Restoration**							
7.01	Seeding, IDOT Class 1A Salt Tolerant Lawn Mixture	6,535	SY	$0.75	$6,401.06		3	assume 75% will occur as part of east side pavement and pond construction
7.02	Wetland Buffer Re-establishment	1	LS	$15,302.40	$15,302.40	See V3 report opinion of probable cost, page 120 of 120	3	
7.03	Erosion Control Blanket	1.61	AC	$2,750.00	$9,434.38	Assume jute mesh, excludes duplicate costs from item 7.02, includes labor	3	assume 75% will occur as part of east side pavement and pond construction
7.04	Landscaping Improvements	1	LS	$5,000.00	$3,750.00		3	assume 75% will occur as part of east side pavement and pond construction
				7.00 Site Restoration Subtotal:	**$34,887.84**			
				TOTAL PHASE I:	**$782,892.67**			

Cost Source:
1. IDOT Bid Tabs
2. RSMeans Site Work & Landscape Cost Data 2019 - Chicago Location Union Labor
3. Engineering Experience/Judgment

CONTRACTOR'S COPY

Electronic Filing: Received, Clerk's Office 04/19/2023 C000860

Civil & Environmental Consultants, Inc.

Project: West DuPage Recycling and Transfer Facility
Location: West Chicago, IL
Project #: 163-899

Estimated By: DAK Date: 5/28/2019
Checked By: CAC Date: 6/7/2019
Revised: Date:

CITY OF WEST CHICAGO
ENGINEERING DEPT

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST - SITE IMPROVEMENTS

ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE ($)	TOTAL	NOTES	COST SOURCE
1.00	**Demolition/Site Preparation**						
1.01	Concrete Block Wall Removal / Relocation	1,320	LF	$0.00	$0.00	Will be handled by operator - assume no work by contractor	3
1.02	Building Slab Concrete Removal	622	CY	$75.00	$46,662.50	Assume 6" of concrete is removed at 3,733 SY "mixed aggregate pavement and building foundation remnants" area at north central part of site	1,3
1.03	Concrete Wall Removal	105	LF	$100.00	$10,500.00	Assumes 12" wide, 10ft high concrete walls	1,3
1.04	Stair Removal	2	EA	$250.00	$500.00	Assumes 12" wide, 10ft high concrete walls	3
1.05	Pavement Sawcut	1,247	LF	$2.00	$2,494.00		1,3
1.06	Concrete Pavement Removal	7,275	SY	$12.50	$90,937.50		1,3
1.07	Asphalt Pavement Removal	3,295	SY	$7.50	$24,712.50		1,2,3
1.08	Earthwork - Topsoil strip, stockpile, respread	1,500	CY	$5.00	$7,500.00	Topsoil to be cut and respread in areas to be vegetated	2,3
1.09	Earthwork - Excavate and Regrade on site	5,000	CY	$10.00	$50,000.00	Earth to be excavated and relocated on-site, does not include existing pavement and base removal necessary to install new pavement.	2,3
1.10	Earthwork - Excavate & Haul-Off as CCDD	5,000	CY	$16.00	$80,000.00	Approximately 5,000 cy excess cut, does not include existing pavement and base removal necessary to install new pavement.	3
				1.00 Demolition/Site Preparation Subtotal:	**$313,306.50**		
2.00	**Erosion and Sediment Controls**						
2.01	Silt Fence	6,027	LF	$3.50	$21,094.50	Includes double silt fence at wetland and floodplain areas	3
2.02	Orange Construction Fence	1,980	LF	$2.50	$4,950.00	Along wetland and floodplains areas	1,3
2.03	Inlet Protection - Temporary	24	EA	$150.00	$3,600.00		1,3
				2.00 Erosion and Sediment Controls Subtotal:	**$29,644.50**		
3.00	**Pavement Construction**						
3.01	Light Duty Pavement	2,592	SY	$25.00	$64,791.67	Assumes 4" asphalt over 8" stone	1,2,3
3.02	Heavy Duty Pavement	34,520	SY	$35.00	$1,208,215.56	Assumes 6" asphalt over 12" stone, or 8" concrete over 6" stone	1,2,3
3.03	Concrete Sidewalk, 5"	174	SF	$5.00	$870.00		3
3.04	Bollard	12	EA	$250.00	$3,000.00	Assume 8" diameter	3
3.05	Pavement Striping, linear	7,864	LF	$1.50	$11,796.00	Assume 4" wide	1,3
3.06	Pavement Striping, ADA symbol	6	EA	$200.00	$1,200.00	Assume 4" wide	3
3.07	ADA Sign	6	EA	$150.00	$900.00	Assume standard signage	3
3.08	Wheel Stops	6	EA	$300.00	$1,800.00	Assume reinforced concrete	3
3.09	Truck Scale	1	EA	$25,000.00	$25,000.00		3
				3.00 Pavement Construction Subtotal:	**$1,317,573.22**		
4.00	**Stormwater Controls**						
4.01	Storm Structure Removal	3	EA	$300.00	$900.00		1,3
4.02	Storm Outlet Control Structure Removal	1	EA	$500.00	$500.00		1,3
4.03	Storm Sewer Removal / Abandonment	595	LF	$2.00	$1,190.00	Assume cap/abandon in place	3
4.06	Infiltration Trench Removal / Abandonment	170	LF	$0.00	$0.00	Assume this is "left in place" and built upon for new pavement	3
4.07	Storm Sewer, 8" PVC	494	LF	$30.00	$14,820.00		1,2,3
4.08	Storm Sewer, 12" RCP	652	LF	$40.00	$26,080.00		1,2,3
4.09	Storm Sewer, 18" RCP	113	LF	$50.00	$5,650.00		1,2,3
4.10	Storm Sewer, 24" RCP	80	LF	$60.00	$4,800.00		1,2,3
4.11	Storm Sewer, Flared End Section, 12" RCP	1	EA	$250.00	$250.00		1,3
4.12	Storm Sewer, Flared End Section, 24" RCP	2	EA	$450.00	$900.00		1,3
4.13	Storm Sewer, Flared End Section, 36" RCP	1	EA	$600.00	$600.00		1,3
4.14	Storm Inlet, 24" Dia, w/ frame and grate	6	EA	$1,250.00	$7,500.00		1,3
4.15	Storm Manhole, 60" Dia, w/ frame and grate	4	EA	$3,000.00	$12,000.00		1,3
4.16	Storm Restrictor Structure, 72" dia with spillway wall and restrictor plate	2	EA	$6,000.00	$12,000.00		3
				4.00 Stormwater Controls Subtotal:	**$87,190.00**		
5.00	**Utilities Construction**						
5.01	Sanitary Structure Removal	1	EA	$500.00	$500.00		1,3
5.02	Fire Hydrant Removal	3	EA	$250.00	$750.00		3
4.04	Sanitary Sewer Removal / Abandonment	485	LF	$4.00	$1,940.00	Assume cap/abandon in place	3
4.05	Water Main Removal / Abandonment	459	LF	$2.00	$918.00	Assume cap/abandon in place	3
4.06	Sanitary Sewer, 6" SDR26 PVC	6	LF	$30.00	$180.00	Connection between cleanouts and OWS and building included in building costs	2,3
4.07	Sanitary Sewer, 8" SDR26 PVC	790	LF	$50.00	$39,500.00		2,3
4.08	Sanitary Manhole, 60" Dia, w/ frame and grate	4	EA	$4,000.00	$16,000.00		3
4.09	Oil Water Separator	2	EA	$12,500.00	$25,000.00	Vortclarex VCL30	3
4.10	Sanitary Sewer Cleanout	2	EA	$250.00	$500.00		3
4.11	Water Main, 6" Ductile Iron Pipe, Class 52	379	LF	$60.00	$22,740.00		3
4.12	Water Main, 8" Ductile Iron Pipe, Class 52	651	LF	$85.00	$55,335.00		3

Civil & Environmental Consultants, Inc.

Project: West DuPage Recycling and Transfer Facility
Location: West Chicago, IL
Project #: 163-899

Estimated By: DAK Date: 5/28/2019
Checked By: CAC Date: 6/7/2019
Revised: Date:

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST - SITE IMPROVEMENTS

ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE ($)	TOTAL	NOTES	COST SOURCE
4.13	Ductile Iron Fittings	1	LS	$5,000.00	$5,000.00	Assumes reuse of existing fittings, plus additional fittings as necessary	3
4.14	Fire Hydrant w/ 6" auxiliary valve	3	EA	$3,500.00	$10,500.00	Assume 6' depth	3
4.15	Yard Hydrant	1	EA	$1,500.00	$1,500.00	Assume 6' depth	3
4.16	Gas Service	550	LF	$7.50	$4,125.00	Gas service install through site	3
4.17	Electrical Service	504	LF	$5.00	$2,520.00	Size/material undetermined	3
4.18	Communications Line	504	LF	$2.50	$1,260.00	Size/material undetermined	3
4.19	Trench Backfill	2,500	CY	$15.00	$37,502.22	Assumes all underground utilities require trench backfill. Assume 4 feet height above utility to bottom of pavement section and 4 foot width along all utilities.	1,3
				5.00 Utilities Construction Subtotal:	**$225,770.22**		
6.00	**Post-Construction BMPs**						
6.01	Rip Rap Inlet/Outlet Protection - Permanent	4	EA	$200.00	$800.00		3
6.02	Aggregate Infiltration Trench	216	LF	$6.00	$1,296.00		3
6.03	Floating boom skimmer with silt curtain	65	LF	$10.00	$650.00	PCBMP at east pond outlet	3
				6.00 PCBMPs Subtotal:	**$2,746.00**		
7.00	**Site Restoration**						
7.01	Seeding, IDOT Class 1A Salt Tolerant Lawn Mixture	11,380	SY	$0.75	$8,534.75		3
7.02	Wetland Buffer Re-establishment	1	LS	$15,302.40	$15,302.40	See V3 report opinion of probable cost, page 120 of 120	3
7.03	Erosion Control Blanket	2.15	AC	$2,750.00	$10,912.50	Assume jute mesh, excludes duplicate costs from Item 7.02, includes labor	3
7.04	Landscaping Improvements	1	LS	$5,000.00	$5,000.00		3
				7.00 Site Restoration Subtotal:	**$39,749.65**		
				TOTAL:	**$2,015,980.09**		

Cost Source:
1. IDOT Bid Tabs
2. RSMeans Site Work & Landscape Cost Data 2019 - Chicago Location Union Labor
3. Engineering Experience/Judgment

Opinion of Cost Notes/Assumptions:
A. Quantities and unit prices based on CEC Site Improvement Plans, draft May 2019, as well as various assumptions outlined herein. Assumptions, quantities, and unit prices are subject to change.
B. CEC opinion of probable construction based solely upon our own experience with construction, published cost indices and similar references. Costs should not be considered equivalent to a construction cost estimator or construction contractor quote.
C. Unit prices are shown in 2019 U.S. Dollars.
D. This estimate does not include on-going operational or maintenance costs.

CONTRACTOR'S COPY

CITY OF WEST CHICAGO IL
ENGINEERING DEPT

☒ Approved
☐ Not Approved-Resubmit
☐ Approved As Noted: _____

NOTE: City Codes And Ordinances are not superseded by this approval.
by _____ date _____

Civil & Environmental Consultants, Inc.
555 Butterfield Road, Suite 300 - Lombard, IL 60148
630-963-6026 · 877-963-6026
www.cecinc.com

REVISION RECORD

NO	DATE	DESCRIPTION
1	09/27/2019	CITY AND COUNTY REVIEW COMMENTS

CONTRACTOR'S COPY

RECEIVED
SEP 27 2019
BY:

SHEET 1 OF 1

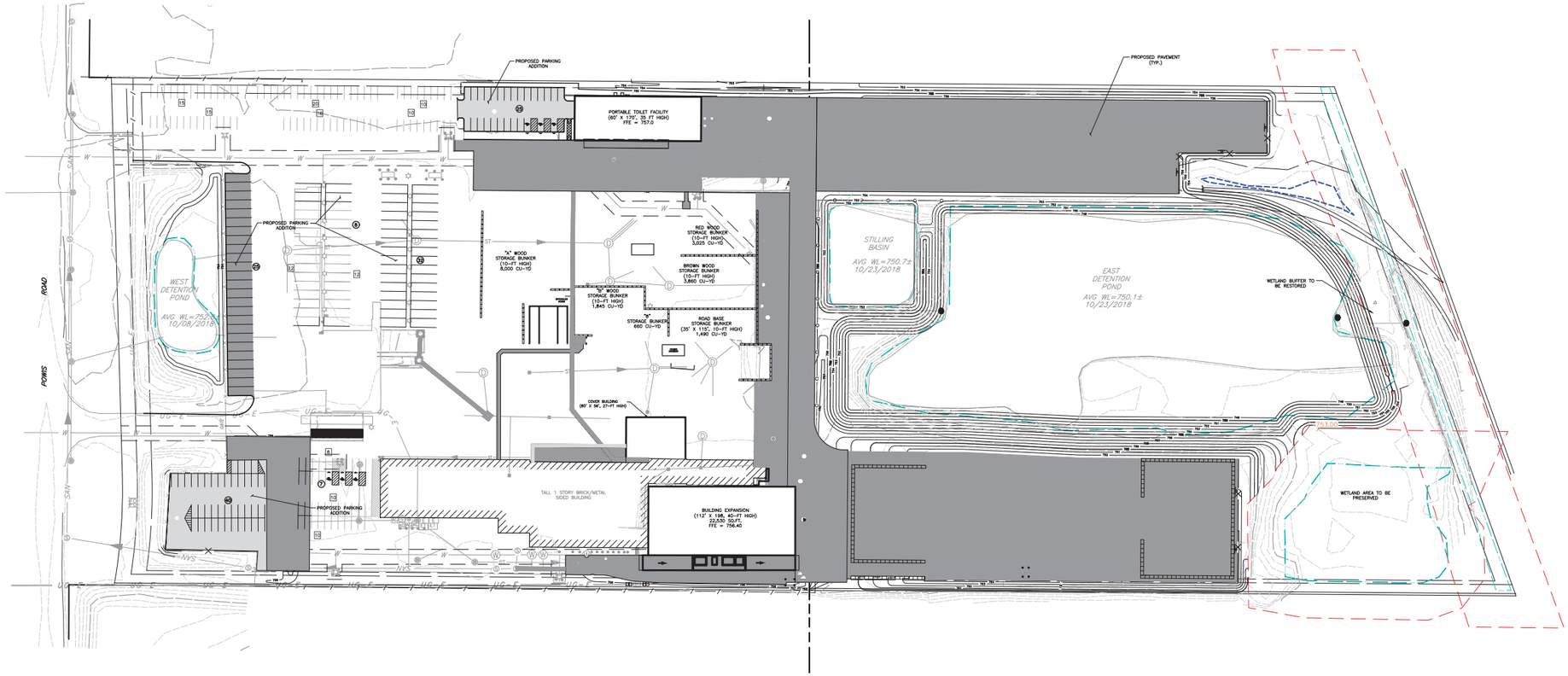
DRAWING NO.: 1

FINAL SITE PLAN

DATE:	04/02/2019	DRAWN BY:	SJV/CPIV
DWG SCALE:	1"=80'	CHECKED BY:	DAK
PROJECT NO:			163-899.0004
APPROVED BY:			DAK

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

NORTH



REVISION RECORD

NO	DATE	DESCRIPTION
1	05/07/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
555 Butterfield Road, Suite 300 - Lombard, IL 60148
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC.
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

NOTES:

1. ACREAGE OF ENTIRE SITE: 27.75 ACRES
2. BREAKDOWN OF FLOOR AREA FOR EACH BUILDING & TOTAL FLOOR AREA FOR ENTIRE SITE INCLUDING FLOOR AREA RATIO:
   - 2.1. PORTABLE TOILET FACILITY = 0.234 ACRES
   - 2.2. EXISTING BUILDING = 0.925 ACRES
   - 2.3. BUILDING EXPANSION = 0.509 ACRES
   - 2.4. TOTAL FLOOR AREA = 1.668 ACRES
   - 2.5. FLOOR AREA RATIO = 6.01%
3. BUILDING, LANDSCAPE, AND PAVEMENT COVERAGE OF ENTIRE SITE:
   - 3.1. BUILDING = 1.668 ACRES
   - 3.2. LANDSCAPE = 3.48 ACRES
   - 3.3. PAVEMENT = 14.50 ACRES
4. EXISTING ZONING: M
5. MINIMUM REQUIRED SETBACKS & MAXIMUM BUILDING HEIGHTS:
   - 5.1. FRONT SETBACK = 40 FT.
   - 5.2. SIDE SETBACK = 9 FT. & 15 FT.
   - 5.3. REAR SETBACK = 20 FT.
   - 5.4. PORTABLE TOILET FACILITY BUILDING HEIGHT = 35 FT.
   - 5.5. EXISTING & ADDITIONAL BUILDING HEIGHT = 40 FT.
6. PREVIOUSLY APPROVED REDUCED SETBACKS
   - 6.1. 15 FT. SIDE YARD SETBACK FOR PARKING LOT
7. TOTAL PARKING PROVIDED & TOTAL PARKING REQUIRED:
   - 7.1. PARKING PROVIDED = 275 SPACES
   - 7.2. PARKING REQUIRED: 1 SPACE PER 1,000 SF WHEN TOTAL IS LESS THAN 100,000 SF
     - 7.2.1. PARKING REQUIRED = 73 SPACES

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED 1.20.15, AS-BUILT DATE JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

SCALE IN FEET
0 80 160

FINAL SITE PLAN

DATE:	04/02/2019
DRAWN BY:	SJV/CPW
DWG. SCALE:	1"=80'
CHECKED BY:	DAK
PROJECT NO:	163-899.0004
APPROVED BY:	DAK

DRAWING NO.: 1

SHEET 1 OF 1

P:\2016\163-899\~CAD\Dwg\CPW-Construction Plan Set\163899-CPW-Final Site Plan.dwg[FINAL SITE PLAN] LS:9/26/2019 2:11 PM - mikej - LP: 9/26/2019 2:11 PM

CONTRACTOR'S COPY

RECEIVED
JUN 20 2019
BY:_____

LICENSED ARCHITECT
MICHAEL J. ROOT
001-006715
STATE OF ILLINOIS

6.12.19

LAKESHORE RECYCLING SYSTEMS
TRANSFER BLDG EXPANSION

1655 POWIS ROAD WEST CHICAGO, ILLINOIS

date 4/2/2019

revised

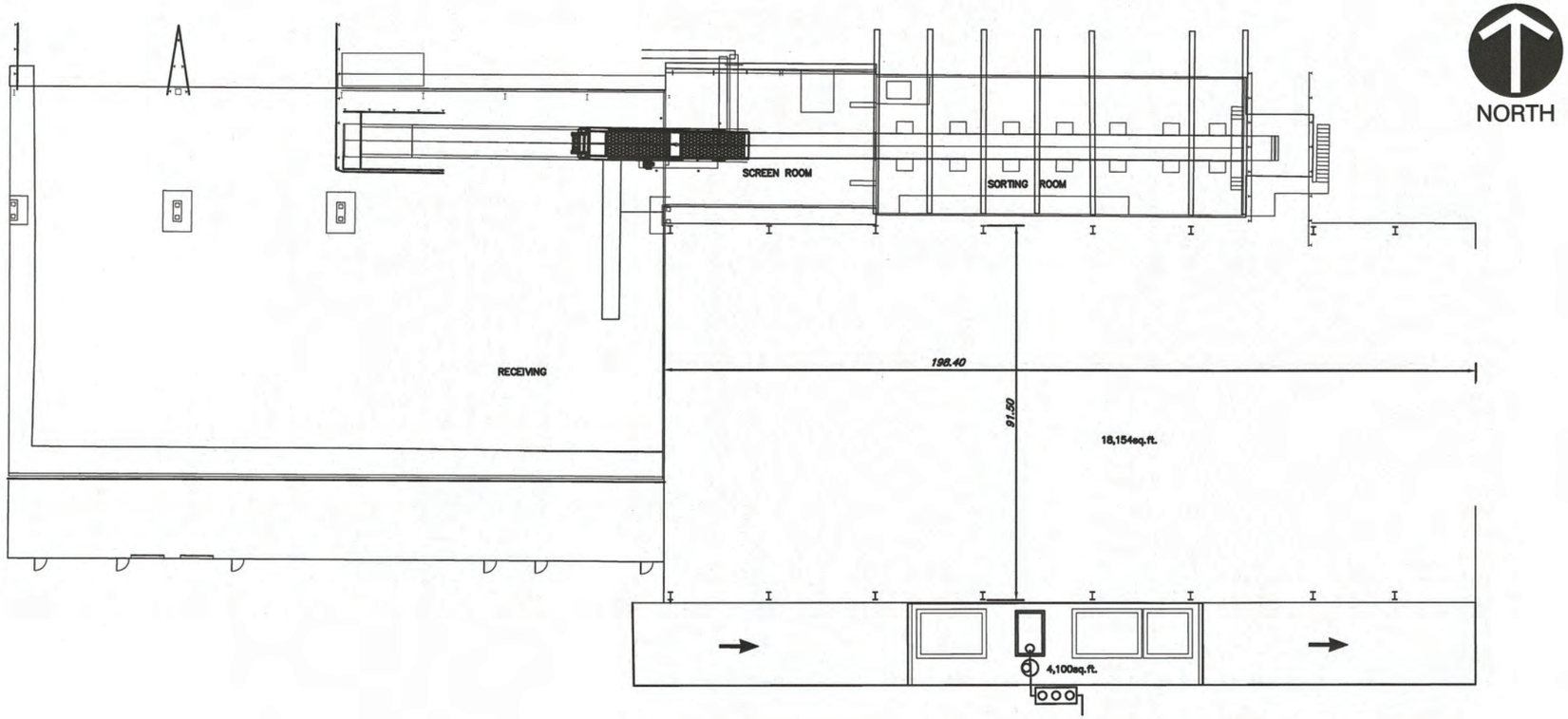
m.j.root · architect

324 center rd. frankfort, illinois 60423 815-464-0777

drawing A1

of

12 June 2019 13:24:26



LICENSED ARCHITECT
MICHAEL J. ROOT
001-006715
STATE OF ILLINOIS

date 4/2/2019

LAKESHORE RECYCLING SYSTEMS
TRANSFER BLDG EXPANSION

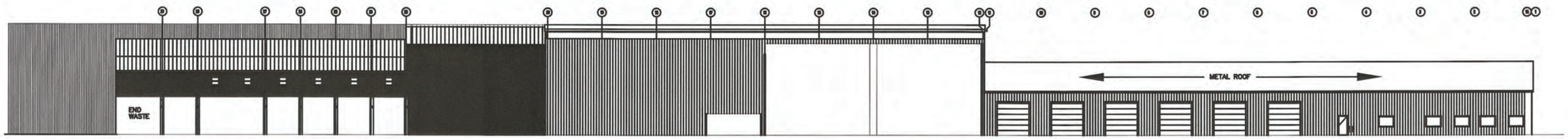
1655 POWIS ROAD WEST CHICAGO, ILLINOIS

revised

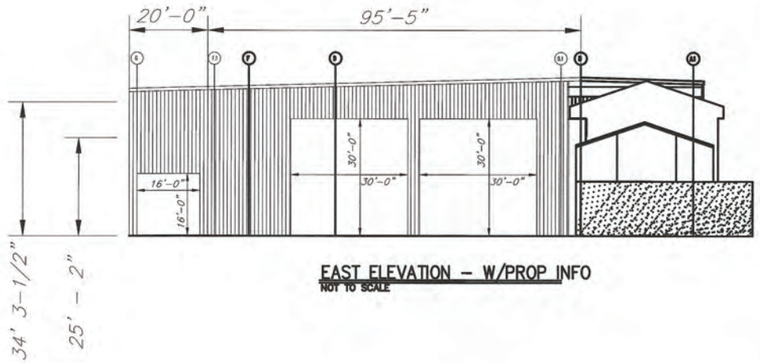
m.j.root · architect

324 center rd. frankfort, illinois 60423 815-464-0777

drawing A1 of



NORTH ELEVATION
NOT TO SCALE



EAST ELEVATION – W/PROP INFO
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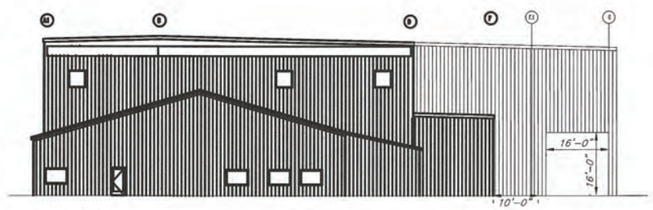

WEST ELEVATION
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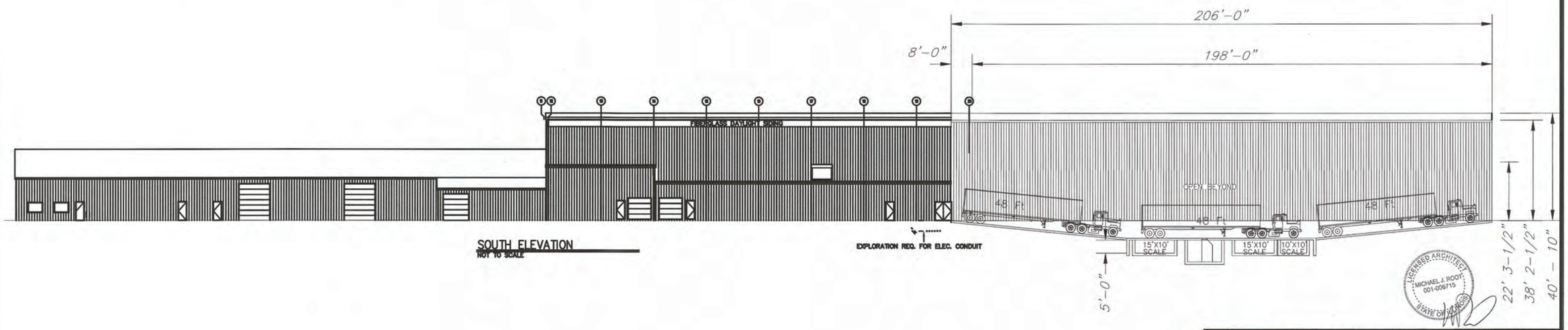


SOUTH ELEVATION
NOT TO SCALE

EXPLORATION REQ. FOR ELEC. CONDUIT

LAKESHORE RECYCLING SYSTEMS
TRANSFER BLDG EXPANSION

1655 POWIS ROAD WEST CHICAGO, ILLINOIS

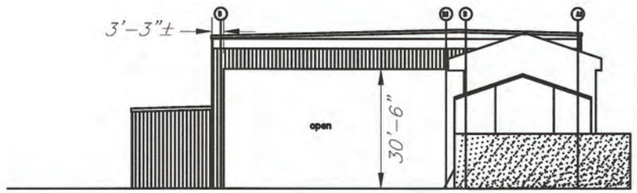
m.j.root · architect

324 center rd. frankfort, illinois 60423 815-464-0777

date 4/2/2019

revised

drawing A2 of



EAST ELEVATION – EXISTING VIEW NO PROP INFO
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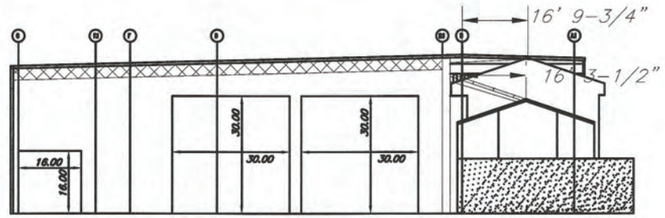


EAST ELEVATION – FRAME VIEW W/PROP INFO
NOT TO SCALE

SOUTH ELEVATION FRAME VIEW
NOT TO SCALE

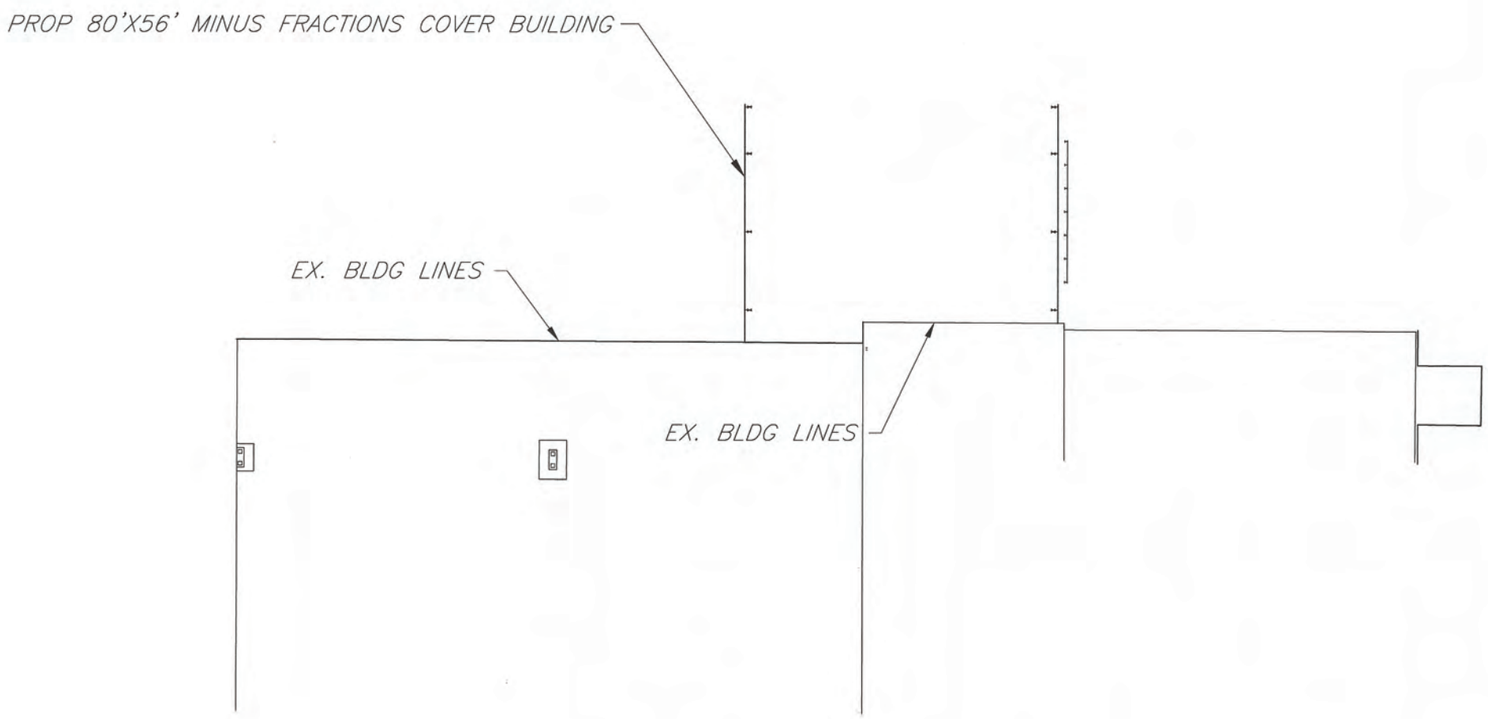
EXPLORATION REQ. FOR ELEC. CONDUIT

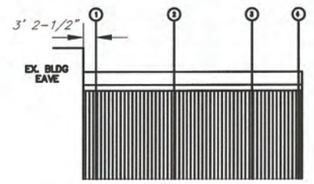
LICENSED ARCHITECT
MICHAEL J. ROOT
001-006715
STATE OF ILLINOIS

LAKESHORE RECYCLING SYSTEMS
TRANSFER BLDG EXPANSION
1655 POWIS ROAD WEST CHICAGO, ILLINOIS

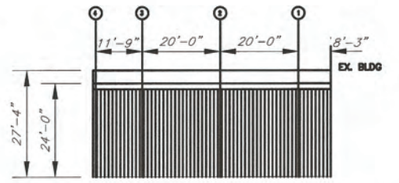
m.j.root · architect
324 center rd. frankfort, illinois 60423 815-464-0777

date 4/2/2019
revised
drawing A3 of





EAST ELEVATION – FRACTIONS BUILDING
NOT TO SCALE



WEST ELEVATION – FRACTIONS BUILDING
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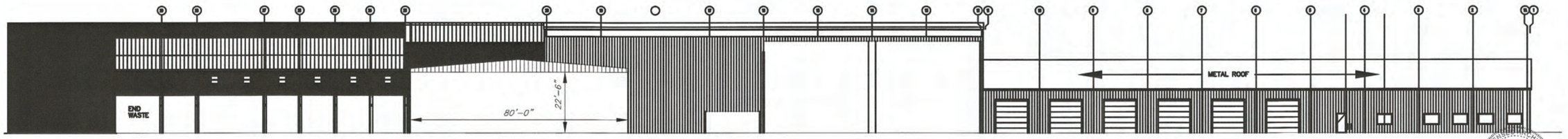

NORTH ELEVATION FUTURE MINUS FRACTIONS COVER BUILDING
NOT TO SCALE

LICENSED ARCHITECT
MICHAEL J. ROOT
001-006712
STATE OF ILLINOIS

LAKESHORE RECYCLING SYSTEMS
TRANSFER BLDG EXPANSION
1655 POWIS ROAD WEST CHICAGO, ILLINOIS

4/2/2019
revised

m.j.root · architect
324 center rd. frankfort, illinois 60423 815-464-0777

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A4
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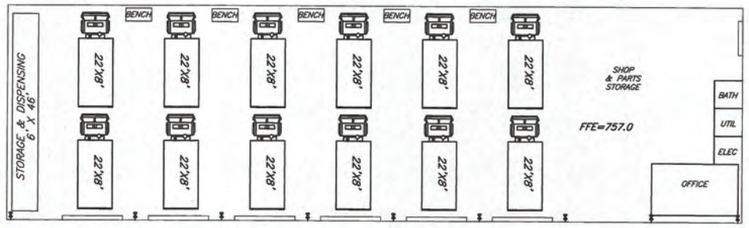
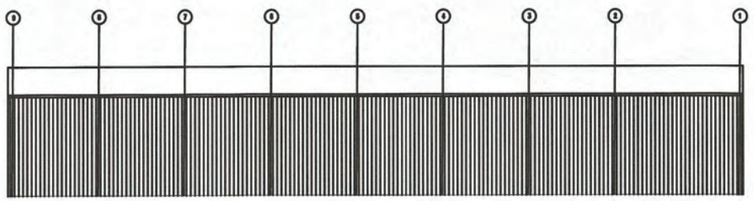
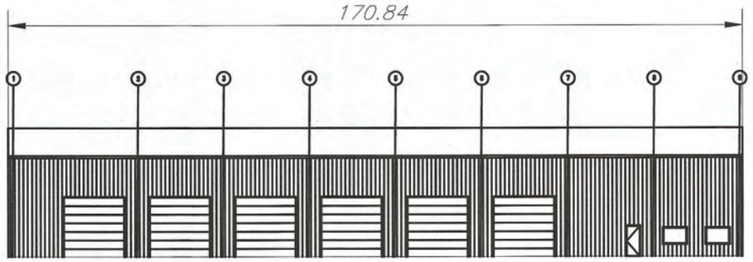




NORTH ELEVATION – PP BLDG
NOT TO SCALE



SOUTH ELEVATION – PP BLDG
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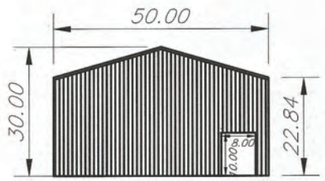

EAST ELEVATION – PP BLDG
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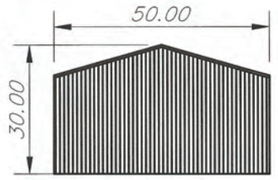

WEST ELEVATION – PP BLDG
NOT TO SCALE

LICENSED ARCHITECT
MICHAEL J. ROOT
001-006715
STATE OF ILLINOIS

m.j.root · architect 324 center rd. frankfort, illinois 60423 815-464-0777	LAKESHORE RECYCLING SYSTEMS PP BLDG 1655 POWIS ROAD WEST CHICAGO, ILLINOIS	date 4/2/2019 revised drawing A1 of

12 June 2019 13:27:50

AUTHORIZED
BY: CCH-2CE
DEC 06 2019
SWP# SM2019-0061
19-34-0003
DuPAGE CO. -ECONOMIC DEVELOPMENT & PLANNING-ENVIRONMENTAL CONCERNS

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ENT CONTROL AND RESTORATION PLAN EAST

CITY OF WEST CHICAGO IL
ENGINEERING DEPT
☒ Approved
☐ Not Approved-Resubmit
☐ Approved As Noted: _____
NOTE: City Codes And Ordinances are not superceded by this approval.
by MCM date 5/20/20

CONTRACTORS COPY

REVISION RECORD

NO	DATE	DESCRIPTION
1	09/27/2019	CITY AND COUNTY REVIEW COMMENTS
2	11/08/2019	CITY AND COUNTY REVIEW COMMENTS

Civil Environmental Consultants, Inc.
2250 Point Blvd, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

C DETAILS

E DEVELOPMENT ZONING DATA

SITE ACREAGE:	27.75 ACRES
ING:	M – PLANNED UNIT DEVELOPMENT(PUD)
ING TO THE NORTH:	M
ING TO THE WEST:	A
ING TO THE SOUTH:	A
ING TO THE EAST:	ER–1 (UNION PACIFIC RR)

BACKS:	REQUIRED
ONT:	40 FEET
DE: (M,A)	9 & 15 FEET
AR: (NON–RESIDENTIAL)	20 FEET

ENGINEER'S CERTIFICATE

STATE OF ILLINOIS }
} S.S.
COUNTY OF DUPAGE }

I, DAVID A. KAMANO, AN ILLINOIS PROFESSIONAL ENGINEER, DO HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC., ILLINOIS LICENSED PROFESSIONAL DESIGN FIRM NO. 184.004002, LICENSE EXPIRES APRIL 30, 2021, UNDER MY PERSONAL DIRECTION FOR THE EXCLUSIVE USE OF THE CLIENT NOTED HEREON. REPRODUCTION OR USE BY THIRD PARTIES IS STRICTLY PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE UNDERSIGNED.

GIVEN UNDER MY HAND AND SEAL AT NAPERVILLE, ILLINOIS, THIS ??? DAY OF APRIL, 2019.

DAVID A. KAMANO
ILLINOIS PROFESSIONAL ENGINEER NO. 062.057977
LICENSE EXPIRES NOVEMBER 30, 2019.
*HAND SIGNATURE ON FILE

ILLINOIS LAW REQUIRES ANYONE DIGGING TO CALL JULIE AT 1–800–892–0123 AT LEAST 48 HOURS/TWO WORKING DAYS PRIOR TO THE START OF EXCAVATION AND THE PROJECT MUST BEGIN WITHIN 14 CALENDAR DAYS FROM THE CALL.

DAVID A. KAMANO
57977
LICENSED PROFESSIONAL ENGINEER
OF
ILLINOIS

11/07/19
LICENSE EXP 11/30/19

LAKESHORE RECYCLING SYSTEMS
WEST DUPAGE RECYCLING & TRA
1655 POWIS ROAD
WEST CHICAGO, IL

COVER SHEET

DATE:	04/02/2019
DRAWN BY:	SJV/CPIV
CHECKED BY:	DAK
DWG SCALE:	NTS
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

DRAWING NO.:
C000
SHEET 1 OF 29

D C B A

2 1

Electronic Filing: Received, Clerk's Office 04/19/2023

C000873

LAKESHORE RECYCLING SYSTEMS, LLC

WEST DuPAGE RECYCLING & TRANSFER FACILITY

1655 POWIS ROAD
WEST CHICAGO, ILLINOIS
SITE IMPROVEMENT PLANS

LEGEND

- STORM MANHOLE
- CATCH BASIN
- INLET
- FLARED END SECTION
- STORM STRUCTURE NOT LOCATED
- SANITARY MANHOLE
- CLEAN OUT
- WATER MANHOLE
- WATER VALVE
- FIRE HYDRANT
- POWER POLE
- LIGHT POLE
- ELECTRIC BOX
- AC UNIT
- ELECTRIC CONTROL CABINET
- ELECTRIC TRANSFORMER
- GAS METER
- FIBER OPTIC PULL BOX
- BOLLARD
- STALL COUNT
- SPOT GRADE
- CONIFEROUS BUSH
- DECIDUOUS TREE
- PROPERTY LINE
- EASEMENT LINE
- ADJACENT RIGHT-OF-WAY (APPROX.)
- SETBACK LINE
- CONTOUR W/ ELEVATION
- STORM SEWER
- SANITARY SEWER
- 8" DIP WATER LINE (UNCONFIRMED)
- BURIED ELEC. LINE
- RAILROAD TRACKS
- WOOD FENCE
- CHAIN LINK FENCE
- WIRE/METAL FENCE
- 100-YR FIS BFE=752.25
- 10-YR FIS BFE=751.50
- WETLAND BUFFER
- DELINEATED POND/WETLAND
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATER SERVICE
- PROPOSED GAS
- PROPOSED ELECTRIC
- PROPOSED COMMUNICATIONS
- PROPOSED SPOT GRADE
- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- PROPOSED SILT FENCE
- PROPOSED ORANGE CONSTRUCTION FENCE
- PROPOSED COIR LOG DITCH CHECK
- PROPOSED RIPRAP
- PROPOSED CATCH BASIN
- PROPOSED INLET
- PROPOSED SANITARY MANHOLE
- PROPOSED CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED GAS METER
- PROPOSED ELECTRIC METER
- PROPOSED OIL WATER SEPARATOR
- PROPOSED STALL COUNT
- PROPOSED FLARED END SECTION
- PROPOSED EROSION CONTROL BLANKET
- PROPOSED WETLAND BUFFER VEGETATION
- PROPOSED INLET PROTECTION
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED LIGHT DUTY PAVEMENT
- * DEMO CONCRETE PAVEMENT
- * DEMO ASPHALT PAVEMENT
- * DEMO MIXED AGGREGATE PAVEMENT
- * DEMOLITION LINEAR FEATURE

* DEMO HATCH ON SHEETS C103 & C104 ONLY

COUNTY MAP SOURCE:
ILLINOIS STATE GEOLOGICAL SURVEY

LOCATION KEY MAP
NOT TO SCALE

SOURCE: GOOGLE EARTH , IMAGE DATE 03/17/2018

SITE MAP
SCALE: 1" = 200'

LOCATION: SECTION 32, TOWNSHIP 40N, RANGE 9E

PROJECT CONTACT INFORMATION

SITE OPERATOR
LAKESHORE RECYCLING SYSTEMS, LLC
PH: (708) 774-9301
CONTACT: RICHARD GOLF

SURVEYOR
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
1203 E. DIEHL ROAD, SUITE 200
NAPERVILLE, IL 60563
PH: (630) 963-6026
FX: (630) 963-6027
CONTACT: DOUGLAS MCCLINTIC, P.L.S.

VILLAGE
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
MAYOR: RUBEN PINEDA
PUBLIC WORKS: ROBERT FLATTER
COMMUNITY DEVELOPMENT: TOM DABAREINER
ENGINEER: STEVE PERTZBORN

CIVIL ENGINEER
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
1203 E. DIEHL ROAD, SUITE 200
NAPERVILLE, IL 60563
PH: (630) 963-6026
FX: (630) 963-6027
CONTACT: DAVID A. KAMANO, P.E., LEED AP

UTILITY COMPANIES

ELECTRIC SERVICE
COMED
PH: (877)-426-6331

SANITARY
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

GAS
NICOR
PH: (888) 642-6748

WATER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

STORM SEWER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

PERFORMANCE STANDARDS

THESE SITE IMPROVEMENTS SHALL MEET THE PERFORMANCE STANDARDS OF THE CITY OF WEST CHICAGO AND DUPAGE COUNTY.

BENCHMARKS

BM 1
"+"CUT, CONTROL POINT 8
ELEVATION = 756.28 (NAVD 88)

BM 2
REBAR, CONTROL POINT 5
ELEVATION = 758.60 (NAVD 88)

BM 3
REBAR, CONTROL POINT 6
ELEVATION = 755.04 (NAVD 88)

DUPAGE CO. PID DK 3273
aka WEST CHICAGO WC105
BRASS DISK, NE CORNER OF POWIS ROAD
AND POWIS COURT
ELEVATION = 757.10 (NAVD 88)

DUPAGE CO. PID DK3275
aka WEST CHICAGO WC 160
BRASS DISK, W SIDE HOWARD DRIVE 300' S OF
HOWARD DRIVE.
ELEVATION = 751.73 (NAVD 88)

BASIS OF BEARING

THE HORIZONTAL DATUM IS THE ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE NAD 83 AND THE VERTICAL DATUM IS NAVD 88.

PROJECT NARRATIVE

LAKESHORE RECYCLING SYSTEMS IS PROPOSING TO IMPROVE THE EXISTING CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING FACILITY BY RECONFIGURING OUTSIDE STORAGE AND OPERATIONAL AREAS, PAVING OUTSIDE STORAGE AND OPERATIONAL AREAS, ADDING AND IMPROVING EXISTING PARKING, EXPANDING THE MAIN SORTING BUILDING EASTWARD AND NORTHWARD (INCLUDING THE ADDITION OF A LOADING PIT AND WEIGH SCALES), ADDING A PREVIOUSLY APPROVED SECOND SCALE ADJACENT TO THE EXISTING SCALE, AND ADDING A NEW PORTA-LET CLEANING AND MAINTENANCE BUILDING.

LIST OF DRAWINGS

C000 COVER SHEET
C100 EXISTING SITE CONDITIONS OVERALL
C101 EXISTING SITE CONDITIONS WEST
C102 EXISTING SITE CONDITIONS EAST
C103 DEMOLITION PLAN WEST
C104 DEMOLITION PLAN EAST
C200 SITE PLAN OVERALL
C201 SITE PLAN WEST
C202 SITE PLAN EAST
C203 PAVING AND GEOMETRIC PLAN WEST
C204 PAVING AND GEOMETRIC PLAN EAST
C300 GRADING AND DRAINAGE PLAN WEST
C301 GRADING AND DRAINAGE PLAN EAST
C500 UTILITIES WEST
C501 UTILITIES EAST
C600 SOIL EROSION, SEDIMENT CONTROL AND RESTORATION PLAN WEST
C601 SOIL EROSION, SEDIMENT CONTROL AND RESTORATION PLAN EAST
C900 DETAILS
C901 DETAILS
C902 DETAILS
C903 DETIALS
C904 SITE SPECIFICATIONS
C905 SITE SPECIFICATIONS
C906 SITE SPECIFICATIONS
L1.0 FINAL LANDSCAPE PLAN
L1.1 FINAL LANDSCAPE PLAN
L2.0 LANDSCAPE NOTES AND DETAILS
PH1.0 PHOTOMETRIC PLAN
PH1.1 PHOTOMETRIC DETAILS

SITE DEVELOPMENT ZONING DATA

NET SITE ACREAGE:	27.75 ACRES
ZONING:	M – PLANNED UNIT DEVELOPMENT(PUD)
ZONING TO THE NORTH:	M
ZONING TO THE WEST:	A
ZONING TO THE SOUTH:	A
ZONING TO THE EAST:	ER-1 (UNION PACIFIC RR)

SETBACKS:	REQUIRED
FRONT:	40 FEET
SIDE: (M,A)	9 & 15 FEET
REAR: (NON-RESIDENTIAL)	20 FEET

ENGINEER'S CERTIFICATE

STATE OF ILLINOIS }
} S.S.
COUNTY OF DUPAGE }

I, DAVID A. KAMANO, AN ILLINOIS PROFESSIONAL ENGINEER, DO HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC., ILLINOIS LICENSED PROFESSIONAL DESIGN FIRM NO. 184.004002, LICENSE EXPIRES APRIL 30, 2021, UNDER MY PERSONAL DIRECTION FOR THE EXCLUSIVE USE OF THE CLIENT NOTED HEREON. REPRODUCTION OR USE BY THIRD PARTIES IS STRICTLY PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE UNDERSIGNED.

GIVEN UNDER MY HAND AND SEAL AT NAPERVILLE, ILLINOIS, THIS ??? DAY OF APRIL, 2019.

DAVID A. KAMANO
ILLINOIS PROFESSIONAL ENGINEER NO. 062.057977
LICENSE EXPIRES NOVEMBER 30, 2019.
*HAND SIGNATURE ON FILE

Call Before You Dig JULIE ILLINOIS ONE-CALL SYSTEM

ILLINOIS LAW REQUIRES ANYONE DIGGING TO CALL JULIE AT 1-800-892-0123 AT LEAST 48 HOURS/TWO WORKING DAYS PRIOR TO THE START OF EXCAVATION AND THE PROJECT MUST BEGIN WITHIN 14 CALENDAR DAYS FROM THE CALL.

DAVID A. KAMANO 57977 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

REVISION RECORD

NO	DATE	DESCRIPTION
1	05/07/2019	CITY AND COUNTY REVIEW COMMENTS
2	11/05/2019	CITY AND COUNTY REVIEW COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, INC
WEST DUPAGE RECYCLING & TRANSFER
1655 POWIS ROAD
WEST CHICAGO, IL

COVER SHEET

DATE:	04/02/2019
DRAWN BY:	S.N./CP/V
CHECKED BY:	DAK
DWG SCALE:	NTS
PROJECT NO:	163-899.0004
APPROVED BY:	JEH

DRAWING NO.:
C000
SHEET 1 OF 26

P:\2016\163-899\~CAD\Dwg\C004-Construction Plan Set\163899-C004-C000-Cover Sheet.dwg[C000] LS(11/6/2019 - mkeel) - LP: 11/6/2019 12:44 PM

Electronic Filing: Received, Clerk's Office 04/19/2023 C000874

CONTRACTOR'S COPY

CITY OF WEST CHICAGO IL
ENGINEERING DEPT
☒ Approved
☐ Not Approved-Resubmit
☐ Approved As Noted: _____
NOTE: The Codes And Ordinances are not superseded by this approval
by _____ date 5/20/20

STORMWATER REPORT

WEST DUPAGE RECYCLING & TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS, 60185

Prepared For:

LAKESHORE RECYCLING SYSTEMS, LLC
6132 OAKTON STREET
MORTON GROVE, ILLINOIS 60053

Prepared By:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
NAPERVILLE, ILLINOIS

CEC Project 163-899

JUNE 2019

(REVISED SEPTEMBER 2019)
(REVISED NOVEMBER 2019)

AUTHORIZED
BY: CCH - LCE
DEC 06 2019
SM2019-0061
SWP# 19-34-0003
DuPAGE CO. - ECONOMIC DEVELOPMENT & PLANNING - ENVIRONMENTAL CONCERNS

DAVID A. KAMANO
57977
LICENSED PROFESSIONAL ENGINEER
OF
ILLINOIS
11/11/19
LICENSE EXP. 11/30/19

APPENDIX 2-F4

WEST CHICAGO APPROVAL OF RECORD DRAWINGS

Hock, John

From: Rob Skerke <RSkerke@westchicago.org>
Sent: Tuesday, November 16, 2021 12:05 PM
To: Kamano, Dave; Steve Pertzborn
Cc: Rich Golf; Steven Schilling, P.E.; Feltman, Dan; Hock, John; Schlosser, Maegan
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement

All,

I have reviewed and approved the As-built record drawing. Please submit 1 paper copy for our records. If you would like a stamped approved paper copy, please submit one and we will stamp it. If not please use this email as notification that the record drawing is approved.

Thank you,
Rob

Robert M. Skerke, P.E.
Civil Engineer
City of West Chicago
475 Main Street
West Chicago, IL 60185
Phone: (630) 293-2200 (x156)
Fax: (630) 293-1257
westchicago.org

From: Kamano, Dave <dkamano@cecinc.com>
Sent: Wednesday, November 10, 2021 12:37 PM
To: Rob Skerke <RSkerke@westchicago.org>; Steve Pertzborn <SPertzborn@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Schlosser, Maegan <mschlosser@cecinc.com>
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement

Rob,

I received a bounce-back notification to my email below due to the record drawings being to large to email. I saved them instead in a One Drive folder here:

https://cecportal-my.sharepoint.com/:f:/g/personal/dkamano_cecinc_com/Ek3b9yFffXdKjwnc2NrzVQwBqyTtfQqr1cguUJTXgVJtqw?e=tikT3m

I also saved the Plat of Easement in the same folder for convenience.

Please let us know any questions or comments.

Thanks,
Dave

David A. Kamano, P.E., LEED AP | *Principal*
Civil & Environmental Consultants, Inc.

1230 East Diehl Road, Suite 200, Naperville, Illinois 60563
direct 630.541.0616 **office** 630.963.6026 **mobile** 630.930.2306
www.cecinc.com

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From: Kamano, Dave
Sent: Tuesday, November 9, 2021 4:44 PM
To: Rob Skerke <RSkerke@westchicago.org>; Steve Pertzborn <SPertzborn@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Schlosser, Maegan <mschlosser@cecinc.com>
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement

Rob,

Record drawings attached for your review and use.

Please let us know if you have any comments on Plat of Easement or record drawings at your convenience. We are prepared to process the Plat for recordation when ready.

Thanks,
Dave

David A. Kamano, P.E., LEED AP | *Principal*
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direct 630.541.0616 **office** 630.963.6026 **mobile** 630.930.2306
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From: Kamano, Dave
Sent: Tuesday, October 26, 2021 11:35 AM
To: Rob Skerke <RSkerke@westchicago.org>; Steve Pertzborn <SPertzborn@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Schlosser, Maegan <mschlosser@cecinc.com>
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement

Rob,

Please see Plat of Easement granting the stormwater management easement to the areas of the expanded pond at 1655 Powis Road. Please review and advise if ok to record.

FYI, as-builts are being prepared and will be provided for City review/record soon (likely within the next week or two).

Thanks,
Dave

David A. Kamano, P.E., LEED AP | *Principal*
Civil & Environmental Consultants, Inc.

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direct 630.541.0616 **office** 630.963.6026 **mobile** 630.930.2306
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From: Rob Skerke <RSkerke@westchicago.org>
Sent: Tuesday, October 12, 2021 9:55 AM
To: Kamano, Dave <dkamano@cecinc.com>; Steve Pertzborn <SPertzborn@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Schlosser, Maegan <mschlosser@cecinc.com>
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement

Dave,

Yes, what you are proposing will work. The rest of the stormwater management easement was granted on document R2016-144354.

Thank you,
Rob

Robert M. Skerke, P.E.
Civil Engineer
City of West Chicago
475 Main Street
West Chicago, IL 60185
Phone: (630) 293-2200 (x156)
Fax: (630) 293-1257
westchicago.org

From: Kamano, Dave <dkamano@cecinc.com>
Sent: Tuesday, October 12, 2021 9:02 AM
To: Rob Skerke <RSkerke@westchicago.org>; Steve Pertzborn <SPertzborn@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Schlosser, Maegan <mschlosser@cecinc.com>
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement
Importance: High

Rob,

We are working on the Plat of Easement and it has come to our attention that there is an existing easement that already covers most of the expanded pond (document number R2016-144-356). The only area not covered is in the southwest corner of the pond which was excavated for additional storage as part of the Phase I improvements.

Just to make sure we are on the same page, the Plat we are preparing will only cover the southwest area of the pond that was expanded. Once this is recorded, the entirety of the pond will be covered under the combination of the new and existing easement.

If this is not the correct approach, please advise.

Thanks,
Dave

David A. Kamano, P.E., LEED AP | *Principal*
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direct 630.541.0616 **office** 630.963.6026 **mobile** 630.930.2306
www.cecinc.com

WE OWN IT. Senior Leadership · Integrated Services
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From: Rob Skerke <RSkerke@westchicago.org>
Sent: Friday, October 1, 2021 3:09 PM
To: Kamano, Dave <dkamano@cecinc.com>; Steve Pertzborn <SPertzborn@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Schlosser, Maegan <mschlosser@cecinc.com>
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement

Ok thank you for the heads up.

There is not a specific date required for the plat or record drawings. We will review them whenever they come in.

Thank you,
Rob

Robert M. Skerke, P.E.
Civil Engineer
City of West Chicago
475 Main Street
West Chicago, IL 60185
Phone: (630) 293-2200 (x156)
Fax: (630) 293-1257
westchicago.org

From: Kamano, Dave <dkamano@cecinc.com>
Sent: Friday, October 1, 2021 2:49 PM
To: Rob Skerke <RSkerke@westchicago.org>; Steve Pertzborn <SPertzborn@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Schlosser, Maegan <mschlosser@cecinc.com>
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement

Rob,

Just FYI, the decision was made not to install the additional pavement at this time. Just to close the loop on that issue.

We are working on the Plat of Easement and I understand the City will also need record drawings. Please let us know if there is a specific delivery date required for these items.

Have a good weekend.

Dave

David A. Kamano, P.E., LEED AP | *Principal*
Civil & Environmental Consultants, Inc.

1230 East Diehl Road, Suite 200, Naperville, Illinois 60563
direct 630.541.0616 **office** 630.963.6026 **mobile** 630.930.2306
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WE OWN IT. Senior Leadership · Integrated Services Personal Business Relationships

From: Kamano, Dave
Sent: Wednesday, September 1, 2021 1:51 PM
To: Rob Skerke <RSkerke@westchicago.org>; Steve Pertzborn <SPertzborn@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Schlosser, Maegan <mschlosser@cecinc.com>
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement

Sounds good, thank you Rob. We will keep you posted and provide what is needed once a decision is made.

Thanks,
Dave

David A. Kamano, P.E., LEED AP | *Principal*
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200, Naperville, Illinois 60563
direct 630.541.0616 **office** 630.963.6026 **mobile** 630.930.2306
www.cecinc.com

WE OWN IT. Senior Leadership · Integrated Services Personal Business Relationships

From: Rob Skerke <RSkerke@westchicago.org>
Sent: Wednesday, September 1, 2021 9:27 AM
To: Kamano, Dave <dkamano@cecinc.com>; Steve Pertzborn <SPertzborn@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Schlosser, Maegan <mschlosser@cecinc.com>
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement

Dave,

I apologize for the delay. Based on the cost estimate submitted, the permit fee will be $8,112.00 for this work. We will not need an additional bond since the work is not a required stormwater improvement or public improvement or additional erosion control. We will need an additional permit application filled out for this portion. We will not need an additional stormwater permit since that one is still active and covers this area. The attached plan drawing is acceptable and will be approved when submitted.

Thank you,
Rob

Robert M. Skerke, P.E.
Civil Engineer
City of West Chicago
475 Main Street
West Chicago, IL 60185
Phone: (630) 293-2200 (x156)
Fax: (630) 293-1257

westchicago.org

From: Kamano, Dave <dkamano@cecinc.com>
Sent: Wednesday, September 1, 2021 8:20 AM
To: Steve Pertzborn <SPertzborn@westchicago.org>; Rob Skerke <RSkerke@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Schlosser, Maegan <mschlosser@cecinc.com>
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement
Importance: High

Steve/Rob,

Attached is the engineering plan for the updated pavement. LRS is in the process of getting pricing before they make a decision on whether or not to proceed.

Please advise on my questions below when you can.

Thank you,
Dave

David A. Kamano, P.E., LEED AP | *Principal*
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direct 630.541.0616 **office** 630.963.6026 **mobile** 630.930.2306
www.cecinc.com

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From: Kamano, Dave
Sent: Wednesday, August 25, 2021 10:32 AM
To: Steve Pertzborn <SPertzborn@westchicago.org>; Rob Skerke <RSkerke@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Maegan Schlosser (mschlosser@cecinc.com) <mschlosser@cecinc.com>
Subject: RE: 1655 Powis Road - Updated Permit for Additional Pavement

Hi guys, just wanted to follow-up on this. Please let us know when you can.

Thanks,
Dave

David A. Kamano, P.E., LEED AP | *Principal*
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200, Naperville, Illinois 60563
direct 630.541.0616 **office** 630.963.6026 **mobile** 630.930.2306
www.cecinc.com

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From: Kamano, Dave
Sent: Thursday, August 19, 2021 5:15 PM
To: Steve Pertzborn <SPertzborn@westchicago.org>; Rob Skerke <RSkerke@westchicago.org>
Cc: Rich Golf <RGolf@LRSRecycles.com>; Steven Schilling, P.E. <SSchilling@LRSrecycles.com>; Feltman, Dan <dfeltman@cecinc.com>; Hock, John <jhock@cecinc.com>; Maegan Schlosser (mschlosser@cecinc.com) <mschlosser@cecinc.com>
Subject: 1655 Powis Road - Updated Permit for Additional Pavement
Importance: High

Steve/Rob,

As I discussed with Steve last Thursday, 8/12/21, LRS is considering adding pavement to connect the newly paved north and south lots in order to provide a better surface for trucks/equipment moving between these two areas. As it exists now, the west edge of the new pavement ties in to the historical surface which is a combination of grindings/concrete/deteriorated asphalt.

As you may recall, the original site development permit covered the entirety of the improvements (including the pavement in the western half of the site, and other site improvements); however, for a variety of reasons, LRS elected to segment the improvements into two phases. Based on this, we understand a permit is in place that covers the additional pavement; however, we also understand that the new pavement will require an adjustment to the permit fee.

Attached for your review/feedback:

1. Email from Rob communicating the original permit fee and bond amount.
2. Plan showing the general extents of the additional pavement. We are currently working on a more detailed engineering plan.
3. Draft engineer's estimate with estimated cost of the additional pavement. I don't believe the new pavement will impact the bond amount, but please confirm.

Can you please advise what the additional permit fee will be in the case LRS decides to move forward with the additional pavement? Can you also advise if there is any additional paperwork/documentation we would need to provide to facilitate the permit update (e.g. I assume you will require the engineering plan when completed)?

Thanks,
Dave

David A. Kamano, P.E., LEED AP | *Principal*
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200, Naperville, Illinois 60563
direct 630.541.0616 **office** 630.963.6026 **mobile** 630.930.2306
www.cecinc.com

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Electronic Filing: Received, Clerk's Office 04/19/2023

C000883

LAKESHORE RECYCLING SYSTEMS, LLC

WEST DuPAGE RECYCLING & TRANSFER FACILITY

1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

SITE IMPROVEMENT PLANS
PHASE 1 IMPROVEMENTS
RECORD DRAWINGS 6

LEGEND

- STORM MANHOLE
- CATCH BASIN
- INLET
- FLARED END SECTION
- STORM STRUCTURE NOT LOCATED
- SANITARY MANHOLE
- CLEAN OUT
- WATER MANHOLE
- WATER VALVE
- FIRE HYDRANT
- POWER POLE
- LIGHT POLE
- ELECTRIC BOX
- AC UNIT
- ELECTRIC CONTROL CABINET
- ELECTRIC TRANSFORMER
- GAS METER
- FIBER OPTIC PULL BOX
- BOLLARD
- 20 STALL COUNT
- ×644.25 SPOT GRADE
- CONIFEROUS BUSH
- DECIDUOUS TREE
- PROPERTY LINE
- EASEMENT LINE
- ADJACENT RIGHT-OF-WAY (APPROX.)
- SETBACK LINE
- CONTOUR W/ ELEVATION
- ST STORM SEWER
- SAN SANITARY SEWER
- W 8" DIP WATER LINE (UNCONFIRMED)
- UG-E BURIED ELEC. LINE
- RAILROAD TRACKS
- WOOD FENCE
- CHAIN LINK FENCE
- WIRE/METAL FENCE
- 100-YR FIS BFE=752.25
- 10-YR FIS BFE=751.50
- WETLAND BUFFER
- DELINEATED POND/WETLAND
- ST PROPOSED STORM SEWER
- SAN PROPOSED SANITARY SEWER
- W PROPOSED WATER SERVICE
- G PROPOSED GAS
- UG-E PROPOSED ELECTRIC
- COMM PROPOSED COMMUNICATIONS
- ×644.25 PROPOSED SPOT GRADE
- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- SF PROPOSED SILT FENCE
- OCF PROPOSED ORANGE CONSTRUCTION FENCE
- PROPOSED COIR LOG DITCH CHECK
- PROPOSED RIPRAP
- PROPOSED CATCH BASIN
- PROPOSED INLET
- PROPOSED SANITARY MANHOLE
- PROPOSED CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED GAS METER
- PROPOSED ELECTRIC METER
- PROPOSED OIL WATER SEPARATOR
- 22 PROPOSED STALL COUNT
- PROPOSED FLARED END SECTION
- PROPOSED EROSION CONTROL BLANKET
- PROPOSED WETLAND BUFFER VEGETATION
- PROPOSED INLET PROTECTION
- PROPOSED HEAVY DUTY PAVEMENT
- PROPOSED LIGHT DUTY PAVEMENT
- * DEMO CONCRETE PAVEMENT
- * DEMO ASPHALT PAVEMENT
- * DEMO MIXED AGGREGATE PAVEMENT
- * DEMOLITION LINEAR FEATURE

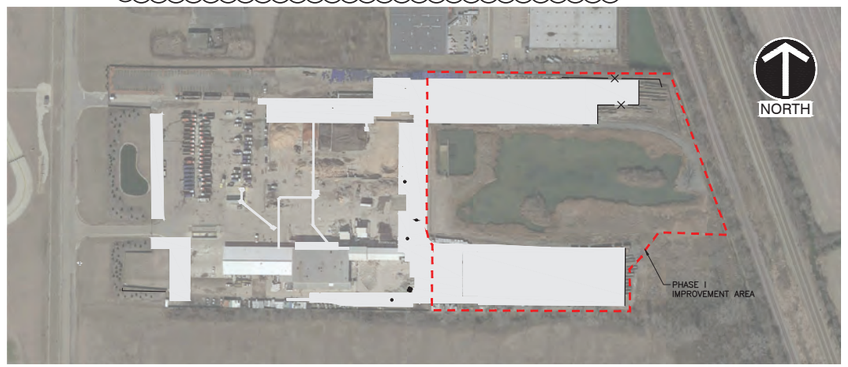
* DEMO HATCH ON SHEETS C103 & C104 ONLY

PROJECT SITE

COUNTY MAP SOURCE:
ILLINOIS STATE GEOLOGICAL SURVEY

LOCATION KEY MAP

NOT TO SCALE



SOURCE: GOOGLE EARTH , IMAGE DATE 03/17/2018

SITE MAP

SCALE: 1" = 200'

LOCATION: SECTION 32, TOWNSHIP 40N, RANGE 9E

LIST OF DRAWINGS

C000 COVER SHEET
C100 EXISTING SITE CONDITIONS OVERALL
C101 EXISTING SITE CONDITIONS WEST
C102 EXISTING SITE CONDITIONS EAST
C103 DEMOLITION PLAN WEST
C104 DEMOLITION PLAN EAST
C200 SITE PLAN OVERALL
C201 SITE PLAN WEST
C202 SITE PLAN EAST
C203 PAVING AND GEOMETRIC PLAN WEST
C204 PAVING AND GEOMETRIC PLAN EAST
C300 GRADING AND DRAINAGE PLAN WEST
C301 GRADING AND DRAINAGE PLAN EAST (RECORD DRAWING) 6
C302 GRADING AND DRAINAGE PLAN - PHASE I TO PHASE II TRANSITION
C302A GRADING AND DRAINAGE PLAN - PHASE I TO PHASE II TRANSITION (RECORD DRAWING) 6
C303 STOCKPILE PLAN
C500 UTILITIES WEST
C501 UTILITIES EAST
C600 SOIL EROSION, SEDIMENT CONTROL AND RESTORATION PLAN WEST
C601 SOIL EROSION, SEDIMENT CONTROL AND RESTORATION PLAN EAST
C900 DETAILS
C901 DETAILS
C902 DETAILS
C903 DETAILS (RECORD DRAWING) 6
C904 SITE SPECIFICATIONS
C905 SITE SPECIFICATIONS
C906 SITE SPECIFICATIONS
L1.0 FINAL LANDSCAPE PLAN
L1.1 FINAL LANDSCAPE PLAN
L2.0 LANDSCAPE NOTES AND DETAILS
PH1.0 PHOTOMETRIC PLAN
PH1.1 PHOTOMETRIC DETAILS

SITE DEVELOPMENT ZONING DATA

NET SITE ACREAGE:	27.75 ACRES
ZONING:	M – PLANNED UNIT DEVELOPMENT(PUD)
ZONING TO THE NORTH:	M
ZONING TO THE WEST:	A
ZONING TO THE SOUTH:	A
ZONING TO THE EAST:	ER-1 (UNION PACIFIC RR)

SETBACKS:	REQUIRED
FRONT:	40 FEET
SIDE: (M,A)	9 & 15 FEET
REAR: (NON-RESIDENTIAL)	20 FEET

ENGINEER'S CERTIFICATE

STATE OF ILLINOIS }
} S.S.
COUNTY OF DUPAGE }

I, DAVID A. KAMANO, AN ILLINOIS PROFESSIONAL ENGINEER, DO HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC., ILLINOIS LICENSED PROFESSIONAL DESIGN FIRM NO. 184.004002, LICENSE EXPIRES APRIL 30, 2021, UNDER MY PERSONAL DIRECTION FOR THE EXCLUSIVE USE OF THE CLIENT NOTED HEREON. REPRODUCTION OR USE BY THIRD PARTIES IS STRICTLY PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE UNDERSIGNED.

GIVEN UNDER MY HAND AND SEAL AT NAPERVILLE, ILLINOIS, THIS ??? DAY OF APRIL, 2019.

DAVID A. KAMANO
ILLINOIS PROFESSIONAL ENGINEER NO. 062.057977
LICENSE EXPIRES NOVEMBER 30, 2019.
*HAND SIGNATURE ON FILE

PROJECT CONTACT INFORMATION

SITE OPERATOR
LAKESHORE RECYCLING SYSTEMS, LLC
PH: (708) 774-9301
CONTACT: RICHARD GOLF

SURVEYOR
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
1203 E. DIEHL ROAD, SUITE 200
NAPERVILLE, IL 60563
PH: (630) 963-6026
FX: (630) 963-6027
CONTACT: DOUGLAS MCCLINTIC, P.L.S.

VILLAGE
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
MAYOR: RUBEN PINEDA
PUBLIC WORKS: ROBERT FLATTER
COMMUNITY DEVELOPMENT: TOM DABAREINER
ENGINEER: STEVE PERTZBORN

CIVIL ENGINEER
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
1203 E. DIEHL ROAD, SUITE 200
NAPERVILLE, IL 60563
PH: (630) 963-6026
FX: (630) 963-6027
CONTACT: DAVID A. KAMANO, P.E., LEED AP

UTILITY COMPANIES

ELECTRIC SERVICE
COMED
PH: (877)-426-6331

SANITARY
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

GAS
NICOR
PH: (888) 642-6748

WATER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

STORM SEWER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

PERFORMANCE STANDARDS

THESE SITE IMPROVEMENTS SHALL MEET THE PERFORMANCE STANDARDS OF THE CITY OF WEST CHICAGO AND DUPAGE COUNTY.

BENCHMARKS

BM 1
"+"CUT, CONTROL POINT 8
ELEVATION = 756.28 (NAVD 88)

BM 2
REBAR, CONTROL POINT 5
ELEVATION = 758.60 (NAVD 88)

BM 3
REBAR, CONTROL POINT 6
ELEVATION = 755.04 (NAVD 88)

BM 4
REBAR, CONTROL POINT 4
ELEVATION = 755.31 (NAVD 88)

DUPAGE CO. PID DK 3273
aka WEST CHICAGO WC105
BRASS DISK, NE CORNER OF POWIS ROAD AND POWIS COURT
ELEVATION = 757.10 (NAVD 88)

DUPAGE CO. PID DK3275
aka WEST CHICAGO WC 160
BRASS DISK, W SIDE HOWARD DRIVE 300' S OF HOWARD DRIVE.
ELEVATION = 751.73 (NAVD 88)

BASIS OF BEARING

THE HORIZONTAL DATUM IS THE ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE NAD 83 AND THE VERTICAL DATUM IS NAVD 88.

PROJECT NARRATIVE

LAKESHORE RECYCLING SYSTEMS IS PROPOSING TO IMPROVE THE EXISTING CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING FACILITY BY RECONFIGURING OUTSIDE STORAGE AND OPERATIONAL AREAS, PAVING OUTSIDE STORAGE AND OPERATIONAL AREAS, ADDING AND IMPROVING EXISTING PARKING, EXPANDING THE MAIN SORTING BUILDING EASTWARD AND NORTHWARD (INCLUDING THE ADDITION OF A LOADING PIT AND WEIGH SCALES), ADDING A PREVIOUSLY APPROVED SECOND SCALE ADJACENT TO THE EXISTING SCALE, AND ADDING A NEW PORTA-LET CLEANING AND MAINTENANCE BUILDING.

Call Before You Dig — JULIE ILLINOIS ONE-CALL SYSTEM

ILLINOIS LAW REQUIRES ANYONE DIGGING TO CALL JULIE AT 1-800-892-0123 AT LEAST 48 HOURS/TWO WORKING DAYS PRIOR TO THE START OF EXCAVATION AND THE PROJECT MUST BEGIN WITHIN 14 CALENDAR DAYS FROM THE CALL.

DAVID A. KAMANO 57971 LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
11/8/2021
LICENSE EXP. 11/30/2021

REVISION RECORD

NO	DATE	DESCRIPTION
1	06/27/2019	CITY AND COUNTY REVIEW COMMENTS
2	11/05/2019	CITY AND COUNTY REVIEW COMMENTS
3	04/03/2021	PHASE I IMPROVEMENTS
4	09/15/2021	CONSTRUCTION UPDATES
5	11/10/2021	RECORD DRAWINGS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, LLC
RECORD DRAWING
1655 POWIS ROAD
WEST CHICAGO, IL

COVER SHEET

DATE:	NOVEMBER 2021
DRAWN BY:	MEO
CHECKED BY:	DMF
DWG SCALE:	NTS
PROJECT NO:	163-899
APPROVED BY:	DAK

DRAWING NO.: C000
SHEET 1 OF 32

P:\2016\163-899\-CADD\Dwg\00C0 Record Drawings\163899-C004-C000-Cover Sheet.dwg[C000] 11/11/8/2021 - morfego - US 11/12/2021 10:21 AM

Electronic Filing: Received, Clerk's Office 04/19/2023

C000884

NORTH

PHASE I IMPROVEMENT AREA

PRETREATMENT BASIN

PHASE I
EAST DETENTION FACILITY
VOL = ~~18.00 AC-FT~~
NWL = 750.50
HWL = 754.16

~~7-13-2021 CORRECTION~~
15.93 AC-FT

RECORD VOLUME PROVIDED (10-26-2021)
16.15 AC-FT

STORMWATER MANAGEMENT FACILITY

PHASE I
~~36" RCP FES INV = 750.50~~
749.30

PHASE I
EAST POND
RESTRICTOR MANHOLE
~~72" DIA. O-GRID HR~~
RIM = ~~758.40~~ 758.10
SEE DETAIL FOR INV AND RESTRICTOR INFORMATION

PHASE I
~~24" RCP FES INV = 750.50~~ 750.50

PHASE I
65 LF FLOATING BOOM SKIMMER W/SILT CURTAIN

PHASE I
36 LF 24" RCP @ 0.5% 0.75

PHASE I
20-FOOT WIDE EMERGENCY OVERFLOW WEIR AT ~~755.0~~ 754.25

PRESERVED WETLAND

MATCHLINE

NOTES:

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATION IN THE ILLINOIS URBAN MANUAL, LATEST EDITION. SEE THE STORMWATER POLLUTION PREVENTION PLAN PREPARED BY ROAKE AND ASSOCIATES, INC.
2. ALL GRADES DEPICTED ARE FINISHED GRADES. IN NON-PAVED AREAS, THE CONTRACTOR SHALL SUBTRACT 6 INCHES (0.5 FEET) TO ALLOW FOR TOPSOIL/MULCH MATERIAL PLACEMENT. THE BEST MANAGEMENT PRACTICE FACILITY SHALL RECEIVE 12 INCHES OF PULVERIZED TOPSOIL FROM FINISHED GRADE 699 TO 701 (MINIMUM).
3. THE CONTRACTOR SHALL PROVIDE INLET FILTER BASKETS IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLANS FOR ALL OPEN LID STRUCTURES TO MINIMIZE INTRUSION OF DEBRIS/SILT INTO THE STORM SEWER SYSTEM.
4. THE ESTIMATED CONSTRUCTION SCHEDULE IS AS FOLLOWS:

GRADING	OCTOBER 2019
PAVING	OCTOBER 2019
GROUND STABILIZATION/ SODDING	APRIL 2020
LANDSCAPING	MAY 2020

5. LANDSCAPE MATERIALS SHALL BE INSTALLED AS SOON AS POSSIBLE TO STABILIZE SITE. WHERE PROPOSED SLOPES EXCEED 4 TO 1, LOW/NO MAINTENANCE GROUND COVER SHALL BE INSTALLED. SEE LANDSCAPE PLANS FOR DETAILS.
6. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE INSPECTED WEEKLY AND AFTER EACH 1/2" RAINFALL EVENT OR MORE FREQUENTLY AS NECESSARY TO MAINTAIN THEIR FUNCTION.
7. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
8. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE CITY OF WEST CHICAGO.
9. EAST DETENTION FACILITY SHALL BE DEWATERED PRIOR TO UTILITY INSTALLATION AND EAST HALF REGRADING OPERATIONS. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO SEDIMENT BASINS, FIELD BAGS, OR SILT TRAPS PRIOR TO RELEASE. DEWATERING OF THE EAST POND SHALL BE PERFOMED DURING DRY WEATHER CONDITIONS.
10. CONCRETE TRUCKS SHALL NOT BE PERMITTED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON SITE. SPECIFIC AREAS FOR THIS ACTIVITY SHALL BE DESIGNATED BY THE CONTRACTOR AND PROVIDED WITH ADEQUATE SILTATION BASINS AND OTHER FACILITIES TO ASSURE THAT DISCHARGE IS CONTAINED AND CLEANSED BEFORE ENTERING THE RECEIVING STORM SEWER SYSTEM
11. ALL ADJACENT STREETS SHOULD BE KEPT CLEAR OF MUD/DEBRIS. THE CONTRACTOR SHALL INSPECT THE STREETS DAILY AND CLEAN THEM AS NECESSARY.
12. STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN THREE (3) DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). STOCK PILES, NOT BEING ACTIVELY WORKED AND TO REMAIN IN PLACE 14 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING. THE PROPOSED BERMS MUST BE STABILIZED IMMEDIATELY AFTER FINAL GRADING. STRAW MULCH WITH NETTING OR EROSION CONTROL BLANKET SHALL BE USED ON SIDE SLOPE AND SUMMIT.

LEGEND

754.24 RECORD ELEVATION

Stage - Storage - Discharge East Table - TAILWATER AND NO TAILWATER CONDITION FOR DETENTION SIZING							
Contour (feet)	Area (acre)	Storage Volume (acre-feet)[1]	Cumulative Storage Volume (acre-feet)	Area (square miles)	Discharge - No Tailwater (cfs)	Discharge - With Tailwater (cfs)	
749.50	3.58	0.00	0.00	0.006	0.00	0.0	
750.00	3.75	1.83	1.83	0.006	0.62	0.0	
751.00	3.92	3.84	5.67	0.006	1.50	0.0	
752.00	4.10	4.01	9.68	0.006	2.03	0.0	*2.23 cfs at 752.47 elevation (no tailwater condition)
753.00	4.69	8.61	14.28	0.007	--	1.18	
754.00	4.97	4.83	19.11	0.008	--	1.81	*1.89 cfs at 754.16 (tailwater conditions)
755.00	5.25	5.11	24.22	0.008	--	--	*see note 3
755.10	5.30	5.65	24.78	0.008	--	--	*see note 3

NOTES:
1. Acre-feet of storage per contour interval approximated by multiplying the average contour acreage between the interval, times contour depth.
2. Tributary area to East Pond is 22.47 acres, therefore, allowable release shall not exceed 2.247 cfs.
3. 100-year tail water level is dictated by tailwater condition model and is 754.16. There is no release above 754.16 for the 100-year tailwater model condition

SEE STAGE STORAGE DISCHARGE TABLE IN MODEL UPDATED 7/13/2021

Stage - Storage - East PondTable				Stage - Storage - East Pond Table (RECORD SURVEY)			
Contour (feet)	Area (acre)	Storage Volume (acre-feet)	Cumulative Storage Volume (acre-feet)	Contour (feet)	Area (acre)	Storage Volume (acre-feet)	Cumulative Storage Volume (acre-feet)
750.50	3.81	0.00	0.00	750.50	3.75	0.00	0.00
751.00	3.90	1.93	1.93	751.00	3.90	1.91	1.91
752.00	4.08	3.99	5.92	752.00	4.14	4.02	5.93
753.00	4.68	4.38	10.30	753.00	4.82	4.48	10.41
754.00	4.97	4.83	15.12	754.00	5.14	4.98	15.39
754.25	5.13	1.26	16.39	754.25	5.26	1.30	16.69

SCALE IN FEET
0 40 80

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC).
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
4. ADDITIONAL GROUND SURVEY PERFORMED BY CEC ON OCTOBER 26, 2021.

REVISION RECORD

NO	DATE	DESCRIPTION
1	08/27/2019	CITY AND COUNTY REVIEW COMMENTS
2	11/05/2019	CITY AND COUNTY REVISION COMMENTS
3	05/2020	PHASE I IMPROVEMENTS
4	07/13/2021	CONSTRUCTION UPDATES
5	11/5/2021	RECORD DRAWING

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, LLC
RECORD DRAWING
1655 POWIS ROAD
WEST CHICAGO, IL

GRADING AND DRAINAGE PLAN EAST

DATE: NOVEMBER 2021 | DRAWN BY: MEC
DWG SCALE: 1" = 40' | CHECKED BY: DMF
PROJECT NO.: 163-899
APPROVED BY: DAK

DRAWING NO.: C301
SHEET 13 OF 32

P:\2016\163-899\~CAD\Dwg\00DR Record Drawings\163899-C004-C301-Grading and Drainage Plan East.dwg[C301] LS(11/8/2021 - monteg) - LP: 11/12/2021 11:33 AM

C000885

STM NORTH ORM MANHOLE RIM=755.22

STM 3.15 – EX STORM MANHOLE RIM=754.69 EX. 18" PVC N INV=750.99 S INV=750.9±

PHASE I 36" RCP

MATCHLINE

TEMPORARY PAVEMENT SECTION DETAIL N.T.S.

- 6" HMA BINDER
- 3" CA–6 LEVELING AGGREGATE OR GRINDINGS.
- GEOGRID
- EXISTING SURFACE TO BE SCARIFIED AND GRADED TO MATCH PROPOSED SURFACE GRADE.

PHASE I CONCRETE BLOCK RETAINING WALL

SOUTH PHASE I PAVEMENT INSTALLATION NOT COMPLETE AS OF 8-23-21

STM 3.19 – EX STORM MANHOLE RIM=755.31

PHASE I IMPROVEMENT AREA

TRANSITION PAVEMENT NOT CONSTRUCTED

NORTH PHASE I PAVEMENT INSTALLATION COMPLETE AS OF 8-23-21

STM 3.13 – EX STORM MANHOLE RIM=753.16

STM 3.12 – EX STORM MANHOLE RIM=751.92 EX. 8" PVC N INV=750.42 EX. 8" PVC S INV=750.32

PRETREATMENT BASIN

STM 3.11 – EX STORM MANHOLE RIM=755.03

STM 3.5 – EX STORM MANHOLE RIM=755.73

STM 3.4 – EX STORM MANHOLE RIM=755.22

ASPHALT

CONC

LEGEND

754.24 RECORD ELEVATION

SCALE IN FEET 0 20 40

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC).
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
4. ADDITIONAL SURVEY PERFORMED BY CEC ON 10/26/2021.

NOTES

1. PROPOSED RIMS AND INVERTS FOR EXISTING STORM STRUCTURES THAT WERE UNABLE TO BE SURVEYED SHALL BE CONFIRMED BY THE CONTRACTOR. IF EXISTING STRUCTURES ARE UNABLE TO BE REUSED, THEY SHALL BE REMOVED AND REPLACED.

P:\2016\165-8991 - CAD\Dwg\L\8999-CVDH-C302A-Grading and Drainage Plan Phase I to Phase II Transition.dwg[C302A] LS(11/9/2021 - markup) - LR: 11/12/2021 10:27 AM

REVISION RECORD

NO	DATE	DESCRIPTION
1	05/4/2021	PHASE I IMPROVEMENTS
2	08/30/2021	CONSTRUCTION UPDATES
3	11/9/2021	RECORD DRAWING

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, LLC
RECORD DRAWING
1655 POWIS ROAD
WEST CHICAGO, IL

GRADING AND DRAINAGE PLAN
PHASE I TO PHASE II TRANSITION

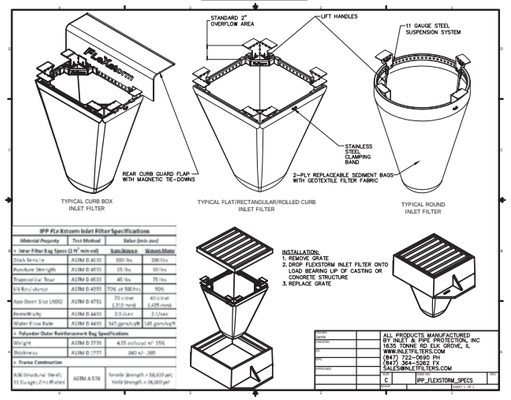
DATE:	NOVEMBER 2021
DRAWN BY:	MEO
DWG SCALE:	1" = 20'
CHECKED BY:	DMF
PROJECT NO:	165-8999
APPROVED BY:	DAK

DRAWING NO.: **C302A**

SHEET 15 OF 32

Electronic Filing: Received, Clerk's Office 04/19/2023

INLET PROTECTION

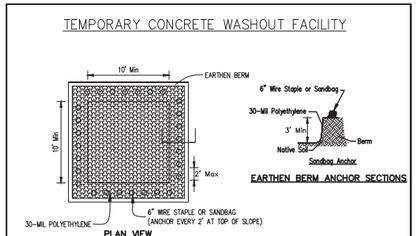


BMP FLEXSTORM Inlet Filter Specifications			
Material Property	Test Method	Value (min ave)	
• Inner Filter Bag Specs (2 ft² min roll)		Non-Woven	Woven Mono
Grab Tensile	ASTM D 4632	180 lbs	200 lbs
Puncture Strength	ASTM D 4833	115 lbs	130 lbs
Trapezoidal Tear	ASTM D 4533	45 lbs	75 lbs
UV Resistance	ASTM D 4355	70% at 500 hrs	90%
Apparent Opening Size (AOS)	ASTM D 4751	70 U.S. sieve (.212 mm)	40 U.S. sieve (.425 mm)
Permittivity	ASTM D 4491	2.0 /sec	2.1 /sec
Water Flow Rate	ASTM D 4491	140 gpm/sq ft	145 gpm/sq ft
• Polyester Outer Reinforcement Bag Specifications			
Strength	ASTM D 5035	450 lbs/foot x 1 ply	
Thickness	ASTM D 1777	.060 +/- .005	
• Frame Construction			
4.38 Structural Steel (1 Straight / 1 Angled)	ASTM A 576	Tensile Strength = 58,000 psi; Yield Strength = 36,000 psi	

INSTALLATION:
1. REMOVE GRATE
2. DROP FLEXSTORM INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE
3. REPLACE GRATE.

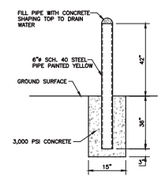
DESIGN	ALL PRODUCTS MANUFACTURED BY INLET & PIPE PROTECTION, INC 1630 TONNE RD ELK GROVE, IL 60007 USA (800) 451-7483 (847) 722-0600 PH (847) 364-5262 FX SALES@INLETFILTERS.COM
DRAWN	
CHECKED	
APPROVED	
C	BMP_FLEXSTORM_SPECS

TEMPORARY CONCRETE WASHOUT FACILITY

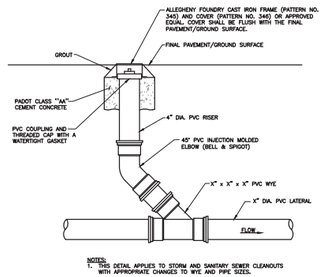


NOTES:

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two-thirds full.

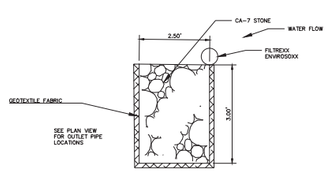


PIPE BOLLARD
NOT TO SCALE

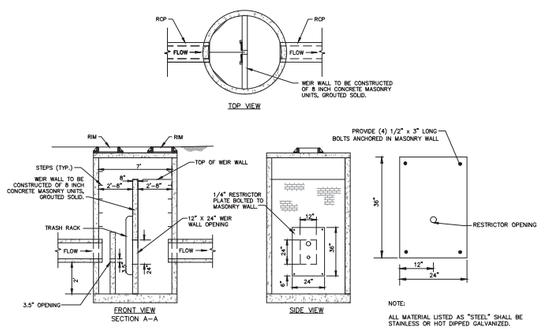


NOTES:
1. THIS DETAIL APPLIES TO STORM AND SANITARY SEWER CLEANOUTS WITH APPROPRIATE CHANGES TO WYE AND PIPE SIZES.
2. ALL PVC PIPE AND FITTINGS SHALL BE SDR 35 WITH RUBBER GASKETED JOINTS.
3. THE CLASS "AA" CEMENT CONCRETE SHALL SATISFY THE REQUIREMENTS OF PADOT PUBLICATION 408, SECTION 704.

SANITARY SEWER CLEANOUT
NOT TO SCALE

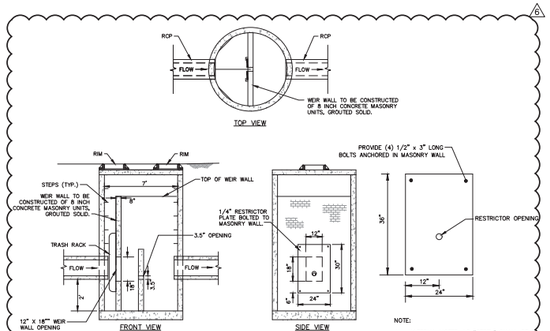


INFILTRATION TRENCH
N.T.S.



RESTRICTOR DETAIL
N.T.S.

WEST POND:
RIM = 756.00
TOP OF WEIR WALL = 754.7
RESTRICTOR OPENING = 2.45 IN
RESTRICTOR INV = 752.00
12" RCP INV IN = 752.00
12" RCP INV OUT = MATCH EXISTING
VOLUME CONTROL RESTRICTOR OPENING = 1.0 IN
TOP OF VOLUME CONTROL WEIR = 752.4
VOLUME CONTROL RESTRICTOR INVERT = 750.5
WEST POND NOT CONSTRUCTED AS PART OF PHASE I



RESTRICTOR DETAIL
N.T.S.

EAST POND:
RIM = ~~756.40~~ 758.10
TOP OF WEIR WALL = ~~754.20~~ 755.20
RESTRICTOR OPENING = 7.15 IN (NOT MEASURED, INACCESSIBLE)
RESTRICTOR INV = ~~750.50~~ 750.50
24" RCP INV IN = ~~750.50~~ 750.25
24" RCP INV OUT = ~~748.7~~ 749.6, TIE INTO EXISTING
VOLUME CONTROL RESTRICTOR OPENING = 3.5 IN (NOT MEASURED, INACCESSIBLE)
TOP OF VOLUME CONTROL WEIR = ~~750.9~~ 750.9
VOLUME CONTROL RESTRICTOR INVERT = ~~750.50~~ 750.50

PART 1.00 GENERAL

1.1 INTRODUCTION

A. The VortClarex® system, with the performance specifications as described in Section 2.2, shall remove essentially all free and dispersed, non-emulsified oil and settleable solids from an oil/water mixture at the specified flow rates and operating temperatures. The system design shall utilize the difference in specific gravity between oil and water (i.e., buoyancy force) to separate these fluids. The separation process shall be enhanced through the use of proprietary VortClarex coalescing media. The separator shall be designed to receive non-emulsified oily water by gravity or pumped flow and shall process it on a once-through basis. The system shall be a single wall, rectangular tank installed below grade.

1.2 DESCRIPTION

The VortClarex system shall be housed within a rectangular, precast reinforced concrete tank. Within the precast concrete vault, parallel-corrugated plate coalescing media shall be utilized to provide enhanced gravity separation of oil and water mixtures. The separator shall include a baffled inlet compartment, separation chamber, and clean water outlet chamber.

A. INLET COMPARTMENT
The inlet compartment shall be of sufficient volume to effectively reduce influent suspended solids, dissipate energy and begin separation. The inlet shall be comprised of a non-clog diffuser to distribute the flow across the width of the separation chamber. A sediment baffle will be provided to retain settleable solids and prevent sediment from entering the separation chamber.

B. SEPARATION CHAMBER
The oil separation chamber shall contain VortClarex coalescing media. The parallel corrugated plates shall be at a 45° angle with respect to longitudinal axis of the plate corrugations, and spaced ½-inch (13 mm) apart for removal of free oil 60 microns in size or greater, and settleable solids. System configuration shall not promote solids buildup on the plates, which may increase velocities and result in the discharge of an effluent of unacceptable quality.

Laminar flow with a Reynolds Number of less than 500 shall be maintained throughout the coalescing media over the range of operating flow rates (treatment through maximum conveyance flow), to prevent re-entrainment of oils with water. Flow through the coalescing media shall be cross-flow perpendicular to plate corrugations so that the oil collects and coalesces at the high point of corrugations and rises to the top of the media pack without clogging.

C. CLEAN WATER OUTLET CHAMBER
An oil retention baffle or inverted T-pipe section shall be provided to prevent free-floating oil from exiting the system.

D. PIPE CONNECTIONS
Internal SDR 35 piping shall extend through the external precast concrete wall of the vault. Influent and effluent pipes shall be connected to the VortClarex® pipe system by means of a Ferrco type coupling.

1.3 QUALITY CONTROL INSPECTION

A. The quality of materials, the process of manufacture, and the finished sections shall be subject to inspection by the Engineer. Such inspection may be made at the place of manufacture, or on the work site after delivery, or at both places, and the sections shall be subject to rejection at any time if material conditions fail to meet any of the specification requirements, even though sample sections may have been accepted as satisfactory at the place of manufacture. Sections rejected after delivery to the site shall be marked for identification and shall be removed from the site at once. All sections that have been damaged beyond repair during delivery will be rejected and, if already installed, shall be repaired to the Engineer's acceptance level, if permitted, or removed and replaced, entirely at the manufacturer's expense.

B. All sections shall be inspected for general appearance, dimensions, soundness, etc. The surface shall be dense, close-textured and free of blisters, cracks, roughness and exposure of reinforcement.

C. Imperfections may be repaired, subject to the acceptance of the Engineer, after demonstration by the manufacturer that strong and permanent repairs result. Repairs shall be carefully inspected before final acceptance. Cement mortar used for repairs shall have a minimum compressive strength of 4,000 psi (28 MPa) at the end of 7 days and 5,000 psi (34 MPa) at the end of 28 days when tested in 3-inch (76 mm) by 6-inch (152 mm) cylinders stored in the standard manner. Epoxy mortar may be utilized for repairs.

1.4 SUBMITTALS

A. The Contractor shall be provided with dimensional drawings and, when specified, utilize these drawings as the basis for preparation of shop drawings showing details for construction, reinforcing, joints and any cast-in-place appurtenances. Shop drawings shall be annotated to indicate all materials to be used and all applicable standards for materials, required tests of materials and design assumptions for structural analysis. Shop drawings shall be prepared at a scale of not less than 3/16-inches per foot (1:75).

PART 2.00 PRODUCTS

2.1 MATERIALS AND DESIGN

A. Concrete for the precast VortClarex system shall conform to ASTM C 857 and C 858 and meet the following additional requirements:
1. The exterior wall thickness shall not be less than 6-inches (152 mm) or as shown on the dimensional drawings prepared by Contech Engineered Solutions LLC. In all cases the wall thickness shall be no less than the minimum thickness necessary to sustain HS20 (MS18) loading requirements as determined by a Licensed Professional Engineer.
2. Sections shall have tongue-and-groove joints or shiplap joints and be sealed with a butyl mastic sealant designed to be resistant to fuel and oil such as ConSeal™ Brand CS-440 or approved equal. All joints will be above the resting water level.
3. Cement shall be Type II Portland cement, or approved equal, conforming to ASTM C 150.
4. All precast concrete sections shall be cured by an approved method. Sections shall not be shipped until the concrete has attained a compressive strength of 4,000 psi (28 MPa) or until 5 days after fabrication and/or repair, whichever is longer.

B. Coalescing media shall be manufactured by Facet International and be made of calcium carbonate filled polypropylene corrugated plates, with corrugation angles no less than 45° with respect to longitudinal axis of the plate corrugations. Plates shall be spaced at ½-inch (13 mm) intervals and be stacked and bound together with sturdy rods and supports to form modular plate packs.

C. Polyurethane elastomeric sealant shall comply with ASTM D-412 and GSA Specification TT-S-00230C, Type II, Class A and ASTM C-920, Type S, Grade NS.

E. Manhole frames and covers shall be provided by the manufacturer in the numbers and configurations as shown on the dimensional drawings prepared by Contech.

E. Hatchways shall be provided by the manufacturer in the numbers and configurations as shown on the dimensional drawings prepared by Contech. Hatchways shall be made of Cast Iron, steel or aluminum, and shall meet HS20-44 (MS18) loading requirements.

F. Brick or masonry used to build the casting and hatchway frames to grade shall conform to ASTM C 32 or ASTM C 139 and shall be installed in conformance with all local requirements.

2.2 MANUFACTURER

The manufacturer of said VortClarex system shall have been regularly engaged in the engineering design and production of systems for the physical treatment of stormwater runoff for a minimum of 5 years.

Each VortClarex system shall be manufactured by Contech, or approved equal.

PART 3.00 EXECUTION

3.1 INSTALLATION

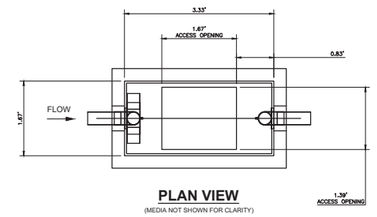
A. Each VortClarex system shall be constructed according to the sizes shown on the drawings and as specified herein. Install at elevations and locations shown on the drawings or as otherwise directed by the engineer.

B. Place the precast base unit on a granular subbase of minimum thickness of 6 inches (152 mm) after compaction or of greater thickness and compaction if specified elsewhere. The granular subbase shall be checked for level prior to setting and the precast base section of the vault shall be checked for level at all four corners after it is set. If the slope from any corner to any other corner exceeds 0.5% the base section shall be removed and the granular subbase material re-leveled.

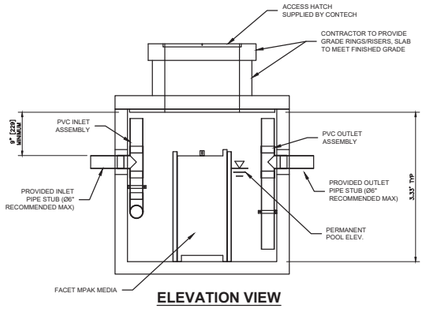
C. Prior to setting subsequent sections place ConSeal™ brand CS-440 butyl mastic sealant, or approved equal in conformance with ASTM C 990-91, along the construction joint in the section that is already in place.

D. After setting the precast roof section of the VortClarex system, set riser sections to the height required to bring the cast iron manhole covers or hatches to grade, so that the sections are vertical and in true alignment with a ¼-inch (6 mm) maximum tolerance allowed. Backfill in a careful manner, bringing the fill up in 6-inch (152 mm) lifts on all sides. If leaks appear, clean the inside joints and caulk with lead wool to the satisfaction of the Engineer. Precast sections shall be set in a manner that will result in a watertight joint. In all instances, installation of the VortClarex system shall conform to ASTM specification C 891 "Standard Practice for Installation of Underground Precast Utility Structures".

E. Holes made in the concrete sections for handling or other purposes shall be plugged with a non-shrink grout or by using grout in combination with concrete plugs.

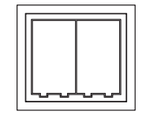


PLAN VIEW
(MEDIA NOT SHOWN FOR CLARITY)



ELEVATION VIEW

VCL30 DESIGN NOTES
VCL30 RATED TREATMENT CAPACITY IS 110 GPM [6.93 l/s], OR PER LOCAL REGULATIONS. IF THE SITE CONDITIONS EXCEED RATED TREATMENT CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.
THE VORTCLAREX SYSTEM SHALL REMOVE ESSENTIALLY ALL FREE AND DISPERSED NON-EMULSIFIED OIL FROM THE WATER STREAM AND PRODUCE A DESIRED EFFLUENT BASED ON AN OIL DROPLET TYPICAL OF THE SITE.
THE VORTCLAREX SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH STOKES LAW AND API BULLETIN NO. 421.
THE STANDARD INLET/OUTLET CONFIGURATION IS SHOWN. FOR OTHER CONFIGURATION OPTIONS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com



30" x 36" [762 x 914] ACCESS HATCH

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. VORTCLAREX WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET AASHTO M306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION
5. INLET AND OUTLET PIPES MUST BE PERPENDICULAR TO THE VAULT TO ALLOW CONNECTION WITH PROVIDED PIPE STUBS.
6. FLOW LINE IN AND OUT OF THE VORTCLAREX IS RECOMMENDED TO BE AT THE SAME ELEVATION.
7. ALTERNATE UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

INSTALLATION NOTES
1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE VORTCLAREX STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE AND INSTALL FERNCO, OR EQUIVALENT, COUPLER TO MATE EXISTING TRUNKLINE TO THE PROVIDED PIPE STUBS. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com

VORTCLAREX VCL30
STANDARD DETAIL

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REVISION RECORD

NO	DATE	DESCRIPTION
1	09/12/2019	CITY AND COUNTY REVIEW COMMENTS
2	03/13/2020	CONSTRUCTION UPDATES
3	04/15/2020	CONSTRUCTION UPDATES
4	06/30/2020	CONSTRUCTION UPDATES
5	11/1/2021	RECORD DRAWING

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, LLC
RECORD DRAWING
1655 POWIS ROAD
WEST CHICAGO, IL

DETAILS

DATE:	NOVEMBER 2021
DRAWN BY:	MEO
CHECKED BY:	DMF
DWG SCALE:	N/A
PROJECT NO:	163-899
APPROVED BY:	DAK

DRAWING NO.: C903

SHEET 24 OF 32

P:\2016\163-899\...\C903 (Dwg\0008 Record Drawings\163899-C004-C903-Details.dwg[C903]) LS(11/8/2021 - mcrispo) - LT: 11/12/2021 10:35 AM

APPENDIX 2-F5

NPDES PERMIT

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-3397
JB Pritzker, Governor John J. Kim, Acting Director

June 3, 2019

Lakeshore Recycling Systems LLC
Jerry Golf
6132 Oakton Avenue
Morton Grove, IL. 60053

RE: Notice of Coverage - General Storm Water Permit for Industrial Site Activities
Facility: West DuPage Recycling & Transfer Inc. - West Chicago, IL - County: DuPage
NPDES Permit No: ILR007616 - Bureau ID: W0430900051

Dear NPDES Permittee:

We have reviewed your application and determined that storm water discharges associated with industrial activity (excluding construction sites) are appropriately covered by the attached General NPDES Permit issued by the Agency.

The Permit issued covers application requirements, a Storm Water Pollution Prevention Plan, and reporting requirements. Failure to meet any portion of the Permit could result in civil and/or criminal penalties. The Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge.

Your discharge is covered by this permit effective as of the date of this letter. You have the right to appeal the Agency's decision to cover the discharge by the General Permit to the Illinois Pollution Control Board within a 35-day period following the date of this letter.

This letter shows your facility permit number below your facility name. Please reference this number in all future correspondence. Should you have any questions concerning the Permit, please contact the Permit Section at 217/782-0610.

Very Truly Yours,

Amy Dragovich by DSC

Amy L. Dragovich, P.E.
Permit Manager
Division of Water Pollution Control

CC: Records Unit, CAS, Region: Des Plaines, Billing Unit

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
BRUCE RAUNER, GOVERNOR ALEC MESSINA, DIRECTOR

RE: General Storm Water Permit for Industrial Site Activities Attachments

Dear NPDES Permittee:

With the issuance of the new General Storm Water Permit for Industrial Site Activities there are 3 attachments. You may access these attachments through the following website address:

https://www2.illinois.gov/epa/topics/forms/water-permits/storm-water/Pages/industrial.aspx

Should you have any questions concerning the Permit or it's attachments, please contact the Permit Section at 217/782-0610 or at the above address.

Sincerely,

Amy L. Dragovich

Amy L. Dragovich, P.E.
Manager, Permit Section
Division of Water Pollution Control

General NPDES Permit No. ILR00

Illinois Environmental Protection Agency
Division of Water Pollution Control
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
www.epa.illinois.gov

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

General NPDES Permit
For
Storm Water Discharges from Industrial Activities

Expiration Date: March 31, 2022

Issue Date: April 5, 2017

Effective Date: April 5, 2017

Discharges authorized by this General Permit: In compliance with the provisions of the Illinois Environmental Protection Act, the Illinois Pollution Control Board Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter 1) and the Clean Water Act, the following discharges may be authorized by this permit in accordance with the conditions herein:

Discharges of storm water associated with industrial activities, as defined and limited herein. Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage.

This general permit regulates only storm water discharges from a facility. Other discharges such as process wastewater or cooling water shall be regulated by other NPDES permits.

Receiving waters: Discharges may be authorized to any surface water of the State.

To receive authorization to discharge under this general permit, a facility operator must submit a Notice of Intent form and additional documentation as required in Part D of this permit. Authorization, if granted, will be by letter and include a copy of this permit.

Alan Keller

Alan Keller, P.E.
Manager, Permit Section
Division of Water Pollution Control

SIC 28	(Chemicals and allied products)
SIC 283	(Drugs)
SIC 285	(Paints, varnishes, lacquers, enamels, and allied products)
SIC 29	(Petroleum refining and related industries), except discharges subject to 40 CFR 419
SIC 30	(Rubber and miscellaneous plastics products)
SIC 31	(Leather and leather products)
SIC 311	(Leather tanning and finishing)
SIC 32	(Stone, clay, glass, and concrete products)
SIC 323	(Glass products, made of purchased glass)
SIC 33	(Primary metal industries)
SIC 34	(Fabricated metal products, except machinery and transportation equipment)
SIC 3441	(Fabricated structural metal)
SIC 35	(Industrial and commercial machinery and computer equipment)
SIC 36	(Electronic and other electrical equipment and components, except computer equipment)
SIC 37	(Transportation equipment)
SIC 373	(Ship and boat building and repairing)
SIC 38	(Measuring, analyzing, and controlling instruments; photographic, medical, and optical goods; watches and clocks)
SIC 39	(Miscellaneous manufacturing industries)
SIC 4221-25	(Farm products warehousing and storage, refrigerated warehousing and storage, general warehousing and storage)

This permit is also applicable to any additional storm water discharges that are not otherwise required to obtain an NPDES permit but are comingled or mixed with discharges authorized by this permit.

3. Facilities classified as SIC 10-14 (Mineral Industry) including active or inactive mining operations and oil and gas exploration, production, processing, treatment operations, or transmission facilities, except discharges subject to 40 CFR 434, 436, or 440 or any discharges subject to general permit number ILG84. This permit does not authorize any discharge associated with the hydraulic fracturing process if additional chemicals are utilized in the process.

4. Landfills, land application sites (excluding land application sites which utilize agricultural land), and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described in 40 CFR 122.26(b) (14)).

5. Facilities involved in the recycling of materials including metal scrapyards, battery reclaimers, salvage yards, automobile junkyards and concrete recycling facilities including but not limited to SIC 5015 (Used motor vehicle parts) and SIC 5093 (Scrap and waste materials)

6. Transportation facilities listed below with areas involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations (unless individual permit required by 40 CFR 449):

SIC 40	(Railroad transportation)
SIC 41	(Local and suburban transit and inter-urban highway passenger transportation)
SIC 42	(Motor freight transportation and warehousing) except SIC 4221-4225 (Farm product warehousing and storage, refrigerated warehousing and storage, general warehousing and storage)
SIC 43	(United States Postal Service)
SIC 44	(Water transportation)
SIC 45	(Transportation by air)
SIC 5171	(Petroleum bulk stations and terminals-wholesale)

7. Treatment Works treating domestic sewage with a design flow of 1.0 mgd or more including sludge or wastewater treatment devices or systems used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, and land dedicated to sludge disposal located within the confines of the facility. This requirement excludes off-site sludge management lands, farm lands, and gardens.

8. Discharge of storm water from non-classified facilities designated by the Agency as requiring a permit. See Sector AD of Attachment 1 and 2.

7. Storm water discharges associated with inactive mining or inactive oil and gas operations occurring on Federal lands where an operator cannot be identified.

8. Storm water discharges to any receiving water identified under 35 Ill. Adm. Code 302.105(d) (6).

9. Storm water discharges that the Agency determines are not appropriately covered by this general permit.

10. Storm water or other discharges of hazardous substances or oil resulting from an on-site spill.

11. Discharges of storm water collected in containment areas at bulk storage and hazardous waste facilities where the storm water becomes contaminated by direct contact with a spill or release of stored materials into the containment area.

C. SPECIAL CONDITIONS

1. Discharging pollutants for which a water body is impaired with an approved TMDL:

   a. The Permittee must determine whether the facility discharges storm water, either directly or indirectly, to the immediate stream segment which is an impaired water body, i.e., a water body included on the most recent U.S. EPA-approved Clean Water Act Section 303(d) list of impaired water bodies. This determination must be made within 6 months of the effective date of this permit, and must be documented in the facility's SWPPP or storm water records. Information on impaired waters is contained in the Agency website below:

   http://www.epa.illinois.gov/topics/water-quality/watershed-management/tmdls/303d-list/

   b. If the Permittee determines that it discharges storm water to the immediate stream segment which is an impaired water body, the Permittee must identify if there is a U.S. EPA-approved TMDL that establishes waste load allocations for discharges of pollutant(s) of concern to the impaired water body. This determination must be made within 6 months of the effective date of this permit, and must be documented in the facility's SWPPP or storm water records. Information on TMDLs is contained in the Agency website below:

   http://www.epa.illinois.gov/topics/water-quality/watershed-management/tmdls/index

   c. If the Permittee determines that there is a U.S. EPA-approved Total Maximum Daily Load (TMDL) for a water body to which the facility discharges storm water, the permittee must determine if there is a Waste Load Allocation (WLA) applicable to the facility's storm water discharges in the approved TMDL.

   d. If the Permittee determines that it is subject to an applicable (WLA), the following requirements apply:

      i. The Permittee must calculate/quantify the facility's estimated current loading(s) of the pollutant(s) of concern to the impaired water body. This may be done using monitoring data and/or through modeling.

      ii. The Permittee must determine if, based on the estimated current loading(s), it is meeting the applicable WLA with current storm water controls and practices. If loading reductions are needed in order to achieve the applicable WLA, the permittee must update its SWPPP to incorporate Best Management Practices (BMPs) or other storm water control measures that will be implemented to reduce loadings of the pollutant(s) of concern and achieve the applicable WLA.

      The SWPPP must specifically identify the additional or enhanced BMPs or control measures necessary to reduce loadings of the pollutant(s) of concern, and must also document/summarize modeling and/or other calculations used to estimate that the practices and control measures will reduce loadings to achieve the applicable WLA.

      iii. The SWPPP must define a schedule for implementing the control measures identified necessary to meet the WLA. The schedule for implementing the planned BMPs and/or control measures above must be set out so that the management practices and control measures are in place and operational as quickly as possible. Interim milestones should be established to facilitate assessment of progress in implementing the control measures and gauging progress toward meeting the applicable WLA.

i. Facilities classified as SIC 28 (Chemicals and Allied Products) and SIC 30 (Rubber and Miscellaneous Plastics Products): Storm water discharges that come into contact with solid chemical storage piles.

j. Automobile junkyards: Storm water discharges exposed to over 250 auto/truck bodies with drivelines, over 250 drivelines, or any combination thereof (in whole or in parts); over 500 auto/truck units (bodies with or without drivelines in whole or in parts); or over 100 units per year are dismantled and drainage or storage of automotive fluids occurs in areas exposed to storm water.

k. Lime manufacturing facilities: Storm water discharges that have come into contact with lime storage piles.

l. Cement manufacturing facilities and cement kilns: Storm water discharges other than those subject to 40 CFR 411.

m. Ready-mixed concrete facilities: Sampling data is not required for new ready-mixed concrete facilities or for relocated ready-mixed concrete facilities. Schedule 2-F is not required for existing or previously permitted facilities.

n. Ship building and repairing facilities.

o. Other industrial activities when requested by the Agency.

3. When a facility has two or more outfalls that, based on consideration of features and activities within the area drained by the outfall, the Permittee reasonably believes discharge substantially identical effluents, the Permittee may sample the effluent of one such outfall and report that quantitative data also applied to the substantially identical outfalls. If the applicant is requesting approval to sample a representative outfall, identification of all storm water outfalls considered to be substantially identical along with the outfall being used to represent such outfalls and appropriate justification must be provided with the application.

4. Existing facilities application/Notice of Intent requirements:

a. For existing facilities with an individual NPDES permit covering storm water associated with industrial activity, or those facilities that have previously submitted an application for an individual permit and not yet received a permit, the Permittee/Applicant may elect to seek coverage under this general permit in place of obtaining an individual permit. To be considered for coverage the Permittee/Applicant is required to submit the information, in Part D.1.

b. For existing facilities that have submitted a NOI for coverage of any discharge of storm water associated with industrial activities under this general permit a new or revised NOI will not be required unless the industrial activity at the site has substantially changed.

5. For new facilities, the NOI and required information shall be submitted 180 days prior to the date on which the discharge is to commence unless permission for a later date has been granted by the Agency. Mobile facilities (such as concrete or asphalt batch plants) shall apply at least 30 days prior to discharge.

6. The required information from Part D.1.a.i and ii and D.1.c shall be submitted to one of the following addresses:

a. Electronic submission shall be submitted to:

epa.indilr00swppp@illinois.gov

b. If electronic submittal is unavailable the required information should be submitted to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Permit Section #15
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

7. Authorization: Owners or operators must submit either an NOI in accordance with the requirements of this permit or an application for an individual NPDES Permit to be authorized to discharge under this General Permit. Authorization, if granted, will be by letter from the Agency and include a copy of this Permit. Upon review of an NOI, the Illinois EPA may deny coverage under this Permit and require submittal of an application for an individual NPDES Permit.

c. If the Permittee discharges to an impaired water with an established U.S. EPA approved or established TMDL and the SWPPP has been modified in accordance with Part E.1.b above, Illinois EPA will review the SWPPP and inform the Permittee in writing if additional pollutant control measures for rainfall events are necessary for the discharge to be consistent with the assumptions of any available waste load allocations in the TMDL or if coverage under an individual permit is necessary.

2. Plans for new facilities shall be completed prior to submitting an NOI to be covered under this permit. An electronic copy of the SWPPP shall be submitted to the Agency at the following email address: epa.indilr00swppp@illinois.gov. Plans shall provide for compliance with the effluent limitations in Part F of this permit prior to operation of any industrial activity to be covered under this permit. [Note: If the plan has already been required to be developed under a previous permit it shall be updated and maintained in accordance with all requirements of this Special Condition within 180 days of the effective date of this permit.]. The owner or operator of an existing facility with storm water discharges covered by this permit shall submit a copy of the Plan to the Agency and shall make a copy of the Plan available to the Agency during any inspection of the site.

   Facilities which discharge to MS4 shall also make a copy available to the operator of the municipal system at any reasonable time upon request.

3. The Permittee may be notified in writing by the Agency at any time that the Plan does not meet the requirements of this permit. After such written notification, the Permittee shall modify the Plan and shall submit a revised plan to the Agency with the requested changes that have been made. Unless otherwise provided, the Permittee shall have 30 days after such notification to make the changes.

4. The Permittee shall modify the SWPPP based on the corrective actions and deadlines required in Part H.2 and that the Permittee documented in Part H.2, such that the triggering conditions for corrective action in Part H.1 do not reoccur. The Permittee shall also modify the SWPPP whenever there is a change in construction, operation, or maintenance which may affect the discharge of concentrations or quantities of pollutants to the waters of the United States. SWPPP modifications must be signed in accordance with Attachment H.

5. The Plan shall provide a description of potential sources which may be expected to affect concentration or quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from the facility. The Plan shall include, at a minimum, the following items:

   a. A topographic map extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies, wells (including injection wells), seepage pits, infiltration ponds, and the discharge points where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included on the site map if appropriate. Any map or portion of map may be withheld for security reasons.

   b. A site map showing:

      i. The storm water conveyance and discharge structures;

      ii. An outline of the storm water drainage areas for each storm water discharge point, location, and identification of any MS4 to which the industrial site discharges storm water;

      iii. Paved areas and buildings;

      iv. Areas used for outdoor manufacturing, storage trash dumpsters and compactors or disposal of significant materials, including activities that generate significant quantities of dust or particulates;

      v. Location of existing or planned storm water structural control measures/practices (dikes, coverings, detention facilities, etc.);

      vi. Surface water locations and/or municipal storm drain locations;

      vii. Areas of existing and potential soil erosion;

      viii. Vehicle service areas;

      ix. Material loading, unloading, transfer, and access areas;

      x. Direction of storm water flow (use arrows);

9. The following must be documented in the SWPPP:

   a. Good Housekeeping (F.2.c) – A requirement that waste materials be regularly picked up and disposed of, along with routine inspections for leaks and conditions of drums, tanks and containers;

   b. Maintenance (F.2.b) – Procedures and frequencies for inspection and maintenance of storm water conveyance system devices such as oil/water separators, catch basins, etc., and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water. The SWPPP shall include the schedule or frequency for maintaining all control measures;

   c. Spill Prevention and Response (Part F.2.d) – Procedures for responding to spills and leaks, including internal and third-party notification procedures. For preventing spills, include in the SWPPP the control measures for material handling and storage, and procedures for preventing spills that can contaminate storm water. Spill clean-up equipment and procedures should be identified, as appropriate;

   d. Erosion and Sediment Control (Part F.2.f) – If the Permittee uses polymers and/or other chemical treatments as part of a control measure, the Permittee must identify the polymer and/or chemicals used and the purpose; and

   e. Employee Training (Part F.2.g) – The elements of the employee training plan shall include all, but not be limited to, the requirements set forth in Part F.2.g and also include the following:

      i. The content of the training;

      ii. The frequency/schedule of the training for employees who have duties in areas of industrial activity subject to this permit; and

      iii. A log of the date on which specific employees receive training.

10. Inspections.

   a. The Permittee must document in the SWPPP its procedures for performing, as appropriate, the types of inspections specified in this permit, including:

      i. Routine facility inspections (See Part G.1), and

      ii. Quarterly visual assessment of storm water discharges (See Part J.1).

   b. If the Permittee is invoking the exception for inactive and unstaffed sites relating to routine facility inspections and quarterly visual assessments, the Permittee must include in the SWPPP the information to support this claim as required by Part G.5.

11. Monitoring.

   a. The Permittee must document in the SWPPP the procedures for conducting two types of analytical monitoring specified by the permit, where applicable to the facility:

      i. Benchmark monitoring (See Part J.2)

      ii. Site-specific monitoring

   b. For each type of monitoring, the SWPPP must document:

      i. Locations where samples are collected, including any determination that two or more outfalls are identical;

      ii. Parameters for sampling and the frequency of sampling for each parameter;

      iii. Schedules for monitoring at the facility;

      iv. Any numeric control values (benchmarks, TMDL-related requirements) applicable to discharges from each outfall; and

ii. A finding that the exceedance was due to natural background pollutant levels; or

iii. A finding that no further pollutant reductions were technologically available and economically practicable in light of best industry practice consistent with Part J.2.;

h. Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if the facility discharges directly to impaired waters, and such pollutants were not detected in the discharge or were solely attributable to natural background sources (See Part J.2);

i. Documentation to support the claim that the facility has changed its status from active to inactive and unstaffed with respect to the requirements to conduct routine inspections (See Part G.5), quarterly visual assessments (see Part J.1) and/or benchmark monitoring (see Part J.2); and

j. Electronic copies of all documents, including the SWPPP, are acceptable.

17. Modifications to the following requirements in the plan shall be submitted to the Agency pursuant to Part K.1, E.I.c, E.6, E.7, E.16.f, E.16.g, E.16.i.

F. Control Measures and Discharge Limitations

In the technology-based limits included below, the term "minimize" means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable.

1. Storm Water Controls

The Permittee must select, design, install, and implement control measures (including best management practices) to meet the discharge limitations in Part F.2 and meet the water quality-based effluent limitations in Part F.3. The selection, design, installation, and implementation of these control measures must be in accordance with good engineering practices and manufacturer's specifications. Note that the Permittee may deviate from such manufacturer's specifications where it provides justification for such deviation and include documentation of its rationale in the part of its SWPPP that describes its control measures, consistent with Part E.6. If the Permittee finds that its control measures are not achieving their intended effect of minimizing pollutant discharges, it must modify these control measures in accordance with the corrective action requirements set forth in Part H. Regulated storm water discharges from the Permittee's facility include storm water run-on that commingles with storm water discharges associated with industrial activity at its facility.

2. Discharge Limitations

a. Minimize Exposure – The Permittee must minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff by either locating these industrial materials and activities inside or protecting them with storm resistant coverings. In order to minimize exposure, where feasible, the Permittee must include the following BMPs where applicable:

i. Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;

ii. Containment - Storage within berms or other secondary containment devices to prevent leaks and spills from entering storm water runoff. To the maximum extent practicable, storm water discharged from any area where pollutants from material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water should not enter vegetated areas or surface waters or infiltrate into the soil unless adequate treatment is provided;

iii. Clean up spills and leaks promptly using dry methods (e.g., absorbents) or other cleanup methods to prevent the discharge of pollutants;

iv. Store leaky vehicles and equipment indoors or, if stored outdoors, use drip pans and absorbents;

v. Use spill/overflow protection equipment;

vi. Perform all vehicle and/or equipment cleaning operations indoors, under cover, or in bermed areas

contribute pollutants, measures to remove pollutants from storm water discharge shall be implemented. The following management practices shall be considered and implemented as applicable:

i. Debris & Sediment Control - Screens, booms, sediment ponds, or other methods to reduce debris and sediment in storm water discharges;

ii. Covered Storage or Manufacturing Areas - Covered fueling operations, materials, manufacturing, and storage areas to prevent contact with storm water. This includes any pesticide, herbicide, fertilizer, or any other chemical storage area;

iii. Mercury Switch Removal and Recycling – Mercury containing convenience lighting switches and anti-lock brake assemblies shall be removed from vehicles and recycled in an approved manner which prevents mercury from entering the storm water discharges; and

iv. Storm Water Reduction – To minimize storm water runoff, install vegetation on roofs of buildings within and adjacent to the exposure area to detain and evapotranspirate runoff where the precipitation falling on the roof is not exposed to contaminants. Capture storm water for use as appropriate based on quality where feasible and applicable.

f. Sediment and Erosion Prevention – where feasible and applicable, the Permittee must minimize erosion by stabilizing exposed soils at the facility and placing flow velocity dissipation devices at discharge locations. The Permittee must also use structural and non-structural control measures to prevent the discharge of sediment. If the Permittee uses polymers and/or other chemical treatments as part of its controls, it must identify the polymers and/or chemicals used and the purpose. Information on BMPs for erosion and sediment control is available at the following websites:

USEPA National Menu of Best Management Practices (BMPs) for Storm Water

https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater#edu

Illinois Urban Manual:

http://www.aiswcd.org/illinois-urban-manual/

g. Employee Training – The Permittee must train all employees who work in areas where industrial materials or activities are exposed to storm water, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all pollution prevention personnel. Employees shall be trained at a minimum of once per calendar year. The Permittee shall ensure the following personnel are trained on the requirements of this permit:

i. Personnel who are responsible for the design, installation, maintenance, and/or repair of controls (including pollution prevention measures);

ii. Personnel responsible for the storage and handling of chemicals and materials that could become contaminants in storm water discharges;

iii. Personnel who are responsible for conducting and documenting monitoring and inspections as required in Parts G and J; and

iv. Personnel who are responsible for performing and documenting corrective actions as required in Part H.

h. De-icing Material Storage - Storage piles of deicing material used onsite or for other commercial or industrial purposes must be enclosed or covered to prevent exposure to precipitation (except for exposure resulting from adding or removing materials from the pile). The Permittee must document and implement appropriate pollution prevention measures that minimize exposure to storm water when adding to or removing material from the pile. Piles do not need to be enclosed or covered where storm water from the pile is not discharged to Waters of the United States or the discharges from the piles are authorized under another permit. The Permittee must document the location of any storage piles of deicing material to be used for deicing or for other commercial or industrial use in the SWPPP site map (Part E.5.b.xvii).

d. All observations relating to the implementation of control measures at the facility, including:

i. A description of any discharges occurring at the time of the inspection;

ii. Any previously unidentified discharges and/or pollutants from the site;

iii. Any evidence of, or the potential for, pollutants entering the drainage system; Observations regarding the physical condition of and around all outfalls including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water;

iv. Any control measures needing maintenance, repairs, or replacement;

e. Any additional control measures needed to comply with the permit requirements; and

f. Any incidents of noncompliance observed.

g. Any outfall not inspected due to flooding conditions,

3 Any corrective action required as a result of a routine facility inspection must be performed consistent with Part H of this permit.

4. If the Permittee performed a visual observation required in Part J.1 during the facility inspection, the Permittee may include the results of the assessment with the report required in Part G.2, provided all components of both types of inspections are included in the report.

5. Exceptions to Routine Facility Inspections for Inactive and Unstaffed Sites.

The Permittee may exercise a waiver of the facility inspection requirement at a facility that is inactive and unstaffed, provided there are no industrial materials or activities exposed to storm water. If the Permittee exercises this waiver, the Permittee must maintain a certification with the SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to storm water.

H. CORRECTIVE ACTIONS

1. Conditions Requiring SWPPP Review and Revision.

The Permittee must review the SWPPP when any of the following conditions occur:

a. An unauthorized release or discharge (e.g., spill, leak, or discharge of non-storm water not authorized by this or another NPDES permit) occurs at the facility;

b. Control measures are not stringent enough for the discharge to meet applicable water quality standards or the conditions of this permit;

c. A required control measure was never installed, was installed incorrectly, or not in accordance with this permit or is not being properly operated or maintained;

d. Visual observations indicate signs of storm water pollution (e.g., unnatural color, odor, turbidity, floatable material, settled solids, suspended solids, foam, and oil sheen);

e. The average of four quarterly sampling results exceeds any applicable benchmark monitoring concentration. If less than four samples have been taken, but the results are such that an exceedance of the four quarter average is mathematically certain (i.e., if the sum of quarterly sample results to date is more than four times the benchmark monitoring concentration) this is considered a benchmark exceedance, triggering this review;

f. Construction or a change in design, operation, or maintenance at the facility that modifies the type or concentration of pollutants discharged in storm water from the facility, or increases the quantity of pollutants discharged;

iii. does not release the Permittee from compliance with other applicable statutes of the State of Illinois or other applicable local law, regulations, or ordinances.

b. If any statement or representation is found to be incorrect, this authorization may be revoked and the Permittee thereupon waives all rights thereunder.

3. Plans and specifications of all treatment equipment being included as a part of the Storm Water Management Practice shall be included in the SWPPP.

4. Any modification of or deviation from the plans and specifications originally submitted with the initial SWPPP requires amendment of the SWPPP.

5. Construction activities which result from treatment equipment installation, including clearing, grading, and excavation activities which result in the disturbance of one acre or more of land area, are not covered by this authorization. The Permittee shall contact the Agency regarding any additional required permit(s).

J. MONITORING

1. Quarterly Visual Observation of Discharges – The requirements and procedures for quarterly visual observations are applicable to all facilities covered under this permit, regardless of the Permittee's sector of industrial activity.

a. The Permittee must perform and document a quarterly visual observation of a storm water discharge associated with industrial activity from each outfall. The visual observation must be made during daylight hours. If no storm event resulted in runoff during daylight hours on normal work days from the facility during a monitoring quarter, no visual observation is required for that quarter, provided the permittee documents that no observable runoff occurred. Normal work days do not include weekends or Federal holidays. The Permittee must sign and certify the documentation.

b. Visual observation must be made on samples collected within 1 hour of an actual discharge from a storm event equal to or greater than 0.25 inch in 24 hours. If it is not possible to take a sample within the first hour of the discharge, the sample must be collected as soon as practicable after the first hour and the Permittee must explain why it was not possible to take samples within the first hour. In the case of snowmelt, the samples must be taken from an actual discharge from the site. For storm events, samples must be collected from a storm event discharge at least 72 hours from the previous discharge. The 72 hour interval does not apply if the Permittee documents that a less than 72 hour event is representative for local storm events during the sampling period. The observation must document: unnatural color, odor, clarity, floatable solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution if present in the discharge. If visual observations indicate any unnatural color, odor, turbidity, floatable material, oil sheen or other indicators of storm water pollution, the Permittee shall obtain a sample and test for the parameter or the list of pollutants as provided pursuant to Part E.5.C.ii and E.5.d and initiate corrective action in Part H.

c. The Permittee must maintain visual observation reports onsite with the SWPPP. Each report must include the observation date and time, inspection personnel, outfall location, nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of unnatural color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.

d. The Permittee may exercise a waiver of the visual observation requirement at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to storm water. If the Permittee exercises this waiver, the Permittee must maintain a certification with the SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to storm water.

e. Representative Outfalls - If the Permittee's facility has two or more outfalls that are believed to discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, the Permittee may conduct visual observation of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s).

f. Visual observation documentation shall be made available to the Agency and general public upon written request.

A. The average concentration of the benchmark monitoring results is less than or equal to the concentration of that pollutant in the natural background;

B. The Permittee document and maintain with the SWPPP, the supporting rationale for concluding that the benchmark exceedances are in fact attributable solely to natural background pollutant levels. The Permittee must include in the rationale any data previously collected by the Permittee or other sources (i.e., literature studies) that describe the level of natural background pollutants in the storm water discharge;

C. Notify the Agency on the Permittee's final quarterly benchmark monitoring report that the benchmark exceedances are attributable solely to natural background pollutant levels.

D. Permittees may discontinue monitoring natural background pollutants that occur solely from run-on sources provided the Permittee analyzes the pollutant in the run-on source during the benchmark monitoring period.

f. Exception for Inactive and Unstaffed Sites - The requirement for benchmark monitoring does not apply at a facility that is inactive and unstaffed, provided there are no industrial materials or activities exposed to storm water. To qualify for any monitoring exception, the Permittee must meet the following requirements:

i. Maintain a statement with the Permittee's SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to storm water in accordance with the substantive requirements in 40 CFR 122.26(g) and sign and certify the statement in accordance with Attachment H 11.

ii. If a Permittee is not qualified for this exception at the time of permit coverage but during the permit term the Permittee becomes qualified because the facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to storm water, then the Permittee must notify Illinois EPA of this change in the next benchmark monitoring report. A Permittee may discontinue benchmark monitoring once Illinois EPA has been notified, and prepared and signed a certification statement concerning the facility's qualification for this monitoring exception.

g. Representative Outfalls – If the Permittee's facility has two or more outfalls that are believed to discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, the Permittee may conduct benchmark monitoring of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s).

K. REPORTING

1. The Permittee shall submit an electronic copy of the annual inspection report to the Agency. The report shall include results of the quarterly benchmark monitoring as required by Part J.2 and the quarterly facility inspections which are required by Part G of this permit. The report shall include, at a minimum, a review and update of the SWPPP. The Permittee shall submit modifications of the requirements of the plan to the Agency with the Annual Report. Permittees have 180 days to update their SWPPP to comply with the new requirements and then submit with the following annual report. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s). The annual inspection report is considered a public document that shall be available to the public at any reasonable time upon request.

2. For new Permittees, the first Annual Report shall contain information gathered during the one year time period beginning with the initial effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has elapsed. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.

3. Existing Permittees renewing coverage under this permit shall continue to submit the Annual Report no later than 60 days after the original date of effective coverage under a general storm water permit.

4. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the Annual Report.

Agency. The request shall be granted by issuance date of an individual permit or an alternative general permit if the reasons cited by the owner or operator are adequate to support the request.

3. When an individual NPDES permit is issued to an owner or operator otherwise subject to this permit, or the owner or operator is approved for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES Permittee is automatically terminated on the issuance date of the individual permit or the date of approval for coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to an owner or operator otherwise subject to this permit, or the owner or operator is denied coverage under an alternative NPDES general permit, the applicability of this general permit to the individual NPDES Permittee is automatically terminated on the date of such denial, unless otherwise specified by the Agency.

4. The Permittee must submit a Notice of Termination (NOT) within 30 days after one or more of the following conditions have been met:

    a. A change in ownership or operational control at the facility;

    b. The Permittee has ceased operations at the facility, there are no discharges or no longer will be any discharges of storm water associated with industrial activity from the facility, and necessary sediment and erosion controls have been implemented; or

    c. Coverage has been obtained under an individual or alternative general permit for all discharges required to be covered under an NPDES permit.

5. NOT submittals can be made to one of the following addresses:

    a. Electronic NOTs should be submitted to:

    epa.lndannualinsp@illinois.gov

    b. If electronic submittal is unavailable the NOT should be submitted to the follow address:

    Illinois Environmental Protection Agency
    Division of Water Pollution Control
    Compliance Assurance Section #19
    1021 North Grand Avenue East
    Annual Inspection Report
    P.O. Box 19276
    Springfield, Illinois 62794-9276

6. Standard Condition 15 of Attachment H is not applicable to this General Permit.

M. DEFINITIONS

1. Coal pile runoff means the rainfall runoff from or through any coal storage pile.

2. Control Measures means any storm water control or other method (including narrative effluent limitations) used to prevent or reduce the discharge of pollutants to waters of the state.

3. Discharge point or Outfall means the location where collected and concentrated storm water flows are discharged from the facility.

4. Green Infrastructure means wet weather management approaches and technologies that utilize, enhance or mimic the natural hydrologic cycle processes of infiltration, evapotranspiration and reuse. Green infrastructure approaches currently in use include green roofs, trees and tree boxes, rain gardens, vegetated swales, pocket wetlands, infiltration planters, porous and permeable pavements, porous piping systems, dry wells, vegetated median strips, reforestation/revegetation, rain barrels and cisterns and protection and enhancement of riparian buffers and floodplains.

5. Industrial activities means any of the 10 categories of industrial activities included in the definition of "storm water discharges associated with industrial activity" as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi).

6. Land application site means an area where wastes are applied onto or incorporated into the soil surface for treatment or disposal.

Attachment H
Standard Conditions

Definitions

Act means the Illinois Environmental Protection Act, 415 ILCS 5 as Amended.

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L 92-500, as amended. 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24-Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8-Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

(1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirements.

(2) **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.

(3) **Need to halt or reduce activity not a defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62 and 40 CFR 122.63. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(7) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency upon request, copies of records required to be kept by this permit.

schedule of this permit shall be submitted no later than 14 days following each schedule date.

(e) **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.
  (1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).
  (2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
  (3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.

(f) **Twenty-four hour reporting.** The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24-hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24-hours:
  (1) Any unanticipated bypass which exceeds any effluent limitation in the permit.
  (2) Any upset which exceeds any effluent limitation in the permit.
  (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.

  The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.

(g) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (12) (d), (e), or (f), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12) (f).

(h) **Other information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.

(13) **Bypass.**
  (a) Definitions.
    (1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
    (2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
  (b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (13)(c) and (13)(d).
  (c) Notice.
    (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
    (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).
  (d) Prohibition of bypass.
    (1) Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:
      (i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
      (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
      (iii) The permittee submitted notices as required under paragraph (13)(c).
    (2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).

(14) **Upset.**
  (a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
  (b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (14)(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
  (c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
    (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
    (2) The permitted facility was at the time being properly operated; and
    (3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).
    (4) The permittee complied with any remedial measures required under paragraph (4).
  (d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

APPENDIX 2-G1

RUNWAY PROTECTION ZONES

Electronic Filing: Received, Clerk's Office 04/19/2023

FOR DETENTION BASIN CONSTRUCTION OR EXPANSION NEAR AIRPORT PROPERTY, REFER TO FAA ADVISORY CIRCULAR 150/5200-33B, HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS. SECTION 1-3, 2-3a, AND 2-3b.

DUPAGE AIRPORT AUTHORITY

NO.	DATE	DSGN	DR	CHK	APVD	REVISION	BY	APVD

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CH2MHILL®
8735 W. HIGGINS ROAD
SUITE 400
CHICAGO, IL 60631

DUPAGE AIRPORT ON-CALL SERVICE
DUPAGE AIRPORT (DPA)
WEST CHICAGO, IL

EXISTING AND PROPOSED AVIGATION EASEMENTS HEIGHT ANALYSIS - RUNWAY 28

REUSE OF DOCUMENTS: THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF CH2M HILL AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF CH2MHILL

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE
PROJ
DWG
SHEET of

FILENAME: PLOT DATE: 2020\01\31 PLOT TIME: 4:01:22 PM

APPENDIX 2-G2

AVIGATION EASEMENT

Electronic Filing: Received, Clerk's Office 04/19/2023 C000907

91660

BOOK 134 PAGE 248

MAR 24 1959 -3 50 PM

RECORDER

CLEAR ZONE AVIGATION EASEMENT

WHEREAS, KAWNEER COMPANY, a corporation of Delaware (hereinafter called the Grantor) is the owner in fee of that certain tract of land situated in the County of Du Page, State of Illinois, more particularly described as follows:

That part of the North half of Section Thirty-two (32) Township Forty (40) North, Range Nine (9) East of the Third Principal Meridian, commencing at the Northwest corner of Section Thirty-two (32); thence North 88 degrees 25 minutes East along the northerly line of the Northwest quarter (NW¼) of said Section; 1331.65 feet to the North and South Division line of the Northwest quarter (NW¼) of said Section; thence South no degrees 05 minutes West along said Division line (being the West line of the East half (E ½) of said Northwest quarter) 500 feet to the Southwest corner of the tract of land conveyed to the Defense Plant Corporation (Book 390 Page 81) for a place of beginning; thence continuing South no degrees 05 minutes West along said Division line 685 feet; thence North 89 degrees 57 minutes East on a line parallel with the South line of said Defense Plant Corporation tract, 1984.37 feet to the Westerly line of the right of way of Chicago Northwestern Railway; thence North 20 degrees 08 minutes West along said Westerly right of way line 729.35 feet to the Southeast corner of Defense Plant Corporation tract; thence South 89 degrees 57 minutes West along said South line of Defense Plant Corporation tract 1732.32 feet to the place of beginning, containing 29.2234 acres more or less, in Du Page County, Illinois

which tract of land is identified as clear zone area, Tract C on Plat dated February 2, 1959 attached hereto and made a part hereof; and

WHEREAS, the COUNTY OF DU PAGE (hereinafter called the Grantee), is the owner and operator of the DuPage County Airport, situate in the County of Du Page and State of Illinois, in close proximity to the above described premises; and

WHEREAS, it is deemed necessary that said above described premises, identified as Clear Zone Area, Tract C, be and remain free and clear of any structure, tree, or other object which is or would constitute an obstruction or hazard to the flight of aircraft in the landing and taking off at DuPage County Airport, which said Clear Zone approach area is as above described;

NOW THEREFORE,

In consideration of the sum of One Thousand and no/100 ($1000.00) Dollars, paid by the Grantee to the Grantor, and of other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Grantor for itself, its successors and assigns, does hereby covenant and agree with the Grantee, that, for the benefit of the public in its use of the Airport, it will not hereafter erect or permit the erection or growth of any structure, tree or other object within said Clear Zone approach area, (Tract G) above described which is solely a Clear Zone area of the east and west runway (which area is identified on the said Plat attached hereto) to a height above the Clear Zone approach surface for that approach area (as also identified on said plat), said Clear Zone approach surface being an inclined plane with a slope of 50:1 (one foot of elevation for each fifty (50) feet of horizontal distance) located directly above the Clear Zone approach area, (Tract G), which inclined plane has an elevation of 756.5 feet (mean sea level) at its inner and lower edge along line A B as shown on the plat attached hereto, and an elevation of 820 feet (mean sea level) at its outer and upper edge along line C D as shown on said plat: and

The Grantor, for itself, its successor and assigns, for the said consideration, does hereby grant and convey to the Grantee, its agents, servants and employees, a continuing right and easement, at Grantee's sole expense, to take any action necessary to prevent the erection or growth of any structure, tree, or other object into the air space above that part of said approach surface which is directly over said approach area, Tract G, excepting the presently existing structures as shown on the plat attached hereto, and, at Grantee's sole expense, to remove from such air space, or mark and light as obstructions to air navigation, any and all structures, trees and other objects that may at any time project or extend above said approach surface; and, if at any future time or times, additional avigation aid lights, markers or other devices become necessary, same shall be installed and maintained at Grantee's sole expense, and also, if at any future time or times, it becomes necessary to alter any portion of the presently existing structures, the same shall be done to meet the specifications and requirements of the Grantor, the entire expense thereof to be borne by the Grantee herein, together with the right of ingress to, egress from and passage over the land of the Grantors within the said Clear Zone approach area for all of the above described purposes;

The Grantee further covenants and agrees with the Grantor that the Clear Zone area, Tract G, on the plat dated February 2, 1959 attached hereto will be included and covered by the same comprehensive insurance as is carried and kept in force on the basic airport field lying West of and adjoining the aforesaid Clear Zone area.

TO HAVE AND TO HOLD said easement and all rights appertaining thereto unto the Grantee its successors and assigns, until said Du Page County Airport shall be abandoned and shall cease to be used for public airport purposes.

It is understood and agreed that these covenants and agreements shall be binding upon the successors and assigns of the Grantor, that these covenants shall run with the land, and that, for the purposes of this instrument, that the above noted Clear Zone area, Tract G, on the Plat dated February 2, 1959 attached hereto, shall be the servient tenement and the said DuPage County Airport shall be the dominant tenement.

IN WITNESS WHEREOF, KAWNEER COMPANY, a corporation of Delaware has caused these presents to be signed by its President and attested by its Secretary and its corporate seal to be affixed hereto this 18th day of February 1959.

KAWNEER COMPANY

By _____
President

ATTEST

_____
SECRETARY

STATE OF ILLINOIS)
) SS
COUNTY OF DU PAGE)

I, Rosemary Donnelly, a Notary Public, do hereby certify that on the 18th day of February, 1959, Lawrence J Flynn President, and E. C. Witter Secretary, respectively of Kawneer Company, a Corporation of Delaware, personally appeared before me and being first duly sworn by me severally acknowledged that they signed the foregoing document in the respective capacities therein set forth and declared that the statements therein contained are true.

In witness whereof, I have herewith set my hand and seal the day and year before written.

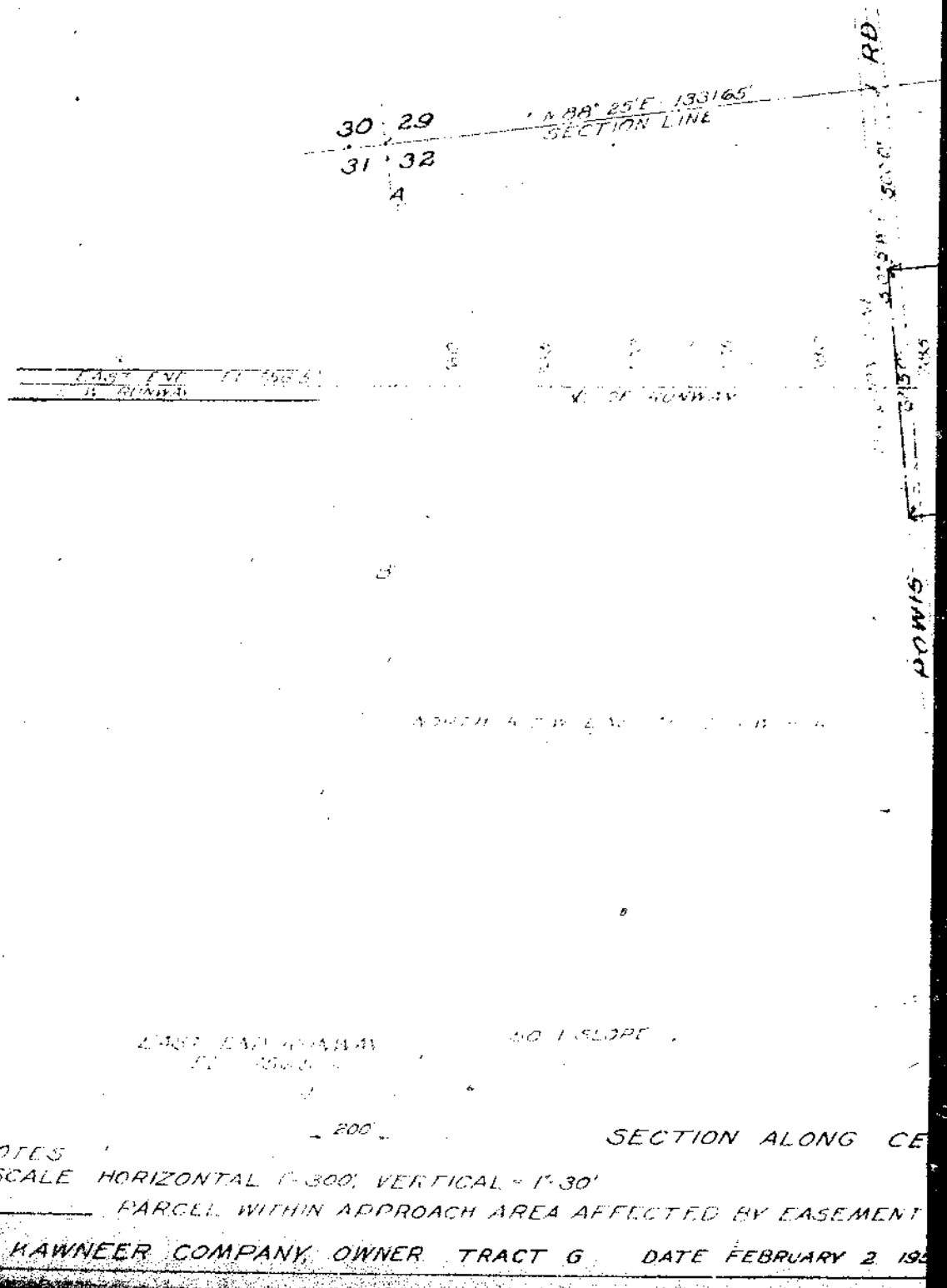
Rosemary Donnelly
Notary Public

ROSEMARY DONNELLY
Notary Public, Cass County, Michigan
Acting in Berrien County, Michigan
My Commission Expires Feb. 2, 1960

Electronic Filing: Received, Clerk's Office 04/19/2023 C000910

916606

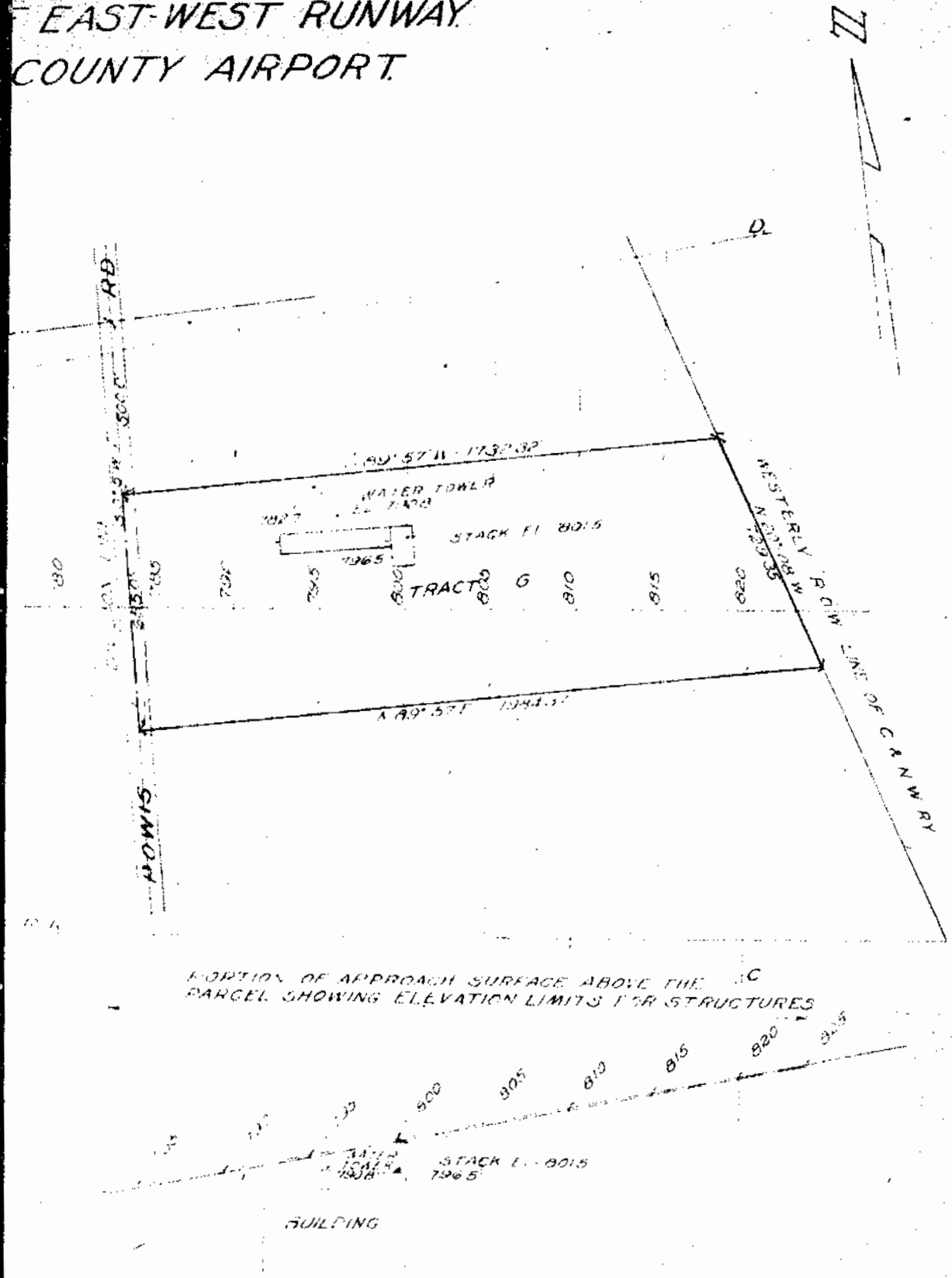
CLEAR ZONE A
EAST END OF EAST-W
DUPAGE COUNTY



NOTES
SCALE HORIZONTAL 1"=300' VERTICAL = 1"=30'
PARCEL WITHIN APPROACH AREA AFFECTED BY EASEMENT
HAWNEER COMPANY, OWNER TRACT G DATE FEBRUARY 2 19

Electronic Filing: Received, Clerk's Office 04/19/2023

ZONE AREA AT
EAST-WEST RUNWAY
COUNTY AIRPORT



PORTION OF APPROACH SURFACE ABOVE THE C
PARCEL SHOWING ELEVATION LIMITS FOR STRUCTURES

ALONG CENTER LINE.

EASEMENT

RUARY 2 1959

APPENDIX 2-G3

DUPAGE AIRPORT AGREEMENT

AGREEMENT BETWEEN THE DUPAGE AIRPORT AUTHORITY, OSCAR (IL) LLC AND LAKESHORE RECYCLING SYSTEMS, LLC

This AGREEMENT ("Agreement") is made as of the 19th day of January, 2022, between the DUPAGE AIRPORT AUTHORITY (“DAA”), OSCAR (IL) LLC (“OSCAR”), and LAKESHORE RECYCLING SYSTEMS, LLC ("LRS”).

RECITALS

WHEREAS, LRS currently operates a solid waste management facility, which receives, sorts/ separates, recycles and transfers construction or demolition debris (hereinafter referred to as the “C&D Recycling Facility”) on the premises owned by OSCAR and leased to LRS located at 1655 Powis Road, West Chicago, Illinois and consisting of approximately 27.81 acres (hereinafter referred to as the “Subject Property”); and

WHEREAS, LRS plans to file with the City of West Chicago a request for site location approval for the construction and operation of a new transfer facility with sufficient capacity to receive and transfer to landfills an annual average of 950 tons per day of non-hazardous Municipal Waste and Hydro Excavation Waste with ancillary truck parking and storage and maintenance facility combined (hereinafter referred to as the “Transfer Facility”); and

WHEREAS, LRS desires to construct the Transfer Facility on the Subject Property and operate the Transfer Facility in conjunction with the C&D Recycling Facility; and

WHEREAS, "Municipal Waste" whether or not capitalized and used in any of its grammatical forms, means "municipal solid waste", as defined by Section 5/3.290 of the Act (415 ILCS 5/3.290), except that such waste does not include construction or demolition debris, recyclables, unacceptable waste, or landscape waste; and

WHEREAS, “Hydro Excavation Wastes” means solid/liquid waste such as hydro/vacuum excavation muds, underground excavation material, drilling muds, and other similar materials; and

WHEREAS, in order to obtain site location approval from the City of West Chicago, LRS must prove that the proposed facility is designed, located and proposed to be operated so that the public health, safety, and welfare will be protected; and

WHEREAS, the DAA operates the DuPage Airport at 2700 International Drive, West Chicago, Illinois, which airport is located on the west side of Powis Road, generally adjacent to the Subject Property; and

WHEREAS, the DAA currently has an avigation easement over the Subject Property; and

WHEREAS, the DAA seeks to obtain certification of Runway 28 at the DuPage Airport for Instrument Flight Rules ("IFR") landings; and

WHEREAS, the existing transfer building on the Subject Property requires modification in the form of a reduction in height in order to remain below all critical elevations for IFR approaches to Runway 28.

WHEREAS, the DAA contracted with Geosyntec Consultants to evaluate whether the proposed design and operations of the Transfer Facility, including the proposed ventilation and filtration system, meet the guidance set forth in FAA Advisory Circular 15/5200-33C and FAA Advisory Circular 150/5300-13A (FAA Advisories). Subject to the provisions below, Geosyntec's evaluation concluded that the proposed MSW transfer station meets the definition of an enclosed transfer station.

NOW THEREFORE, in consideration of the mutual promises herein and for other good and valuable consideration the parties hereto agree as follows:

1. The recitals hereinabove are fully incorporated into this Agreement.

2. Upon receiving final, non-appealable siting approval pursuant to 415 ILCS 5/39.2 to construct and operate a Transfer Facility on the Subject Property as set forth hereinabove, and upon receiving an Illinois Environmental Protection Agency (IEPA) development permit, OSCAR shall execute and grant to DAA a new avigation easement substantially in the form attached hereto and made a part hereof as Exhibit A ("New Avigation Easement").

3. Upon receiving final, non-appealable siting approval pursuant to 415 ILCS 5/39.2 to construct and operate a Transfer Facility on the Subject Property as set forth hereinabove, and upon receiving an IEPA development permit, LRS shall reduce the roof height of its existing transfer building so as to stay below all critical elevations in the New Avigation Easement.

4. Upon receiving final, non-appealable siting approval pursuant to 415 ILCS 5/39.2 to construct and operate a Transfer Facility on the Subject Property as set forth hereinabove, and upon receiving an IEPA development permit, LRS and OSCAR shall not allow any penetrations whatsoever to the New Avigation Easement. Furthermore, this New Avigation Easement cannot be modified or withdrawn without the approval of the DAA and shall run with the land. Simultaneous with the execution of the New Avigation Easement, the DAA shall or shall cause the existing avigation easement to be vacated.

5. LRS shall pay to the DAA a fee of $0.15 on a quarterly basis within forty-five (45) days of the end of each quarter for each ton of Municipal Waste and/or Hydro Excavation Waste received at the Transfer Facility (whether received in the same or separate

vehicles) from the first date Municipal Waste and/or Hydro Excavation Waste is received through the closure of the Transfer Facility.

6. Upon receiving final, non-appealable, siting approval pursuant to 415 ILCS 5/39.2 to construct and operate a Transfer Facility on the Subject Property as set forth hereinabove, and upon receiving an IEPA development permit, LRS shall comply with all design and operational features described in its letter and corresponding attachments to the DAA Attorney, Phillip A. Luetkehans, dated September 8, 2021. A copy of the September 8, 2021 letter is attached hereto and made a part hereof as Exhibit B. Additionally, LRS shall comply with the following terms and conditions through the closure of the Transfer Facility:

    a. Wiring, riprap, and gaming cameras shall be provided for the west and east pond as shown on Exhibit C;
    b. The tarping policy provided in Exhibit D shall be implemented;
    c. Attachment 4, Section 2.4.11, to Exhibit B shall require a filtration or treatment system designed to address hydrogen sulfide or other reduced sulfur compounds be added to the odor control system if said odors can be detected off-site;
    d. Riprap shall be added to the east pond as part of the wildlife hazard mitigation set forth in Attachment 4, Section 2.4.18, to Exhibit B;
    e. Quarterly wildlife surveys shall be required for the entire facility including ponds, storage areas, and inactive equipment in addition to the surveys set forth in Attachment 4, Section 2.4.18, to Exhibit B;
    f. LRS shall be required to keep records of the quarterly wildlife surveys and wildlife camera footage shall be retained for a period of no less than three (3) years and submitted to the DAA upon request by the DAA;
    g. LRS shall develop a communications plan along with the DAA to alert the DAA staff of the presence of any wildlife hazards, if observed by LRS on-site and to communicate the results of the quarterly wildlife surveys; and
    h. If in the DAA's sole discretion, LRS is not properly mitigating a wildlife hazard existing on the property, LRS shall allow the DAA or its authorized representatives access to the LRS facility for wildlife hazard management/harassment upon request of the DAA, which cost shall be bore by LRS.

7. As consideration for the above, the DAA, based upon its current knowledge of the proposed Transfer Facility on the Subject Property, agrees that the proposed Transfer Facility will not pose a threat to the safe operation of the DuPage Airport. Accordingly, the DAA currently has no objection and will not object to the siting approval of the Transfer Facility on the Subject Property. If for some reason, the DAA becomes aware of any concerns created by the construction or operation of the Transfer Facility on the Subject Property, it will immediately notify LRS of said concern and endeavor to work with LRS to find a solution to its concern. If the DAA and LRS are unable to resolve the

DAA's concern, the DAA shall have the right to object to the siting, construction and operation of the Transfer Facility on the Subject Property. If the DAA makes a formal objection to the siting, construction or operation of the Transfer Facility on the Subject Property prior to LRS receiving final, non-appealable, siting approval pursuant to 415 ILCS 5/39.2, then LRS will be under no obligation to comply with paragraphs 2, 3, 4, 5 and 6 of this Agreement. If the DAA becomes aware of any concerns created by the construction or operation of the Transfer Facility on the Subject Property after issuance of the final non-appealable siting approval pursuant to 415 ILCS 5/39.2 and the DAA and LRS are unable to resolve the DAA's concerns, then the DAA shall have the right to exercise any rights available to it under the federal and Illinois law. In the event the DAA exercises any rights it may have, LRS shall not be relieved of its obligations to comply with any provision of this Agreement.

8. The DAA is not currently aware of any violations of or contradictions with the guidance set forth in FAA Advisory Circular 15/5200-33C and FAA Advisory Circular 150/5300-13A by the proposed construction and operation of the Transfer Facility.

9. This Agreement terminates if LRS, for any reason, does not receive final non-appealable siting approval and an IEPA development permit for the Transfer Facility, or upon closure of the Transfer Facility.

10. This Agreement shall be binding upon and inure to the benefit of any successor in interest to LRS or subsequent owner of the facility. LRS cannot transfer control of this facility, in any manner, without the transferee agreeing, in writing, to assume the obligations of LRS under this Agreement.

Approved this 19th day of January, 2022

DuPage Airport Authority by:

_____
Executive Director

Lakeshore Recycling Systems, LLC by:

_____

Oscar (IL) LLC by:

_____
Sam Rubenstein, VP

EXHIBIT A

NEW AVIGATION EASEMENT

Electronic Filing: Received, Clerk's Office 04/19/2023

PLAT OF SURVEY
VARIOUS PLANE AVIGATION EASEMENT

AVIGATION EASEMENT LEGAL DESCRIPTIONS PARCELS 34 : 1, 40 : 1 AND 50:1

THAT PART OF THE PROPERTY DESCRIBED IN DEED DOCUMENT R2018-116700 RECORDED DECEMBER 20TH, 2018, IN THE NORTH HALF OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, BEING THE PARENT PARCEL OF THE AVIGATION EASEMENT DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS, ON PAGE 81, IN THE RECORDER'S OFFICE OF DUPAGE COUNTY, ILLINOIS; THENCE SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST 81.96 FEET ALONG THE SOUTH LINE OF SAID LAND CONVEYED TO THE DEFENSE PLANT CORPORATION, TO THE NORTHEAST CORNER OF LAND CONVEYED TO DUPAGE COUNTY BY DEED DOCUMENT R2003-146376 RECORDED APRIL 17, 2003, AND THE POINT OF BEGINNING OF THE AVIGATION EASEMENT ABOVE THE FOLLOWING DESCRIBED INCLINE PLANE, WITH A SLOPE OF 34 FEET TO 1 FOOT WITH AN ELEVATION OF 776.29; THENCE CONTINUING SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST, 458.00 FEET ALONG SAID SOUTH LINE, TO A CHANGE IN THE SLOPE OF THE INCLINE PLANE FROM 34 FEET TO 1 FOOT TO 40 FEET TO 1 FOOT, AT AN ELEVATION OF 789.70; THENCE SOUTH 05 DEGREES 57 MINUTES 51 SECONDS WEST, 687.47 FEET ALONG SAID CHANGE IN SLOPE LINE HAVING AN ELEVATION OF 789.70, SAID LINE BEING PERPENDICULAR TO DUPAGE AIRPORT EXISTING RUNWAY 28 EXTENDED EASTERLY, TO THE SOUTH LINE OF SAID PARENT PARCEL ALSO BEING A CHANGE IN THE SLOPE OF THE INCLINE PLANE FROM 34 FEET TO 1 FOOT TO 40 FEET TO 1 FOOT AND AN ELEVATION OF 789.70; THENCE NORTH 89 DEGREES 29 MINUTES 55 SECONDS WEST, 372.51 FEET ALONG THE SOUTH LINE OF SAID PARENT PARCEL, BEING A LINE PARALLEL WITH SAID SOUTH LINE OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION, TO THE SOUTHWEST CORNER OF SAID PARENT PARCEL WITH AN ELEVATION OF 778.83, ALSO BEING THE SOUTHEAST CORNER OF SAID LAND CONVEYED TO DUPAGE COUNTY; THENCE NORTHEAST 149.66 FEET ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 739.00 FEET, WITH A CHORD BEARING OF NORTH 06 DEGREES 08 MINUTES 12 SECONDS EAST, 149.40 FEET TO A POINT WITH AN ELEVATION OF 778.35; THENCE NORTH 01 DEGREES 32 MINUTES 32 SECONDS WEST, 535.29 FEET TO THE POINT OF BEGINNING, ALL AVIGATION EASEMENT ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 DATUM (NAVD 88) IN DUPAGE COUNTY, ILLINOIS.

ALSO:

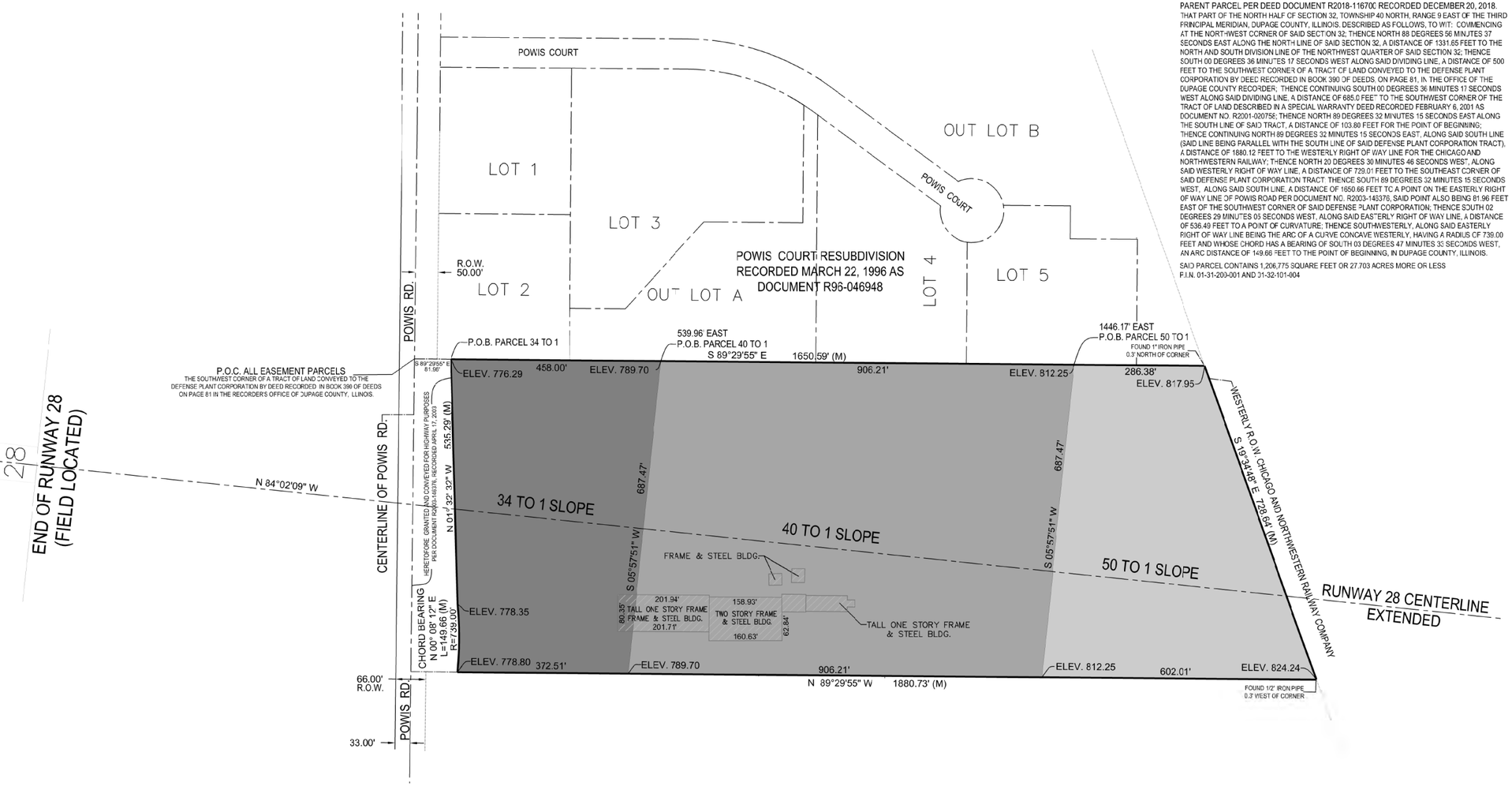
THAT PART OF THE PROPERTY DESCRIBED IN DEED DOCUMENT R2018-116700 RECORDED DECEMBER 20TH, 2018, IN THE NORTH HALF OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, BEING THE PARENT PARCEL OF THE AVIGATION EASEMENT DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81, IN THE RECORDER'S OFFICE OF DUPAGE COUNTY, ILLINOIS; THENCE SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST, 539.96 FEET ALONG THE SOUTH LINE OF SAID LAND CONVEYED TO THE DEFENSE PLANT CORPORATION TO THE POINT OF BEGINNING OF THE AVIGATION EASEMENT ABOVE THE FOLLOWING DESCRIBED INCLINE PLANE, SAID POINT BEING A CHANGE IN SLOPE OF THE INCLINE PLANE FROM 34 FEET TO 1 FOOT TO 40 FEET TO 1 FOOT, AT AN ELEVATION OF 789.70; THENCE CONTINUING SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST 906.21 FEET ALONG SAID SOUTH LINE, TO A CHANGE IN SLOPE OF THE INCLINE PLANE FROM 40 FEET TO 1 FOOT TO 50 FEET TO 1 FOOT, AT AN ELEVATION OF 812.25; THENCE SOUTH 05 DEGREES 57 MINUTES 51 SECONDS WEST, 687.47 FEET ALONG SAID CHANGE IN SLOPE LINE HAVING AN ELEVATION OF 812.25, SAID LINE BEING PERPENDICULAR TO DUPAGE AIRPORT EXISTING RUNWAY 28 EXTENDED EASTERLY, TO THE SOUTH LINE OF SAID PARENT PARCEL ALSO BEING A CHANGE IN THE SLOPE OF THE INCLINE PLANE FROM 40 FEET TO 1 FOOT TO 50 FEET TO 1 FOOT AT AN ELEVATION OF 812.25; THENCE NORTH 89 DEGREES 29 MINUTES 55 SECONDS WEST, 906.21 FEET ALONG A LINE PARALLEL WITH SAID SOUTH LINE OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION, SAID POINT BEING A CHANGE IN SLOPE OF THE INCLINE PLANE FROM 34 FEET TO 1 FOOT TO 40 FEET TO 1 FOOT, AT AN ELEVATION OF 789.70; THENCE NORTH 05 DEGREES 57 MINUTES 51 SECONDS EAST, 687.47 FEET ALONG SAID CHANGE IN SLOPE LINE HAVING AN ELEVATION OF 789.70, SAID LINE BEING PERPENDICULAR TO DUPAGE AIRPORT EXISTING RUNWAY 28 EXTENDED EASTERLY, TO THE POINT OF BEGINNING, ALL AVIGATION EASEMENT ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 DATUM (NAVD 88) IN DUPAGE COUNTY, ILLINOIS.

ALSO:

THAT PART OF THE PROPERTY DESCRIBED IN DEED DOCUMENT R2018-116700 RECORDED DECEMBER 20TH, 2018, IN THE NORTH HALF OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, BEING THE PARENT PARCEL OF THE AVIGATION EASEMENT DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81, IN THE RECORDER'S OFFICE OF DUPAGE COUNTY, ILLINOIS; THENCE SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST, 1446.17 FEET ALONG THE SOUTH LINE OF SAID LAND CONVEYED TO THE DEFENSE PLANT CORPORATION TO THE POINT OF BEGINNING OF THE AVIGATION EASEMENT ABOVE THE FOLLOWING DESCRIBED INCLINE PLANE, SAID POINT BEING A CHANGE IN SLOPE OF THE INCLINE PLANE FROM 40 FEET TO 1 FOOT TO 50 FEET TO 1 FOOT, AT AN ELEVATION OF 812.25; THENCE CONTINUING SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST, 286.38 FEET ALONG SAID SOUTH LINE, TO THE WESTERLY LINE OF THE CHICAGO AND NORTHWESTERN RAILWAY COMPANY SAID POINT HAVING AN ELEVATION OF 817.95; THENCE SOUTH 19 DEGREES 34 MINUTES 48 SECONDS EAST, 728.64 FEET ALONG SAID WESTERLY LINE TO THE SOUTHEAST PARENT PARCEL CORNER HAVING AN ELEVATION OF 824.24; THENCE NORTH 89 DEGREES 29 MINUTES 55 SECONDS WEST, 632.01 FEET ALONG A LINE PARALLEL WITH SAID SOUTH LINE OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION, SAID POINT BEING A CHANGE IN SLOPE OF THE INCLINE PLANE FROM 40 FEET TO 1 FOOT TO 50 FEET TO 1 FOOT, AT AN ELEVATION OF 812.25; THENCE NORTH 05 DEGREES 57 MINUTES 51 SECONDS EAST, 687.47 FEET ALONG SAID CHANGE IS SLOPE LINE HAVING AN ELEVATION OF 812.25, SAID LINE BEING PERPENDICULAR TO DUPAGE AIRPORT EXISTING RUNWAY 28 EXTENDED EASTERLY, TO THE POINT OF BEGINNING, ALL AVIGATION EASEMENT ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 DATUM (NAVD 88) IN DUPAGE COUNTY, ILLINOIS.

AVIGATION EASEMENT AREAS:

34:1 = 282,830 SQUARE FEET OR 6.488 ACRES MORE OR LESS
40:1 = 620,164 SQUARE FEET OR 14.237 ACRES MORE OR LESS
50:1 = 303,361 SQUARE FEET OR 6.976 ACRES MORE OR LESS
TOTAL = 1,206,775 SQUARE FEET OR 27.703 ACRES MORE OR LESS
PART OF P.I.N. 01-31-200-031 AND 01-31-200-004



SCALE 1" = 120'
0 60' 120' 180' 240'

LEGAL DESCRIPTION:

PARENT PARCEL PER DEED DOCUMENT R2018-116700 RECORDED DECEMBER 20, 2018.
THAT PART OF THE NORTH HALF OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, ILLINOIS. DESCRIBED AS FOLLOWS, TO WIT: COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 32; THENCE NORTH 88 DEGREES 56 MINUTES 37 SECONDS EAST ALONG THE NORTH LINE OF SAID SECTION 32, A DISTANCE OF 1331.85 FEET TO THE NORTH AND SOUTH DIVISION LINE OF THE NORTHWEST QUARTER OF SAID SECTION 32; THENCE SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 500 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS, ON PAGE 81, IN THE OFFICE OF THE DUPAGE COUNTY RECORDER; THENCE CONTINUING SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 685.0 FEET TO THE SOUTHWEST CORNER OF THE TRACT OF LAND DESCRIBED IN A SPECIAL WARRANTY DEED RECORDED FEBRUARY 6, 2001 AS DOCUMENT NO. R2001-020756; THENCE NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST ALONG THE SOUTH LINE OF SAID TRACT, A DISTANCE OF 103.80 FEET FOR THE POINT OF BEGINNING; THENCE CONTINUING NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST, ALONG SAID SOUTH LINE (SAID LINE BEING PARALLEL WITH THE SOUTH LINE OF SAID DEFENSE PLANT CORPORATION TRACT), A DISTANCE OF 1880.12 FEET TO THE WESTERLY RIGHT OF WAY LINE FOR THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 20 DEGREES 30 MINUTES 46 SECONDS WEST, ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 729.01 FEET TO THE SOUTHEAST CORNER OF SAID DEFENSE PLANT CORPORATION TRACT; THENCE SOUTH 89 DEGREES 32 MINUTES 15 SECONDS WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 1650.66 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF POWIS ROAD PER DOCUMENT NO. R2003-145375, SAID POINT ALSO BEING 81.96 FEET EAST OF THE SOUTHWEST CORNER OF SAID DEFENSE PLANT CORPORATION; THENCE SOUTH 02 DEGREES 29 MINUTES 05 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 536.49 FEET TO A POINT OF CURVATURE; THENCE SOUTHWESTERLY, ALONG SAID EASTERLY RIGHT OF WAY LINE BEING THE ARC OF A CURVE CONCAVE WESTERLY, HAVING A RADIUS OF 739.00 FEET AND WHOSE CHORD HAS A BEARING OF SOUTH 03 DEGREES 47 MINUTES 33 SECONDS WEST, AN ARC DISTANCE OF 149.66 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

SAID PARCEL CONTAINS 1,206,775 SQUARE FEET OR 27.703 ACRES MORE OR LESS
P.I.N. 01-31-200-001 AND 31-32-101-004

SURVEYORS NOTES:

BUILDINGS SHOWN FOR REFERENCE ONLY; ACTUAL DIMENSIONS MAY BE DIFFERENT.
NO OTHER EASEMENTS ARE DEPICTED ON THIS PLAT.
NOT ALL SITE IMPROVEMENTS ARE SHOWN.
BEARING ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83.

STATE OF ILLINOIS)
) S.S.
COUNTY OF COOK)

I, GERARDO P. SANCHEZ, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-3486, DO HEREBY CERTIFY THAT THE HEREON DESCRIBED PROPERTY WAS SURVEYED UNDER MY DIRECT SUPERVISION AND THIS DRAWING IS A CORRECT REPRESENTATION OF SAID SURVEY; THAT ALL MEASUREMENTS SHOWN HEREON ARE IN FEET AND DECIMAL PARTS THEREOF.

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

FIELDWORK COMPLETED ON 05/07/2020

DATED THIS 11TH DAY OF MAY, 2020 AT CHICAGO, ILLINOIS.

Gerardo P. Sánchez

GERARDO SANCHEZ - ILLINOIS PROFESSIONAL LAND SURVEYOR NUMBER 35-3486
LICENSE EXPIRATION DATE 11/30/2020
DESIGN FIRM NUMBER: 184-004601

STATE OF ILLINOIS · GERARDO P. SANCHEZ · 35-3486 · CHICAGO, IL · PROFESSIONAL LAND SURVEYOR

CLIENT: JACOBS
JOB No. 201938
DRAWING: 201938 DuPage Airport New Easement Parcels 05112020 update .dwg

SANCHEZ
8604 W. CATALPA AVE STE 812
CHICAGO, IL 60656
PHONE 773 444 0144
FAX 847 232 3104

REVISIONS

DATE	COMMENTS

EXHIBIT B

SUBMITTAL TO DAA, DATED SEPTEMBER 8, 2021

Civil & Environmental Consultants, Inc.

September 8, 2021

Mr. Phillip A. Luetkehans
Schirott, Luetkehans & Garner, LLC
105 East Irving Park Road
Itasca, Illinois 60143

RE: Request to DuPage Airport Authority
Lakeshore Recycling Systems, LLC
West DuPage Recycling and Transfer Station
CEC Project 163-899

Dear Mr. Luetkehans:

Per our recent discussions, this letter and attachments are submitted on behalf of Lakeshore Recycling Systems, LLC (LRS) and OSCAR (IL) LLC (OSCAR) for consideration by the Board of Commissioners for the DuPage Airport Authority (Authority) regarding the West DuPage Recycling & Transfer Station located at 1655 Powis Road in West Chicago, DuPage County, Illinois (Site). LRS proposes to perform improvements and begin accepting municipal solid waste (MSW) at the Site through a local siting and Illinois Environmental Protection Agency (IEPA) permitting process.

An agreement was established between the Authority, OSCAR, and LRS, dated March 18, 2020 (Agreement). The Agreement referenced information provided to the Authority by LRS on February 20, 2020, and included certain conditions that LRS and OSCAR would implement upon permitting approval so the Site would be consistent with the guidance in Federal Aviation Administration (FAA) Advisory Circular 15/5200-33B (Advisory Circular). Per your email, dated August 5, 2021, we understand that the Authority desires to investigate further the issues surrounding compliance with the Advisory Circular and bring it to the Board for future discussion.

LRS and OSCAR are committed to working with the Authority to address any concerns the Authority may have regarding the existing facility or the proposed site improvements. Since the information was provided to the Authority in February 2020, clarifications have been made to the facility design and operations to further ensure consistency with the Advisory Circular. To facilitate the Authority's discussions, we are providing information regarding the following:

- Height of existing and proposed buildings;
- Design features and operational procedures, including wildlife hazard mitigation measures; and
- Site activities within runway protection zones.

Each is discussed separately below.

1.0 HEIGHT OF EXISTING AND PROPOSED BUILDINGS

The height of all buildings and structures at the West DuPage Recycling & Transfer Station are subject to a clear zone avigation easement (Avigation Easement). The Avigation Easement is provided in Attachment 1 and indicates that a specified clear zone area be, and remain free and clear of any structure, tree or other object which is or would constitute an obstruction or hazard to the flight of aircraft landing or taking off from the DuPage Airport. The clear zone area varies in elevation across the Site, ranging from approximately elevation 785 feet mean sea level at the western property limit (closest to the DuPage Airport), to approximately elevation 825 feet mean sea level at the eastern property limit (farthest from the DuPage Airport).

We understand that lower critical elevations must be met to allow instrument flight rule certification for the DuPage Airport, and that a portion of an existing building at the Site and other objects (e.g., light poles) exceed these updated critical elevations. The Agreement indicates that, upon receiving final, non-appealable siting approval pursuant to 415 ILCS 5/39.2 to construct and operate the West DuPage Recycling & Transfer Station, and upon receiving an IEPA development permit, LRS shall:

- Execute and grant to DuPage Airport Authority a new avigation easement;
- Reduce the roof height of its existing transfer building so as to stay below all critical elevations in the new avigation easement; and
- Not allow any penetrations whatsoever to the new avigation easement.

The updated plat of survey agreed to be incorporated into the Agreement is provided in Attachment 2. Subsequent to the establishment of the Agreement, the Authority's engineers determined that other objects at the Site (e.g., light poles) appear to be above the updated critical elevations. LRS and OSCAR have committed to lowering the existing building and other identified obstructions to below the updated critical elevations upon receiving permitting approval. At the request of the Authority, LRS has subsequently agreed to clarify the Agreement to state that "LRS shall remove any other penetrations to the New Avigation Easement and will not allow any future penetrations whatsoever to the New Avigation Easement".

The height of the proposed buildings for the West DuPage Recycling & Transfer Station will be below the updated critical elevations. Prior to development, the new building information, including elevations, will be submitted to and approved by the FAA Division of Aeronautics through the notice of proposed construction or alteration (Form FAA 7460-1) either electronically via website or manually with the FAA.

2.0 DESIGN FEATURES AND OPERATIONAL PROCEDURES

The Advisory Circular was updated on February 21, 2020 to FAA Advisory Circular 15/5200-33C - Hazardous Wildlife Attractants On or Near Airports (Revised Advisory Circular). Both the Advisory Circular and Revised Advisory Circular provide guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports, and indicate the following regarding MSW transfer stations:

- Enclosed waste-handling facilities that receive MSW behind closed doors process it via compaction, incineration, or similar manner, and remove all residue by enclosed vehicles, generally are compatible with safe airport operations, provided they are not located on airport property or within the runway protection zone (RPZ).
- These facilities should not handle or store putrescible waste outside, or in, a partially enclosed structure accessible to hazardous wildlife.
- MSW transfer facilities that are open on one or more sides, that store uncovered quantities of municipal solid waste outside (even if only for a short time), that use semi-trailers that leak or have trash clinging to the outside, or that do not control odors by ventilation and filtration systems (odor masking is not acceptable) do not meet the FAA's definition of fully-enclosed trash transfer stations.

The proposed West DuPage Recycling & Transfer Station will include a building for the acceptance and transfer of MSW and single-stream recyclables (SSR). The MSW and SSR transfer building will:

- Not have any open sides;
- Be equipped with fast opening/closing doors at all waste vehicle ingress/egress locations, which will open and close as vehicles enter and exit the MSW and SSR transfer building;
- Include a building extension at the loading ramp exit to allow autotarping and removal of any waste clinging to the outside of the transfer trailer prior to exiting the building; and
- Be equipped with a ventilation and filtration system designed to provide a negative air pressure condition and effectively eliminate any odors from the exhaust.

Attachment 3 contains the current design drawings for the MSW and SSR transfer building. Attachment 4 contains the proposed operating plan for the Site. The operating plan includes the following to mitigate potential wildlife hazards:

- Train Staff: The Site will create their own wildlife hazard management plan, which will state how trained staff will monitor and deter certain wildlife species. The wildlife hazard management plan will assign titles and responsibilities to individuals whom will be responsible for wildlife control activities. Management will train assigned facility employees on the role they will play to reduce wildlife hazards (e.g. use of pyrotechnic harassments). If any questions about the formation, implementation, or general questions about the contents of the management plan ever occur, a qualified airport wildlife biologist will be consulted.
- Install Anti-Perching Devices: Anti-perching devices will be installed on building edges of the MSW and SSR transfer building.
- Perform Routine Wildlife Surveys: The Site will perform quarterly wildlife surveys to ensure that the wildlife mitigation techniques are working as intended. The inspections will include the MSW and SSR transfer building, and any observed small gaps that may allow birds to enter the building will be sealed.

- Use of Deterrents in Misters: Misters will be installed in the MSW and SSR transfer building. A deterrent (e.g., methyl anthranilate, which is a grape-flavored food grade additive that acts as an irritant to birds when applied to the air) can be used in the misters, as needed, to prevent birds from nesting and/or entering the building.
- Install Netting Along Roof Structures: Netting will be installed along the bottom of roof structures, as needed, to prevent birds from accessing flat areas (where birds like to roost and nest).
- Focus Ventilation: Ductwork will be installed, as needed, to provide focused ventilation where odors are anticipated be more prevalent (e.g., MSW staging and handling areas).
- Extend Riprap Around West Pond: The riprap that is currently surrounding the west pond is preventing birds, such as waterfowl, from walking into or out of the pond. This feature will be extended further into the grass, widening the buffer between the water and grass.
- Monitor Wildlife with Game Cameras: Wildlife at the ponds will be monitored with game cameras, which will capture wildlife utilizing the ponds when employees are not present. Checking the cameras periodically will periodically viewed to provide information regarding the time and type of wildlife using the ponds. Trained staff can then mitigate the hazards as needed.
- Vary Harassment: To keep the birds from becoming accustomed to harassment tactics, the Site will designate an employee or employees to periodically patrol the west and east ponds and harass any birds observed.
- Maintain Grass Height: The grass around the east pond will be maintained at a height (approximately 12 inches) that allows easy inspection of the pond so that any wildlife may be harassed to leave the area. The shortened grass height will also deter many species from utilizing it, such as Canada geese.
- Install Grid-Wire System: A grid-wire system will be installed on the east and west ponds to keep most waterfowl and wading birds from utilizing the ponds. To keep larger birds from using the water, a checkerboard pattern is planned. The grid-wire system involves running cables from one side to another in one direction (north to south) and then running a second set of wires perpendicular.

The design drawings and operating plan demonstrate that the MSW transfer station meets all of the criteria in the Revised Advisory Circular so that it will be compatible with safe airport operations.

3.0 SITE ACTIVITIES WITHIN RUNWAY PROTECTION ZONES

As noted above, the Updated Advisory Circular indicates that waste handling facilities should not be located within an RPZ. FAA Advisory Circular 150/5300-13A - Airport Design, Section 310, indicates the following regarding the RPZ:

- The RPZ's function is to enhance the protection of people and property on the ground through the airport ownership over RPZs;
- The RPZ is trapezoidal in shape and is centered about the extended runway centerline;

- The RPZ has two components with varying widths (central portion and controlled activity) and the approach RPZ may be different from the departure RPZ; and
- The RPZ generally extends 1,000 feet from the end of the runway.

The RPZ for the DuPage Airport in the area of the Site (as provided by the Authority engineers) is shown in Attachment 5. As shown, the western portion of the Site is located within the RPZ. This portion of the facility is only used for ingress/egress, landscaping, vehicle parking, and stormwater controls. All waste handling and management facilities, occupied structures, and storage of recyclable materials are located farther to the east and outside the RPZ.

4.0 CLOSING

We trust that the attached information addresses any concerns the Authority may have regarding the proposed site improvements. Please let us know of any questions you may have or additional information you may need.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Kenneth R. Kruszynski, P. E.
Principal

John E. Hock, P.E.
Vice President

Enclosures: Attachment 1 - Current Avigation Easement
Attachment 2 - Updated Plat of Survey for Avigation Easement
Attachment 3 - Design Drawings
Attachment 4 - Operating Plan
Attachment 5 - Runway Protection Zone Information

ATTACHMENT 1

CURRENT AVIGATION EASEMENT

Electronic Filing: Received, Clerk's Office 04/19/2023 C000926

91660

BOOK 134 PAGE 248

MAR 24 1959 -3 50 PM

RECORDER

CLEAR ZONE AVIGATION EASEMENT

WHEREAS, KAWNEER COMPANY, a corporation of Delaware (hereinafter called the Grantor) is the owner in fee of that certain tract of land situated in the County of Du Page, State of Illinois, more particularly described as follows:

That part of the North half of Section Thirty-two (32) Township Forty (40) North, Range Nine (9) East of the Third Principal Meridian, commencing at the Northwest corner of Section Thirty-two (32); thence North 88 degrees 25 minutes East along the northerly line of the Northwest quarter (NW¼) of said Section; 1331.65 feet to the North and South Division line of the Northwest quarter (NW¼) of said Section; thence South no degrees 05 minutes West along said Division line (being the West line of the East half (E ½) of said Northwest quarter) 500 feet to the Southwest corner of the tract of land conveyed to the Defense Plant Corporation (Book 390 Page 81) for a place of beginning; thence continuing South no degrees 05 minutes West along said Division line 685 feet; thence North 89 degrees 57 minutes East on a line parallel with the South line of said Defense Plant Corporation tract, 1984.37 feet to the Westerly line of the right of way of Chicago Northwestern Railway; thence North 20 degrees 08 minutes West along said Westerly right of way line 729.35 feet to the Southeast corner of Defense Plant Corporation tract; thence South 89 degrees 57 minutes West along said South line of Defense Plant Corporation tract 1732.32 feet to the place of beginning, containing 29.2234 acres more or less, in Du Page County, Illinois

which tract of land is identified as clear zone area, Tract C on Plat dated February 2, 1959 attached hereto and made a part hereof; and

WHEREAS, the COUNTY OF DU PAGE (hereinafter called the Grantee), is the owner and operator of the DuPage County Airport, situate in the County of Du Page and State of Illinois, in close proximity to the above described premises; and

WHEREAS, it is deemed necessary that said above described premises, identified as Clear Zone Area, Tract C, be and remain free and clear of any structure, tree, or other object which is or would constitute an obstruction or hazard to the flight of aircraft in the landing and taking off at DuPage County Airport, which said Clear Zone approach area is as above described;

NOW THEREFORE,

In consideration of the sum of One Thousand and no/100 ($1000.00) Dollars, paid by the Grantee to the Grantor, and of other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Grantor for itself, its successors and assigns, does hereby covenant and agree with the Grantee, that, for the benefit of the public in its use of the Airport, it will not hereafter erect or permit the erection or growth of any structure, tree or other object within said Clear Zone approach area, (Tract G) above described which is solely a Clear Zone area of the east and west runway (which area is identified on the said Plat attached hereto) to a height above the Clear Zone approach surface for that approach area (as also identified on said plat), said Clear Zone approach surface being an inclined plane with a slope of 50:1 (one foot of elevation for each fifty (50) feet of horizontal distance) located directly above the Clear Zone approach area, (Tract G), which inclined plane has an elevation of 756.5 feet (mean sea level) at its inner and lower edge along line A B as shown on the plat attached hereto, and an elevation of 820 feet (mean sea level) at its outer and upper edge along line C D as shown on said plat: and

The Grantor, for itself, its successor and assigns, for the said consideration, does hereby grant and convey to the Grantee, its agents, servants and employees, a continuing right and easement, at Grantee's sole expense, to take any action necessary to prevent the erection or growth of any structure, tree, or other object into the air space above that part of said approach surface which is directly over said approach area, Tract G, excepting the presently existing structures as shown on the plat attached hereto, and, at Grantee's sole expense, to remove from such air space, or mark and light as obstructions to air navigation, any and all structures, trees and other objects that may at any time project or extend above said approach surface; and, if at any future time or times, additional avigation aid lights, markers or other devices become necessary, same shall be installed and maintained at Grantee's sole expense, and also, if at any future time or times, it becomes necessary to alter any portion of the presently existing structures, the same shall be done to meet the specifications and requirements of the Grantor, the entire expense thereof to be borne by the Grantee herein, together with the right of ingress to, egress from and passage over the land of the Grantors within the said Clear Zone approach area for all of the above described purposes;

The Grantee further covenants and agrees with the Grantor that the Clear Zone area, Tract G, on the plat dated February 2, 1959 attached hereto will be included and covered by the same comprehensive insurance as is carried and kept in force on the basic airport field lying West of and adjoining the aforesaid Clear Zone area.

TO HAVE AND TO HOLD said easement and all rights appertaining thereto unto the Grantee its successors and assigns, until said Du Page County Airport shall be abandoned and shall cease to be used for public airport purposes.

It is understood and agreed that these covenants and agreements shall be binding upon the successors and assigns of the Grantor, that these covenants shall run with the land, and that, for the purposes of this instrument, that the above noted Clear Zone area, Tract G, on the Plat dated February 2, 1959 attached hereto, shall be the servient tenement and the said DuPage County Airport shall be the dominant tenement.

IN WITNESS WHEREOF, KAWNEER COMPANY, a corporation of Delaware has caused these presents to be signed by its President and attested by its Secretary and its corporate seal to be affixed hereto this 18th day of February 1959.

KAWNEER COMPANY

By _____
President

ATTEST

_____
SECRETARY

STATE OF ILLINOIS)
) SS
COUNTY OF DU PAGE)

I, Rosemary Donnelly, a Notary Public, do hereby certify that on the 18th day of February, 1959, Lawrence J Flynn President, and E. C. Witter Secretary, respectively of Kawneer Company, a Corporation of Delaware, personally appeared before me and being first duly sworn by me severally acknowledged that they signed the foregoing document in the respective capacities therein set forth and declared that the statements therein contained are true.

In witness whereof, I have herewith set my hand and seal the day and year before written.

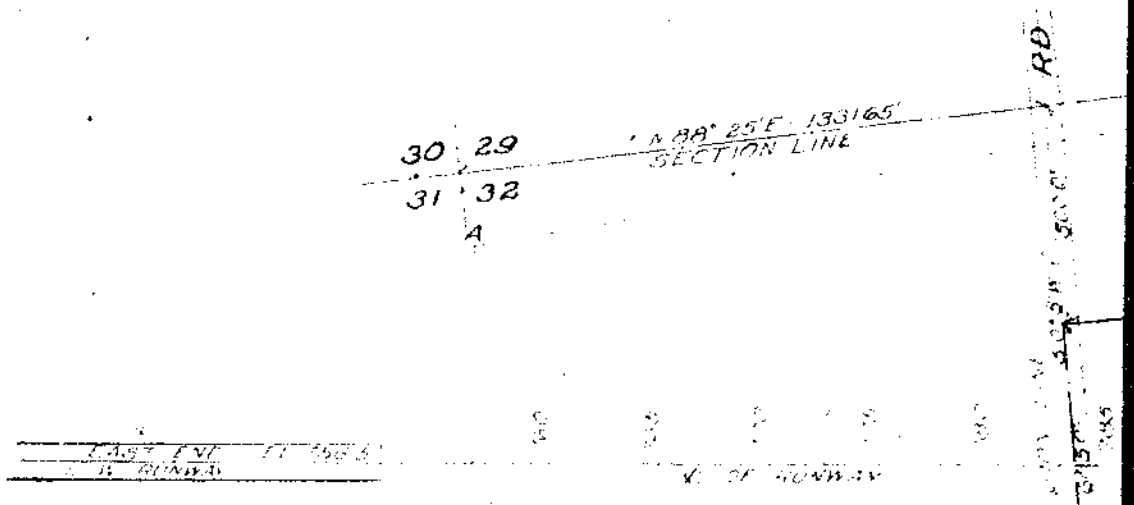
_____
Notary Public

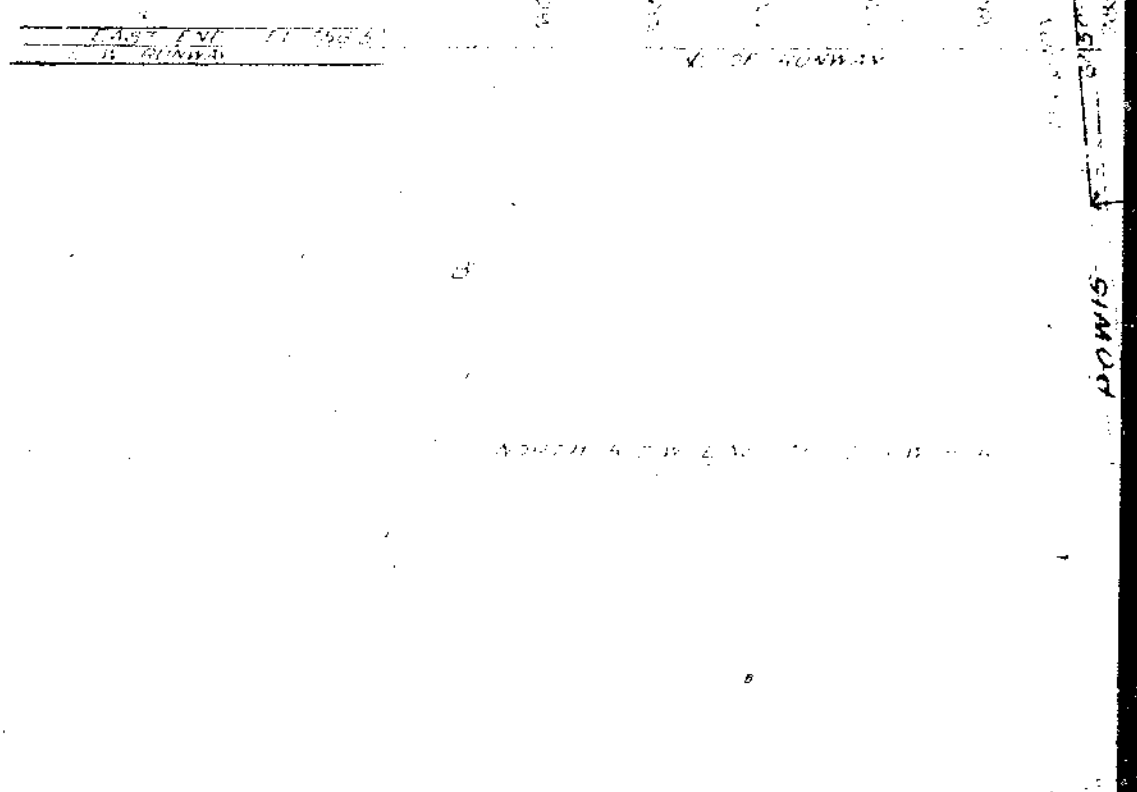
ROSEMARY DONNELLY
Notary Public, Cass County, Michigan
Acting in Berrien County, Michigan
My Commission Expires Feb. 2, 1960

Electronic Filing: Received, Clerk's Office 04/19/2023 C000929

916606

CLEAR ZONE A
EAST END OF EAST-W
DUPAGE COUNTY



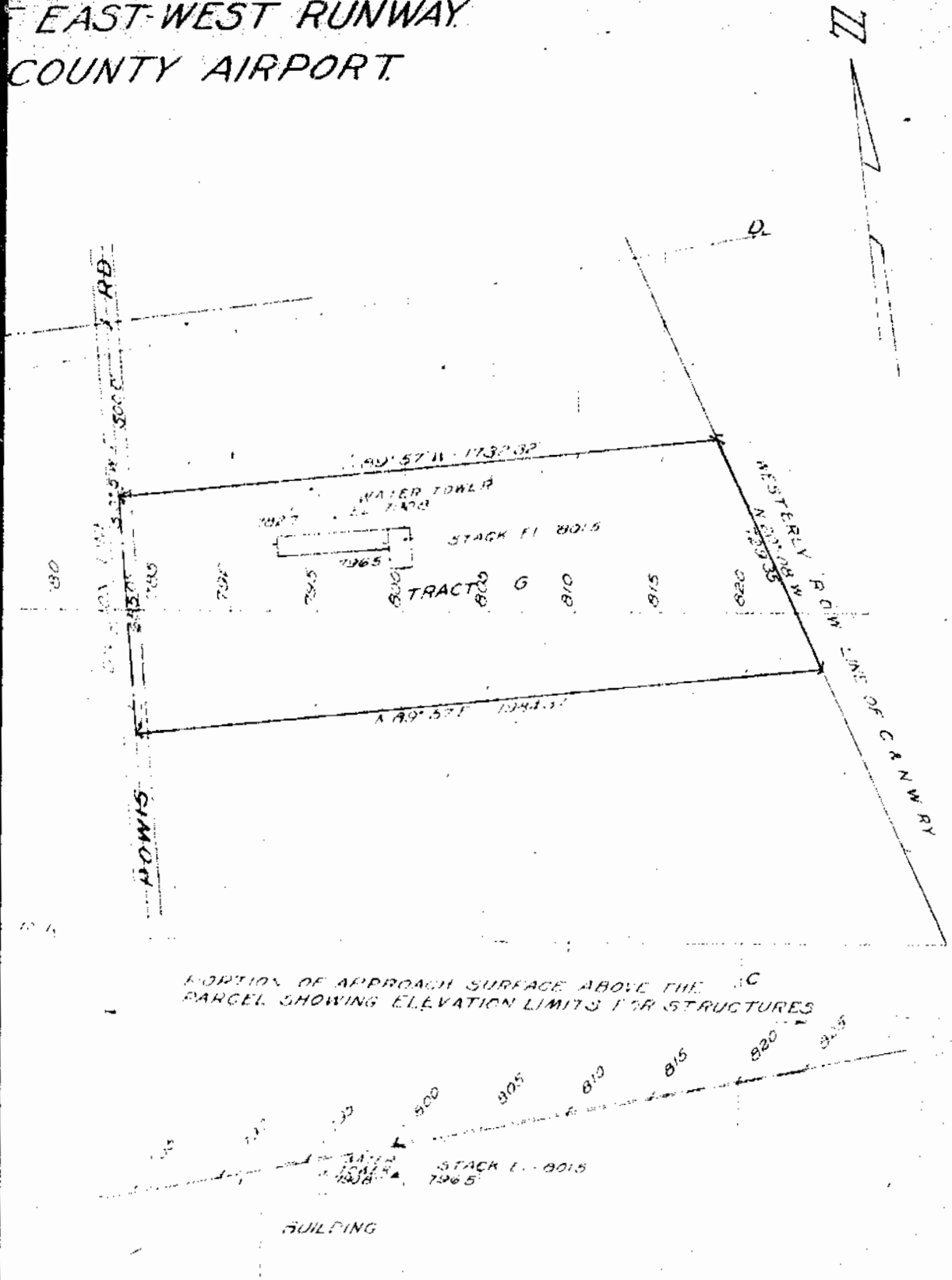


NOTES
SCALE HORIZONTAL 1"=300' VERTICAL = 1"=30'
PARCEL WITHIN APPROACH AREA AFFECTED BY EASEMENT

HAWNEER COMPANY, OWNER TRACT G DATE FEBRUARY 2 19

Electronic Filing: Received, Clerk's Office 04/19/2023

ZONE AREA AT
EAST-WEST RUNWAY
COUNTY AIRPORT



ALONG CENTER LINE.

EASEMENT

RUARY 2 1959

ATTACHMENT 2

UPDATED PLAT OF SURVEY FOR AVIGATION EASEMENT

Electronic Filing: Received, Clerk's Office 04/19/2023

PLAT OF SURVEY
VARIOUS PLANE AVIGATION EASEMENT

AVIGATION EASEMENT LEGAL DESCRIPTIONS PARCELS 34 : 1, 40 : 1 AND 50:1

THAT PART OF THE PROPERTY DESCRIBED IN DEED DOCUMENT R2018-116700 RECORDED DECEMBER 20TH, 2018, IN THE NORTH HALF OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, BEING THE PARENT PARCEL OF THE AVIGATION EASEMENT DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS, ON PAGE 81, IN THE RECORDER'S OFFICE OF DUPAGE COUNTY, ILLINOIS; THENCE SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST 81.96 FEET ALONG THE SOUTH LINE OF SAID LAND CONVEYED TO THE DEFENSE PLANT CORPORATION, TO THE NORTHEAST CORNER OF LAND CONVEYED TO DUPAGE COUNTY BY DEED DOCUMENT R2003-146376 RECORDED APRIL 17, 2003, AND THE POINT OF BEGINNING OF THE AVIGATION EASEMENT ABOVE THE FOLLOWING DESCRIBED INCLINE PLANE, WITH A SLOPE OF 34 FEET TO 1 FOOT WITH AN ELEVATION OF 776.29; THENCE CONTINUING SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST, 458.00 FEET ALONG SAID SOUTH LINE, TO A CHANGE IN THE SLOPE OF THE INCLINE PLANE FROM 34 FEET TO 1 FOOT TO 40 FEET TO 1 FOOT, AT AN ELEVATION OF 789.70; THENCE SOUTH 05 DEGREES 57 MINUTES 51 SECONDS WEST, 687.47 FEET ALONG SAID CHANGE IN SLOPE LINE HAVING AN ELEVATION OF 789.70, SAID LINE BEING PERPENDICULAR TO DUPAGE AIRPORT EXISTING RUNWAY 28 EXTENDED EASTERLY, TO THE SOUTH LINE OF SAID PARENT PARCEL ALSO BEING A CHANGE IN THE SLOPE OF THE INCLINE PLANE FROM 34 FEET TO 1 FOOT TO 40 FEET TO 1 FOOT AND AN ELEVATION OF 789.70; THENCE NORTH 89 DEGREES 29 MINUTES 55 SECONDS WEST, 372.51 FEET ALONG THE SOUTH LINE OF SAID PARENT PARCEL, BEING A LINE PARALLEL WITH SAID SOUTH LINE OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION, TO THE SOUTHWEST CORNER OF SAID PARENT PARCEL WITH AN ELEVATION OF 778.83, ALSO BEING THE SOUTHEAST CORNER OF SAID LAND CONVEYED TO DUPAGE COUNTY; THENCE NORTHEAST 149.66 FEET ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 739.00 FEET, WITH A CHORD BEARING OF NORTH 06 DEGREES 08 MINUTES 12 SECONDS EAST, 149.40 FEET TO A POINT WITH AN ELEVATION OF 778.35; THENCE NORTH 01 DEGREES 32 MINUTES 32 SECONDS WEST, 535.29 FEET TO THE POINT OF BEGINNING, ALL AVIGATION EASEMENT ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 DATUM (NAVD 88) IN DUPAGE COUNTY, ILLINOIS.

ALSO:

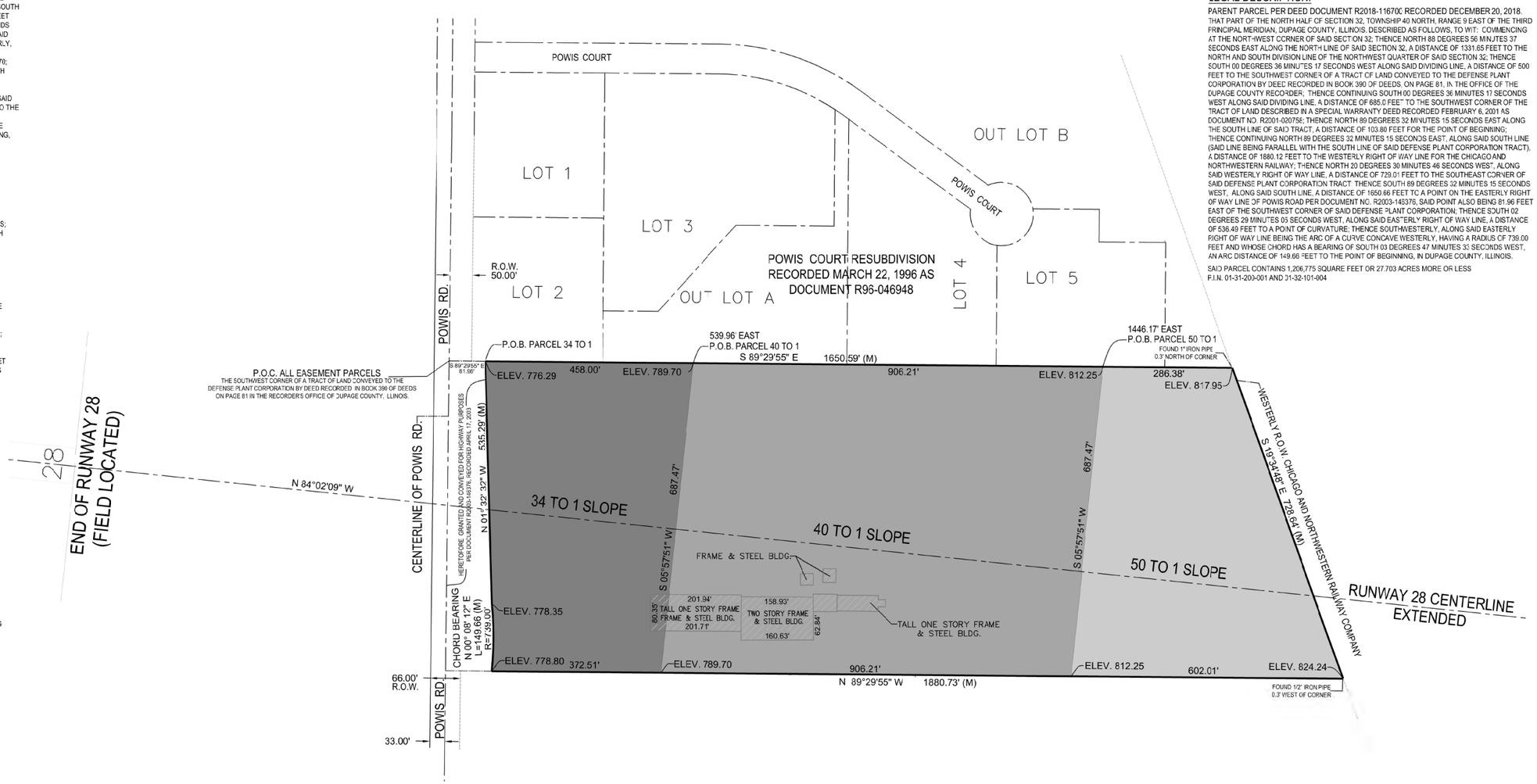
THAT PART OF THE PROPERTY DESCRIBED IN DEED DOCUMENT R2018-116700 RECORDED DECEMBER 20TH, 2018, IN THE NORTH HALF OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, BEING THE PARENT PARCEL OF THE AVIGATION EASEMENT DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81, IN THE RECORDER'S OFFICE OF DUPAGE COUNTY, ILLINOIS; THENCE SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST, 539.96 FEET ALONG THE SOUTH LINE OF SAID LAND CONVEYED TO THE DEFENSE PLANT CORPORATION TO THE POINT OF BEGINNING OF THE AVIGATION EASEMENT ABOVE THE FOLLOWING DESCRIBED INCLINE PLANE, SAID POINT BEING A CHANGE IN SLOPE OF THE INCLINE PLANE FROM 34 FEET TO 1 FOOT TO 40 FEET TO 1 FOOT, AT AN ELEVATION OF 789.70; THENCE CONTINUING SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST 906.21 FEET ALONG SAID SOUTH LINE, TO A CHANGE IN SLOPE OF THE INCLINE PLANE FROM 40 FEET TO 1 FOOT TO 50 FEET TO 1 FOOT, AT AN ELEVATION OF 812.25; THENCE SOUTH 05 DEGREES 57 MINUTES 51 SECONDS WEST, 687.47 FEET ALONG SAID CHANGE IN SLOPE LINE HAVING AN ELEVATION OF 812.25, SAID LINE BEING PERPENDICULAR TO DUPAGE AIRPORT EXISTING RUNWAY 28 EXTENDED EASTERLY, TO THE SOUTH LINE OF SAID PARENT PARCEL ALSO BEING A CHANGE IN THE SLOPE OF THE INCLINE PLANE FROM 40 FEET TO 1 FOOT TO 50 FEET TO 1 FOOT AT AN ELEVATION OF 312.25; THENCE NORTH 89 DEGREES 29 MINUTES 55 SECONDS WEST, 906.21 FEET ALONG A LINE PARALLEL WITH SAID SOUTH LINE OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION, SAID POINT BEING A CHANGE IN SLOPE OF THE INCLINE PLANE FROM 34 FEET TO 1 FOOT TO 40 FEET TO 1 FOOT, AT AN ELEVATION OF 789.70; THENCE NORTH 05 DEGREES 57 MINUTES 51 SECONDS EAST, 687.47 FEET ALONG SAID CHANGE IN SLOPE LINE HAVING AN ELEVATION OF 789.70, SAID LINE BEING PERPENDICULAR TO DUPAGE AIRPORT EXISTING RUNWAY 28 EXTENDED EASTERLY, TO THE POINT OF BEGINNING, ALL AVIGATION EASEMENT ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 DATUM (NAVD 88) IN DUPAGE COUNTY, ILLINOIS.

ALSO:

THAT PART OF THE PROPERTY DESCRIBED IN DEED DOCUMENT R2018-116700 RECORDED DECEMBER 20TH, 2018, IN THE NORTH HALF OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, BEING THE PARENT PARCEL OF THE AVIGATION EASEMENT DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81, IN THE RECORDER'S OFFICE OF DUPAGE COUNTY, ILLINOIS; THENCE SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST, 1446.17 FEET ALONG THE SOUTH LINE OF SAID LAND CONVEYED TO THE DEFENSE PLANT CORPORATION TO THE POINT OF BEGINNING OF THE AVIGATION EASEMENT ABOVE THE FOLLOWING DESCRIBED INCLINE PLANE, SAID POINT BEING A CHANGE IN SLOPE OF THE INCLINE PLANE FROM 40 FEET TO 1 FOOT TO 50 FEET TO 1 FOOT, AT AN ELEVATION OF 312.25; THENCE CONTINUING SOUTH 89 DEGREES 29 MINUTES 55 SECONDS EAST, 286.38 FEET ALONG SAID SOUTH LINE, TO THE WESTERLY LINE OF THE CHICAGO AND NORTHWESTERN RAILWAY COMPANY SAID POINT HAVING AN ELEVATION OF 817.95; THENCE SOUTH 19 DEGREES 34 MINUTES 48 SECONDS EAST, 728.64 FEET ALONG SAID WESTERLY LINE TO THE SOUTHEAST PARENT PARCEL CORNER HAVING AN ELEVATION OF 824.24; THENCE NORTH 89 DEGREES 29 MINUTES 55 SECONDS WEST, 632.01 FEET ALONG A LINE PARALLEL WITH SAID SOUTH LINE OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION, SAID POINT BEING A CHANGE IN SLOPE OF THE INCLINE PLANE FROM 40 FEET TO 1 FOOT TO 50 FEET TO 1 FOOT, AT AN ELEVATION OF 812.25; THENCE NORTH 05 DEGREES 57 MINUTES 51 SECONDS EAST, 687.47 FEET ALONG SAID CHANGE IS SLOPE LINE HAVING AN ELEVATION OF 812.25, SAID LINE BEING PERPENDICULAR TO DUPAGE AIRPORT EXISTING RUNWAY 28 EXTENDED EASTERLY, TO THE POINT OF BEGINNING, ALL AVIGATION EASEMENT ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 DATUM (NAVD 88) IN DUPAGE COUNTY, ILLINOIS.

AVIGATION EASEMENT AREAS:

34:1 = 282,830 SQUARE FEET OR 6.488 ACRES MORE OR LESS
40:1 = 620,164 SQUARE FEET OR 14.237 ACRES MORE OR LESS
50:1 = 303,361 SQUARE FEET OR 6.976 ACRES MORE OR LESS
TOTAL = 1,206,775 SQUARE FEET OR 27.703 ACRES MORE OR LESS
PART OF P.I.N. 01-31-200-031 AND 01-31-200-004



N
W E
S

SCALE 1" = 120'

0 60' 120' 180' 240'

LEGAL DESCRIPTION:

PARENT PARCEL PER DEED DOCUMENT R2018-116700 RECORDED DECEMBER 20, 2018.
THAT PART OF THE NORTH HALF OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, ILLINOIS. DESCRIBED AS FOLLOWS, TO WIT: COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 32; THENCE NORTH 88 DEGREES 56 MINUTES 37 SECONDS EAST ALONG THE NORTH LINE OF SAID SECTION 32, A DISTANCE OF 1331.85 FEET TO THE NORTH AND SOUTH DIVISION LINE OF THE NORTHWEST QUARTER OF SAID SECTION 32; THENCE SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 500 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS, ON PAGE 81, IN THE OFFICE OF THE DUPAGE COUNTY RECORDER; THENCE CONTINUING SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 685.0 FEET TO THE SOUTHWEST CORNER OF THE TRACT OF LAND DESCRIBED IN A SPECIAL WARRANTY DEED RECORDED FEBRUARY 6, 2001 AS DOCUMENT NO. R2001-020756; THENCE NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST ALONG THE SOUTH LINE OF SAID TRACT, A DISTANCE OF 103.80 FEET FOR THE POINT OF BEGINNING; THENCE CONTINUING NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST, ALONG SAID SOUTH LINE (SAID LINE BEING PARALLEL WITH THE SOUTH LINE OF SAID DEFENSE PLANT CORPORATION TRACT), A DISTANCE OF 1880.12 FEET TO THE WESTERLY RIGHT OF WAY LINE FOR THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 20 DEGREES 30 MINUTES 46 SECONDS WEST, ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 729.01 FEET TO THE SOUTHEAST CORNER OF SAID DEFENSE PLANT CORPORATION TRACT; THENCE SOUTH 89 DEGREES 32 MINUTES 15 SECONDS WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 1650.66 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF POWIS ROAD PER DOCUMENT NO. R2003-145375, SAID POINT ALSO BEING 81.96 FEET EAST OF THE SOUTHWEST CORNER OF SAID DEFENSE PLANT CORPORATION; THENCE SOUTH 02 DEGREES 29 MINUTES 05 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 536.49 FEET TO A POINT OF CURVATURE; THENCE SOUTHWESTERLY, ALONG SAID EASTERLY RIGHT OF WAY LINE BEING THE ARC OF A CURVE CONCAVE WESTERLY, HAVING A RADIUS OF 739.00 FEET AND WHOSE CHORD HAS A BEARING OF SOUTH 03 DEGREES 47 MINUTES 33 SECONDS WEST, AN ARC DISTANCE OF 149.66 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

SAID PARCEL CONTAINS 1,206,775 SQUARE FEET OR 27.703 ACRES MORE OR LESS
P.I.N. 01-31-200-001 AND 31-32-101-004

SURVEYORS NOTES:

BUILDINGS SHOWN FOR REFERENCE ONLY; ACTUAL DIMENSIONS MAY BE DIFFERENT.
NO OTHER EASEMENTS ARE DEPICTED ON THIS PLAT.
NOT ALL SITE IMPROVEMENTS ARE SHOWN.
BEARING ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83.

STATE OF ILLINOIS)
) S.S.
COUNTY OF COOK)

I, GERARDO P. SANCHEZ, ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-3486, DO HEREBY CERTIFY THAT THE HEREON DESCRIBED PROPERTY WAS SURVEYED UNDER MY DIRECT SUPERVISION AND THIS DRAWING IS A CORRECT REPRESENTATION OF SAID SURVEY; THAT ALL MEASUREMENTS SHOWN HEREON ARE IN FEET AND DECIMAL PARTS THEREOF.

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

FIELDWORK COMPLETED ON 05/07/2020

DATED THIS 11TH DAY OF MAY, 2020 AT CHICAGO, ILLINOIS.

Gerardo P. Sánchez

GERARDO SANCHEZ - ILLINOIS PROFESSIONAL LAND SURVEYOR NUMBER 35-3486
LICENSE EXPIRATION DATE 11/30/2020
DESIGN FIRM NUMBER: 184-004601

STATE OF ILLINOIS
GERARDO P. SANCHEZ
35-3486
CHICAGO, IL
PROFESSIONAL LAND SURVEYOR

CLIENT: JACOBS
JOB No. 201938
DRAWING: 201938 DuPage Airport New Easement Parcels 05112020 update .dwg

SANCHEZ

8604 W. CATALPA AVE STE 812
CHICAGO, IL 60656
PHONE 773 444 0144
FAX 847 232 3104

REVISIONS

DATE	COMMENTS

ATTACHMENT 3

DESIGN DRAWINGS

LAKESHORE RECYCLING SYSTEMS, LLC

WEST DUPAGE RECYCLING & TRANSFER STATION

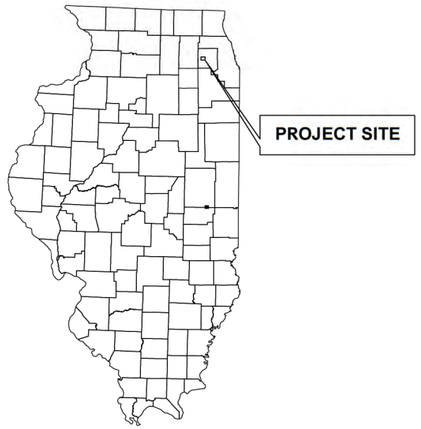
1655 POWIS ROAD

WEST CHICAGO, ILLINOIS

LOCAL SITING APPLICATION

LEGEND

- STORM MANHOLE
- CATCH BASIN
- INLET
- FLARED END SECTION
- STORM STRUCTURE NOT LOCATED
- SANITARY MANHOLE
- CLEAN OUT
- WATER MANHOLE
- WATER VALVE
- FIRE HYDRANT
- POWER POLE
- LIGHT POLE
- ELECTRIC BOX
- AC UNIT
- ELECTRIC CONTROL CABINET
- ELECTRIC TRANSFORMER
- GAS METER
- FIBER OPTIC PULL BOX
- BOLLARD
- STALL COUNT
- SPOT GRADE
- CONIFEROUS BUSH
- DECIDUOUS TREE
- PROPERTY LINE
- EASEMENT LINE
- ADJACENT RIGHT-OF-WAY (APPROX.)
- SETBACK LINE
- CONTOUR W/ ELEVATION
- STORM SEWER
- SANITARY SEWER
- 8" DIP WATER LINE (UNCONFIRMED)
- BURIED ELEC. LINE
- RAILROAD TRACKS
- WOOD FENCE
- CHAIN LINK FENCE
- WIRE/METAL FENCE
- 100-YR FIS BFE=752.25
- 10-YR FIS BFE=751.50
- WETLAND BUFFER
- DELINEATED POND/WETLAND
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATER SERVICE
- PROPOSED GAS
- PROPOSED ELECTRIC
- PROPOSED COMMUNICATIONS
- PROPOSED SPOT GRADE
- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- PROPOSED COIR LOG DITCH CHECK
- PROPOSED RIPRAP
- PROPOSED CATCH BASIN
- PROPOSED INLET
- PROPOSED SANITARY MANHOLE
- PROPOSED CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED GAS METER
- PROPOSED ELECTRIC METER
- PROPOSED OIL WATER SEPARATOR
- PROPOSED STALL COUNT
- PROPOSED FLARED END SECTION
- PROPOSED EROSION CONTROL BLANKET
- PROPOSED WETLAND BUFFER VEGETATION
- PROPOSED INLET PROTECTION
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- PROPOSED LIGHT DUTY PAVEMENT
- PROPOSED HEAVY DUTY PAVEMENT



COUNTY MAP SOURCE:
ILLINOIS STATE GEOLOGICAL SURVEY

LOCATION KEY MAP

NOT TO SCALE

BENCHMARKS

BM 1
"+"CUT, CONTROL POINT 8
ELEVATION = 756.28 (NAVD 88)

BM 2
REBAR, CONTROL POINT 5
ELEVATION = 758.50 (NAVD 88)

BM 3
REBAR, CONTROL POINT 6
ELEVATION = 755.04 (NAVD 88)

BM 4
REBAR, CONTROL POINT 4
ELEVATION = 755.31 (NAVD 88)

NGS DK3273
BRASS DISK, NE CORNER OF POWIS ROAD AND POWS COURT
ELEVATION = 757.10 (NAVD 88)

NGS DK3275
BRASS DISK, W SIDE HOWARD DRIVE 300' S OF HOWARD DRIVE.
ELEVATION = 751.73 (NAVD 88)

BASIS OF BEARING

THE HORIZONTAL DATUM IS THE ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE NAD 83 AND THE VERTCAL DATUM IS NAVD 88.

LIST OF DRAWINGS

C000	COVER SHEET
C100	AERIAL PHOTOGRAPH AND SURROUNDING FEATURES
C100A	AERIAL PHOTOGRAPH WITH USGS AND SITE TOPOGRAPHY
C100B	FLOCDWAY AND ZONING COMPOSITE
C101	ALTA SURVEY
C102	EXISTING SITE CONDITIONS WEST
C103	EXISTING SITE CONDITIONS EAST
C104	AMENDED P.U.D. SITE PLAN WEST
C105	AMENDED P.U.D. SITE PLAN EAST
C106	AMENDED P.U.D. GRADING AND DRAINAGE PLAN WEST
C107	AMENDED P.U.D. GRADING AND DRAINAGE PLAN EAST
C108	AMENDED P.U.D. UTILITIES WEST
C109	AMENDED P.U.D. UTILITIES EAST
C200	PROPOSED SITE PLAN WEST
C201	PROPOSED SITE PLAN EAST
C300	HYDRO EXCAVATION WASTE BUILDING FLOOR PLAN
C301	MSW & SSR TRANSFER BUILDING PLAN VIEW
C302	MSW TRANSFER STATION DETAILED PLAN
C400	COLLECTION & TRANSFER VEHICLE TRAFFIC FLOW PLAN
C401	VEHICLE TRACKING TURNING TEMPLATES
C401A	MSW TRAFFIC MOVEMENT PLAN
C402	QUEING/STACKING
C403	SIGNAGE AND PAVEMENT MARKING PLAN
A1A	TRANSFER BUILDING EXPANSION 1
A1B	TRANSFER BUILDING EXPANSION 2
A2	FRACTIONS BUILDING
A3	SOLIDIFICATION BUILDING

PROJECT CONTACT INFORMATION

SITE OPERATOR
LAKESHORE RECYCLING SYSTEMS, LLC
PH: (708) 774-9301
CONTACT: RICHARD GOLF

SURVEYOR
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
1230 E. DIEHL ROAD, SUITE 200
NAPERVILLE, IL 60563
PH: (630) 963-6026
FX: (630) 963-6027
CONTACT: DOUGLAS MCCLINTIC, P.L.S.

VILLAGE
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
MAYOR: RUBEN PINEDA
PUBLIC WORKS: ROBERT FLATTER
COMMUNITY DEVELOPMENT: TOM DABAREINER
ENGINEER: STEVE PERTZBORN

CIVIL ENGINEER
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
1230 E. DIEHL ROAD, SUITE 200
NAPERVILLE, IL 60563
PH: (630) 963-6026
FX: (630) 963-6027
CONTACT: JOHN E. HOCK, P.E.
DAVE A. KAMANO, P.E.

UTILITY COMPANIES

ELECTRIC SERVICE
COMED
PH: (877)-426-6331

SANITARY
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

GAS
NICOR
PH: (888) 642-6748

WATER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

STORM SEWER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

ENGINEER'S CERTIFICATE

STATE OF ILLINOIS }
} S.S.
COUNTY OF DUPAGE }

I, JOHN E. HOCK, AN ILLINOIS PROFESSIONAL ENGINEER, DO HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC., ILLINOIS LICENSED PROFESSIONAL DESIGN FIRM NO. 184.004002, LICENSE EXPIRES APRIL 30, 2021, UNDER MY PERSONAL DIRECTION FOR THE EXCLUSIVE USE OF THE CLIENT NOTED HEREON. REPRODUCTION OR USE BY THIRD PARTIES IS STRICTLY PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE UNDERSIGNED.

GIVEN UNDER MY HAND AND SEAL AT NAPERVILLE, ILLINOIS, THIS 15TH DAY OF OCTOBER, 2020.

JOHN E. HOCK
ILLINOIS PROFESSIONAL ENGINEER NO. 062.047623
LICENSE EXPIRES NOVEMBER 30, 2021.

*HAND SIGNATURE ON FILE

Call Before You Dig JULIE ILLINOIS ONE-CALL SYSTEM

ILLINOIS LAW REQUIRES ANYONE DIGGING TO CALL JULIE AT 1-800-892-0123 AT LEAST 48 HOURS/TWO WORKING DAYS PRIOR TO THE START OF EXCAVATION AND THE PROJECT MUST BEGIN WITHIN 14 CALENDAR DAYS FROM THE CALL

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

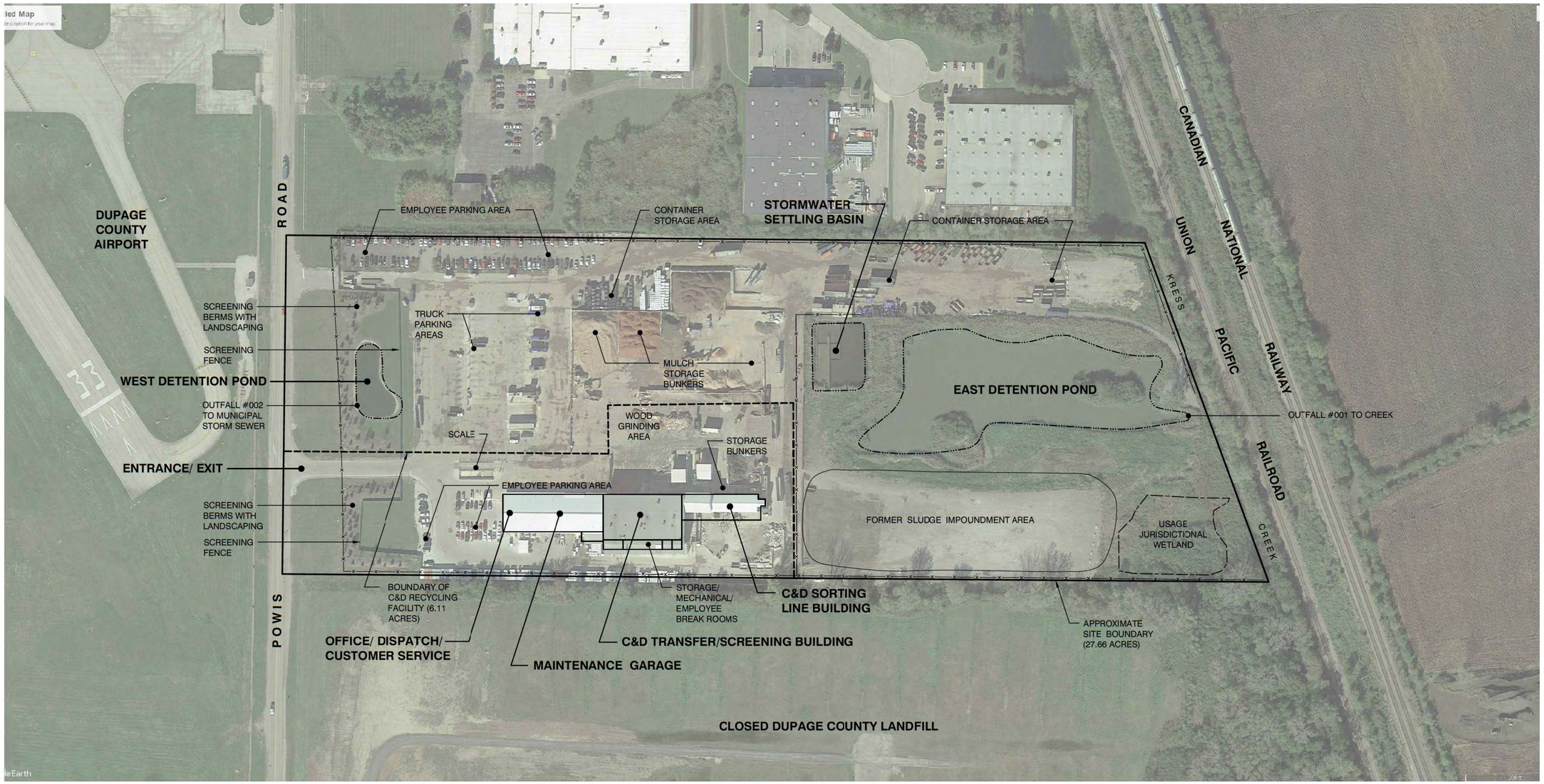
COVER SHEET

DATE:	JULY 2021
DWG SCALE:	AS SHOWN
DRAWN BY:	MMS
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C000
SHEET 1 OF 27

P:\2016\163-899\-CAD\Dwg\CIVIL-Local Siting Application\163899-CIVIL-C000-Cover Sheet.dwg[C000] | LS: 7/15/2021 8:22 AM | mkemp

NORTH



SITE MAP

LOCATION: SECTION 32, TOWNSHIP 40N, RANGE 9E

REFERENCE

1. IMAGE PROVIDED BY GOOGLE EARTH. DATE OF IMAGE: OCTOBER 15, 2018.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 100 200

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLILNOIS

AERIAL PHOTOGRAPH AND SURROUONDING FEATURES

DATE:	JULY 2021
DRAWN BY:	MMS
DWG SCALE:	1"= 100'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C100
SHEET 2 OF 27

P:\2018\163-899\-CADD\dwg\CVDS-Local Siting Application\163899-CVDS-C100-Aerial Photograph.dwg[C100A] LS:(10/14/2020 - mkarpl) - LP: 7/15/2021 9:22 AM

NORTH

LEGEND

SUBJECT PROPERTY

SURROUNDING PROPERTY

500 FOOT PROPERTY OFFSET

REFERENCE

1. IMAGE PROVIDED BY GOOGLE EARTH. DATE OF IMAGE: OCTOBER 15, 2018.
2. USGS IMAGE PROVIDED THROUGH THE DUPAGE COUNTY INFORMATION TECHNOLOGY DEPARTMENT – GIS DIVISION.

SITE MAP

LOCATION: SECTION 32, TOWNSHIP 40N, RANGE 9E

0 100 200

SCALE IN FEET

*HAND SIGNATURE ON FILE

DRAWING NO.: C100A

SHEET 3 OF 27

AERIAL PHOTOGRAPH WITH USGS AND SITE TOPOGRAPHY

DATE:	JULY 2021	DRAWN BY:	MMS
DWG SCALE:	1"=100'	CHECKED BY:	DAK
PROJECT NO:			163-899.0005
APPROVED BY:			JEH*

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLILNOIS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

REVISION RECORD

NO	DATE	DESCRIPTION

NORTH

23 FT SIDE YARD BUILDING SETBACK
9 FT SIDE YARD PARKING SETBACK
STRIPING FOR PARKING AREA (TYP.)
PROPERTY LINE
72 BUSHES TOTAL
ASPHALT (TYP.)
LANDSCAPED AREA
LANDSCAPED AREA
EX. WM EASEMENT
TANK
TANK
MULCH STORAGE AREA
STRIPING FOR PARKING AREA (TYP.)
CONCRETE BLOCKS (TYP.)
APPROX. LOC. 2.5" WIDE INFILTRATION TRENCH ALONG EDGE OF PAVEMENT
WEST DETENTION BASIN
C & D MATERIAL STORAGE AREA
ELEC. SERVICE AVAILABLE
MATCHLINE
ROAD
POWS
LANDSCAPED AREA
OFFICE/ DISPATCH/ CUSTOMER SERVICE
SCALE
THREE-SIDED BUILDIINGS
C&D SORTING LINE BUILDING
ENTRANCE/EXIT
FIRE ROVER
EQUIPMENT
3" WATER SPIGOT (LOC PER SITE PERSONNEL)
ROOF DRAINS TIED INTO STORM SYSTEM
EX. WM EASEMENT
20 FT FRONT YARD PARKING SETBACK
40 FT FRONT YARD BUILDING SETBACK
PROPPERTY LINE
STRIPING FOR PARKING AREA (TYP.)
MAINTENANCE GARAGE
C&D TRANSFER/ SCREENING BUILDING
LANDSCAPED AREA
STORAGE/MECHANICAL/ EMPLOYEE BREAK ROOMS
MATCHLINE
EX. WM EASEMENT
20 FT SIDE YARD BUILDING SETBACK
15 FT SIDE YARD PARKING SETBACK
PROPERTY LINE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

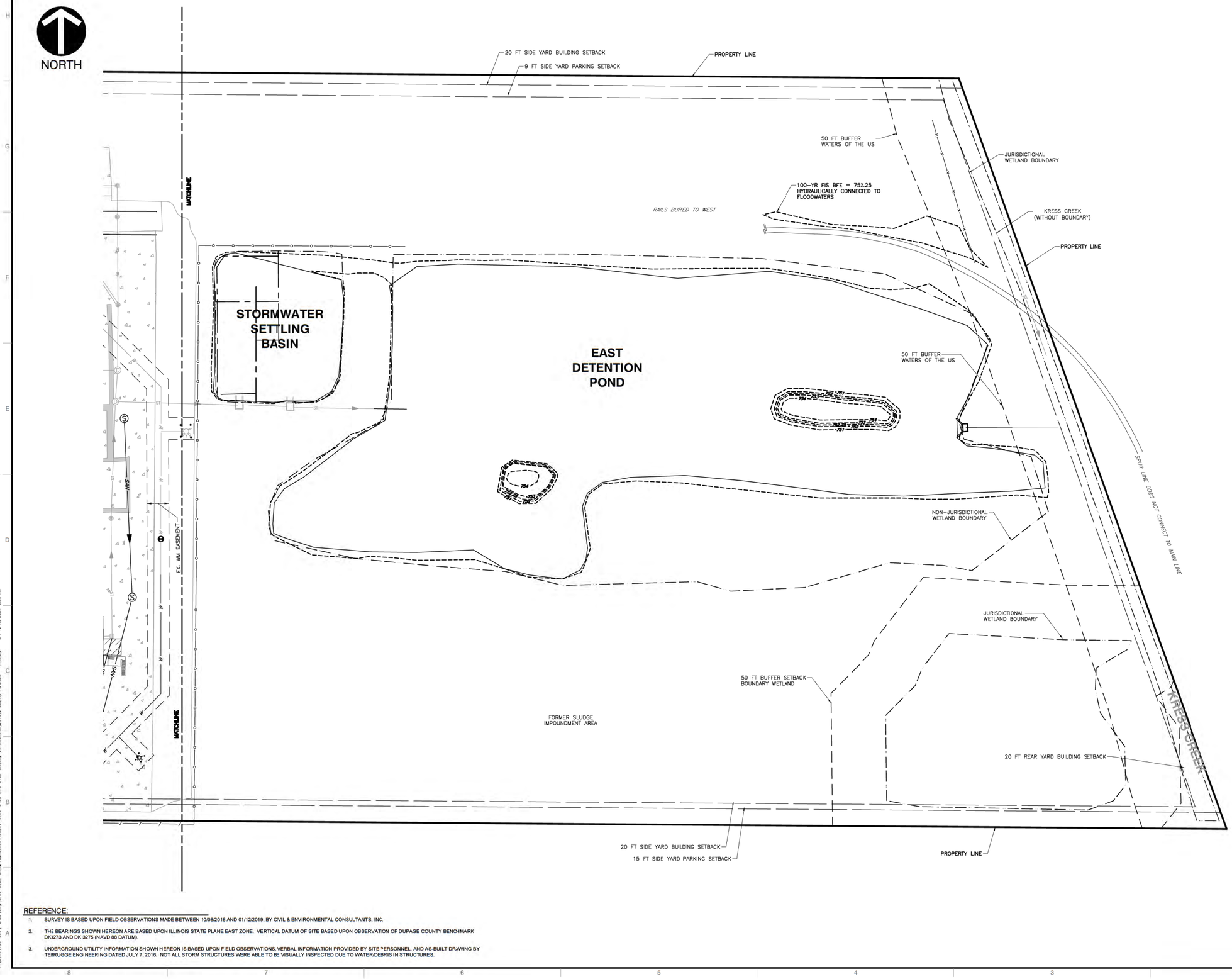
EXISTING CONDITIONS WEST

DATE:	JULY 2021
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C102

SHEET 6 OF 27

P:\2016\163-899\~CAD\Dwg\CIVIL-Local Siting Application\163899-CIVIL-C102 Rev C103-Existing Conditions.dwg(C102) 7/15/2021 8:21 AM



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*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

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Civil & Environmental Consultants, Inc.
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630-963-6026 - 877-963-6026
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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

EXISTING CONDITIONS EAST

DATE:	JULY 2021
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

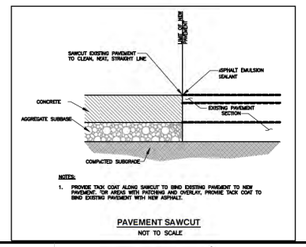
DRAWING NO.: C103

SHEET 7 OF 27

P:\2016\163-899 - DAQ\Dwg\CIVIL\Local Siting Application\163899-CIVIL-C102 thru C103-Existing Conditions.dwg[C103] LS(10/14/2020 - mkeuf) - LP: 7/15/2021 8:31 AM

NORTH

PROPOSED PARKING ADDITION
LIGHT DUTY PAVEMENT
HVAC EQUIPMENT (TYP.) DESIGN TO BE FINALIZED
72 BUSINESS TOTAL
MAINTENANCE FACILITY (60' X 170', 35 FT HIGH) FFE = 757.0
PARKING STOP BLOCKS (TYP. OF 6)
CONCRETE WALKWAY
RAMP TO BLDG FLOOR
HANDICAP PARKING SIGN (TYP. OF 6)
ADA ACCESSIBLE RAMP
HEAVY DUTY PAVEMENT
125 LF PROPOSED WALL MATCH EX.
MATCHLINE
VERMEER GRINDER
RED WOOD STORAGE BUNKER (10-FT HIGH)
"A" WOOD STORAGE BUNKER (10-FT HIGH)
BROWN WOOD STORAGE BUNKER (10-FT HIGH)
"B" WOOD STORAGE BUNKER (10-FT HIGH)
ROAD BASE STORAGE BUNKER (10-FT HIGH)
"B" STORAGE BUNKER
CRUMBO SHREDDER
3-SIDED STRUCTURE
WEST DETENTION POND
POWIS ROAD
PROPOSED PARKING ADDITION
HEAVY DUTY PAVEMENT
ENTRANCE/EXIT
INSTALL PREVIOUSLY APPROVED SECOND SCALE
PARKING STOP BLOCKS (TYP. OF 6)
HANDICAP PARKING SIGN (TYP. OF 6)
ROOF DRAINS TIED INTO STORM SYSTEM
3" WATER SPIGOT (LOC PER SITE
COVER BUILDING
CONCRETE STAIRS AND LANDING (SEE ARCH. PLANS)
LIGHT DUTY PAVEMENT
OFFICE/DISPATCH/ CUSTOMER SERVICE
MAINTENANCE GARAGE
C&D TRANSFER/ SCREENING BUILDING
C&D SORTING LINE BUILDING
C&D EXPANSION BUILDING (112'X198', 40 FT HIGH) FFE = 756.40
LOADING PIT
BEGIN FENCE REMOVAL AND REPLACEMENT
CONCRETE PAVEMENT STANDARD
PROPOSED PARKING ADDITION
END OF FENCE REMOVE/REPLACEMENT
HEAVY DUTY PAVEMENT
CONCRETE LOADING PIT WITH RAMPS (SEE ARCH. PLANS)



PAVEMENT SAWCUT
NOT TO SCALE

REFERENCE:

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*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

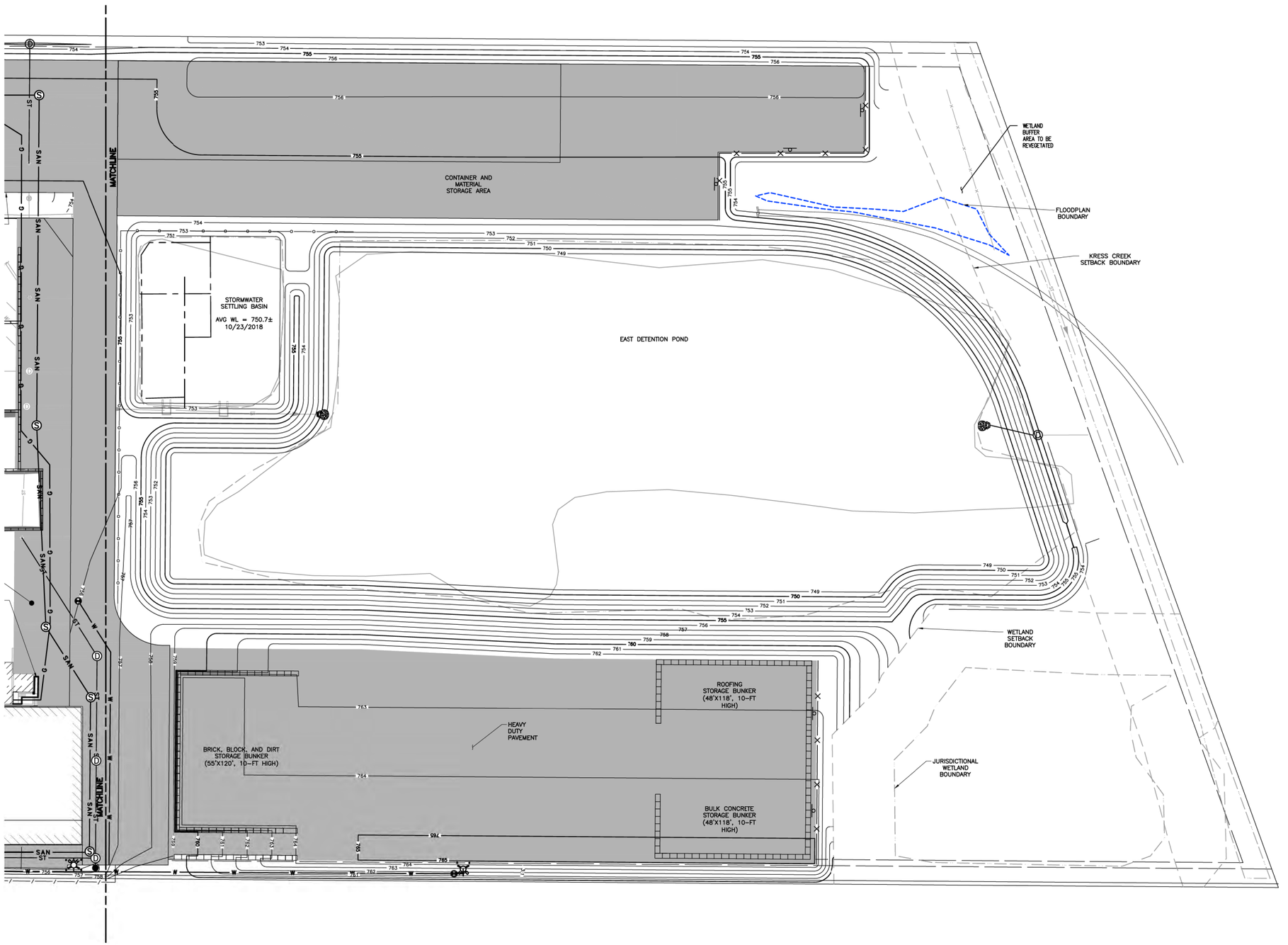
AMENDED P.U.D. SITE PLAN WEST

DATE:	JULY 2021
DRAWN BY:	MMS
CHECKED BY:	DAK
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.:
C104
SHEET 8 OF 27

P:\2016\163-899_CAD\Dwg\CAD-Local Siting Application\163899-CVDS-C104.dwg 01/05-Amended PUD Site Plan-Dwg\C104 1:5(1)(1):40 7/15/2021 8:33 AM

NORTH



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*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

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Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLILNOIS

AMENDED P.U.D. SITE PLAN EAST

DATE:	JULY 2021
DRAWN BY:	MMS
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.:
C105

SHEET 9 OF 27

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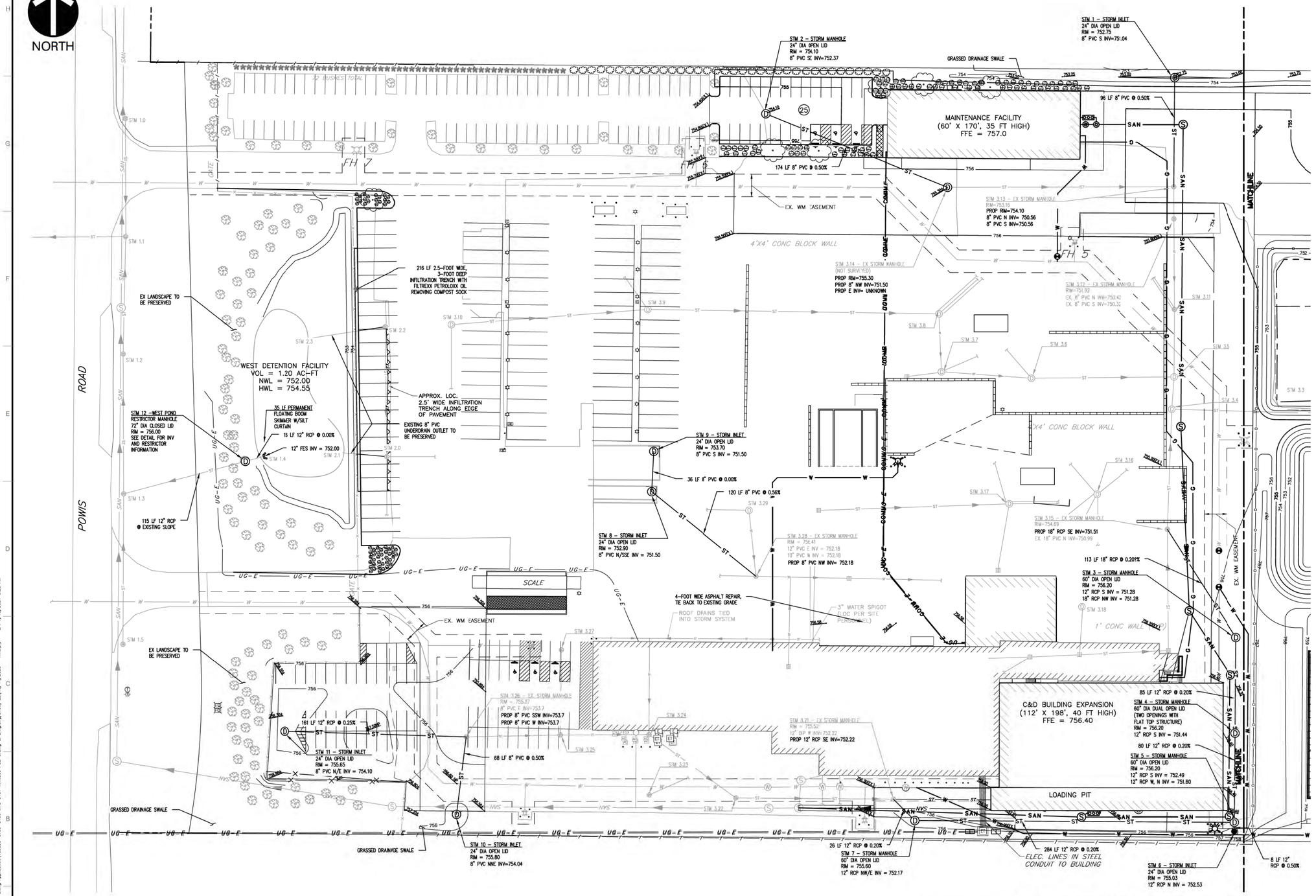

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NOTES

1. PROPOSED RIMS AND INVERTS FOR EXISTING STORM STRUCTURES THAT WERE UNABLE TO BE SURVEYED SHALL BE CONFIRMED DURING CONSTRUCTION OR REPLACED, IF NEEDED.

Stage - Storage - Discharge West Pond Table

Contour (feet)	Area (acre)	Storage Volume (acre-feet)	Cumulative Storage Volume (acre-feet)	Area (square miles)	Discharge (cfs)
752.00	0.23	0.00	0.00	0.000	0.00
753.00	0.39	0.31	0.31	0.001	0.15
754.00	0.470	0.43	0.74	0.001	0.20
754.55	0.950	0.46	1.20	0.001	0.25

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

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Civil & Environmental Consultants, Inc.
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630-963-6026 - 877-963-6026
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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

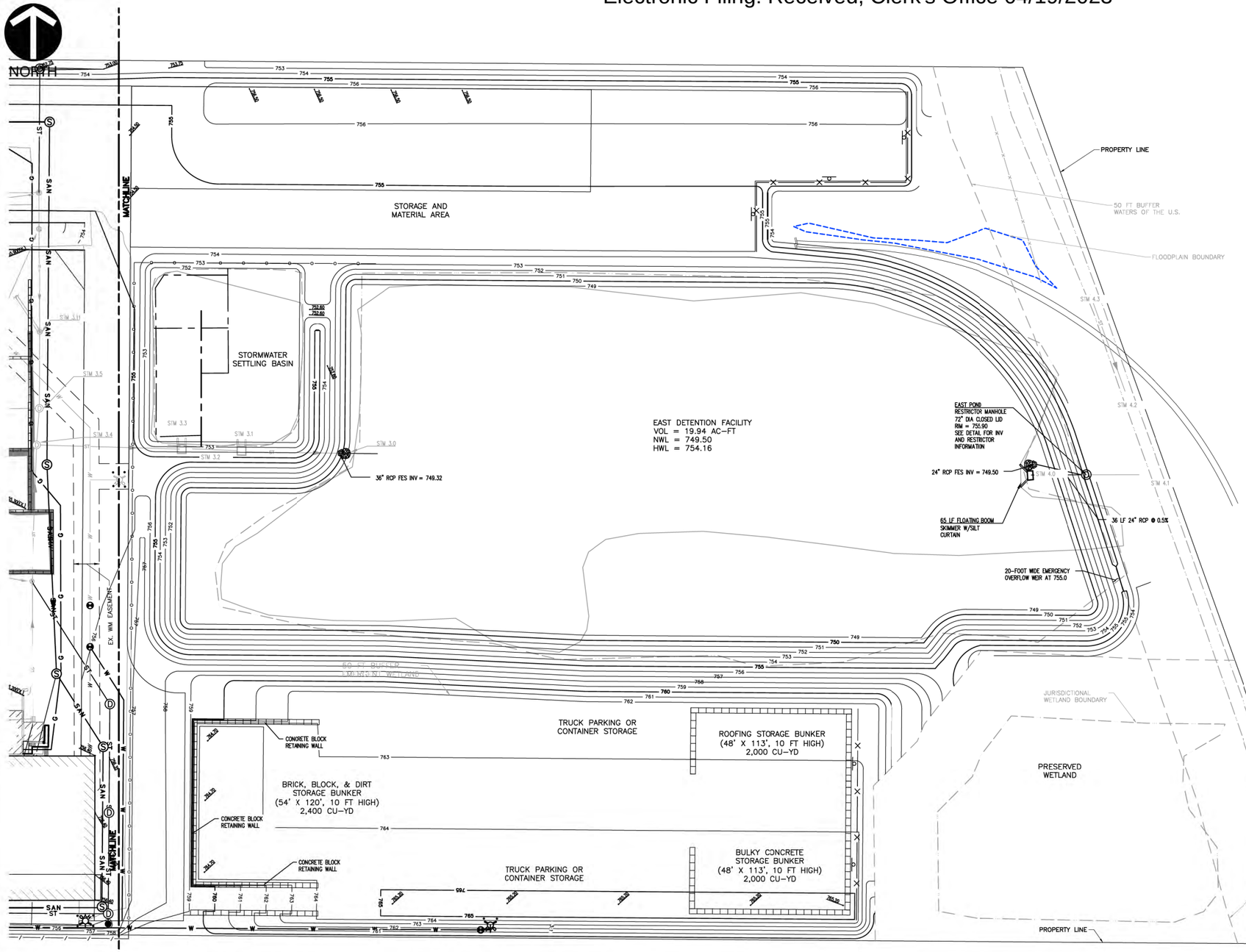
AMENDED P.U.D. GRADING AND DRAINAGE PLAN WEST

DATE:	JULY 2021
DRAWN BY:	MMS
CHECKED BY:	DAK
LWS SCALE:	1"=40'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C106

SHEET 10 OF 27

P:\2016\163-899 - CADD\dwg\LDGP-Local Siting Application\163899-GDS-C105 thru C107-Amended PUD Grading & Drng.dwg[C106] | LS:(10/14/2020 - mwm) - LP: 7/15/2021 8:23 AM



EXISTING STORM STRUCTURE INFORMATION

STM 1.0 CB BEEHIVE
RIM=753.26
12" RCP S INV=750.46

STM 1.1 CB BEEHIVE
RIM=752.99
12" RCP N INV=750.09
12" RCP S INV=750.09
12" RCP W INV=749.89

STM 1.2 CB BEEHIVE
RIM=753.00
12" RCP S/N INV=750.30

STM 1.3 CB BEEHIVE
RIM=753.87
12" RCP N INV=750.97
4" PVC NE INV=751.07
12" RCP S INV=751.07

STM 1.4 8" PVC
INV=752.20

STM 1.5 CB BEEHIVE
RIM=755.09
12" RCP N INV=751.59

STM 2.0 CB BEEHIVE
RIM=753.99
6" PVC S INV=752.49
8" PVC W INV=752.49

STM 2.1 8" PVC
INV=752.23

STM 2.2 CB BEEHIVE
RIM=754.07
6" PVC N INV=752.57
6" PVC E INV=752.57
6" PVC S INV=752.87
8" PVC W INV=752.47

STM 2.3 6" PVC
INV=752.22

STM 3.0 36" RCP E
INV=749.32

STM 3.1 SQUARE METAL GRATE LID (30"X30")
RIM=754.55
36" RCP W INV=748.72
36" RCP E INV=748.72

STM 3.2 36" RCP E
INV=749.21

STM 3.3 SQUARE METAL GRATE LID (30"X30")
RIM=754.57
60" CMP W INV=747.15

STM 3.4 SQUARE STORM STRUCTURE
RIM=755.22
24" W INV=750.22
60" E INV=749.47
18" S INV=750.62
18" S INV=749.47
STRUCTURE IS APPROXIMATELY 6'X6' SQUARE CONCRETE BOX
FILLED W/WATER

STM 3.5 STORM MANHOLE
RIM=755.73
N INV=749.7±
24" RCP S INV=750.43
18" RCP W INV=750.43
FILLED W/WATER

STM 3.6 STORM MANHOLE
RIM=756.35
8" NW INV=753.85
18" RCP E INV=751.05
W INV=751.0±
FILLED W/WATER

STM 3.7 STORM MANHOLE
RIM=756.34
10" PVC N INV=751.41
12" PVC NE INV=744.24
18" PVC E INV=751.94
12" PVC W INV=754.54
FILLED W/WATER

STM 3.8 STORM MANHOLE
RIM=756.54
8" RCP NE INV=751.84
8" RCP NE INV=751.84
12" RCP S INV=751.64
12" RCP W INV=751.74
6" RCP NE INV=752.94
FILLED W/WATER

STM 3.9 STORM MANHOLE
RIM=756.64
4" PVC WNW INV=753.74
10" PVC E INV=753.44
6" PVC SW INV=753.44
SAN LID ON STRUCTURE
FILLED W/WATER

STM 3.10 STORM MANHOLE
RIM=755.01
6" CLAY E INV=753.31
6" CLAY S INV=753.31
SAN LID ON STRUCTURE

STM 3.11 STORM MANHOLE
RIM=755.03
8" PVC N INV=752.23
S INV=749.6±
8" PVC NW INV=750.53 (SIDE BY SIDE)
8" PVC NW INV=750.53 (SIDE BY SIDE)
FILLED W/WATER

STM 3.16 STORM MANHOLE
RIM=755.12
NNE INV=751.22 (SEE BELOW)
10" PVC S INV=749.72
12" PVC SSW INV=751.12
4" PVC SW INV=753.52
10" PVC NW INV=749.72 (BROKEN PIPE)
FILLED W/WATER
NNE INV HAS A "BELL" HOUSING TURNED DOWNWARD UNDER WATER

STM 3.17 STORM MANHOLE
RIM=755.81
18" PVC E INV=751.81
6" PVC E INV=752.01
6" PVC S INV=752.11
10" PVC SSW INV=753.01
6" PVC NNW INV=752.01
FILLED W/WATER

STM 3.18 STORM STRUCTURE
RIM=755.85
S INV=752.5±
FILLED W/WATER

STM 3.22 STORM MANHOLE
RIM=755.46
12" PVC NE/E INV=752.26

STM 3.23 STORM MANHOLE
RIM=755.60
12" PVC NE INV=753.0

STM 3.24 STORM MANHOLE
RIM=756.20
6" PVC W INV=753.10
10" PVC N INV=753.45
12" PVC SE INV=752.90

STM 3.25 STORM MANHOLE
RIM=755.70
8" PVC W/N/E INV=753.20

STM 3.27 STORM MANHOLE
RIM=755.97
8" PVC S INV=753.27

STM 3.29 STORM MANHOLE
RIM=756.40
8" PVC S/W INV=754.20
FILLED W/WATER

STM 4.0 STORM CONTROL RELEASE CONCRETE STRUCTURE W/FLAP GATE AND WING WALLS INTO RETENTION AREA (30"X30" GRATE LID)
RIM=753.35
8" STEEL PIPE IN MOVABLE FLAP GATE--CURRENT INV=750.54
30" RCP E INV=749.06

STM 4.1 30" RCP W
INV=748.37

STM 4.2 60" CMP NW
INV=747.06

STM 4.3 60" CMP SE
INV=747.82

Stage - Storage - Discharge East Table - TAILWATER AND NO TAILWATER CONDITION FOR DETENTION SIZING							
Contour (feet)	Area (acre)	Storage Volume (acre-feet)[1]	Cumulative Storage Volume (acre-feet)	Area (square miles)	Discharge - No Tailwater (cfs)	Discharge - With Tailwater (cfs)	
749.50	3.58	0.00	0.00	0.006	0.00	0.0	
750.00	3.75	1.83	1.83	0.006	0.62	0.0	
751.00	3.92	3.84	5.67	0.006	1.50	0.0	
752.00	4.10	4.01	9.68	0.006	2.02	0.0	
753.00	4.69	8.61	14.28	0.007	--	1.18	
754.00	4.97	4.83	19.11	0.008	--	1.81	*1.89 cfs at 754.16 (tailwater conditions)
755.00	5.25	5.11	24.22	0.008	--	--	*see note 3
755.10	5.30	5.65	24.76	0.008	--	--	*see note 3

*2.23 cfs at 752.47 elevation (no tailwater condition)

NOTES:
1. Acre-feet of storage per contour interval approximated by multiplying the average contour acreage between the interval times contour depth.
2. Tributary area to East Pond is 22.47 acres, therefore, allowable release shall not exceed 2.247 cfs.
3. 100-year high water level is dictated by tailwater condition model and is 754.16. There is no release above 754.16 for the 100-year tailwater model condition

REFERENCE:
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NOTES
1. PROPOSED RIMS AND INVERTS FOR EXISTING STORM STRUCTURES THAT WERE UNABLE TO BE SURVEYED SHALL BE CONFIRMED DJRING CONSTRUCTION OR REPLACED, IF NEEDED.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

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1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AMENDED P.U.D. GRADING AND DRAINAGE PLAN EAST

DATE:	JULY 2021
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C107

SHEET 11 OF 27

M 8:31 2021 - (Layout: C107-Amended PUD Grading & Drng Plan East) - C:\Users\mmsmith\Desktop\C107-Amended PUD Grading & Drng Plan East.dwg
P:\2016\163-899\ - CAD\Dwg\01-Civil\02-Local Siting Application\163899-C105-C106-C107-Amended PUD Grading & Drng Plan East.dwg

NORTH

ROAD POWIS

EXISTING VALVE NO. 1 (WEST SIDE OF POWS, NOT SHOWN)

EXISTING VALVE NO. 2 (WEST SIDE OF POWS, NOT SHOWN)

MANHOLE
1 (FLOW N)

SAN 1.1 – EX SANITARY MANHOLE
RIM = 755.78
12" PVC N INV=744.28
8" PVC E INV=744.28
(FLOW N)

SAN 1.2 – EX SANITARY MANHOLE
RIM = 756.41
8" PVC E/WNW INV=745.01

WEST DETENTION POND

EXISTING PUBLIC WATERMAIN

EX. WM EASEMENT

72 BUSINESS TOTAL

RECONFIGURE INTERNAL PLUMBING TO GO UNDERGROUND INSIDE BUILDING AND CONNECT TO EXISTING BUILDING WATER LINE ON EXTERIOR. CONFIRM EXISTING WATER LINE LOCATION IN BUILDING

ROOF DRAINS TIED INTO STORM SYSTEM

PROPOSD PRIVATE WATERMAIN

OIL-WATER SEPARATOR
RIM = 755.5
INV E= 750.96
INV W= 750.96

SAN 8 – SANITARY CLEANOUT
RIM = 756.5

SAN 7 – SANITARY CLEANOUT
RIM=756.3
INV=750.85

SAN 6 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 754.8
INV = 750.56

CITY TO CONFIRM METER REQUIREMENTS

6" GATE VALVE (MJ) IN VALVE BOX

6 LF 6" PVC @ 1.00%

27 LF 6" DIP

77 LF 8" PVC @ 0.40%

SIAMESE CONNECTION #1

6" 45° BEND (MJ)

35 LF 8" DIP

6" 45° BEND (MJ)

56 LF 6" DIP

PROPOSED PRIVATE WATERMAIN

2 LF 6" DIP

VALVE VAULT NO. 3
PRESSURE CONNECTION
8" TAPPING VALVE
IN 60" VAULT
RIM = 756.5±

268 LF 8" PVC @ 0.40%

GAS/COMM LINES TO BE INSTALLED IN THE SAME TRENCH

SANITARY SEWER CUT & SEALED

SAN 5 – SANITARY MANHOLE
RIM = 755.41
8" PVC S INV=749.47 (ASSUMED)
PROP 8" PVC N INV=749.47

EX. 164 LF OF ASSUMED 8" PVC AT 0.40% SEE NOTE #2

164 LF 8" PVC @ 0.40%

6"X3" RECEIVER (MJ) AND 3" TO 2" BRASS FPT FITTING

WOODFORD MODEL V200 W/2" OUTLET (SEE NOTE #)

6 LF 3" DIP

6 LF 3" DIP

103 LF 3" DIP

TWO (2) 3" 45° BENDS

TWO (2) 3" 45° BENDS

144 LF 3" DIP

6 LF 3" DIP

EXISTING SANITARY SEWER AND STRUCTURES ABANDONED IN PLACE BETWEEN SAN 1.4 AND SAN 1.8

ELEC/COMM LINES TO BE IN THE SAME TRENCH

VALVE VAULT NO. 1
CUT-IN CONNECTION
8" GATE VALVE
IN 60" VAULT
RIM = 756.0'

8" 45° BEND (MJ)

SAN 4 – SANITARY MANHOLE
RIM = UNKNOWN
8" PVC N INV=748.81 (ASSUMED)
PROP 8" PVC SE INV=748.81

50 LF 8" DIP

68 LF 8" PVC @ 0.40%

8" 45° BEND (MJ)

PROPOSED PUBLIC WATERMAIN

171 LF 8" DIP

126 LF 8" PVC @ 0.40%

SIAMESE CONNECTION #2

SAN 2 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 756.30
INV = 748.04

OIL-WATER SEPARATOR
RIM = 756.55
INV E= 747.70
INV W= 747.70

100 LF 8" DIP

SAN 1 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 756.50
8" PVC E/W INV=747.51
NE INV=747.6±

LOADING PIT

SAN 3 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 756.35
INV = 748.51

C&D BUILDING EXPANSION
(112' X 198', 40 FT HIGH)
FFE = 756.40

CUT-IN CONNECTION

8" 45° BEND (MJ)

WTR 1.2 – EX VALVE VAULT
RIM = 755.27
PIPE RUNS N/S & E/W T/P=750.17
FILLED W/ WATER

WTR 1.3 – EX VALVE VAULT
RIM = 756.02
E/W T/P=750.32
FILLED W/ WATER

WTR 1.1 – EX VALVE VAULT
RIM = 756.36
PIPE RUNS N/S & E/W T/P=750.46
FILLED W/ WATER

SAN 1.5 – EX SANITARY MANHOLE
RIM = 756.13
6" PVC N/E INV=751.88
6" PVC S INV=750.28

SAN 1.3 – EX SANITARY MANHOLE
RIM = 756.15
BOTTOM OF STRUCTURE INV=746.50

WTR 1.0 – EX VALVE VAULT
RIM = 756.08
E/W T/P = 750.28
FILLED W/ WATER

SAN 1.4 – EX SANITARY MANHOLE
RIM = 756.13
6" PVC N INV=743.13
8" PVC W INV=745.53

WTR 1.0 – EX VALVE VAULT
RIM = 756.08
E/W T/P = 750.28
FILLED W/ WATER

SANITARY SEWER CUT & SEALED

251 LF 8" PVC @ 0.40%

8" 45° BEND (MJ)

261 LF 8" CL 52 DIP (TYP.)

132 LF 8" PVC @ 0.40%

8"X8"X8" TEE (MJ)

FIRE HYDRANT #1
GRADE RING=757.4±

8"X8"X8" TEE

LINE STOP 1

EX. WM EASEMENT

MATCHLINE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED 1.20.15, AS-BUILT DATE JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES. ESTIMATED STRUCTURE LOCATIONS ARE PROVIDED WITHOUT STRUCTURE NUMBER.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AMENDED P.U.D. UTILITIES WEST

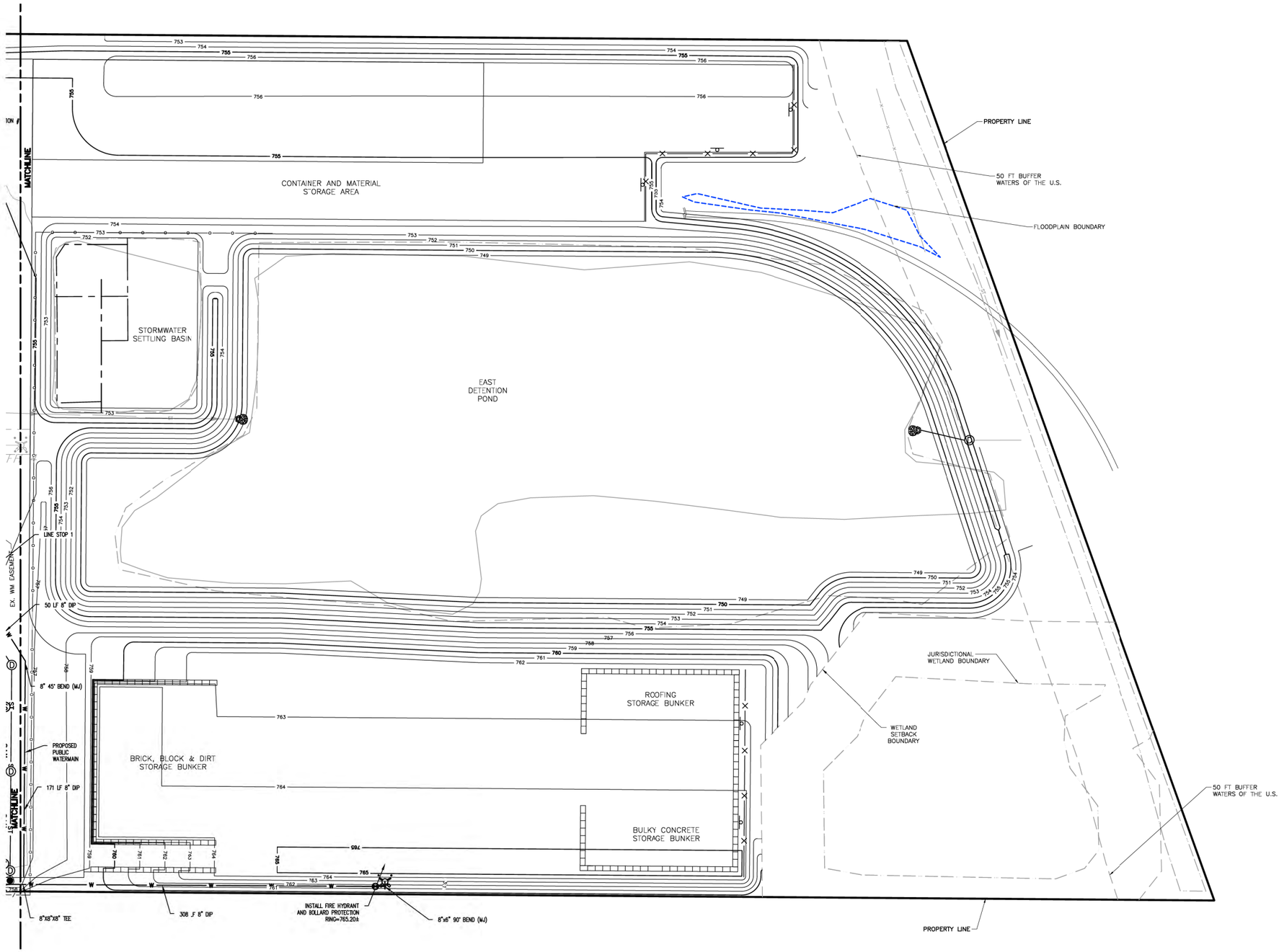
DATE:	JULY 2021
DRAWN BY:	MMS
CHECKED BY:	DAK
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C108

SHEET 12 OF 27

P:\2016\163-899\...\CAD\Dwg\CIVIL-Local Siting Application\163899-CIVIL-C108 Dwg C108-Amended PUD Utilities.dwg[Split] 10/10/14/2020 - 1:57 PM (mwest) - LP 7/15/2021 8:23 AM

NORTH



REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AMENDED P.U.D. UTILITIES EAST

DATE:	JULY 2021
DRAWN BY:	MMS
CHECKED BY:	DAK
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.:
C109
SHEET 13 OF 27

P:\2016\163-899 - CAD\Civil\163-899 - Local Siting Application\163-899 - C109 - Amend PUD Utilities.dwg (Plotted - LP 7/12/2021 1:53 PM)

NORTH

IMPERVIOUS SURFACE (TYP.)

72 BUSHES TOTAL

MAINTENANCE FACILITY

NORTH ENTRANCE (EXIT ONLY)

ROAD

POWIS

EAST DETENTION POND

PROPOSED WATER SERVICE TO SPRINKLER ROOM AND YARD HYDRANT

184 LF 6" DIP WATERMAIN

"A" WOOD STORAGE BUNKER (10-FT HIGH)

VERMERR GRINDER

RED WOOD STORAGE BUNKER (10-FT HIGH)

PROPOSED SPRINKLER ROOM

ELECTRICAL CONNECTION

BROWN WOOD STORAGE BUNKER (10-FT HIGH)

72 LF 2" STEEL PIPE WATERMAIN

"B" WOOD STORAGE BUNKER (10-FT HIGH)

ROAD BASE STORAGE BUNKER (10-FT HIGH)

PROPOSED HYDRO EXCAVATION WASTE BUILDING

"B" STORAGE BUNKER

CONTAINER FOR E-WASTE

PROPOSED E-WASTE AND RECYCLABLES DROP-OFF AREA

CONCRETE APRON

CRUMBO SHREDDER

CARDBOARD AND MIXED RECYCLABLES HOPPERS

PARKING FOR E-WASTE AND RECYCLABLES CUSTOMERS

HANDICAPPED PARKING SPACE FOR E-WASTE CUSTOMER

WATER SERVICE LOCATION TO SOLIDIFICATION BUILDING AND YARD HYDRANT TO BE ADJUSTED AS SHOWN

PROPOSED PAVEMENT EXPANSION

SOUTH ENTRANCE (ENTRANCE ONLY)

SCALES

COVER BUILDING

C&D SORTING LINE

OFFICE

MAINTENANCE BUILDING

C&D TIPPING BUILDING

MSW & SSR TRANSFER BUILDING (CONVERSION OF C&D BUILDING EXPANSION)

LOADING PIT

IMPERMOUS SURFACE (TYP.)

MATCHLINE

PROPOSED PAVEMENT EXPANSION

REFERENCE

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL& ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. EXITING CONDITIONS REPRESENTED HERE ARE A COMBINATION OF EXISTING SITE FEATURES AND PROPOSED P.U.D. AMENDMENT IMPROVEMENTS THAT WILL BE IN PLACE PRIOR TO THE ADDITION OF MSW, SOLIDIFICATION, AND E-WASTE DROP-OFF HANDLING WHICH IS THE SUBJECT OF THESE IMPROVEMENT PLANS.

LEGEND

EXISTING PAVEMENT/PAVEMENT APPROVED IN AMENDED P.U.D.

PROPOSED CONCRETE PAVEMENT

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

PROPOSED SITE PLAN WEST

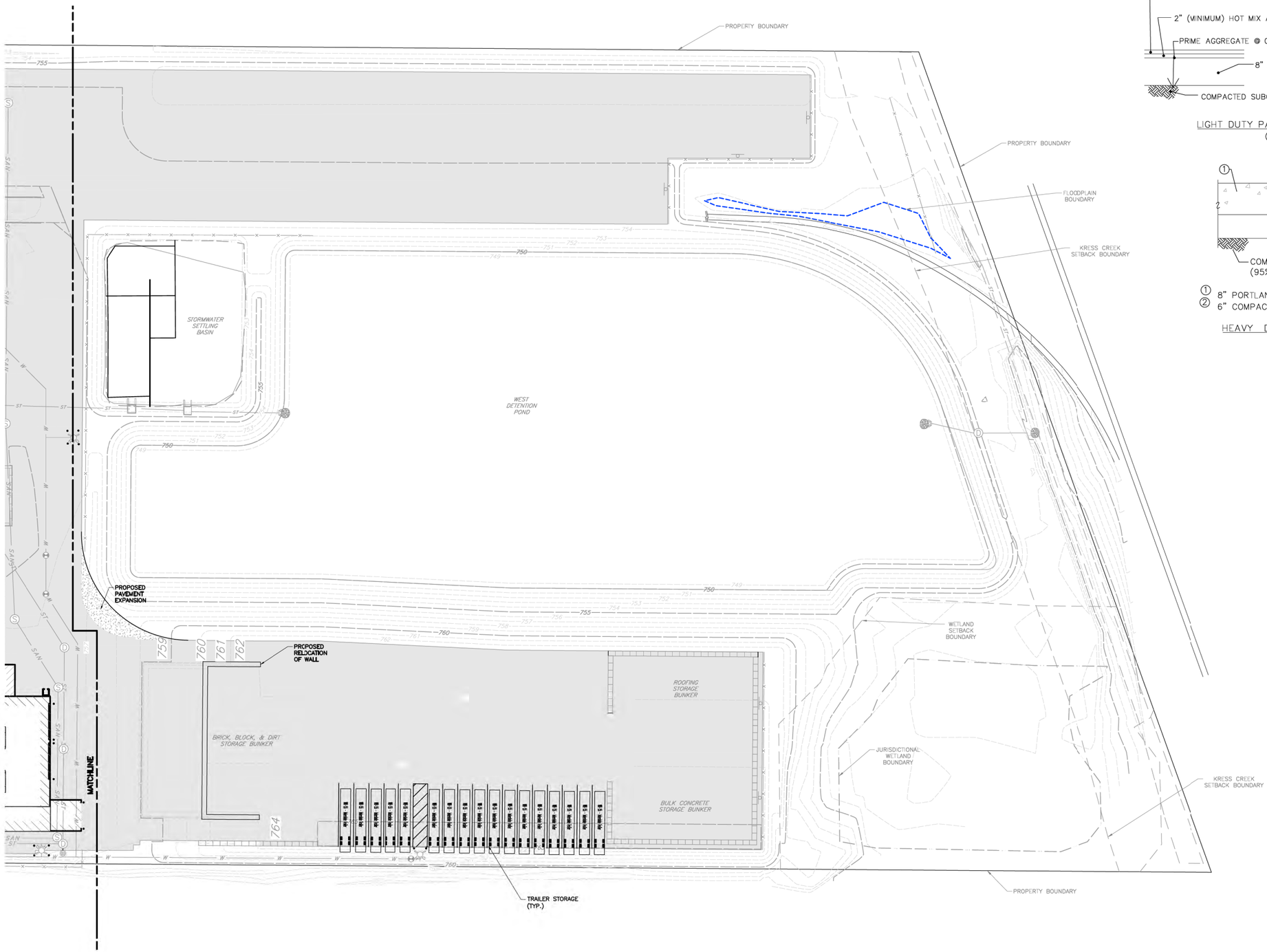
DATE:	JULY 2021
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

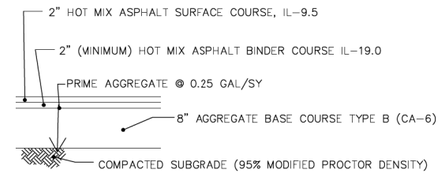
DRAWING NO.: C200

SHEET 14 OF 27

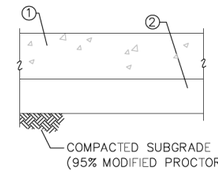
P:\2016\163-899-0005\Engineering\CAD\Sheets\Site Application\163899-0005-C201-Proposed Site Plan.dwg[Site] 2020 LST 10/13/2020 - mwu 7/15/2021 - LP - 8.24 AM

NORTH





LIGHT DUTY PAVEMENT SECTION
(NTS)



① 8" PORTLAND CEMENT CONCRETE, CLASS PV
② 6" COMPACTED CA-6 AGGREGATE BASE COURSE

HEAVY DUTY PAVEMENT SECTION
(NTS)

REFERENCE

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
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LEGEND

EXISTING PAVEMENT/PAVEMENT APPROVED IN AMENDED P.U.D.
PROPOSED CONCRETE PAVEMENT

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

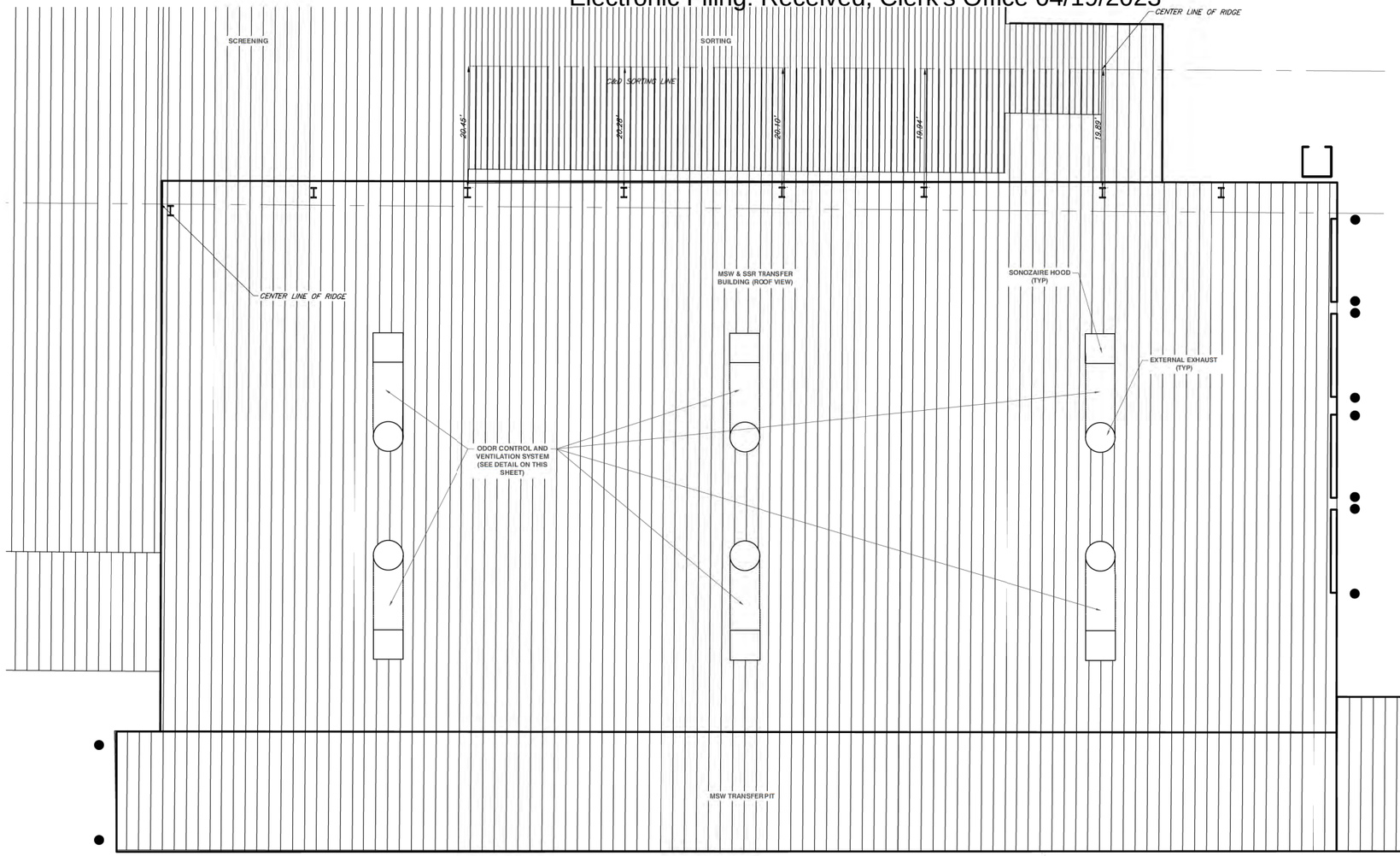
PROPOSED SITE PLAN EAST

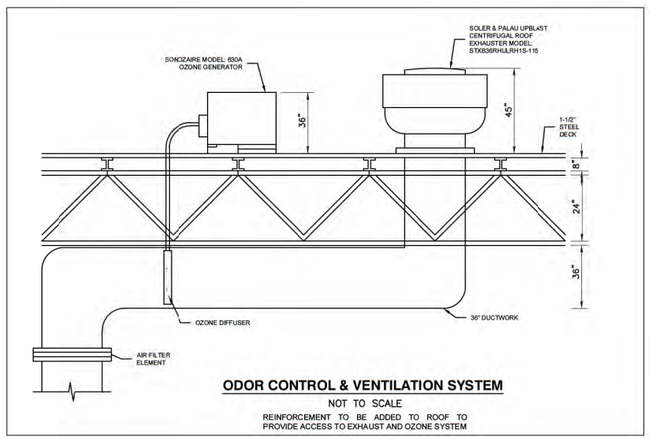
DATE:	JULY 2021
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

DRAWING NO.:
C201
SHEET 15 OF 27

P:\2016\163-899\~2400\Dwg\0105-Local Siting Application\163899-0105-C200 thru C201-Proposed Site Plans.dwg[C201] LS1(10/15/2020 - mkampf) - LP: 7/15/2021 8:24 AM

NORTH





ODOR CONTROL & VENTILATION SYSTEM

NOT TO SCALE

REINFORCEMENT TO BE ADDED TO ROOF TO PROVIDE ACCESS TO EXHAUST AND OZONE SYSTEM

REFERENCE

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
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4. ROOF PLAN VIEW TAKEN FROM DRAWINGS PROVIDED BY SANDMAN, INC., RECEIVED ON SEPTEMBER 29, 2020.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 10 20

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

MSW & SSR TRANSFER BUILDING PLAN VIEW

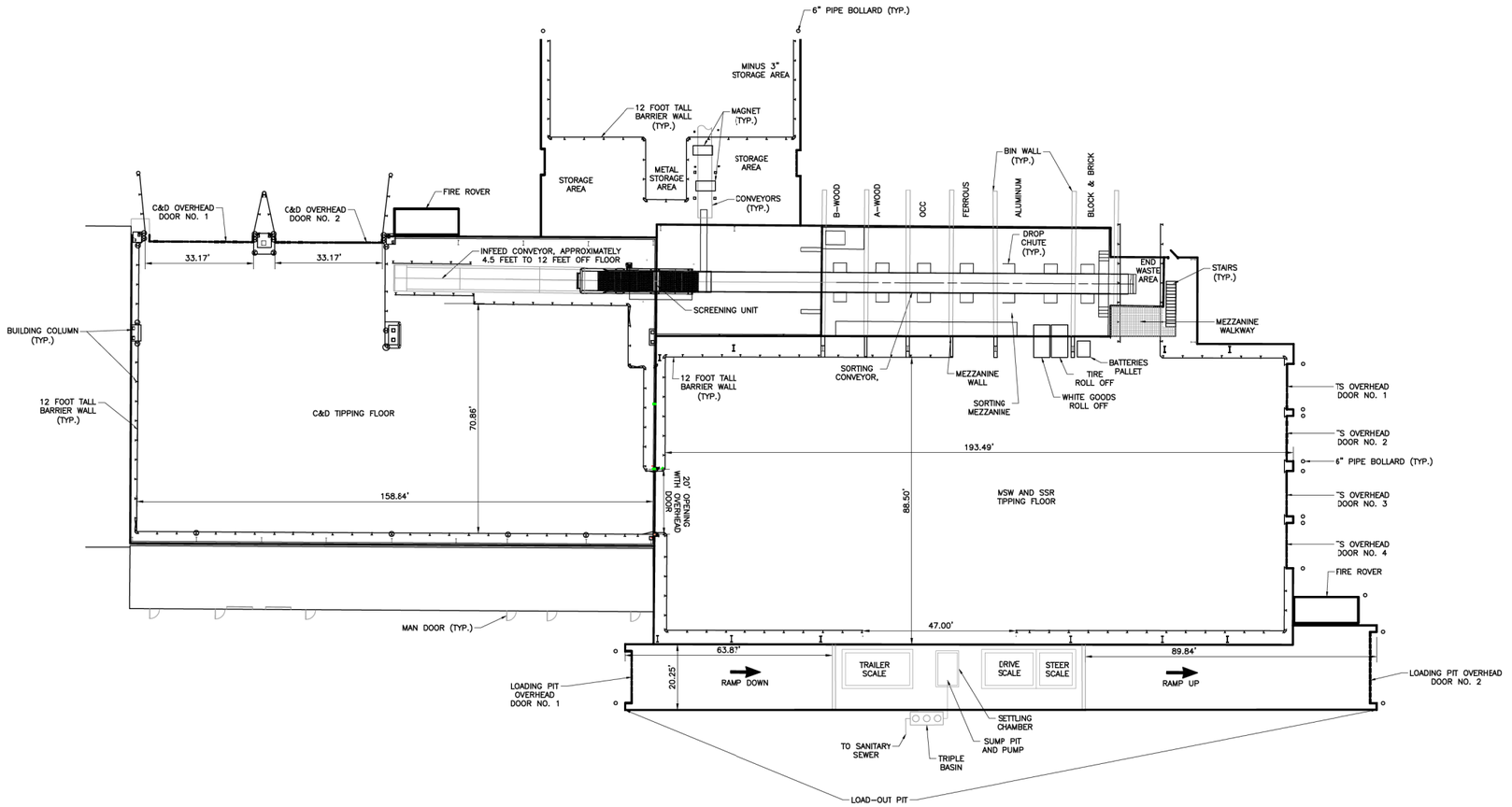
DATE:	JULY 2021
DRAWN BY:	MMS
DWG SCALE:	1" = 10'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

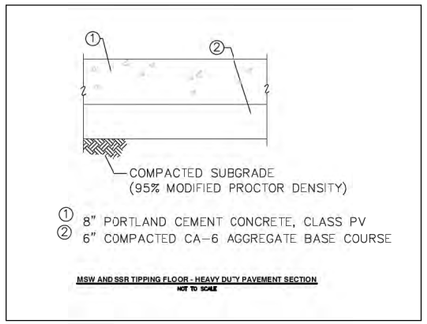
DRAWING NO.: C301

SHEET 17 OF 27

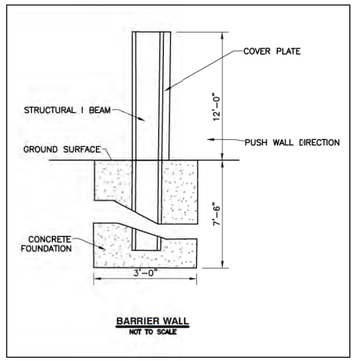
P:\2016\163-899 - CAD\Dwg\CVSE-Local Siting Application\163899-CVSE-LSA2 thru C301-Site Plan Area Details.dwg[C301] (13.5) 8/6/2021 - LP, 8/6/2021 9:18 AM

NORTH

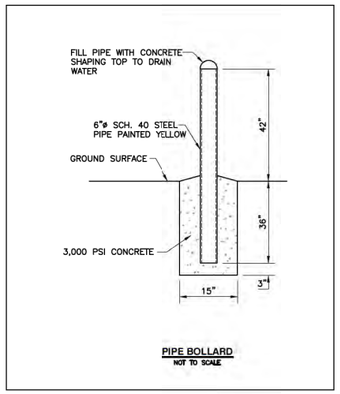




MSW AND SSR TIPPING FLOOR - HEAVY DUTY PAVEMENT SECTION
NOT TO SCALE



BARRIER WALL
NOT TO SCALE



PIPE BOLLARD
NOT TO SCALE

REFERENCE

1. DRAWING BASE IS 8/9/2019 "BARRIER WALL & BOLLARD PLAN" BY SANDMAN, INC.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 20 40

REVISION RECORD		
NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

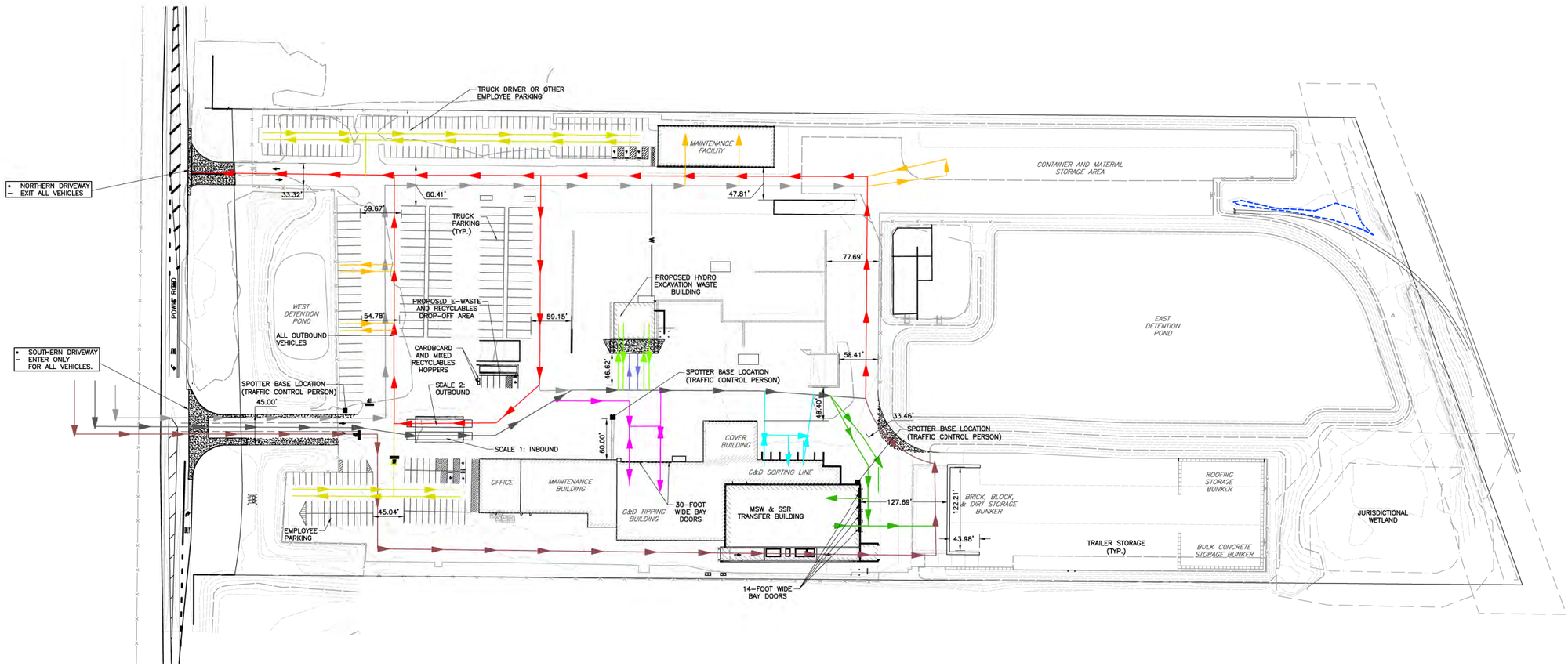
MSW TRANSFER STATION
DETAILED PLAN

DATE:	JULY 2021
DRAWN BY:	MMS
CHECKED BY:	DAK
DWG SCALE:	1"=20'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.:
C302
SHEET 18 OF 27

P:\2016\163-899 - DA001 (Dwg)\CIVIL-Local Siting Application\163899-CIVIL-C302 MSW Transfer Station Detail Plan.dwg[C302] LS/9/9/2021 - mkeuf - LP: 9/9/2021 8:19 AM

NORTH



LEGEND:

1. COLLECTION TRUCKS (MSW & SSR)
2. TRANSFER TRAILER (MSW & SSR)
3. C&D COLLECTION TRUCKS
4. HYDRO EXCAVATION WASTES
5. RECYCLED C&D
6. SOLIDIFIED WASTE
7. STREET SWEEPERS & PORTABLE TOILET TRUCKS
8. PASSENGER VEHICLES
9. INBOUND VEHICLES TO CROSS SCALE
10. INBOUND VEHICLES TO TURN LEFT
11. ALL OUTBOUND VEHICLES

REFERENCE

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. EXISTING CONDITIONS REPRESENTED HERE ARE A COMBINATION OF EXISTING SITE FEATURES AND PROPOSED P.U.D. AMENDMENT IMPROVEMENTS THAT WILL BE IN PLACE PRIOR TO THE ADDITION OF MSW, SOLIDIFICATION, AND E-WASTE DROP-OFF HANDLING WHICH IS THE SUBJECT OF THESE IMPROVEMENT PLANS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 80 160

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

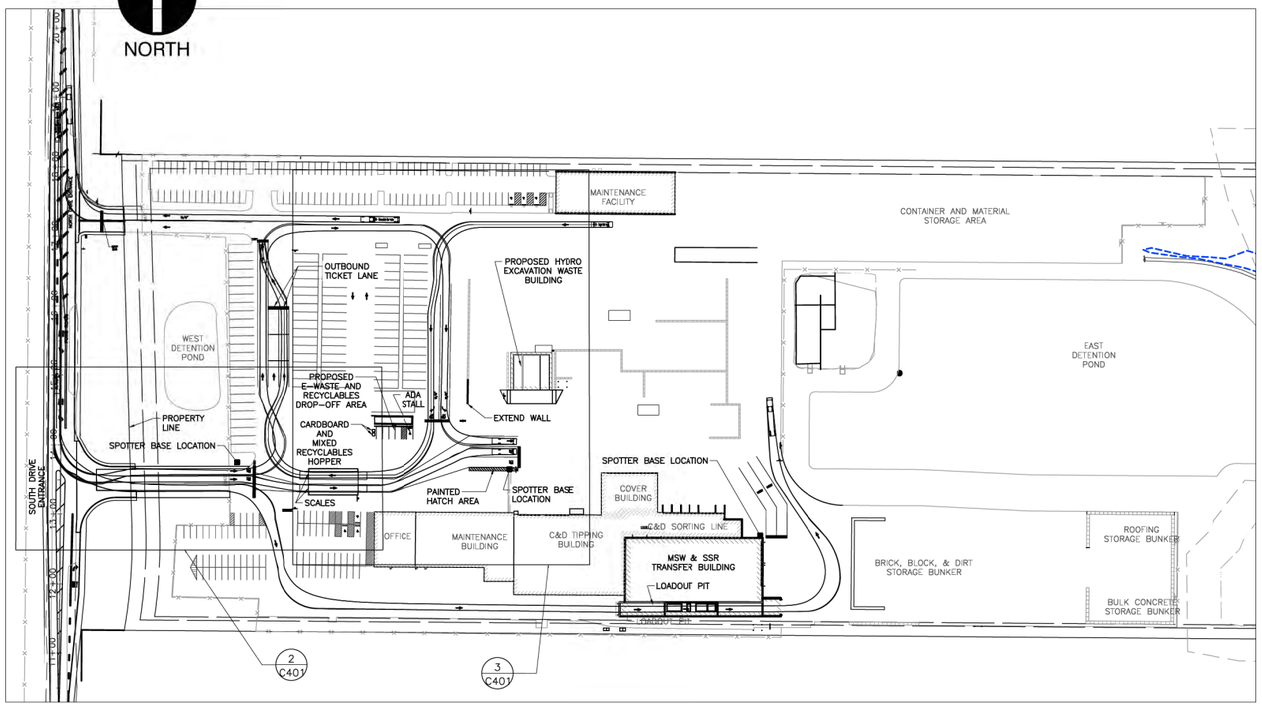
COLLECTION & TRANSFER VEHICLE TRAFFIC FLOW PLAN

DATE:	JULY 2021
DRAWN BY:	MMS
CHECKED BY:	DAK
DWG SCALE:	1" = 80'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C400

SHEET 19 OF 27

P:\2016\163-899\...\C400\Dwg\C400 - Local Siting Application\163899-C400-Collection & Transfer Vehicle Flow Plan.dwg(C400) | 8/9/2021 - 8:19 AM

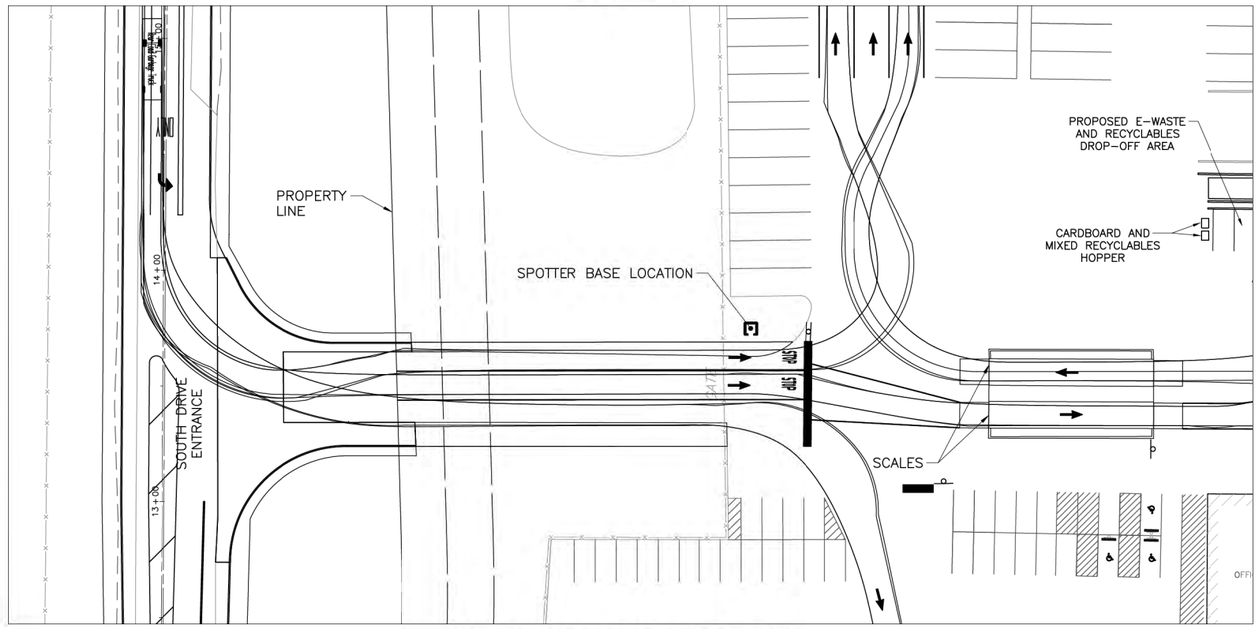


1 C401 PLAN VIEW

1" =100'

SCALE IN FEET

0 100 200

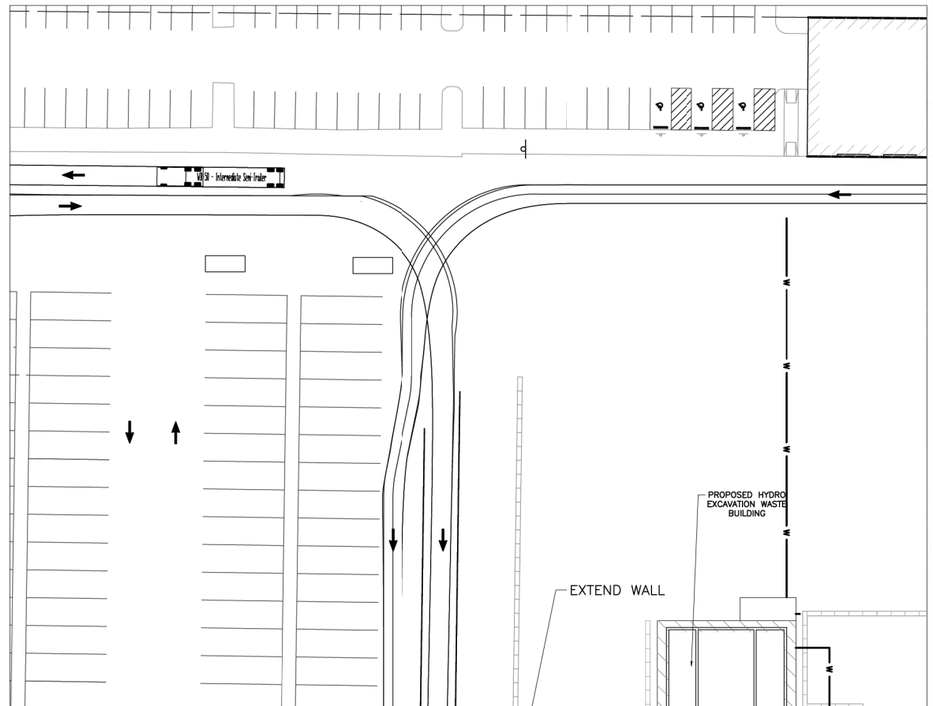


2 C401 SOUTHERN DRIVEWAY/SCALE DETAIL

1" =30'

SCALE IN FEET

0 30 60



3 C401 SCALE/UNLOADING DETAIL

1" =30'

SCALE IN FEET

0 30 60

REFERENCE

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
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*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

VEHICLE TRACKING TURNING TEMPLATES

DATE:	JULY 2021
DRAWN BY:	MMS
DWG SCALE:	AS SHOWN
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C401

SHEET 20 OF 27

P:\2016\163-899\...\C401.dwg | C401 - Local Siting Application | 163899-C005 - C401 Rev C401- Traffic Details.dwg(C401) | 10/15/2020 - mkeogh | LP: 7/15/2021 8:23 AM

NORTH

NORTH DRIVE ENTRANCE

POWIS ROAD

STOP BAR

MAINTENANCE FACILITY

OUTBOUND TICKET LANE

WEST DETENTION POND

PROPERTY LINE

PROPOSED HYDRO EXCAVATION WASTE BUILDING

EXTEND WALL

PROPOSED E-WASTE AND RECYCLABLES DROP-OFF AREA

CARDBOARD AND MIXED RECYCLABLES HOPPER

ADA STALL

SPOTTER BASE LOCATION

SOUTH DRIVE ENTRANCE

SCALES

PAINTED HATCH AREA

SPOTTER BASE LOCATION

COVER BUILDING

SPOTTER BASE LCCATION

OFFICE

MAINTENANCE BUILDING

C&D TIPPING BUILDING

C&D SORTING LINE

MSW & SSR TRANSFER BUILDING

LOADOUT PIT

LOADOUT PIT

REFERENCE

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. EXITING CONDITIONS REPRESENTED HERE ARE A COMBINATION OF EXISTING SITE FEATURES AND PROPOSED P.U.D. AMENDMENT IMPROVEMENTS THAT WILL BE IN PLACE PRIOR TO THE ADDITION OF MSW, SOLIDIFICATION, AND E-WASTE DROP-OFF HANDLING WHICH S THE SUBJECT OF THESE IMPROVEMENT PLANS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

QUEING/STACKING

DATE:	JULY 2021
DRAWN BY:	MMS
CHECKED BY:	DAK
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.:
C402
SHEET 22 OF 27

P:\2016\163-899\...\CAD\Civil\163-899 - C402 - Local Siting Application.dwg - C402 - Traffic Details.dwg [C402] 1/5/2021 - 10:01 AM

NORTH

NORTH DRIVE ENTRANCE
POWIS ROAD
SOUTH DRIVE ENTRANCE
STOP
STOP BAR
55.41'
w/6"
17.68'
15.87'
24'
MAINTENANCE FACILITY
SIGN
TO SCALES
EXIT
OUTBOUND TICKET LANE
15.00'
15.00'
15.00'
15'
15'
25'
197'
181'
WEST DETENTION POND
PROPOSED HYDRO EXCAVATION WASTE BUILDING
EXTEND WALL
"NO PEDESTRIAN" SIGN
ALL TRUCKS
SIGN
E-WASTE AND RECYCLING DROP-OFF AREA
PROPOSED E-WASTE AND RECYCLABLES DROP-OFF AREA
CARDBOARD AND MIXED RECYCLABLES HOPPER
ADA STALL
PROPERTY LINE
SPOTTER BASE LOCATION
12.50'
12.50'
20.00'
SCALES
SIGN
LOAD LANES
BYPASS
C&D
C&D
PAINTED HATCH AREA
70.00'
PAINTED ARROWS AND TEXT (TYP.)
SPOTTER BASE LOCATION
COVER BUILDING
OFFICE
MAINTENANCE BUILDING
C&D TIPPING BUILDING
C&D SORTING LINE
MSW & SSR TRANSFER BUILDING
LOADOUT PIT
SIGN
TC SCALES
EXIT
SIGN
ALL TRAFFIC
MSW
14+00
15+00
16+00
17+00
18+00
13+00
12+00

REFERENCE

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SCALE IN FEET
0 40 80

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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

SIGNAGE AND PAVEMENT MARKING PLAN

DATE:	JULY 2021
DRAWN BY:	MMS
CHECKED BY:	DAK
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.:
C403
SHEET 23 OF 27

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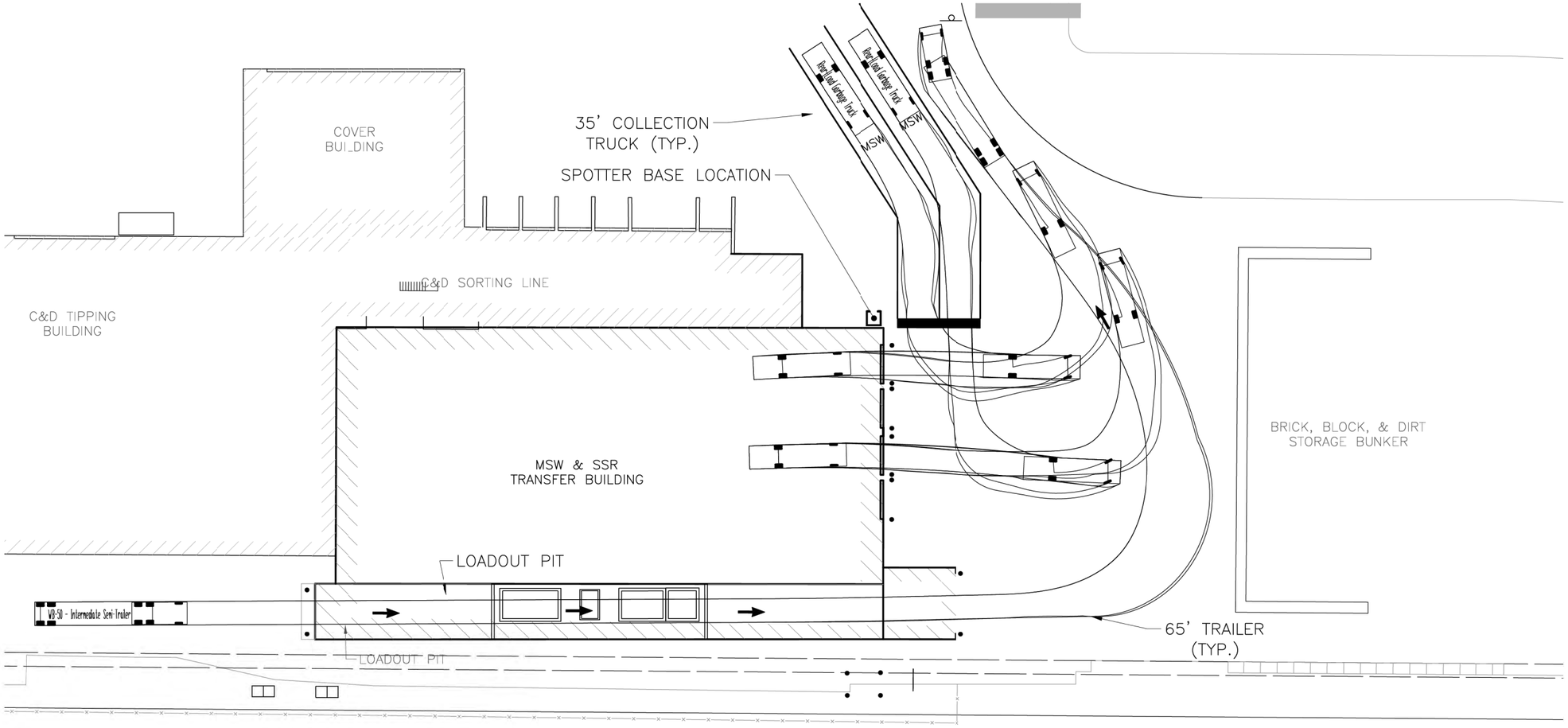
NORTH



REFERENCE

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*HAND SIGNATURE ON FILE

SCALE IN FEET
0 20 40

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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLILNOIS

MSW TRAFFIC MOVEMENT PLAN

DATE:	JULY 2021	DRAWN BY:	MMS
DWG SCALE:	1"=20'	CHECKED BY:	DAK
PROJECT NO:	163-899.0005	APPROVED BY:	JEH*

DRAWING NO.:
C401A

SHEET 21 OF 27

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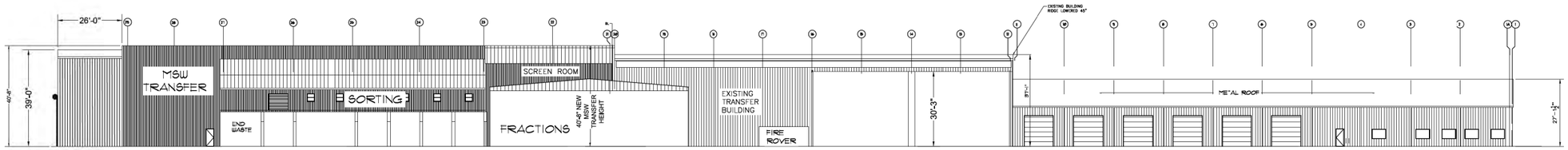
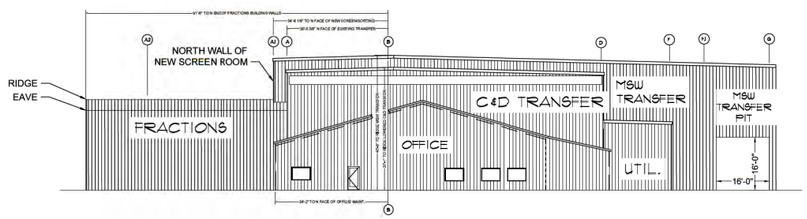


NORTH ELEVATION
NOT TO SCALE



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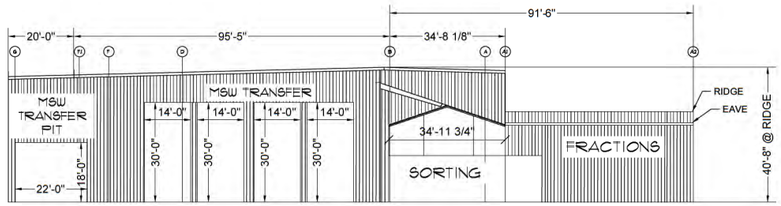
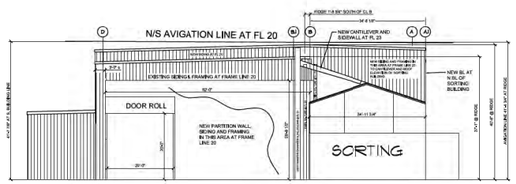


EAST ELEVATION OPTION 1 AT FL 23
NOT TO SCALE



NEW BUILDING EAST WALL LINE AT FL 23 TO ROOF LINE OF SORTING BUILDING
NOT TO SCALE

REFERENCE

1. BUILDING ELEVATIONS SHOWN ABOVE WERE GENERATED BY SANDMAN INC. RECEIVED ON SEPTEMBER 29, 2020.

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REVISION RECORD

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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

TRANSFER BUILDING EXPANSION 1

DATE:	JULY 2021
DRAWN BY:	MMS
DWG SCALE:	NOT TO SCALE
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

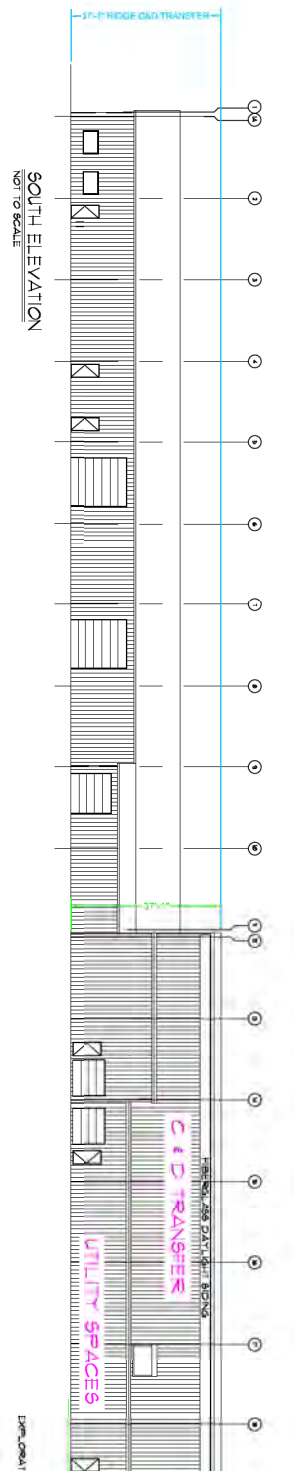
DRAWING NO.:
A1A
SHEET 24 OF 27

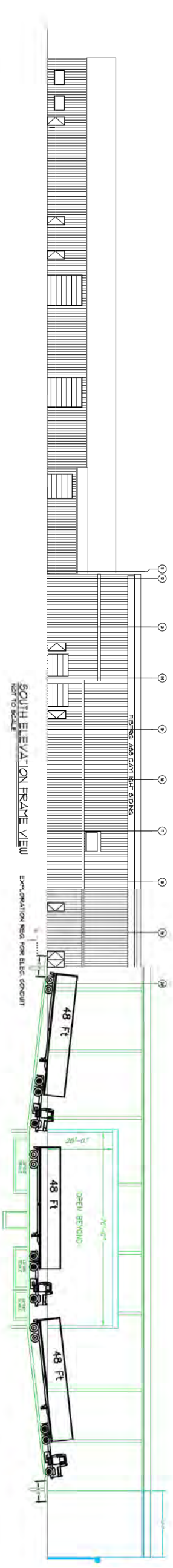
M:\2021\163-899.0005 - 1655 Powis Road, West Chicago, IL\CAD\Drawings\Site Application\A1A - Elevations.dwg, 9/8/2021 8:57:51 AM, jhoffman

P:\2015\163-899\-CADD\Dwg\CVGS-Local Siting Application\163899-CVGS-A1A thru A1B-Architectural.dwg[A1B] 13:(10/15/2020 - rmchilsen) - LP: 7/15/2021 9:25 AM

REFERENCE

1. BUILDING ELEVATIONS SHOWN ABOVE WERE GENERATED BY SANDMAN INC. RECEIVED ON SEPTEMBER 29, 2020.





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DRAWING NO.: A1B
SHEET 25 OF 27

TRANSFER BUILDING EXPANSION 2

DATE:	JULY 2021	DRAWN BY:	MMS
DWG SCALE:	NOT TO SCALE	CHECKED BY:	DAK
PROJECT NO:			163-899.0005
APPROVED BY:			JEH*

WEST DUPAGE RECYCLING AND TRANSFER STATION LOCAL SITING APPLICATION 1655 POWIS ROAD WEST CHICAGO, ILLILNOIS

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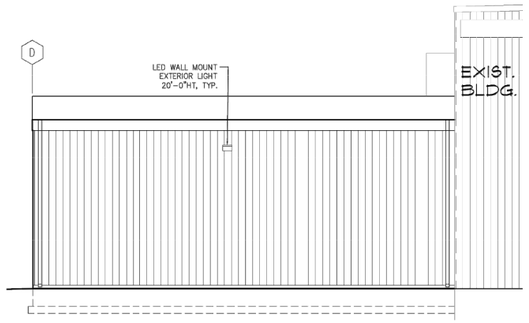
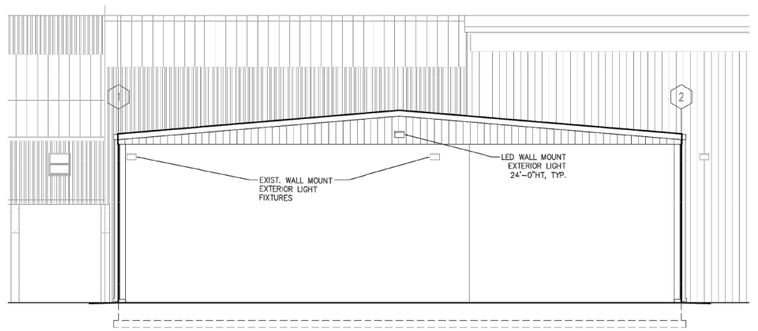
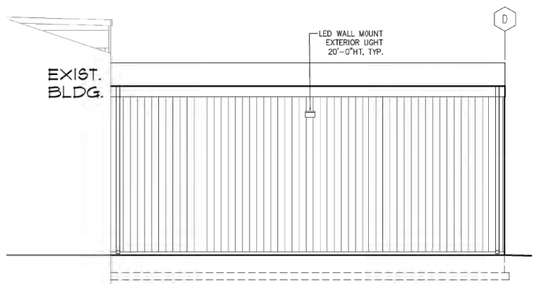


PROPOSED WEST ELEVATION
SCALE: 1/8" = 1'-0"



PROPOSED NORTH ELEVATION
SCALE: 1/8" = 1'-0"



PROPOSED EAST ELEVATION
SCALE: 1/8" = 1'-0"

10/4/19
11/30/20

Lakeshore Recycling Systems
FRACTIONS BUILDING
1655 POWIS RD. WEST CHICAGO, IL 60185
m.j.root • architect
324 center rd. frankfort, illinois 60423 815-464-0777

date: OCT. 4, 2019
revised:
drawing: 3 of

*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

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630-963-6026 - 877-963-6026
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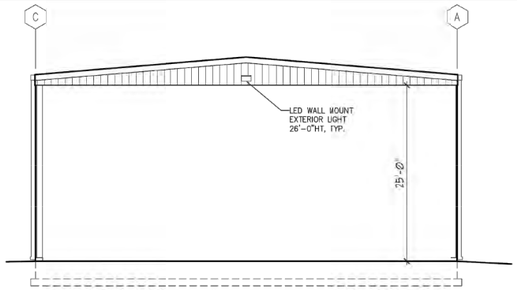
WEST DUPAGE RECYCLING
AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLILNOIS

FRACTIONS BUILDING

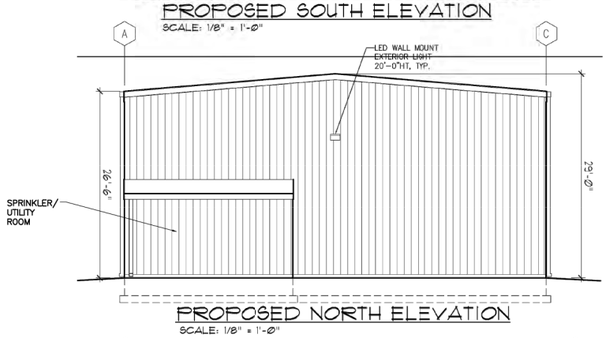
DATE:	JULY 2021
DRAWN BY:	MMS
DWG SCALE:	NOT TO SCALE
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.:
A2
SHEET 26 OF 27

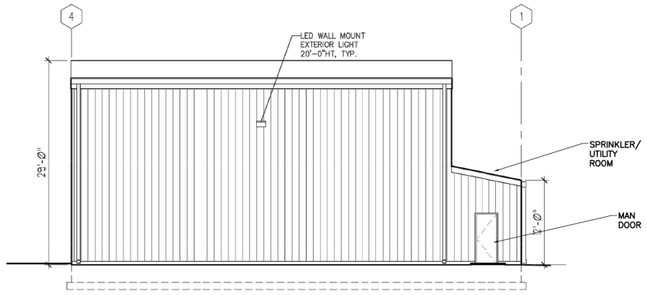
M 525 2021 21 - [Sheet - 2020/10/07 LST] [M:\dwg\Architecture\Active\A1 thru 5 SDS - 1663-899.0005 - West Chicago Application\Site Application 163-899.0005 - West Chicago.dwg] 10/07/2020 11:57:51 AM



PROPOSED SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



PROPOSED NORTH ELEVATION
SCALE: 1/8" = 1'-0"



PROPOSED EAST ELEVATION
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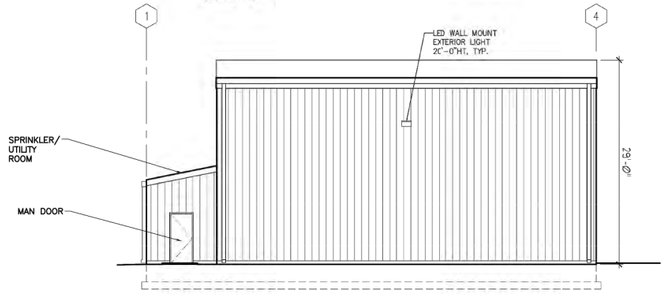

PROPOSED WEST ELEVATION
SCALE: 1/8" = 1'-0"

10/4/19
11/30/20

Lakeshore Recycling Systems
SOLIDIFICATION BUILDING
1655 POWIS RD. WEST CHICAGO, IL 60185
m.j.root • architect
324 center rd. frankfort, illinois 60423 815-464-0777

date: OCT. 4, 2019
revised:
drawing: 3 of

*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING
AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

SOLIDIFICATION BUILDING

DATE:	JULY 2021
DRAWN BY:	MMS
DWG SCALE:	NOT TO SCALE
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: A3
SHEET 27 OF 27

P:\2016\163-899\-CAD\Dwg\CAD-Local Siting Application\163899-CADS-A2 thru A3-Architectural.dwg[A3] 10/14/2020 - mkempf - Lft 7/15/2021 8:25 AM

ATTACHMENT 4

OPERATING PLAN

2.4 OPERATIONS PLAN

This section describes the daily operating procedures at the proposed transfer station facility. The operations plan details waste acceptance and handling procedures, nuisance control procedures, staffing and equipment requirements, cleaning procedures and closure plan for the proposed transfer station. Per the Host Agreement Community Benefit Agreement between the City of West Chicago, DuPage County, Illinois, and Lakeshore Recycling Systems, LLC for a Solid Waste Transfer Facility (Host Agreement), West DuPage RTS shall conduct all operations in a manner that is protective of the public health, safety, welfare, groundwater resources and the environment. West DuPage RTS shall comply with all city ordinances and all applicable laws, ordinances, rules, and regulations, including but not limited to Illinois Pollution Control Board regulations and the city code.

2.4.1 DAYS AND HOURS OF OPERATION

Consistent with the Host Agreement, West DuPage RTF anticipates operating hours for the MSW Transfer Station of 4:00 a.m. to 12:00 a.m. on weekdays and 4:00 a.m. to 12:00 p.m. on Saturdays, with no operation on Sundays or the six major federal holidays (New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day), provided that on the Saturday following any federal holiday regular business hours may be extended by the company to 12:00 a.m. The regular business hours for accepting municipal and hydro excavation waste may be extended upon the prior approval of the city in writing (definition of regular business hours in Host Agreement). C&D will continue to be accepted Monday through Saturday, twenty-four hours per day, consistent with the current operations.

2.4.2 FACILITY STAFFING AND TRAINING

LRS currently employs over 125 persons at the facility including office personnel, mechanics, drivers, operators, facility manager, and laborers. The proposed transfer station will be staffed with the necessary number of employees to safely and efficiently operate the facility. A facility manager and operators will primarily manage and perform the operations at the MSW transfer and solidification buildings. A brief description of their primary duties and training requirements is provided below. The exact number and duties of personnel managing and performing the operations at the MSW transfer and solidification buildings may vary over time.

2.4.2.1 Facility Manager

The facility manager is responsible for the supervision of all activities at the site, including safety and emergency response coordination (emergency coordinator), inspection of all operational and

safety equipment, on-the-job training for personnel, site inspection, production and incident reporting and record keeping, and load inspections. The facility manager duties are:

- To allocate work efficiently to all support staff in order to maximize productivity, meet customer demands and maintain quality of service.
- To efficiently develop and provide appropriate work training and instruction to staff members, in accordance with company deadlines.
- To communicate customer requirements to relevant staff members.
- To manage the completion of all operating equipment installations, repairs, and replacements in accordance with company procedures and deadlines.
- To recruit and train/arrange training for staff for the site as required.

Responsibilities will also include coordinating and maintaining site records. These records include, but are not limited to, waste and recyclable receipt data, load checking reports, results of inspections (by IEPA or relevant local authorities), copies of all submitted reports (to IEPA or any relevant local authorities), employee training records, and employee personnel records.

2.4.2.2 Equipment Operators

At least one trained operator per shift will be present and responsible for operating the wheel loader used to load waste and recycling materials from the tipping floor into the transfer trailer, and operate any other equipment needed for operations. This person will also ensure that all weight records of transfer trailers are collected and stored. This position requires training on hazardous waste identification. A similarly trained operator will be present in the C&D transfer/screening building and the hydro excavation waste building during operations.

2.4.3 WASTE ACCEPTANCE

West DuPage RTS will accept municipal waste and SSR for transfer to off-site disposal location(s). "Municipal waste" is defined by Section 3.290 of the Illinois Environmental Protection Act to mean garbage, general household and commercial waste, industrial lunchroom or office waste, landscape waste, and construction or demolition debris. The site will also accept SSR for transfer to processing facilities for separation and re-use as a commodity.

While included in the definition of municipal waste, landscape waste has been banned from disposal in Illinois landfills since July l, 1990 and now has an entirely separate regulatory structure that involves composting. Thus, West DuPage RTS will not accept loads of landscape waste.

Hydro excavation wastes are a solid/liquid waste created through a combination pressurized water and air vacuum system generally used for construction or maintenance services, such as potholing to expose utilities, installation of utility poles, installation of piers/footings, trenching near utilities, and clean out of storm sewers. The system cuts through soils/materials, breaks them up, and lifts the slurry from the excavation area into a debris tank.

West DuPage RTS will accept hydro excavation wastes for solidification and transfer to off-site disposal location(s). "Hydro Excavation Wastes" is defined to mean solid/liquid waste such as hydro/vacuum excavation muds, underground excavation material, and other similar materials (definitions in Host Agreement). This is the same definition as listed in the Host Agreement except that "drilling muds" has been removed. Operational procedures for the hydro excavation wastes is provided in Appendix 2-H.

The C&D Recycling Facility will continue to meet following requirements contained in the site's current IEPA Permit (Permit No. 2015-124-OP provided in Appendix 2-A) and Section 22.38 of the Illinois Environmental Protection Act.:

- Sort all general C&D (to separate recyclable material from non-recyclable material) within forty-eight hours of receipt [Special Condition 28].
- Transport all non-recyclable and unacceptable material off-site for disposal within seventy-two hours of its receipt [Special Condition 30].
- Transport off-site all putrescible or combustible recyclable general C&D within forty-five days of receipt [Special Condition 33].
- Store recyclable concrete or clean soil for a maximum period of three months [Special Condition 37].
- Transport off-site all non-putrescible recyclable general C&D within six months of receipt [Special Condition 32].

The site will reject materials that are not compatible with the operations of the proposed transfer station facility. The following wastes, at a minimum, are considered unauthorized and will not be knowingly accepted at the site:

- Hazardous substances (as defined by Section 3.215 of the Illinois Environmental Protection Act);
- Hazardous waste (as defined by Section 3.220 of the Illinois Environmental Protection Act);
- Potentially infectious medical wastes (as defined by the Illinois Environmental Protection Act in Section 3.84);

- Universal waste (as defined by Title 35 of the Illinois Administrative Code Part 733 including batteries, pesticides, mercury-containing equipment and lamps);
- Regulated asbestos containing materials;
- Polychlorinated biphenyl wastes;
- Used motor oil;
- Source, special or by-product nuclear materials;
- Radioactive wastes (both high and low level);
- Sludge;
- White goods (incidental white goods received at the proposed transfer station will be segregated and stored for pickup by an off-site recycler);
- Lead-acid automotive batteries (incidental automotive batteries received at the transfer station will be segregated and stored for pickup by an off-site recycler);
- Used tires (incidental tires received at the transfer station will be segregated and stored for pickup by an off-site recycler); and
- Landscape waste.

Rejected materials will not be allowed to unload, or will be promptly removed and transferred to an appropriate facility for ultimate disposition or, to the extent allowed by law, legally placed back on the vehicle that transported said unauthorized waste to West DuPage RTS and sent away from West DuPage RTS.

West DuPage RTS reserves the right to reject any other materials or loads that are deemed incompatible with site operations. West DuPage RTS will deny access to a vehicle for reasons that include, but are not limited to, the following:

- The vehicle is known, or reasonably suspected, to contain unauthorized waste materials.
- The vehicle appears likely to leak or spill material, especially material that is easily windblown or otherwise scattered.
- The vehicle does not appear to be in safe operating condition.
- The vehicle has repeated non-compliance with LRS's tarping policy.

2.4.4 OPERATING EQUIPMENT

Mobile equipment will be used to facilitate all transfer operations and to handle material for storage and load out after processing. The following provides an overview of the typical types of equipment that will be used at the proposed transfer station facility:

- Semi-tractor/yard tractors for transfer trailer hauling/on-site movement;

- Semi-trailers for material transfer to landfill; and
- Wheel loaders for material handling to transfer trailers.

Other equipment may also be used as needed. If replacement equipment is necessary, due to equipment failure or breakdown, the equipment will be brought in from contractor rental yards. The list of mobile equipment may be changed or supplemented in response to incoming volumes, materials types, etc.

2.4.5 TRANSFER OPERATIONS AND STORAGE

Per the Host Agreement, all tipping of municipal waste at the transfer facility shall be on the tipping floor inside the transfer building, and, except as provided below, the West DuPage RTS shall have the tipping floor free of waste and cleaned with a mechanical street sweeper by the end of each operating day.

Per the Host Agreement, no municipal waste shall be left on the tipping floor inside the transfer building or outside the transfer building on the transfer facility property overnight, except:

- In transfer trailers, provided that such trailers are suitably covered and staged at least 500 feet from Powis Road right-of-way;
- In the event of an emergency, the IEPA or person previously appointed by the city council or, in the absence of such an appointment, the mayor has given prior approval of temporary overnight storage on the tipping floor inside the transfer building; and
- Empty waste collection containers and empty transfer trailers may be stored outside the transfer building at least 500 feet from Powis Road right-of-way.

Unloading and loading of the waste will take place only inside the transfer station building, and only under the direction of West DuPage RTS operating personnel. Loading equipment inside the structure will load the waste into transfer trailers in the loading pit on the south side of the building. All transfer trailers are planned to be equipped with auto tarpers. The exit ramp will be approximately 20 feet wide and a building extension will be provided at the loading ramp exit to allow adequate space for the autotarping prior to exiting the building. During tarping, the driver will be trained to make sure that no waste is clinging to the outside of the transfer trailer and no leaks are occurring.

Per the Host Agreement, West DuPage RTS agrees to keep the truck doors to the transfer facility closed, except for emergencies and to allow trucks to enter and exit the facility, during regular business hours. Spotters will be present inside and outside of the MSW and SSR transfer building to open and close the doors as vehicles enter and exit the MSW and SSR transfer building.

No waste shall be left on the floor of the transfer station for more than twenty-four hours. Single-stream recyclables may be stored on the floor inside the transfer station building as needed to allow sufficient material to be accumulated to provide a full transfer trailer load. Salvaging of recyclable material from MSW loads may occur if adequate tipping floor space is available (e.g., during non-peak hours or during lower volume days). For example, loads with predominantly metal or concrete material may be salvaged from the incoming waste and placed in storage bunkers for subsequent recycling (similar to the material from the C&D recycling operation).

Waste and/or recyclables may be kept temporarily outside in transfer trailers which are tarped/covered for no more than twenty-four hours, except over holidays and weekends, when the time shall be extended by an additional twenty-four hours for a holiday and forty-eight hours for a weekend. As indicated above, all transfer trailers shall be tarped/covered at all times during such periods of temporary storage.

2.4.6 ON-SITE TRAFFIC CONTROLS

As vehicles enter the site, pavement markings and/or signs will direct the vehicle which lane to use. A spotter will be stationed at the entrance to assist/ direct vehicles as needed (see Drawings C400 through C404).

In-bound collection vehicles will proceed over the in-bound scale. Security cameras, a screen display and an intercom is present for the driver to communicate with the scale clerk located in the office. The purpose of the scales is the measure the weight of the waste being delivered to the site. Typically an in-bound and out-bound weight are obtained, and then the difference between the two weights is the amount of waste delivered to the site (and is the basis of the customers invoice). Customers may request a ticket/receipt documenting the recorded weights upon exiting the site. Currently, drivers need to park and exit their vehicles to walk into the office to provide payment and/or obtain a printed ticket.

LRS will be implementing an electronic ticketing system at the site to minimize time on the scales and the ticketing/ receipt process. This system is currently in the process of being deployed at the other LRS facilities, and has received positive feedback to date. The process includes the following.

- For the inbound trucks, the scale clerk simply records the company name, license plate, driver, material, weight, and related information. The process is very quick, and the truck generally only needs to stop for about ten seconds on the in-bound scale.

- LRS collects and stores tare-weights (empty weights) of each of the packer-trucks for its own vehicles and regular customers (recalibrated monthly). The stored tare-weight is then used for each transaction, which allows those vehicles to predominantly bypass the outbound scale. For these customers, the scale clerk routinely sends a batch-ticket to the designated customer via email.
- For those that do need to proceed over the out-bound scale, a large monitor/screen (approximately 50 inches) and corresponding camera system will be present which will display the truck, license plate, driver, tare- weight and related information. The driver can take a picture of the monitor/screen with their phone, opt for an emailed ticket, or request a printed ticket/receipt.
- For those that request a printed ticket/receipt or need to provide payment, the vehicle will pull off the scale and park in the designated area along the east side of the exit drive. A scale assistant will then obtain payment and/or print the ticket/receipt from a handheld device. This eliminates the driver exiting the truck or entering the office, and dramatically decreases the per truck scale time.

A spotter will also be present at the queuing areas for the C&D tipping building and the MSW and SSR transfer building (see Drawings C401 through C404). The spotters will communicate to the waiting vehicles when a loading area is available and which to use. They will assist outbound vehicles as needing regarding the outbound route. Signage will be present at the site as shown on Drawing C403 to assist drivers.

2.4.7 CLEANING PROCEDURES

The tipping floor will be cleaned using a mechanical street sweeper with a water spray and vacuum system at least once per twenty-four-hour period. The tipping floor and barrier walls will be cleaned with a pressure washer after sweeping at least weekly to remove waste residue and further control odors. A disinfectant may be used in the washwater to control odors. The area behind the barrier walls will also be routinely inspected and cleaned. All excess wash waters from the tipping floor will be directed through the oil-water separator to the sanitary sewer system along the south perimeter of the MSW and SSR building (see Drawing C302).

2.4.8 LITTER CONTROL

Unloading, transferring and loading of all waste will be performed within the transfer station building to minimize the potential for wind-blown distribution of litter. Tarps on all loaded incoming and outgoing open-top trucks will contain the waste to prevent its escape onto the grounds or the public roadways. Loaded transfer trailers will be tarped using auto tarpers prior to exiting the loading pit ramp. A building extension is provided on the east (outbound) end of the

loading pit such that the tractor will be on level ground while tarping. LRS uses the ratchet side roll for open top trailers manufactured by Mountain Tarp. LRS has a fleet of approximately 100 transfer trailers and approximately twenty-five are equipped with these auto tarpers. The remainder of the fleet is planned to be equipped with auto tarpers in the next two years. Any brokers which are used will be required to use a similar auto tarper. West DuPage RTS shall use its best efforts to assure that vehicles hauling waste to and from West DuPage RTS shall be suitably covered so as to prevent waste from leaving the vehicles.

Fencing surrounds the West DuPage RTS property, and assists in keeping any windblown litter from leaving the site. In order to ensure the effectiveness of these litter prevention measures, West DuPage RTS will patrol the site during hours of operation to collect any litter. Any litter collected will be added to the waste being managed on the tipping floor.

Per the Host Agreement, West DuPage RTS shall seek to prevent any waste, litter or debris from being discarded onto public traveled roads due to the operation of the West DuPage RTS and shall abide by a litter control plan as approved by the city as a result of the siting process. Should the waste, litter or debris from such operation pose a problem in the reasonable opinion of the city, the city, at its option, may require the West DuPage RTS to sweep or otherwise clean Powis Road in the City of West Chicago, as needed. West DuPage RTS shall keep the site, including all buildings and other improvements built or utilized by West DuPage RTS, in good condition and repair for the term of the Host Agreement.

2.4.9 VECTOR CONTROL

Several design and operational features have been incorporated into the proposed transfer station to minimize the potential to attract vectors, including:

- Elimination or minimization of available food by removing waste on a first in, first out basis. The waste material will remain at the proposed transfer station for only a short period of time before being processed and removed;
- Daily cleaning of the floor inside the proposed transfer station building, as discussed above;
- Regular inspections by site personnel for rodents, insects and birds;
- Containment of waste within the transfer station building;
- Requiring that all vehicles entering and exiting the site be properly tarped or fully enclosed; and
- Contracting with a professional exterminator to inspect and/or treat the site on at least a biweekly basis.

2.4.10 DUST AND MUD CONTROL

All access roads, parking areas, storage areas and vehicle-maneuvering areas will be appropriately paved, thus minimizing dust generated at the site. With the exception of entrance and exit bays, the transfer station buildings will be fully enclosed to protect operations from the wind. Potential dust impacts from material operations within the structure (e.g. unloading, processing, and loading) will be mitigated by periodic wash downs of the floors and barrier wall areas.

Per the Host Agreement, at a minimum, the company shall provide a street sweeper to remove mud, dirt and dust tracked on to hard surfaces inside and outside the site including onto Powis Road within three-fourths mile of the site on an as-needed basis, but not less frequently than daily except during severe weather conditions (e.g., heavy rains, winter conditions when salt has been applied to the roadway). All access drives, parking areas, storage areas and vehicle maneuvering areas at the site shall be paved and swept with a street sweeper as needed, but not less frequently than daily.

2.4.11 ODOR CONTROL

Odors will be controlled at the facility through several effective design and operating features. Waste will be delivered primarily in enclosed vehicles, and tarps will be required on all non-enclosed loads. Unloading, transferring, and loading operations will be performed within the building. Waste will be removed from the tipping floor with a frequency adequate to greatly minimize the generation of odors. The cleaning procedures discussed in Section 2.4.7 will also help control odors.

Per the Host Agreement, West DuPage RTS agrees to the following to control odors:

- Conduct all MSW handling and transfer operations completely indoors.
- MSW will be delivered primarily in enclosed vehicles, and tarps will be required on all non-enclosed loads.
- Unloading, transferring, and loading operations for MSW will be performed within the building.
- MSW will be removed from the tipping floor with a frequency adequate to greatly minimize the generation of odors.
- The MSW tipping floor areas will be cleaned with a pressure washer as needed.

- If malodors are detected off-site, the source of odor generation will be removed from the site, and the off-site condition will be monitored by site personnel to insure against reoccurrence. If a continuous source of odorous materials is identified, the generator will be contacted and advised that the materials must be effectively treated for odor control or the service will be discontinued and the materials no longer brought to the site.

Due to the Site's proximity to the DuPage Airport, the MSW and SSR transfer building will be equipped with a ventilation and filtration system. The ventilation system will remove air from the building and be designed to work in conjunction with the building design and operations to provide a negative air pressure condition within the building. The filtration system will be designed to effectively eliminate any odors from the exhaust. The ventilation and filtration system will include the following:

- Ventilation fans mounted in the roof or outside walls of the MSW and SSR transfer building;
- A duct system at the inlet of each ventilation fan;
- An ozone generating equipment and dispersion device installed within each duct system which will destroy any odorous compounds or bacteria; and
- A particulate filter system at the inlet of each ventilation unit.

The design details of the ventilation and filtration system are provided in Appendix 2-I and Drawing C301.

The MSW and SSR transfer building will be equipped with fast opening/closing doors at all vehicle ingress/egress locations including openings for transfer trailers and waste collection vehicles. LRS employees serving as spotters will open and close the doors as vehicles enter and exit the MSW and SSR transfer building. Doors will also be provided at vehicle access locations to the C&D Tipping Building and any storage bunkers under the sorting line. The doors are sized and will be operated to minimize the area open to the outside at any one time (which will maximize the effectiveness of the ventilation system).

The design of the ventilation and filtration system and proposed odor control procedures were agreed upon and incorporated into the Airport Agreement discussed in Section 2.1.4.7. The Airport Agreement indicates that DAA agrees that the proposed West DuPage RTS will not pose a threat to the safe operation of the DuPage Airport.

2.4.12 NOISE CONTROL

Noises associated with the operation of the proposed transfer station include vehicular traffic, equipment, and safety signals on mobile equipment. The design and location of the proposed transfer station minimizes the potential for noise related concerns.

West DuPage RTS is located in an industrial area and will have minimal noise impact to the surrounding properties. Noise characteristics are expected to be similar to those generated by existing surrounding land uses.

Unloading and loading of the transfer vehicles will take place inside the proposed transfer station building, thereby reducing noise levels outside of the building. All on-site equipment will be equipped with mufflers and will utilize other sound-suppressing devices, as required, for compliance with applicable state regulations. A routine maintenance program will be followed to ensure all on-site equipment is kept in good working order.

2.4.13 SITE SECURITY

West DuPage RTS as proposed is bordered on the north by manufacturing properties, the east by railroad tracks, the south by a closed landfill, and to the west by Powis Road and the DuPage Airport. The site is surrounded with 6-foot fence with a locking gate system. The point of access to the proposed transfer station will be two gated entrance/exits off Powis Road. Signage is present at the entrance gate identifying the facility, operating hours and a warning to all unauthorized persons. A similar sign will be placed at the exit gate.

During operating hours, all traffic entering the facility passes by the scale office, which is visible to the scale personnel and equipped with multiple security cameras that are visible on monitors by the scale personnel. The security cameras are positioned to allow full and constant visibility of the driveway, scale, and entrance area. Any unauthorized traffic will be stopped at this point. During non-operating hours, the access gates at Powis Road will be in a closed and locked position. Lights are installed at the site entrance, in parking areas and on the transfer station building to provide adequate lighting. A security camera system will also be installed at strategic locations around the site. The site currently has approximately fifty security cameras located inside and outside of buildings, which have twenty-four-hour local and remote viewing access.

Per the Host Agreement, any area used for the outdoor storage of any material or equipment will be fenced and visually screened from viewing from off the site by means of said fence and appropriate landscaping as approved by the city.

2.4.14 VEHICLE FUELING PROCEDURES

Vehicles will be fueled using mobile equipment. Fuel tanks are also located on-site.

2.4.15 COMMUNICATIONS

All equipment operators at the facility will be equipped to communicate with the facility manager and other personnel via mobile phone at all times during operating hours. Emergency numbers will be clearly posted.

2.4.16 MONITORING PLAN

Stormwater discharges will be monitored quarterly at the West DuPage RTS in accordance with the NPDES permit and stormwater pollution prevention plan as described in Section 2.3.2. Wildlife will also be monitored quarterly as discussed in Section 2.4.18.

The proposed design and operations of the West DuPage RTS preclude the potential for impacts to groundwater. In addition, the West DuPage RTS does not include the construction or operation of any regulated air emission sources. As such, no groundwater and/ or air quality monitoring is anticipated to be required by the IEPA, and no groundwater and/or air monitoring is proposed.

2.4.17 RECORDKEEPING

Accurate and up-to-date records documenting facility operations will be maintained at the site. These records will include, but are not limited to, the following:

- Daily records of the amounts and description of the various types of materials received;
- Load inspection reports;
- Results of inspections (by IEPA, county, or local authorities);
- Copies of all submitted reports (to IEPA, county, or local authorities);
- Employee training records; and
- Employee personnel records.

The records will be maintained for a period of at least two years. The records of the amounts and description of the various types of materials received will include both waste receipts and scale weight on the disposal tickets and logs (electronic and/or hard copies), including, without limitation, those showing the amount in tons of all material received.

2.4.18 WILDLIFE HAZARD MITIGATION

LRS agreed to perform various items to mitigate potential wildlife hazards, which were incorporated into the Airport Agreement discussed in Section 2.1.4.7. The Airport Agreement indicates that DAA agrees that the proposed West DuPage RTS will not pose a threat to the safe operation of the DuPage Airport.

The site proposes to perform the following to mitigate potential wildlife hazards, which includes all of the items incorporated into the Airport Agreement:

- Train Staff: The site will create their own wildlife hazard management plan, which will state how trained staff will monitor and deter certain wildlife species. The wildlife hazard management plan will assign titles and responsibilities to individuals whom will be responsible for wildlife control activities. Management will train assigned facility employees on the role they will play to reduce wildlife hazards (e.g. use of pyrotechnic harassments). If any questions about the formation, implementation, or general questions about the contents of the management plan ever occur, a qualified airport wildlife biologist will be consulted.
- Install Anti-Perching Devices: Anti-perching devices will be installed on building edges of the MSW and SSR transfer building.
- Perform Routine Wildlife Surveys: The site will perform quarterly wildlife surveys to ensure that the wildlife mitigation techniques are working as intended. The inspections will include the MSW and SSR transfer building, and any observed small gaps that may allow birds to enter the building will be sealed.
- Use of Deterrents in Misters: Misters will be installed in the MSW and SSR transfer building. A deterrent (e.g., methyl anthranilate, which is a grape-flavored food grade additive that acts as an irritant to birds when applied to the air) can be used in the misters, as needed, to prevent birds from nesting and/or entering the building.
- Install Netting Along Roof Structures: Netting will be installed along the bottom of roof structures, as needed, to prevent birds from accessing flat areas (where birds like to roost and nest).
- Focus Ventilation: Duct work will be installed, as needed, to provide focused ventilation where odors are anticipated to be more prevalent (e.g., MSW staging areas).
- Extend Rip-Rap Around West Pond: The rip-rap that is currently surrounding the west pond is preventing birds, such as waterfowl, from walking into or out of the pond. This feature will be extended further into the grass, widening the buffer between the water and grass.
- Monitor Wildlife With Game Cameras: Wildlife at the ponds will be monitored with game cameras, which will capture wildlife utilizing the ponds when employees are not present.

Checking the cameras periodically will periodically viewed to provide information regarding the time and type of wildlife using the ponds. Trained staff can then mitigate the hazards as needed.

- Vary Harassment: To keep the birds from becoming accustomed to harassment tactics, the site will designate an employee or employees to periodically patrol the west and east ponds and harass any birds observed.
- Maintain Grass Height: The grass around the east pond will be maintained at a height (approximately twelve inches) that allows easy inspection of the pond so that any wildlife may be harassed to leave the area. The shortened grass height will also deter many species from utilizing it, such as Canada geese.
- Install Grid-Wire System: A grid-wire system will be installed on the east and west ponds to keep most waterfowl and wading birds from utilizing the ponds. To keep larger birds from using the water, a checkerboard pattern is planned. The grid-wire system involves running cables from one side to another in one direction (north to south) and then running a second set of wires perpendicular.

APPENDIX 2-I

VENTILATION AND ODOR CONTROL SYSTEM DESIGN

Civil & Environmental Consultants, Inc.

SUBJECT	**Ventilation and Odor Control System Design**	PROJECT NO.	**163-899**		
PROJECT	**West DuPage Recycling and Transfer Station**	PAGE	**1**	OF	**4**
MADE BY	**KRK**	DATE	**revised 9/8/2021**	CHECKED BY	**JEH**	DATE	**9/8/2021**

1.0 OBJECTIVE

The purpose of this calculation is to describe the ventilation and odor control system for Municipal Solid Waste (MSW) and Single Stream Recyclable (SSR) Transfer Building at the West DuPage Recycling and Transfer Station (Site).

2.0 DESIGN CRITERIA

Federal Aviation Administration (FAA) Advisory Circular 15/5200-33C - Hazardous Wildlife Attractants On or Near Airports (Advisory Circular), most recently updated February 21, 2020, provides guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. The Advisory Circular lists various criteria for MSW transfer stations, among other items, should control odors should be controlled by a ventilation and filtration system (odor masking is not acceptable).

To control odors, the MSW and SSR Transfer Building at the West DuPage Recycling and Transfer Station will be equipped with a ventilation and filtration system designed to provide a negative air pressure condition and effectively eliminate any odors from the exhaust.

The proposed MSW and SSR Transfer Building footprint area is approximately 23,430 square feet. With proposed 40-foot high walls, the total transfer building volume is approximately 942,400 cubic feet. Standard ventilation practices suggest at least four building air changes per hour, or one building air exchange every fifteen minutes. Four air exchanges per hour will provide a negative air pressure condition. Therefore, the ventilation system should be designed to provide at least 62,850 cubic feet per minute of exhaust capacity.The odor control technology should control a wide variety of compounds and be designed for at least an equivalent capacity.

3.0 SYSTEM OVERVIEW

Ventilation Equipment

Transfer building ventilation will be performed by the use of centrifugal upblast roof exhaust fans. The site intends to use the Solar & Palau Model STXB36RHULRH1S-115V, which is a 36-inch diameter belt driven fans designed to exhaust air up to 10,525 cubic feet per minute, and provide a static pressure applications of 0.5 inches of water column gauge with a rated 2.0 horsepower motor. Six centrifugal proposed upblast roof exhaust fans would provide a total ventilation capacity of approximately 63,150 cubic feet per minute, which would provide at least four building air changes per hour during operation.

Civil & Environmental Consultants, Inc.

SUBJECT	**Ventilation and Odor Control System Design**	PROJECT NO.	**163-899**		
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MADE BY	**KRK**	DATE	**revised 9/8/2021**	CHECKED BY	**JEH**	DATE	**9/8/2021**

An equivalent model may be used as long as the total ventilation capacity is greater than 62,850 cubic feet per minute.

The non-overloading backward inclined wheel with its higher static pressure capability makes this unit suitable for either ducted or nonducted applications. Roof or sidewall mounting options permit locations near the area to be ventilated, allowing short duct runs and more efficient operation. Belt drive also permits easy performance adjustments when needed to balance the total ventilation system.

Equipment features include the heavy-gauge aluminum motor cover which provides weather protection for motor compartment, neoprene (rubber) vibration isolators to reduce vibration and noise, and aluminum, non-overloading, backward-inclined, curved centrifugal wheel with cooling vanes to provide for maximum efficiency. Isolation of motor and drive components from the airstream and the high velocity vertical air discharge make the Model STXB ideally suited for the removal of dirty, contaminated and/or high temperature air from processes and buildings.

Images of the exhaust fan are provided in Figure 1.

Figure No. 1 - Solar & Palau Model STXB Images

Odor Filtration Equipment

The ventilated air will first be physically filtered to eliminate particulate emissions from the exhaust fans. The proposed air filter is a commercial grade washable aluminum meshed framed filter unit.

To prevent the emissions of odorous compounds, a Sonozaire Model 630A Ozone Generator (or equivalent model) will be installed. The ozone generator will be installed at each of the exhaust

ventilation units, and will include an additional control cover and filter screen to provide water resistance. The proposed Sonozaire unit is shown in Figure 2.

Sonozaire odor neutralizers provide effective odor control and air purification for a variety of industrial and commercial applications. These units generate ozone from atmospheric oxygen to eliminate odors rather than "perfume" or mask them. Ozone destroys odors immediately and continuously while retarding bacterial growth. Ozone is an activated form of oxygen that oxidizes organic odor molecules and reduces them to odorless compounds. The Sonozaire Model 630A is equipped with a 100 cubic feet per minute fan and can handle areas up to 750,000 cubic feet. This unit delivers 6.8 to 8,500 milligrams of ozone generated electronically from oxygen in the ambient air.

Ozone will be introduced within the ductwork by means of an ozone diffuser assembly. The ozone diffuser is intended to be a series of 4-inch diameter perforated pipes interconnected by a top and bottom header pipeline.

When ozone is introduced into the ventilation ductwork, it will begin to react with airborne odors. By the oxidization process, it begins to convert many odors into simple and stable compounds of carbon dioxide, water, and oxygen. During exhaust air treatment, the amount of ozone that lingers in the air awaiting reaction with odors is referred to as residual. The exhaust air is agitated within the ductwork by mixing vanes to increase the reactions with odorous molecules and reduce the residual ozone.

Figure No. 2 - Sonozaire Model 630A Images

Civil & Environmental Consultants, Inc.

SUBJECT	**Ventilation and Odor Control System Design**	PROJECT NO.	**163-899**		
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MADE BY	**KRK** DATE **revised 9/8/2021**	CHECKED BY	**JEH**	DATE	**9/8/2021**

3.0 CONCLUSION

The proposed equipment meets the ventilation and odor control requirements. The preliminary location and design of the units is shown on Drawing C301, which shows the units located on the roof. Due to height concerns, the units may be alternatively be installed on the side or suspended from the structural framing of the building. The final design of the ventilation and filtration system will consider the final design and anticipated operations of the MSW and SSR Transfer Building.

4.0 REFERENCES

1. Industrial Ventilation - A Manual of Recommended Practice - 24th Edition - 2001 - American Conference of Governmental Industrial Hygienists

2. Heating, Ventilating, and Air Conditioning - Analysis and Design - 3rd Edition - 1988 - John Wiley & Sons, Inc.

ATTACHMENT 5

RUNWAY PROTECTION ZONE INFORMATION

Electronic Filing: Received, Clerk's Office 04/19/2023

FOR DETENTION BASIN CONSTRUCTION OR EXPANSION NEAR AIRPORT PROPERTY, REFER TO FAA ADVISORY CIRCULAR 150/5200-33B, HAZARDOUS WILDLIFE ATTRACTANTS ON OR NEAR AIRPORTS. SECTION 1-3, 2-3a, AND 2-3b.

DUPAGE AIRPORT AUTHORITY

NO.	DATE	DSGN	DR	CHK	REVISION	APVD	BY	APVD

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DUPAGE AIRPORT ON-CALL SERVICE
DUPAGE AIRPORT (DPA)
WEST CHICAGO, IL

EXISTING AND PROPOSED
AVIGATION EASEMENTS
HEIGHT ANALYSIS - RUNWAY 28

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VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

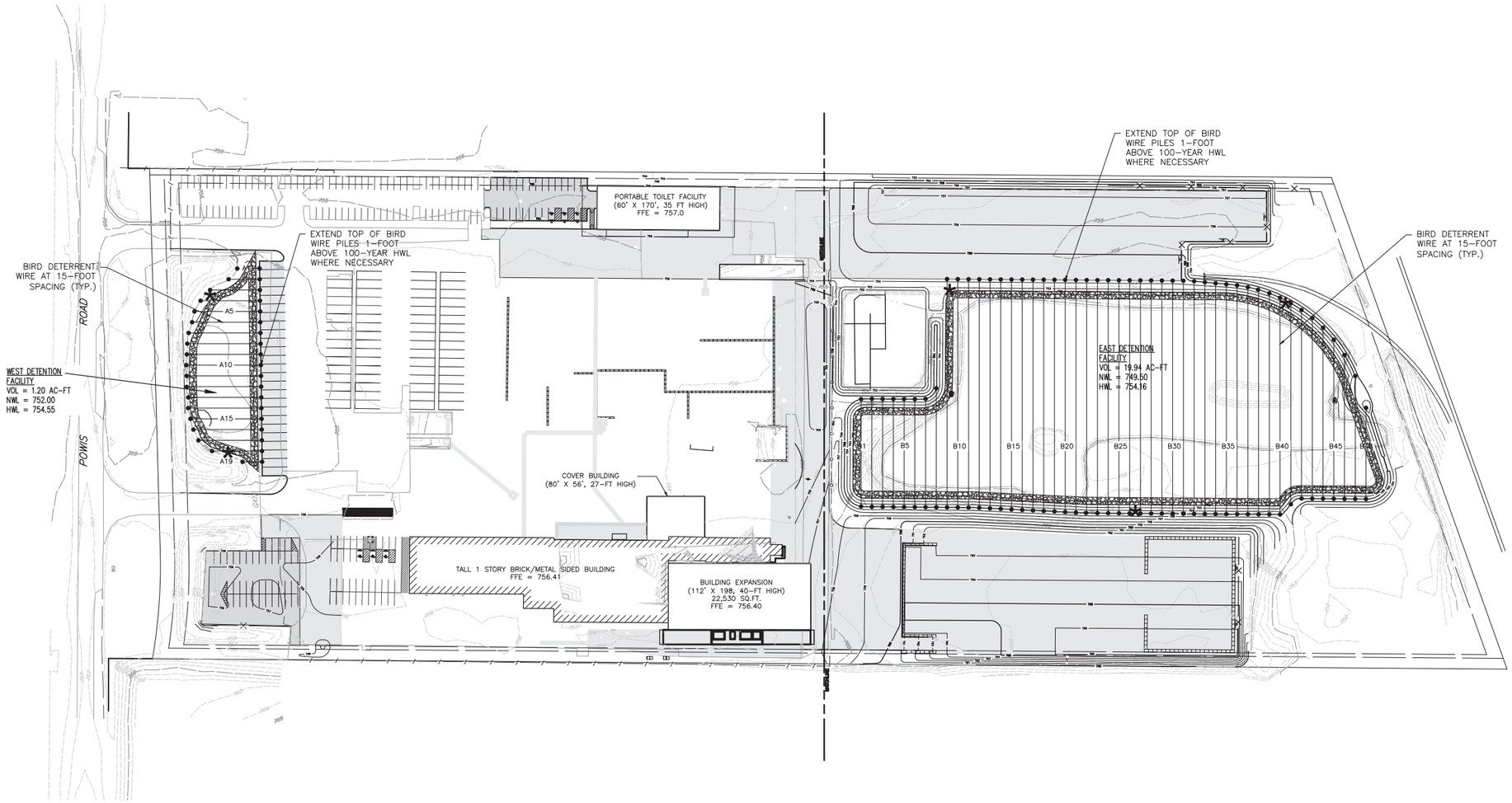
DATE
PROJ
DWG
SHEET of

FILENAME: PLOT DATE: 2020\01\31 PLOT TIME: 4:01:22 PM

EXHIBIT C

WEST DUPAGE RTS WILDLIFE HAZARD MITIGATION

NORTH



LEGEND

* APPROXIMATE LOCATION OF WILDLIFE GAME CAMERA

RIPRAP (APPROXIMATELY 10 FEET) AROUND EDGE OF DETENTION POND

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018/ AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).

NOTE:

1. REFER TO BIRD DETERRENT WIRE SPECIFICATION 10290 AND BIRD DETERRENT WIRE TYPICAL SECTION FOR INSTALLATION REQUIREMENTS.

SCALE IN FEET
0 80 160

*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, LLC
SITE IMPROVEMENTS
1655 POWIS ROAD
WEST CHICAGO, IL

WILDLIFE HAZARD MITIGATION EXHIBIT

DATE:	05/13/2022
DRAWN BY:	MMS
DWG SCALE:	1" = 80'
CHECKED BY:	MHS
PROJECT NO:	163-899.0004
APPROVED BY:	DAK*

EXHIBIT: EX-C

SHEET 1 OF 1

P:\2016\163-899 - C400\Dwg\C004-Construction Plan Set\163899-C004-Bird Deterrent Exhibit.mxd[2017] LS:5/13/2022 - mkeyes - LP: 5/13/2022 9:03 AM

EXHIBIT D

WEST DUPAGE RTS TARPING POLICY

WEST DUPAGE RECYCLING AND TRANSFER STATION
TARPING POLICY

The Lakeshore Recycling System's (LRS) West DuPage Recycling and Transfer Station (RTS) is committed to being a good neighbor in the community, including maintaining the cleanliness of the facility and minimizing blowing litter. We recognize that the collection vehicles and transfer trailers which use the West DuPage RTS may contribute to these issues if they do not properly contain the waste in the vehicles.

The Illinois Department of Transportation requires that "No person shall operate or cause to be operated, on a highway, any second division vehicle loaded with dirt, aggregate, garbage, refuse or other similar material, when any portion of the load is falling, sifting, blowing dropping or in any way escaping from the vehicle." LRS will enforce a similar tarping policy for vehicles which use the West DuPage RTS.

Policy

All incoming and outgoing vehicles that are hauling waste will be fully enclosed or properly tarped to prevent the release of waste or material from the vehicle onto the grounds or the public roadways. Vehicles with tarps will untarp in the staging area only (after the scale and prior to unloading in the transfer building). After unloading, any remaining loose waste will be removed or contained in the vehicle prior to exiting the site.

Outgoing transfer trailers be will be properly tarped in the designated area after loading. A building extension is provided on the east (outbound) end of the loading pit such that the tractor will be on level ground while tarping. Loaded transfer trailers will be tarped using auto tarpers prior to exiting the loading pit ramp. No waste shall be hanging over the sides or remain outside the trailer, and the tarp must fully cover the trailer. Waste should not stick up above the height of the trailer. The tarp must be properly secured so that litter will not blow or spill during transport.

Drivers which are employed by LRS will be trained in the above procedures.

Enforcement

Employees at the West DuPage RTS will be trained to understand this tarping policy and recognize non-compliant actions. If a driver is observed to be non-compliant by an employee, the employee will immediately notify the driver and remind the driver of the tarping policy. The employee will also notify the West DuPage RTS operations manager, who will document the incident and notify the company representative who owns the vehicle. Multiple incidents of non-compliance may result in banning the driver and/or company from using the site in the future.

APPENDIX 2-H

HYDRO EXCAVATION OPERATING PLAN

WEST DUPAGE RECYCLING AND TRANSFER STATION
HYDRO EXCAVATION WASTE OPERATING PLAN

Lakeshore Recycling Systems, LLC (LRS) West DuPage Recycling and Transfer Station (West DuPage RTS) will accept hydro excavation wastes for solidification and transfer to off-site disposal location(s). Hydro excavation wastes are a solid/liquid waste created through a combination pressurized water and air vacuum system generally used for construction or maintenance services, such as potholing to expose utilities, installation of utility poles, installation of piers/footings, trenching near utilities, and clean out of storm sewers. The system cuts through soils/materials, breaks them up, and lifts the slurry from the excavation area into a debris tank. "Hydro Excavation Wastes" is defined to mean solid/liquid waste such as hydro/vacuum excavation muds, underground excavation material, and other similar materials. This is the same definition as listed in the Host Community Benefit Agreement between the City of West Chicago and LRS except that "drilling muds" has been removed.

The purpose of this document is to describe the operational procedures for the solidification of hydro excavation wastes. Because the hydro excavation waste is considered a "liquid waste" (i.e., does not pass the paint filter test), the waste is considered an Illinois special waste.

Pre-Approval Procedures

- Upon contact from a potential client with a hydro excavation waste stream, the following shall be performed:
  - The facility's "Special Waste Profile Sheet and Certification" form will be provided for completion by the generator and submission for review by LRS.
  - As noted above, hydro excavation wastes means solid/liquid waste such as hydro/vacuum excavation muds, underground excavation material, and other similar materials.
  - Other similar materials includes similar wastes generated from typical hydro excavation equipment. An example is storm sewer, manhole, or catch basin cleanout material.
  - The generator is responsible for all costs associated with the sampling, testing, and application preparation for any special waste permits required for the generation and transport.
- Upon receipt of the completed form or certification, the following will be performed.
  - The waste stream will be assigned a waste number.
  - The waste profile sheet and supporting documentation will be reviewed for compliance with the demonstration that the waste is a non-hazardous waste as defined in Title 35 of the Illinois Administrative Code Part 722.111.

- If the material meets the requirements, LRS will determine if it can handle the type and volume of waste proposed.
- If the waste stream is to be accepted, LRS will provide pricing and instructions/agreement/purchase order number to the generator.
- Scheduling of waste shipments will be coordinated with LRS.
- A copy of the pre-approval log of accepted and denied materials is to be provided to the scale house, to be kept updated on a daily basis. Notification should be made to the operations personnel prior to the receipt of the first shipment of a new incoming waste stream.
- Profile packets will be kept on file at the facility. The waste stream profile shall accurately characterize the waste stream and not be more than one year old.
- No hazardous waste, potentially infectious medical waste, or radioactive waste shall be accepted.

LRS shall retain copies of any special waste profile identification sheets, special waste re-certifications, certifications of representative samples, special waste laboratory analyses, special waste analysis plans, and any waivers of requirements at the facility for three years.

Gate Acceptance Procedures

- *The operator has the right to reject any load or portion of a load.*
- All special waste generators which send liquid waste to this facility for solidification and disposal shall have an Illinois Environmental Protection Agency (IEPA) generator number. The generator is responsible for the waste at all times, including all certifications, characterizations, and proper shipment.
- The driver will provide the appropriate documentation or manifest for the waste.
- Manifests will be handled and maintained as required:
  - If the shipment does not have a disposal manifest form, the load may be accepted if a facsimile copy of the completed manifest is received from the generator and the discrepancy is noted on the form. The original manifest must be mailed from the generator to the facility and attached to the corresponding facsimile manifest copy documenting that the shipment was manifested correctly to the facility. Contact must be made with the generator to obtain and utilize manifest forms for subsequent shipments.
  - If the manifest is not complete, LRS must contact the generator to properly complete all copies of the manifest. The discrepancy must be indicated on the manifest.

  - If the information on the manifest does not correspond to the information contained in the approval letter, the generator must be contacted to resolve the discrepancy. The discrepancy must be amended and indicated on the manifest.
  - If the manifest is not signed by the generator, the generator must be contacted and a follow-up letter must be forwarded to LRS to indicate the generator's acknowledgement of this discrepancy. The generator must provide certification of the manifested load in the letter. If the transporter has not signed the manifest, the item will be brought to the driver's attention and the driver will be allowed to sign the manifest prior to accepting the load.
- If the manifest is complete, the scale personnel will confirm that the waste profile has been approved according to the waste pre-approval log, and will question the driver regarding the contents of the load. The generator and the waste description must correspond with an approved waste stream. If the scale personnel determines that the waste does not conform to the waste profile on file, or that the approvals have not been issued, or for any other reason, the load will be rejected until the appropriate information is provided.
- If the scale personnel confirms that the waste profile has been approved, the scale personnel will notify the field operator that a load has arrived, indicating the type of waste, and its description, and direct the driver to the solidification area.

Load Inspection Procedures

- The field personnel will meet the driver at the solidification area. LRS will visually inspect each load received as it is first unloaded to verify that it matches the description of the waste as approved. During the visual inspection, the waste will be compared to typical color, odor, texture, and consistency as noted on the generator special waste profile sheet and acceptance approval letter. If the field personnel determines that the waste does not conform to the waste profile on file, that approval has not been issued for the waste as presented, the necessary documentation has not accompanied the load, or for any other reason, any variations shall be recorded in the records as a discrepancy and kept on file.
- When a discrepancy regarding the waste variation is found during the visual inspection of a load, the facility management will be notified, who will discuss the discrepancy with the generator. If the discrepancy cannot be properly explained, or corrected documentation cannot be provided, management may reject the load. The reason for rejection must be written on the manifest form, and the manifest will not be signed. A copy of the manifest will be kept for the rejected load file, and the manifest copies will be returned to the transporter. The transporter must then return the load to the generator.

- All accepted loads will be weighed and documented with the corresponding waste profile number by the computer, or manually, when required for backup. The load must be within 10% of that volume/weight indicated on the manifest. If the volume is beyond the 10% acceptable margin of error, the facility management must contact the generator to resolve the discrepancy. The discrepancy must be amended and noted on the manifest.
- If no discrepancies are found, the gate representative must sign the manifest for the approved acceptable load. A copy of the signed manifest will be returned to the transporter. The remaining manifest copies are to be forwarded by LRS to the appropriate facilities as noted on the form. The "Destination Copy" will be placed in the customer's manifest file. The transporter may then proceed to the solidification area to unload the waste.

Recordkeeping

- The following information shall be documented in LRS's daily operating record for each load of waste received for solidification:
  - Date the load was received;
  - Manifest number associated with the waste load;
  - Generator name, location and IEPA generator number or hauler number, if not a special waste;
  - Waste name;
  - Results of all analyses conducted on the waste load;
  - Accepted/denied loads; and
  - Volume of waste received.
- LRS shall retain a copy of the manifest, load checking, and all information relating to special waste for three years and it shall be made available at reasonable times for inspection and photocopying by the IEPA pursuant to Section 4(d) of the Illinois Environmental Protection Act.

Hydro Excavation Waste Processing

- Liquid wastes will be unloaded directly into the solidification area. The processing method involves solidifying non-hazardous liquids, sludge's and other semi-solid waste streams utilizing reagents and/or absorbents as approved by the IEPA permit and mechanically mixing as needed to achieve disposal objectives, using a hydraulic excavator or wheel loader. The solidification process continues until the resultant material blend passes the paint filter test. Care will be taken to ensure that the stabilized waste product does not set up or harden prior to removal and disposal. In the event that Portland cement is utilized as admix, the maximum holding time for any batch is four hours. LRS shall not perform solidification if the test or waste analysis plan determines incompatibility of the waste and reagent.

- The following reagents and absorbents will be employed in the solidification process:
  - Reagents:
    - Portland cement; and
    - Lime.
  - Adsorbents:
    - Screening fines from C&D recycling;
    - Soil;
    - Sand;
    - Oil dry;
    - Sawdust;
    - Kitty litter;
    - Corn cobs;
    - Wood chips; and
    - Mixtures of the above materials.
- All reagents and absorbents used must not exhibit any characteristic which would classify it as a hazardous waste. Use of other materials or wastes other than those listed above shall be subject to approval by the IEPA permit process.
- The following information shall be documented in the facility's operating record for each load of waste received for solidification:
  - Type of reagent and/or absorbent used to solidify the waste;
  - Documentation that the solidified waste does not exhibit hazardous characteristics (e.g., verification that neither the waste nor the absorbents used exhibited hazardous characteristics, or the result of the compatibility test done in accordance with the facility's waste analysis plan). A complete toxicity characteristic leaching procedure analysis shall be performed on solidified waste resulting from a liquid waste with a $pH \leq 5$ to demonstrate that no hazardous waste has been produced.
- Each load of the solidified waste shall be sampled and tested by the paint filter test prior to disposal. **Waste that yields fluid may not be disposed.** It must be solidified again or sent to an off-site treatment facility.
- Other Solidification Process Operational Guidelines:
  - The solidification unit may be operated from 5:00 a.m. to 5:00 p.m. Monday through Saturday.
  - By the end of each day of the operation, all waste received for treatment shall be solidified, removed from the solidification unit, and transported off-site for disposal.
  - The storage of reagents and absorbents to be used in the solidification process shall not contribute to a violation of Illinois' waste disposal, water pollution, or air pollution regulations.

- Reagents and absorbent shall be stored, covered, and protected from precipitation events.
- All washwater or stormwater generated from the solidification unit shall be managed as liquid waste in the storage vessel chamber.
- In the event of a spill, such materials and equipment necessary will be available on site in order to prevent leachate migration from the contaminated area.

APPENDIX 2-I

VENTILATION AND ODOR CONTROL SYSTEM DESIGN

Civil & Environmental Consultants, Inc.

SUBJECT	**Ventilation and Odor Control System Design**	PROJECT NO.	**163-899**		
PROJECT	**West DuPage Recycling and Transfer Station**	PAGE	**1**	OF	**4**

MADE BY	**KRK**	DATE	**revised 9/8/2021**	CHECKED BY	**JEH**	DATE	**9/8/2021**

1.0 OBJECTIVE

The purpose of this calculation is to describe the ventilation and odor control system for municipal solid waste (MSW) and single-stream recyclable (SSR) transfer building at the West DuPage Recycling and Transfer Station (Site).

2.0 DESIGN CRITERIA

Federal Aviation Administration (FAA) Advisory Circular 15/5200-33C - Hazardous Wildlife Attractants On or Near Airports (Advisory Circular), most recently updated February 21, 2020, provides guidance on certain land uses that have the potential to attract hazardous wildlife on or near public-use airports. The Advisory Circular lists various criteria for MSW transfer stations, among other items, should control odors should be controlled by a ventilation and filtration system (odor masking is not acceptable).

To control odors, the MSW and SSR Transfer Building at the West DuPage Recycling and Transfer Station will be equipped with a ventilation and filtration system designed to provide a negative air pressure condition and effectively eliminate any odors from the exhaust.

The proposed MSW and SSR transfer building footprint area is approximately 23,430 square feet. With proposed 40-foot high walls, the total transfer building volume is approximately 942,400 cubic feet. Standard ventilation practices suggest at least four building air changes per hour, or one building air exchange every fifteen minutes. Four air exchanges per hour will provide a negative air pressure condition. Therefore, the ventilation system should be designed to provide at least 62,850 cubic feet per minute of exhaust capacity. The odor control technology should control a wide variety of compounds and be designed for at least an equivalent capacity.

3.0 SYSTEM OVERVIEW

Ventilation Equipment

Transfer building ventilation will be performed by the use of centrifugal upblast roof exhaust fans. The site intends to use the Solar & Palau Model STXB36RHULRH1S-115V, which is a 36-inch diameter belt driven fans designed to exhaust air up to 10,525 cubic feet per minute, and provide a static pressure applications of 0.5 inches of water column gauge with a rated 2.0 horsepower motor. Six centrifugal proposed upblast roof exhaust fans would provide a total ventilation capacity of approximately 63,150 cubic feet per minute, which would provide at least four building air changes per hour during operation.

Civil & Environmental Consultants, Inc.

SUBJECT	**Ventilation and Odor Control System Design**	PROJECT NO.	**163-899**		
PROJECT	**West DuPage Recycling and Transfer Station**	PAGE	**2**	OF	**4**
MADE BY	**KRK**	DATE	**revised 9/8/2021**	CHECKED BY	**JEH**	DATE	**9/8/2021**

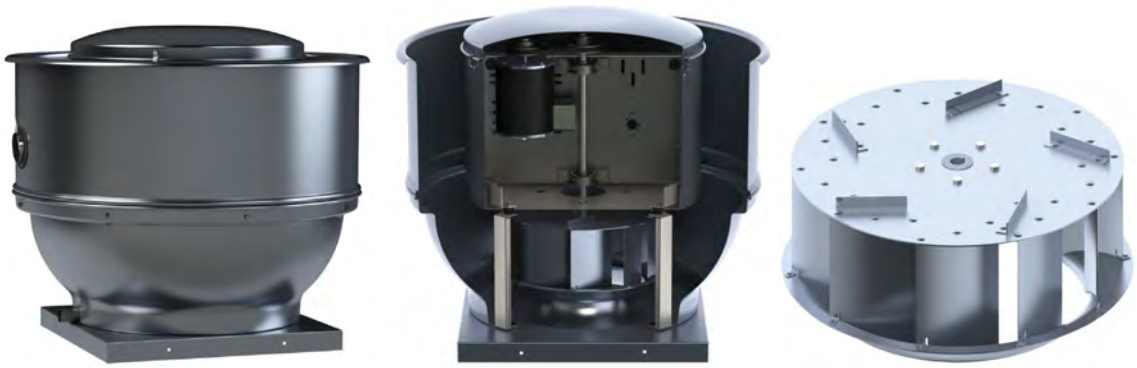
An equivalent model may be used as long as the total ventilation capacity is greater than 62,850 cubic feet per minute.

The non-overloading backward inclined wheel with its higher static pressure capability makes this unit suitable for either ducted or non-ducted applications. Roof or sidewall mounting options permit locations near the area to be ventilated, allowing short duct runs and more efficient operation. Belt drive also permits easy performance adjustments when needed to balance the total ventilation system.

Equipment features include the heavy-gauge aluminum motor cover which provides weather protection for motor compartment, neoprene (rubber) vibration isolators to reduce vibration and noise, and aluminum, non-overloading, backward-inclined, curved centrifugal wheel with cooling vanes to provide for maximum efficiency. Isolation of motor and drive components from the airstream and the high velocity vertical air discharge make the Model STXB ideally suited for the removal of dirty, contaminated and/or high temperature air from processes and buildings.

Images of the exhaust fan are provided in Figure 1.

Figure No. 1 - Solar & Palau Model STXB Images



Odor Filtration Equipment

The ventilated air will first be physically filtered to eliminate particulate emissions from the exhaust fans. The proposed air filter is a commercial grade washable aluminum meshed framed filter unit.

To prevent the emissions of odorous compounds, a Sonozaire Model 630A Ozone Generator (or equivalent model) will be installed. The ozone generator will be installed at each of the exhaust

ventilation units, and will include an additional control cover and filter screen to provide water resistance. The proposed Sonozaire unit is shown in Figure 2.

Sonozaire odor neutralizers provide effective odor control and air purification for a variety of industrial and commercial applications. These units generate ozone from atmospheric oxygen to eliminate odors rather than "perfume" or mask them. Ozone destroys odors immediately and continuously while retarding bacterial growth. Ozone is an activated form of oxygen that oxidizes organic odor molecules and reduces them to odorless compounds. The Sonozaire Model 630A is equipped with a 100 cubic feet per minute fan and can handle areas up to 750,000 cubic feet. This unit delivers 6.8 to 8,500 milligrams of ozone generated electronically from oxygen in the ambient air.

Ozone will be introduced within the ductwork by means of an ozone diffuser assembly. The ozone diffuser is intended to be a series of 4-inch diameter perforated pipes interconnected by a top and bottom header pipeline.

When ozone is introduced into the ventilation ductwork, it will begin to react with airborne odors. By the oxidization process, it begins to convert many odors into simple and stable compounds of carbon dioxide, water, and oxygen. During exhaust air treatment, the amount of ozone that lingers in the air awaiting reaction with odors is referred to as residual. The exhaust air is agitated within the ductwork by mixing vanes to increase the reactions with odorous molecules and reduce the residual ozone.

Figure No. 2 - Sonozaire Model 630A Images

3.0 CONCLUSION

The proposed equipment meets the ventilation and odor control requirements. The preliminary location and design of the units is shown on Drawing C301, which shows the units located on the roof. Due to height concerns, the units may be alternatively be installed on the side or suspended from the structural framing of the building. The final design of the ventilation and filtration system will consider the final design and anticipated operations of the MSW and SSR transfer building.

4.0 REFERENCES

1. Industrial Ventilation - A Manual of Recommended Practice - 24th Edition - 2001 - American Conference of Governmental Industrial Hygienists

2. Heating, Ventilating, and Air Conditioning - Analysis and Design - 3rd Edition - 1988 - John Wiley & Sons, Inc.

APPENDIX 2-J

WDRTS FILING AFFIDAVIT

STATE OF ILLINOIS
COUNTY OF DUPAGE
BEFORE THE CITY OF WEST CHICAGO

In Re: THE APPLICATION OF)
LAKESHORE RECYCLING SYSTEMS, LLC,)
FOR SITING APPROVAL OF A NEW)
POLLUTION CONTROL FACILITY)

AFFIDAVIT OF COMPLIANCE WITH 415 ILCS 5/39.2(b)

JOHN E. HOCK, being first duly sworn on oath, deposes and states as follows:

1. I am a professional engineer licensed to practice in the State of Illinois and am employed by Civil & Environmental Consultants, Inc., (CEC) as part of their office located at 1230 East Diehl Road, Suite 200, Naperville, Illinois, 60563.

2. I am CEC's principal for the preparation of the local siting application for the West DuPage Recycling and Transfer Station and it was my responsibility to prepare, publish and serve pre-filing notices as required in 415 ILCS 5/39.2(b).

3. 415 ILCS 5/39.2(b) requires that no later than fourteen (14) days prior to a request for location approval of a pollution control facility, the applicant shall cause written notice of such request to be served either in person or by registered mail, return receipt requested, on the owners of all property within the subject area not wholly owned by the applicant and on the owners of all property within 250 feet in each direction of the lot line of the subject property, said owners being such persons or entities which appear from the authentic tax records of the county in which such facility is to be located, provided, that the number of all feet occupied by all public roads, streets, alleys and other public ways shall be excluded in computing the 250 feet requirement, provided further that in no event shall this requirement exceed 400 feet, including public streets, alleys and other public ways. Section 39.2(b) further provides that such notice shall be served upon members of

the general assembly from the legislative district in which the proposed facility is located and shall be published in a newspaper of general circulation published in the county in which the site is located. Section 39.2(b) further provides that such notice shall state the name and address of the applicant, the location of the proposed site, the nature and size of the development, the nature of the activity proposed, the probable life of the proposed activity, the date when the request for site approval will be submitted, and a description of the right of persons to comment on such request.

4. The Notice prepared and served in connection with the aforesaid requirement is attached hereto and made a part hereof as Exhibit A. Said Notice conforms to the requirements of Section 39.2(b).

5. I identified the names and address of all members of the General Assembly from the legislative district in which the proposed facility is located by using information publically maintained and available on the Illinois General Assembly internet website www.ilga.gov.

6. I caused a copy of the Notice to be published in the Daily Herald, a newspaper of general circulation, in the county in which the application is pending on August 26, 2022. A copy of the actual publication and proof of publication is attached hereto and made a part hereof as Exhibit B.

7. On August 19, 2022, I searched the authentic tax records in DuPage County, Illinois to ascertain the names and addresses of all owners of the subject property and all other property within 400 feet of the subject property. I learned that DuPage County maintains the official tax records database, which can be accessed via the DuPage County website, and the DuPage County Treasurer's Office website. The DuPage County website

also links to a GIS database showing all real estate parcels in the county. This is the computer equivalent of information previously available in hard copies of plat books and section maps.

8. Attached hereto and made a part hereof as Exhibit C is the full and complete list of all individuals and entities which were sent pre-filing Notice on August 23, 2022, pursuant to 415 ILCS 5/39.2(b). This includes all owners of property and members of the General Assembly who were entitled to Notice. Some entities entitled to notice were sent an additional notice at a secondary address.

9. On August 23, 2022, certified mail notice was sent to all of the individuals and entities identified in Exhibit C with United States' addresses, and personal delivery notice was sent to all of the individuals and entities identified in Exhibit C with Canadian addresses. Attached hereto and made a part hereof as Exhibit D are the certified mail receipts issued by the U.S. Postal Service (green cards) for United States' addresses and personal delivery receipts from United Parcel Service for Canadian addresses. Attached hereto and made a part hereof as Exhibit E are the signed returns from the recipients. The notice sent to the post office box for the Fox Valley Airport Authority was not claimed, but the secondary notice sent to Fox Valley Airport Authority was claimed. The notice sent to the New York address for OSCAR (IL) LLC was claimed on August 29, 2022, but the green card has not yet been returned.

10. The siting application herein was filed on September 16, 2022.

11. All of the foregoing complies fully and completely with the pre-filing notice requirements of 415 ILCS 5/39.2(b).

FURTHER AFFIANT SAYETH NOT.

JOHN E. HOCK

Sworn to and subscribed before me
this 13th day of September 2022.

Notary Public

ELLEN M. PRESTON
OFFICIAL SEAL
Notary Public - State of Illinois
My Commission Expires Mar 23, 2026

John E. Hock, P.E.
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200
Naperville, Illinois 60563
Telephone (630) 963-6026
Facsimile (630) 963-6027

APPENDIX J

EXHIBIT A

NOTICE OF INTENT TO FILE A REQUEST FOR LOCAL SITING APPROVAL OF A NEW POLLUTION CONTROL FACILITY WITH THE CITY OF WEST CHICAGO, ILLINOIS

YOU ARE HEREBY NOTIFIED THAT, pursuant to §39.2(b) of the Illinois Environmental Protection Act ("the Act") 415 ILCS 5/39.2(b), the Applicant, Lakeshore Recycling Systems, LLC ("LRS"), will file its Request for Siting Approval for a new pollution control facility with the City of West Chicago, Illinois, 475 Main St., West Chicago, Illinois, 60185, on September 16, 2022. In their request for siting approval, the Applicant will seek approval to site, permit, construct, develop and operate a transfer station as defined by Section 3.500 of the Illinois Environmental Protection Act (the "Act") (415 ILCS 5/3.500), the West DuPage Recycling and Transfer Station whose address is 1655 Powis Road, West Chicago, DuPage County, Illinois, 60185. Said location being in the City of West Chicago, Illinois.

The proposed facility encompasses approximately 27.66 acres and is legally described as follows:

THAT PART OF THE NORTH 1/2 OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS, TO WIT.

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 32; THENCE NORTH 88 DEGREES 56 MINUTES 37 SECONDS EAST ALONG THE NORTH LINE OF SAID SECTION 32, A D1STANCE OF 1331.65 FEET TO THE NORTH AND SOUTH DIVIDING LINE OF THE NORTHWEST 1/4 OF SAID SECTION 32; THENCE SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 500.00 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81 IN THE OFFICE OF THE DUPAGE COUNTY RECORDER; THENCE CONTINUING SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 685.0 FEET TO THE SOUTHWEST CORNER OF THE TRACT OF LAND DESCRIBED IN A SPECIAL WARRANTY DEED RECORDED

FEBRUARY 6, 2001 AS DOCUMENT NO. R2001-020758; THENCE NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST ALONG THE SOUTH LINE OF SAID TRACT, A DISTANCE OF 103.80 FEET FOR THE POINT OF BEGINNING; THENCE CONTINUING NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST, ALONG SAID SOUTH LINE (SAID LINE BEING PARALLEL WITH THE SOUTH LINE OF SAID DEFENSE PLANT CORPORATION TRACT), A DISTANCE OF 1880.12 FEET TO THE WESTERLY RIGHT OF WAY LINE FOR THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 20 DEGREES 30 MINUTES 46 SECONDS WEST, ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 729.01 FEET TO THE SOUTHEAST CORNER OF SAID DEFENSE PLANT CORPORATION TRACT, THENCE SOUTH 89 DEGREES 32 MINUTES 15 SECONDS WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 1650.66 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF POWIS ROAD PER DOCUMENT NO. R2003-146376, SAID POINT ALSO BEING 81.96 FEET EAST OF THE SOUTHWEST CORNER OF SAID DEFENSE PLANT CORPORATION; THENCE SOUTH 2 DEGREES 29 MINUTES 05 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 536.49 FEET TO A POINT OF CURVATURE; THENCE SOUTHWESTERLY, ALONG SAID EASTERLY RIGHT OF WAY LINE BEING THE ARC OF A CURVE CONCAVE WESTERLY, HAVING A RADIUS OF 739.00 FEET AND WHOSE CHORD HAS A BEARING OF SOUTH 3 DEGREES 47 MINUTES 33 SECONDS WEST, AN ARC DISTANCE OF 149.66 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

Tax ID Numbers: 01-32-101-004 and 01-32-200-001

The proposed facility would be a non-hazardous solid waste transfer station which will accept non-hazardous waste, for temporary storage, sorting, solidification and consolidation, and further transfer to a waste disposal/treatment facility. The Applicant will develop and operate the transfer station only as approved by the Illinois Environmental Protection Agency, other applicable regulatory agencies, and as authorized by applicable statutes and regulations. The waste accepted for transfer will be general municipal solid waste, Hydro Excavation waste, recyclables and construction or demolition debris generated by residential, commercial and industrial sources. The facility proposes to handle a maximum of 1950 tons per day of material, of which no more than 650 tons per day will be municipal solid waste, no more than 300 tons per day will be hydro excavation waste, no more than 750 tons per day will be construction or demolition

debris, and no more than 250 tons per day will be single stream recyclables. The facility will not accept hazardous waste. The facility is projected to have an operating life of at least 20 years.

The Applicant is Lakeshore Recycling Systems, LLC, whose address is 5500 Pearl St., Rosemont, Il. 60018.

On September 16, 2022, the Applicant will file with the City of West Chicago, Illinois, their Request for Siting Approval. The request will include the substance of the Applicant's proposal and supporting documents.

The Request filed by the Applicant with the West Chicago City Clerk will be available for your inspection in the West Chicago City Clerk's Office located at 475 Main St., West Chicago, Illinois, 60185, during normal business hours daily, not including weekends or holidays. Copies of the request or any part thereof will be available from the West Chicago City Clerk upon payment of the actual cost of reproduction, as outlined in the Illinois Freedom of Information Act (5 ILCS 140/1 *et seq.*).

The City of West Chicago must hold at least one public hearing no sooner than 90 days but no later than 120 days from its receipt of the Request for Siting Approval. You may appear at the Hearing and may comment on the application or formally participate in the proceedings. All persons desiring to be formal participants in the hearing, including members of the public, must submit written notification of said intent to the city clerk before the first day of the public hearing or register with the hearing officer on the first day of the hearing. Any person so appearing at such public hearing shall have the right to present public comment relating to the pending application. No advance written

notification shall be required to present written comment in the manner described in Section 14-94 of the West Chicago Municipal Code. Each person desiring to present evidence in the hearing and/or to cross-examine witnesses shall register as a party to the proceeding not less than ten (10) days prior to the commencement of the hearing. Any person registered as a party shall have the right to present their own personal testimony, to be represented by an attorney and, through such attorney, to present the testimony of other persons or to cross-examine witnesses. The city shall be deemed a participant and a party to all proceedings and shall proceed last with its case and cross-examination.

Any person, including those not filing a notice of participation, may file written comments with the West Chicago City Clerk concerning the appropriateness of the proposed site for its intended purpose. The West Chicago City Council shall consider any comment received or postmarked from the date of acceptance of the Application through and until 30 days after the date of the last public hearing. Said written comment shall be mailed or delivered to the West Chicago City Clerk, 475 Main St., West Chicago, Illinois, 60185. For further information concerning the hearing procedures and your right to comment and participate, please consult the Act (415 ILCS 5/39.2) and Section 14-95 of the West Chicago Municipal Code.

Submitted by Lakeshore Recycling Systems, LLC

By one of its attorneys, George Mueller
Mueller Anderson & Associates Law Office
3015 Ashbury Dr.
Naperville, Illinois 61350
630-235-0606
George@muelleranderson.com

EXHIBIT B

NOTICE OF INTENT TO FILE A REQUEST FOR LOCAL SITING APPROVAL OF A NEW POLLUTION CONTROL FACILITY WITH THE CITY OF WEST CHICAGO, ILLINOIS

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The proposed facility encompasses approximately 27.66 acres and is legally described as follows:

THAT PART OF THE NORTH 1/2 OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS, TO WIT:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 32; THENCE NORTH 88 DEGREES 56 MINUTES 37 SECONDS EAST ALONG THE NORTH LINE OF SAID SECTION 32, A DISTANCE OF 1331.65 FEET TO THE NORTH AND SOUTH DIVIDING LINE OF THE NORTHWEST 1/4 OF SAID SECTION 32; THENCE SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 500.00 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81 IN THE OFFICE OF THE DUPAGE COUNTY RECORDER; THENCE CONTINUING SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 685.0 FEET TO THE SOUTHWEST CORNER OF THE TRACT OF LAND DESCRIBED IN A SPECIAL WARRANTY DEED RECORDED FEBRUARY 6, 2001 AS DOCUMENT NO. R2001-020758; THENCE NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST ALONG THE SOUTH LINE OF SAID TRACT, A DISTANCE OF 103.80 FEET FOR THE POINT OF BEGINNING; THENCE CONTINUING NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST, ALONG SAID SOUTH LINE (SAID LINE BEING PARALLEL WITH THE SOUTH LINE OF SAID DEFENSE PLANT CORPORATION TRACT), A DISTANCE OF 1880.12 FEET TO THE WESTERLY RIGHT OF WAY LINE FOR THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 20 DEGREES 30 MINUTES 46 SECONDS WEST, ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 729.01 FEET TO THE SOUTHEAST CORNER OF SAID DEFENSE PLANT CORPORATION TRACT, THENCE SOUTH 89 DEGREES 32 MINUTES 15 SECONDS WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 1650.66 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF POWIS ROAD PER DOCUMENT NO. R2003-146376, SAID POINT ALSO BEING 81.96 FEET EAST OF THE SOUTHWEST CORNER OF SAID DEFENSE PLANT CORPORATION; THENCE SOUTH 2 DEGREES 29 MINUTES 03 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 536.49 FEET TO A POINT OF CURVATURE; THENCE SOUTHWESTERLY, ALONG SAID EASTERLY RIGHT OF WAY LINE BEING THE ARC OF A CURVE CONCAVE WESTERLY, HAVING A RADIUS OF 739.00 FEET AND WHOSE CHORD HAS A BEARING OF SOUTH 3 DEGREES 47 MINUTES 33 SECONDS WEST, AN ARC DISTANCE OF 149.66 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

Tax ID Numbers: 01-32-101-004 and 01-32-200-001

The proposed facility would be a non-hazardous solid waste transfer station which will accept non-hazardous waste, for temporary storage, sorting, solidification and consolidation, and further transfer to a waste disposal/treatment facility. The Applicant will develop and operate the transfer station only as approved by the Illinois Environmental Protection Agency, other applicable regulatory agencies, and as authorized by applicable statutes and regulations. The waste accepted for transfer will be general municipal solid waste, Hydro Excavation waste, recyclables and construction or demolition debris generated by residential, commercial and industrial sources. The facility proposes to handle a maximum of 1950 tons per day of material, of which no more than 650 tons per day will be municipal solid waste, no more than 300 tons per day will be hydro excavation waste, no more than 750 tons per day will be construction or demolition debris, and no more than 250 tons per day will be single stream recyclables. The facility will not accept hazardous waste. The facility is projected to have an operating life of at least 20 years.

The Applicant is Lakeshore Recycling Systems, LLC, whose address is 5500 Pearl St., Rosemont, IL 60018.

On September 16, 2022, the Applicant will file with the City of West Chicago, Illinois, their Request for Siting Approval. The request will include the substance of the Applicant's proposal and supporting documents.

The Request filed by the Applicant with the West Chicago City Clerk will be available for your inspection in the West Chicago City Clerk's Office located at 475 Main St., West Chicago, Illinois, 60185, during normal business hours daily, not including weekends or holidays. Copies of the request or any part thereof will be available from the West Chicago City Clerk upon payment of the actual cost of reproduction, as outlined in the Illinois Freedom of Information Act (5 ILCS 140/1 et seq.).

The City of West Chicago must hold at least one public hearing no sooner than 90 days but no later than 120 days from its receipt of the Request for Siting Approval. You may appear at the Hearing and may comment on the application or formally participate in the proceedings. All persons desiring to be formal participants in the hearing, including members of the public, must submit written notification of said intent to the city clerk before the first day of the public hearing or register with the hearing officer on the first day of the hearing. Any person so appearing at such public hearing shall have the right to present public comment relating to the pending application. No advance written notification shall be required to present written comment in the manner described in Section 14-94 of the West Chicago Municipal Code. Each person desiring to present evidence in the hearing and/or to cross-examine witnesses shall register as a party to the proceeding not less than ten (10) days prior to the commencement of the hearing. Any person registered as a party shall have the right to present their own personal testimony, to be represented by an attorney and, through such attorney, to present the testimony of other persons or to cross-examine witnesses. The city shall be deemed a participant and a party to all proceedings and shall proceed last with its case and cross-examination.

Any person, including those not filing a notice of participation, may file written comments with the West Chicago City Clerk concerning the appropriateness of the proposed site for its intended purpose. The West Chicago City Council shall consider any comment received or postmarked from the date of acceptance of the Application through and until 30 days after the date of the last public hearing. Said written comment shall be mailed or delivered to the West Chicago City Clerk, 475 Main St., West Chicago, Illinois, 60185. For further information concerning the hearing procedures and your right to comment and participate, please consult the Act (415 ILCS 5/39.2) and Section 14-95 of the West Chicago Municipal Code.

Submitted by Lakeshore Recycling Systems, LLC
By one of its attorneys, George Mueller
Mueller Anderson & Associates Law Office
3015 Ashbury Dr., Naperville, Illinois 61350, 630-235-0606
George@muelleranderson.com
Published in Daily Herald August 26, 2022 (4587611)

CERTIFICATE OF PUBLICATION

Paddock Publications, Inc.

DuPage County

Daily Herald

Corporation organized and existing under and by virtue of the laws of the State of Illinois, DOES HEREBY CERTIFY that it is the publisher of the **DuPage County DAILY HERALD**. That said **DuPage County DAILY HERALD** is a secular newspaper, published in Naperville and has been circulated daily in the Village(s) of:

Addison, Aurora, Bartlett, Bensenville, Bloomingdale, Carol Stream, Darien, Downers Grove, Elmhurst, Glen Ellyn, Glendale Heights, Hanover Park, Hinsdale, Itasca, Keeneyville, Lisle, Lombard, Medinah, Naperville,Oakbrook, Oakbrook Terrace, Plainfield,Roselle, Villa Park, Warrenville, West Chicago, Westmont, Wheaton, Willowbrook, Winfield, Wood Dale, Woodridge

County(ies) of DuPage

and State of Illinois, continuously for more than one year prior to the date of the first publication of the notice hereinafter referred to and is of general circulation throughout said Village(s), County(ies) and State.

I further certify that the DuPage County DAILY HERALD is a newspaper as defined in "an Act to revise the law in relation to notices" as amended in 1992 Illinois Compiled Statutes, Chapter 715, Act 5, Section 1 and 5. That a notice of which the annexed printed slip is a true copy, was published 08/26/2022 in said DuPage County DAILY HERALD.

IN WITNESS WHEREOF, the undersigned, the said PADDOCK PUBLICATIONS, Inc., has caused this certificate to be signed by, this authorized agent, at Arlington Heights, Illinois.

PADDOCK PUBLICATIONS, INC.
DAILY HERALD NEWSPAPERS

BY Paula Baltzman
Designee of the Publisher and Officer of the Daily Herald

Control # 4587611

EXHIBIT C

Civil & Environmental Consultants, Inc.

West DuPage Recycling and Transfer Station
Pre-Filing Notice Individuals and Entities

Property Owner	Address	City	State	Zip Code	PIN or General Assembly
Fox Valley Airport Authority	DuPage Airport Authority PO Box 787	West Chicago	Illinois	60185	01-32-101-003 [landfill west]; 01-32-200-002 [landfill east]; and 01-32-100-005 [airport]
Fox Valley Airport Authority	DuPage Airport Authority 2700 International Drive	West Chicago	Illinois	60185	01-32-101-003 [landfill west]; 01-32-200-002 [landfill east]; and 01-32-100-005 [airport]
Maxwell Properties LLC	C/O Eilene Glick 8654 Glascow Island Loop	Edisto Island	South Carolina	29438	01-32-105-007; 01-32-105-008; 01-32-105-006; and 01-29-305-009
Maxwell Properties LLC	1600 Powis Ct.	West Chicago	Illinois	60185	01-32-105-005
Cabot IV-IL 1W09 LLC C/O Cabot Properties INC	PO Box A-3879	Chicago	Illinois	60690	01-32-105-009
Cabot IV-IL 1W09 LLC C/O Cabot Properties INC	1500 Powis Ct.	West Chicago	Illinois	60185	01-32-105-009
TCD 238 AIM Property, LLC C/O Taurus Investment	1400 Powis Ct.	West Chicago	Illinois	60185	01-32-206-002
TCD 238 AIM Property, LLC C/O Taurus Investment	2 International Place	Boston	Massachusetts	02110-4142	01-32-206-002
Union Pacific Railroad Company	Property Tax Department Stop 1640, 1400 Douglas Street MS910	Omaha	Nebraska	68179-0910	01-32-505-011
Canadian National Railway	935 de La Gauchetiere Street Ouest	Montreal	Quebec, Canada	H3B 2M9	01-32-506-001
Chicago Central & Pacific Railroad	Bus Dev N Real Estate - 1 Administration Road	Concord	Ontario, Canada	L4K 1B9	01-32-506-001
John Pietrobon Trust	Attn: Virginia Pietrobon R trust 1780 Kenmore Ave	Aurora	Illinois	60505	01-32-201-001

West DuPage Recycling and Transfer Station
Pre-Filing Notice Individuals and Entities

Property Owner	Address	City	State	Zip Code	PIN or General Assembly
Oscar (IL) LLC	1655 Powis Road	West Chicago	Illinois	60185	01-32-101-004 and 01-32-200-001
Oscar (IL) LLC	Attention: Peter Bates c/o W.P. Carey Inc. One Manhattan West 395 9th Avenue, 58th Floor	New York	New York	10001	01-32-101-004 and 01-32-200-001
Illinois Senate District 25 Karina Villa	946 Neltnor Blvd. #108	West Chicago	Illinois	60185	General Assembly
Illinois Senate District 25 Karina Villa	401 South Spring Street, Stratton Office Building - Section F - Room M	Springfield	Illinois	62706	General Assembly
Illinois Representative District 49 Maura Hirschauer	946 Neltnor Blvd. #108	West Chicago	Illinois	60185	General Assembly
Illinois Representative District 49 Maura Hirschauer	401 South Spring Street, 276-S Stratton Bldg.	Springfield	Illinois	62706	General Assembly

EXHIBIT D

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Postage $ .57
Total Postage and Fees $ 7.82

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Fox Valley Airport Authority
DuPage Airport Authority
2700 International Drive
West Chicago, Illinois 60185

163-899 (C)

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7021 0950 0000 5638 0550

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☐ Adult Signature Restricted Delivery $
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Total Postage and Fees $ 7.82

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DuPage Airport Authority
P O Box 787
West Chicago, Illinois 60185

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☐ Certified Mail Restricted Delivery $
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☐ Adult Signature Restricted Delivery $
Postage $ .57
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Maxwell Properties LLC
1600 Powis Court
West Chicago, Illinois 60185

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☐ Adult Signature Restricted Delivery $
Postage $ .57
Total Postage and Fees $ 7.82

DANADA STATION WHEATON IL 60189 AUG 23 2022 UNITED STATES POSTAL SERVICE

Sent To
Maxwell Properties LLC
c/o Ms. Eileen Glick
8654 Glascow Island Loop
Edisto Island, South Carolina 29438

163-899 (C)

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☐ Adult Signature Required $
☐ Adult Signature Restricted Delivery $
Postage $ .57
Total Postage and Fees $ 7.82

DANADA STATION WHEATON IL 60189 AUG 23 2022 UNITED STATES POSTAL SERVICE

Sent To
Cabot IV-IL 1W09 LLC
c/o Cabot Properties Inc
1500 Powis Court
West Chicago, Illinois 60185

163-899 (C)

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7021 0950 0000 5638 0512

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☐ Adult Signature Restricted Delivery $
Postage $ .57
Total Postage and Fees $ 7.82

DANADA STATION WHEATON IL 60189 AUG 23 2022 UNITED STATES POSTAL SERVICE

Sent To
Cabot IV-IL 1W09 LLC
c/o Cabot Properties Inc
P O Box A-3879
Chicago, Illinois 60690

163-899 (C)

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- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage $ .57

Total Postage and Fees $ 7.82

Sent To

Street: TCD 238 AIM Property, LLC
c/o Taurus Investment
2 International Place

City: Boston, Massachusetts 02110-4142

163-899 (C)

Postmark Here

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- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage $ .57

Total Postage and Fees $ 7.82

Sent To

Street: TCD 238 AIM Property, LLC
c/o Taurus Investment
1400 Powis Court

City: West Chicago, Illinois

163-899 (C)

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- ☐ Adult Signature Restricted Delivery $

Postage $ .57

Total Postage and Fees $ $7.82

Sent To

Street: John Pietrobon Trust
Attention: Virginia Pietrobon R Trust
1780 Kenmore Avenue

City: Aurora, Illinois 60505

163-899 (C)

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- ☐ Adult Signature Restricted Delivery $

Postage $ .57

Total Postage and Fees $ 7.82

Sent To

Street: Union Pacific Railroad
Property Tax Dept. Stop 1640
1400 Douglas Street MS910

City: Omaha, Nebraska 68179-0910

163-899 (C)

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- ☐ Certified Mail Restricted Delivery $
- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage $ .57

Total Postage and Fees $ 7.82

Sent To

Street: Illinois Representative District 49
Ms. Maura Hirschauer
401 South Spring Street

City: 276-S Stratton Building
Springfield, Illinois 62706

163-899 (C)

Postmark Here

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- ☐ Certified Mail Restricted Delivery $
- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage $ .57

Total Postage and Fees $ $7.82

Sent To

Street: Illinois Senate District 25
Ms. Karina Villa
946 Neltor Boulevard, #108

City: West Chicago, Illinois 60185

163-899 (C)

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- [ ] Return Receipt (electronic) $
- [ ] Certified Mail Restricted Delivery $
- [ ] Adult Signature Required $
- [ ] Adult Signature Restricted Delivery $

Postage
$ .57

Total Postage and Fees
$ 7.82

Sent To
Street: Illinois Senate District 25 - Ms. Karina Villa
401 South Spring Street
The William G. Stratton Building
City, Section F-Room M
Springfield, Illinois 62706

Postmark Here
DANADA STATION WHEATON IL 60189
AUG 23 2022
UNITED STATES POSTAL SERVICE

163-899 (C)

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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- [ ] Return Receipt (electronic) $
- [ ] Certified Mail Restricted Delivery $
- [ ] Adult Signature Required $
- [ ] Adult Signature Restricted Delivery $

Postage
$ .57

Total Postage and Fees
$ $7.82

Sent To
Street: Illinois Representative District 49
Ms. Maura Hirschauer
City, 946 Neltor Boulevard, #108
West Chicago, Illinois 60185

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DANADA STATION WHEATON IL 60189
AUG 23 2022
UNITED STATES POSTAL SERVICE

163-899 (C)

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 0950 0000 5638 0383

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$ $4.00

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- [ ] Return Receipt (electronic) $
- [ ] Certified Mail Restricted Delivery $
- [ ] Adult Signature Required $
- [ ] Adult Signature Restricted Delivery $

Postage
$ .57

Total Postage and Fees
$ $7.82

Sent To
Street: Oscar (IL) LLC
Attn: Mr. Peter Bates, c/o W P Carey Inc
One Manhattan West
City, 395 9th Avenue, 58th Floor
New York, New York 10001

Postmark Here
DANADA STATION WHEATON IL 60189
AUG 23 2022
UNITED STATES POSTAL SERVICE

163-899 (C)

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 0950 0000 5638 0475

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Extra Services & Fees *(check box, add fee as appropriate)*
- [x] Return Receipt (hardcopy) $ 3.25
- [ ] Return Receipt (electronic) $
- [ ] Certified Mail Restricted Delivery $
- [ ] Adult Signature Required $
- [ ] Adult Signature Restricted Delivery $

Postage
$ .57

Total Postage and Fees
$ $7.82

Sent To
Street: Oscar (IL) LLC
1655 Powis Road
City, West Chicago, Illinois 60185

Postmark Here
DANADA STATION WHEATON IL 60189
AUG 23 2022
UNITED STATES POSTAL SERVICE

163-899 (C)

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

ANNE GARZA
6309636026
CIVIL & ENVIRONMENTAL CONSULTA
1230 EAST DIEHL ROAD
NAPERVILLE IL 60563
UNITED STATES
LTR
1 OF 1
SHP#: 2A98 1XVJ H9X
DATE: 23 AUG 2022
SHIP TO:
ATTN: PROPERTY TAX DEPARTMENT
1-888-888-5909
CANADIAN NATIONAL RAILWAY
935 RUE DE LA GAUCHETIERE OUEST
MONTREAL QC H3B2M9
CANADA
CAN 266 9-00
UPS EXPRESS
TRACKING #: 1Z 2A9 81X D3 9796 7195
1
BILLING: P/P
SIGNATURE REQUIRED
DESC: notification document
EDI-DOC
Invoice Number: 163-899.0005
XOL 22.08.10 NV45 35.0A 08/2022*

ANNE GARZA
6309636026
CIVIL & ENVIRONMENTAL CONSULTA
1230 EAST DIEHL ROAD
NAPERVILLE IL 60563
UNITED STATES
LTR
1 OF 1
SHP#: 2A98 1XV4 ZJ7
DATE: 23 AUG 2022
SHIP TO:
ATTN: PROPERTY TAX DEPARTMENT
1-888-888-5909
CHICAGO CENTRAL & PACIFIC RAILROAD
BUS DEV N REAL ESTATE
1 ADMINISTRATION ROAD
CONCORD ON L4K1B9
CANADA
CAN 457 9-04
UPS EXPRESS
TRACKING #: 1Z 2A9 81X D3 9631 2607
1
BILLING: P/P
SIGNATURE REQUIRED
DESC: notification document
EDI-DOC
Invoice Number: 163-899.0005
XOL 22.08.10 NV45 35.0A 08/2022*

Drop-Off Package Receipt: 1 of 1

THIS IS NOT A SHIPPING LABEL. PLEASE SAVE FOR YOUR RECORDS.

DROP-OFF LOCATION:
The UPS Store #4659
20 DANADA SQ W
WHEATON IL 60189-2000

DROP-OFF DATE/TIME:
Tue 23 Aug 2022 3:22 PM

ESTIMATED PICKUP DATE:
UPS Tue 23 Aug 2022 2pkgs

TOTAL PACKAGES: 2pkgs

TRACKING NUMBER	CARRIER & SERVICE	WEIGHT
1Z2A981XD396312607	UPS Worldwide Express	0.15 lb
1Z2A981XD397967195	UPS Worldwide Express	0.15 lb

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EXHIBIT E

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
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- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Oscar (IL) LLC
1655 Powis Road
West Chicago, Illinois 60185

9590 9402 7368 2028 5121 29

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0475

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X LPS ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* LPS C. Date of Delivery 8-25-2022

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☒ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Fox Valley Airport Authority
DuPage Airport Authority
2700 International Drive
West Chicago, Illinois 60185

9590 9402 7011 1225 1747 91

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0550

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Nicole Forbear ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* Nicole Forbear C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☒ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

CERTIFIED MAIL®

7021 0950 0000 5638 0567

CAROL STREAM IL 601
22 AUG 2022 2PM 9 L

quadient
08/23/2022
US POSTAGE $007.82⁰

FIRST-CLASS MAIL
ZIP 60563
041M10453569

Civil & Environmental Consultants, In
Diehl Road, Suite 200 | Naperville, IL 6056

Fox Valley Airport Authority
DuPage Airport Authority
P.O. Box 787
West Chicago, Il

NIXIE 601 FE 1 0008/30/22
RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD

UTF BC: 60563846130 *2976-07330-23-45

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Cabot IV-IL 1W09 LLC
c/o Cabot Properties Inc.
1500 Powis Court
West Chicago, Illinois 60185

9590 9402 7368 2028 5120 68

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0512

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery
8-25-22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

Amy Anard - Beacon

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☑ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Cabot IV-IL 1W09 LLC
c/o Cabot Properties Inc.
P.O. Box A-3879
Chicago, Illinois 60690

9590 9402 7368 2028 5120 51

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0505

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery
8/30/22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☑ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Maxwell Properties LLC
1600 Powis Court
West Chicago, Illinois 60185

9590 9402 7368 2028 5121 43

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0529

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery
8/30/22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☑ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 165-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Maxwell Properties LLC
c/o Ms. Eileen Glick
8654 Glascow Island Loop
Edisto Island, South Carolina 29438

9590 9402 7011 1225 1748 52

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0543

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* LARRY E DUNCKLY | C. Date of Delivery 8/29/22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☒ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

TCD 238 AIM Property, LLC
c/o Taurus Investment
1400 Powis Court
West Chicago, Illinois

9590 9402 7368 2028 5120 44

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0499

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Addressee

B. Received by *(Printed Name)* [illegible] | C. Date of Delivery 8-26-22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☒ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

TCD 238 AIM Property, LLC
c/o Taurus Investment
2 International Place
Boston, Massachusetts 02110-4142

9590 9402 7368 2028 5120 37

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0482

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

FORT POWHATAN CAGE AUG 26 2022

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☒ Registered Mail™
☐ Registered Mail Restricted Delivery
☒ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

John Pietrobon Trust
Attention: Virginia Pietrobon R Trust
1780 Kenmore Avenue
Aurora, Illinois 60505

9590 9402 7368 2028 5120 75

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0413

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Virginia Pietrobon ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery
8/27/22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☒ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Union Pacific Railroad
Property Tax Dept. Stop 1640
1400 Douglas Street MS910
Omaha, Nebraska 68179-0910

9590 9402 7368 2028 5120 20

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0536

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Joe Kistler ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* Joe Kistler C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

AUG 26 2022

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☒ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Illinois Representative District 49
Ms. Maura Hirschauer
401 South Spring Street
276-S - The William G. Stratton Building
Springfield, Illinois 62706

9590 9402 7011 1225 1748 38

2. Article Number *(Transfer from service label)*
7021 0950 0001 7814 7840

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Melinda Bailey ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery
8/25/22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☒ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Insured Mail
☐ Insured Mail Restricted Delivery (over $500)
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☒ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Illinois Representative District 49
Ms. Maura Hirschauer
946 Neltor Boulevard, #108
West Chicago, Illinois 60185

9590 9402 7368 2028 5121 05

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0451

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☑ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Illinois Senate District 25
Ms. Karina Villa
401 South Spring Street
The William G. Stratton Building
Section F-Room M
Springfield, Illinois 62706

9590 9402 7011 1225 1748 45

2. Article Number *(Transfer from service label)*
7021 0950 0001 7814 7857

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* PAUL GUIER | C. Date of Delivery 8/22/22

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☑ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1

Illinois Senate District 25
Ms. Karina Villa
946 Neltor Boulevard, #108
West Chicago, Illinois 60185

9590 9402 7368 2028 5120 13

2. Article Number *(Transfer from service label)*
7021 0950 0000 5638 0420

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☑ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 163-899 (C) Domestic Return Receipt

From: Garza, Anne
To: Hock, John
Cc: Preston, Ellen
Subject: 163-899 - Certified mail for Oscar (IL) LLC in NY
Date: Friday, September 9, 2022 12:33:00 PM
Attachments: image001.png
image002.png
image003.png

John,

According to the USPS website, the certified mail was delivered on 8/29/22 at 3:15 PM.

U.S. Postal Service™
CERTIFIED MAIL® RECEIPT
Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

OFFICIAL USE

Certified Mail Fee $4.00
Extra Services & Fees (check box, add fee as appropriate)
☑ Return Receipt (hardcopy) $3.35
☐ Return Receipt (electronic) $
☐ Certified Mail Restricted Delivery $
☐ Adult Signature Required $
☐ Adult Signature Restricted Delivery $
Postage $.57
Total Postage and Fees $7.82

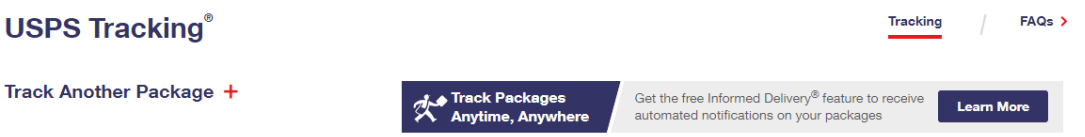
Sent To
Oscar (IL) LLC
Attn: Mr. Peter Bates, c/o W.P. Carey Inc.
One Manhattan West
395 9th Avenue, 58th Floor
New York, New York 10001

163-899(C)

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7021 0950 0000 5638 0383

WHEATON IL 60189 POSTAL SERVICE OMAHA STATION



USPS Tracking®

Tracking / FAQs >

Track Another Package +

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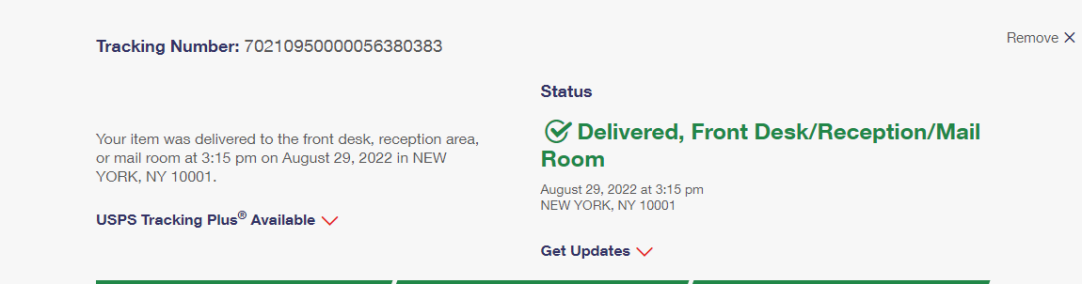
Get the free Informed Delivery® feature to receive automated notifications on your packages

Learn More



Tracking Number: 70210950000056380383

Remove ×

Status

Delivered, Front Desk/Reception/Mail Room

Your item was delivered to the front desk, reception area, or mail room at 3:15 pm on August 29, 2022 in NEW YORK, NY 10001.

August 29, 2022 at 3:15 pm
NEW YORK, NY 10001

USPS Tracking Plus® Available

Get Updates

Anne M. Garza | *Administrative Assistant*
Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200, Naperville, Illinois 60563
office 630.963.6026 **mobile** 331.642.2086
www.cecinc.com

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Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number

1Z2A981XD396312607

Service

UPS Worldwide Express®

Shipped / Billed On

08/23/2022

Additional Information

Signature Required

Delivered On

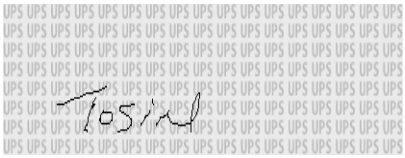
08/24/2022 10:43 A.M.

Delivered To

1 ADMINISTRATION RD
CONCORD, L4K, CA

Received By

TOSIN



Left At

Receiver

Reference Number(s)

163-899.0005, 2A981XV4ZJ7

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 09/13/2022 4:25 P.M. EST

Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number

1Z2A981XD397967195

Service

UPS Worldwide Express®

Shipped / Billed On

08/23/2022

Additional Information

Signature Required

Delivered On

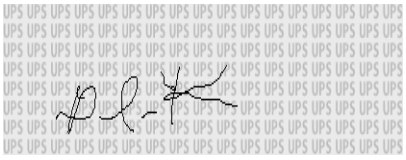
08/24/2022 10:52 A.M.

Delivered To

935 DE LA GAUCHETIERE RUE O
MONTREAL, H3B2M9, CA

Received By

HELENE



Left At

Dock

Reference Number(s)

163-899.0005, 2A981XVJH9X

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 09/13/2022 4:22 P.M. EST

CRITERION 3:

“the facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property”
415 ILCS 5/39.2(a)(iii)

CRITERION 3

“the facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on value of the surrounding property”
415 ILCS 5/39.2(a)(iii)

LAND USE COMPATIBILITY
AND
REAL ESTATE IMPACT STUDY

West DuPage Recycling and Transfer Station

LOCATION

1655 Powis Road
West Chicago, Illinois 60185

PREPARED FOR

Lakeshore Recycling Systems, LLC
c/o Mr. Richard J. Golf
Managing Partner
1655 Powis Road
West Chicago, Illinois 60185

PREPARED BY

Dale J. Kleszynski, MAI, SRA
Patrick A. Kleszynski, MAI
15028 South Cicero Avenue
Suite L
Oak Forest, Illinois 60452

AS OF

June 1, 2022

ASSOCIATED PROPERTY COUNSELORS, LTD.
Real Estate Appraisers and Consultants

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September 15, 2022

Lakeshore Recycling Systems, LLC
c/o Mr. Richard J. Golf
Managing Partner
1655 Powis Road
West Chicago, Illinois 60185

Re: Land Use Compatibility
and Real Estate Impact Study
Proposed West DuPage Recycling and Transfer Station
West Chicago, Illinois

Dear Mr. Golf:

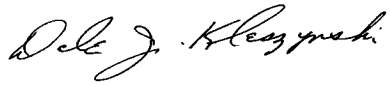
As requested by Lakeshore Recycling Systems, LLC., Associated Property Counselors, Ltd. (APC) completed a study of the proposed West DuPage Recycling and Transfer Station to determine if the development satisfies Illinois Environmental Protection Act, 415 ILCS 5/39.2 (a) (iii), commonly referred to as "Criterion 3". Criterion 3 requires that "the facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property".

The attached report describes the applied methodology and contains pertinent data gathered while completing this study. The study and report are intended to meet the Uniform Standards of Professional Appraisal Practice and the Code of Ethics of the Appraisal Institute.

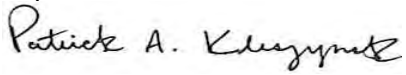
Based on my analysis, APC concludes that the West DuPage Recycling and Transfer Station is located "so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of surrounding property" and meets the standards of "Criterion 3".

If you have any questions, please contact me.

Respectfully submitted,



Dale J. Kleszynski, MAI, SRA
President
Illinois License Number 553.000213
Expires 9/30/2023



Patrick A. Kleszynski, MAI
Vice President
Associated Property Counselors, Ltd.
Certified General Real Estate Appraiser (IL License Number 553.002510)
Expires 9/30/2023

3.1 INTRODUCTION

The Illinois Environmental Protection Act, at 415 ILCS 5/39.2 (a)(iii), requires that an applicant for a transfer station siting demonstrate that the proposed facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property. Associated Property Counselors, Ltd. (APC) completed a study of the proposed West DuPage Recycling and Transfer Station to determine whether the proposed development satisfies this requirement.

This section of the report contains items that are required to meet the Uniform Standards of Professional Appraisal Practice and the Code of Ethics of the Appraisal Institute. Subsequent sections of the report describe the applied methodology and contain pertinent data gathered while completing this study.

INTENDED USER OF THE REPORT

In this matter, the client is identified as Lakeshore Recycling Systems, LLC (LRS). Mr. Richard J. Golf, Managing Partner, represents the client. The client is the intended user of the study and report. Additional intended users will be named at a later date, if necessary. No other user is intended or implied.

INTENDED USE OF THE REPORT

This study and report are to be used by the client as part of the siting application for the proposed West DuPage Recycling and Transfer Station. The improvements are located and will be partially developed on the property located at 1655 Powis Road, West Chicago, Illinois. No other use is intended or implied.

IDENTIFICATION OF THE REAL ESTATE

The subject property is located on the east side of Powis Road between North Avenue (Illinois Route 64) and West Hawthorne Lane. The common address is 1655 Powis Road, West Chicago, Illinois. The property is further identified by Permanent Real Estate Tax Index Numbers 01-32-101-004 and 01-32-200-001.

PROPERTY RIGHTS AND MARKET VALUE

Neither the subject property nor any adjacent properties have been evaluated as part of this study. Where applied, the term “Market Value” refers to the fee simple estate in the property. The Dictionary of Real Estate Appraisal, Seventh Edition, defines fee simple estate as the “absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.”

Where applied, the definition of Market Value is taken from the Appraisal of Real Estate, Fifteenth Edition.

PURPOSE OF THE STUDY

The purpose of this study is to determine if the proposed transfer station, to be located at 1655 Powis Road, West Chicago, Illinois, complies with the applicable standards of the State of Illinois as set forth in the Illinois Environmental Protection Act, 415 ILCS 5/39.2 (a) (iii), commonly referred to as “Criterion 3”. Criterion 3 requires that “the facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property”.

EFFECTIVE DATE OF THE STUDY

The effective date of the study is June 1, 2022.

EFFECTIVE DATE OF THE REPORT

The effective date of the report is September 15, 2022.

COMPLIANCE WITH USPAP

This study and report are completed in compliance with the Uniform Standards of Professional Appraisal Practice and the Code of Ethics of the Appraisal Institute. Additional data is retained in my file and/or office.

DISCLOSURE OF PAST WORK, EXTRAORDINARY ASSUMPTIONS, HYPOTHETICAL CONDITIONS AND/OR SPECIAL LIMITING CONDITIONS

Associated Property Counselors, Ltd, Dale J. Kleszynski, MAI, SRA and Patrick A. Kleszynski, MAI has completed professional services associated with this property during the past three years. Past services include the ongoing analysis of the property to determine compliance with Criterion 3.

The description of the proposed improvements is based on information provided by Civil & Environmental Consultants, Inc. (CEC). The provided information includes, but is not limited to, multiple drawings entitled “West DuPage Recycling and Transfer Station” Local Siting Application”, dated August 2022 (CEC Drawings) and Section 2.2 of CEC’s Criterion 2 report. APC reserves the right to amend this study and report if the subject transfer station is not developed in accordance with the provided plans and specifications that were prepared by CEC.

There are no other extraordinary assumptions, hypothetical conditions, and/or special limiting conditions that impact the study and/or report.

3.2 EXISTING CONDITIONS AND PROPOSED DEVELOPMENT

The subject property is located at 1655 Powis Road, West Chicago, Illinois.

A Regional Map showing the approximate location of the site is provided below. Information describing the City of West Chicago, taken from various sources, is also presented.

The CEC Drawings indicates that the subject site has approximately 686 feet of frontage along the east side of Powis Road. Depth of the site varies based on point of reference. Total site area is approximately 27.66 acres. Photographs of the subject property showing the existing conditions are provided below.

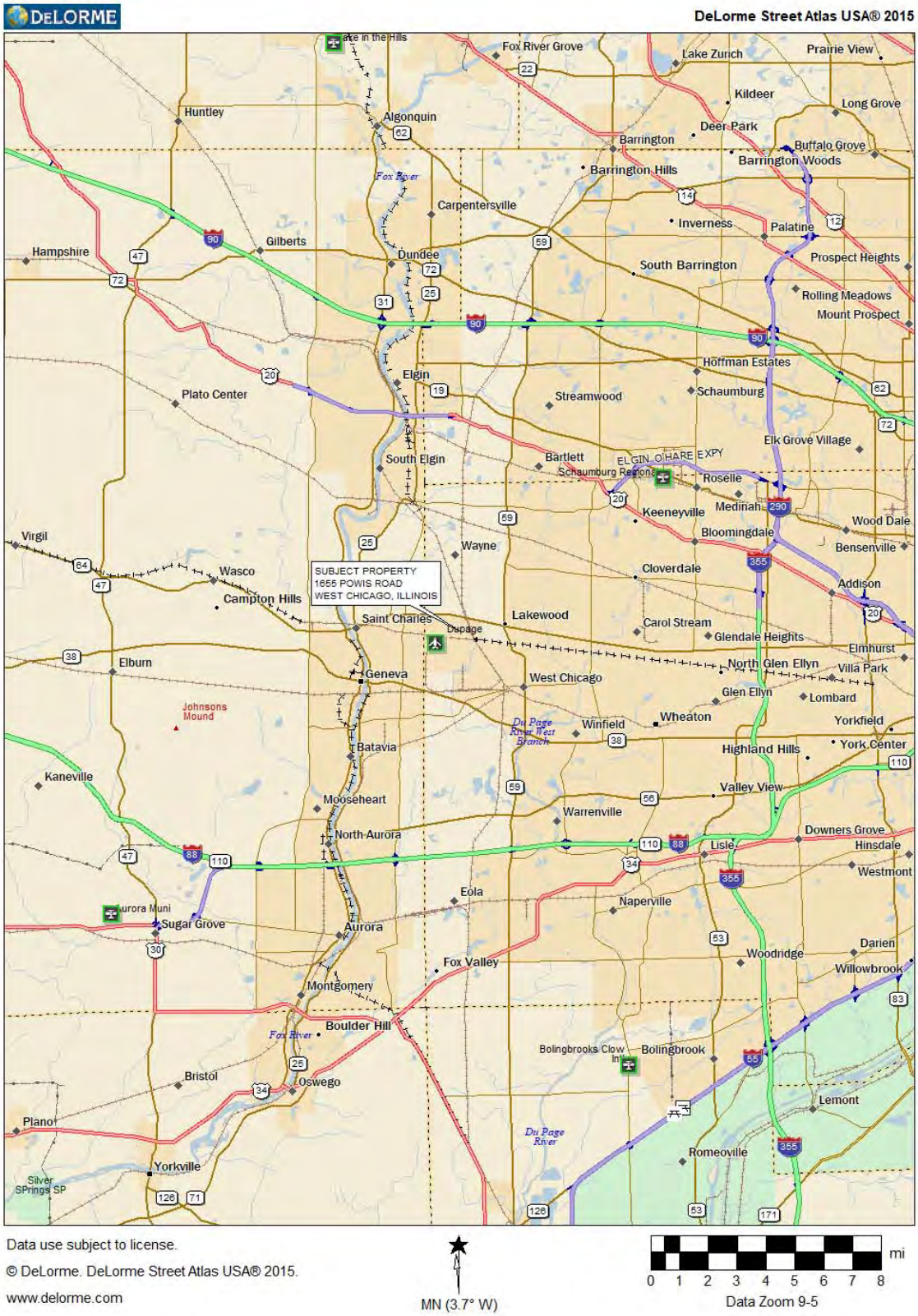
LRS currently operates a permitted solid waste management facility on approximately 6.11 acres of the subject site that receives and transfers general construction demolition debris (C&D Recycling Facility). The C&D Recycling Facility is shown on page 3-7 and includes the site entrance, a scale, the C&D transfer building, the C&D sorting line and storage bunkers. The site also includes an office, maintenance building, parking areas, additional hard surfaced areas, access controls, utilities, outdoor lighting and a stormwater control system, which support its overall operations at the subject site.

Upon completion of construction, the subject site will be improved with a building expansion of approximately 22,500 square feet that will be used to transfer municipal solid wastes and “single-stream” recyclables. The building expansion will include a tipping floor, barrier walls, a loading pit and bay doors. A smaller building to be used for the solidification of hydro excavation wastes will also be constructed. The solidification facility will include concrete mixing pits. Additional improvements include enhanced stormwater management features, a second scale, additional concrete pavement and a second access location along Powis Road.

The transfer station will have access from Powis Road. The topography of the property is generally level and at the grade of surrounding properties. This is typical of surrounding properties. All utilities are reported to be available to the subject property along Powis Road.

The primary transportation link to the subject property is Powis Road. Powis Road provides access to North Avenue (Illinois Route 64) to the north and West Hawthorne Lane to the south. North Avenue (Illinois Route 64) and West Hawthorne Lane allow access to the major and secondary streets in West Chicago and the adjacent communities. A Location Map showing the noted roadways is provided below.

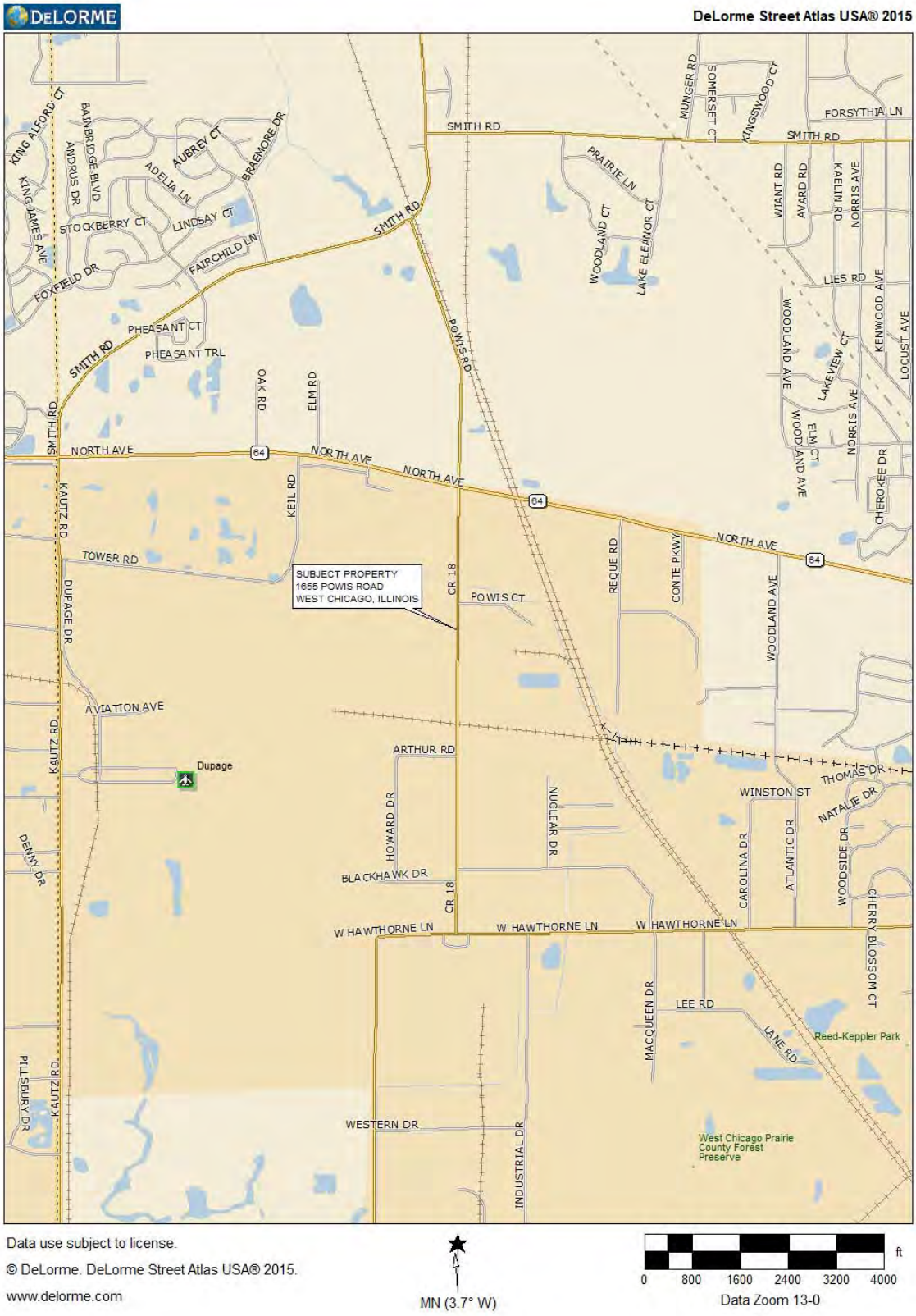
REGIONAL MAP



AREA DATA

Location:	City of West Chicago DuPage County, Illinois
Distance to Major Cities:	Chicago, Illinois 30 miles Indianapolis, Indiana 174 miles Detroit, Michigan 291 miles
Housing:	West Chicago is an established community with diverse home styles ranging from historic to new construction. According to the Multiple Listing Service, the average sale price a home in West Chicago was $312,513 in 2022.
Health Care:	There are no hospitals in the city of West Chicago. Health care needs are served by Central DuPage Hospital in nearby Winfield and Delnor Community Hospital in Geneva.
Education:	There are 6 public elementary schools serving grades kindergarten through 5, one junior high serving grades 6 through 8 and one high school serving grades 9 through 12. Higher education needs are served by College of DuPage, St. Mary's and Wheaton Academy.
Recreational Facilities:	Recreational needs are well served by the West DuPage Park Forest Preserve with 15 public golf courses and 8 public swimming pools as well as convenient water access for boating and fishing.
Labor Market:	West Chicago has a large labor pool of both skilled and unskilled labor. The convenient location has attracted major industries to the area.
Employment:	Employment is provided by a number of area companies including General Mills, Inc., Siemens-Furnas, Jel Sert and Aspen Marketing Services.
Utilities:	Electricity and gas are provided by Commonwealth Edison and Nicor. Water, sewer and sanitation are provided by West Chicago.
Transportation:	Interstates 88, 355 and 90 allow convenient access to the Chicago Central Business District and surrounding suburbs. Public transportation is via Burlington Northern. Regional air transportation is facilitated by DuPage County Airport, while international service is provided through O'Hare International Airport.

LOCATION MAP



PHOTOGRAPHS OF THE SUBJECT PROPERTY

The following photograph identifies the site features of the subject property.

SUBJECT PROPERTY – AERIAL PHOTOGRAPH

PHOTOGRAPHS OF THE SUBJECT PROPERTY

SUBJECT PROPERTY – FRONT ELEVATION LOOKING EAST

SUBJECT PROPERTY – FRONT ELEVATION LOOKING NE

PHOTOGRAPHS OF THE SUBJECT PROPERTY

SUBJECT PROPERTY – WEST AND SOUTH ELEVATION

SUBJECT PROPERTY – WEST ELEVATION

PHOTOGRAPHS OF THE SUBJECT PROPERTY

SUBJECT PROPERTY – EAST AND SOUTH ELEVATION

SUBJECT PROPERTY - NORTH AND EAST ELEVATION

PHOTOGRAPHS OF THE SUBJECT PROPERTY

SUBJECT PROPERTY – NORTH ELEVATION

SUBJECT PROPERTY – OUTSIDE STORAGE AREA LOOKING SW

PHOTOGRAPHS OF THE SUBJECT PROPERTY

SUBJECT PROPERTY – STORAGE AREA LOOKING EAST

SUBJECT PROPERTY – STORAGE AREA LOOKING EAST

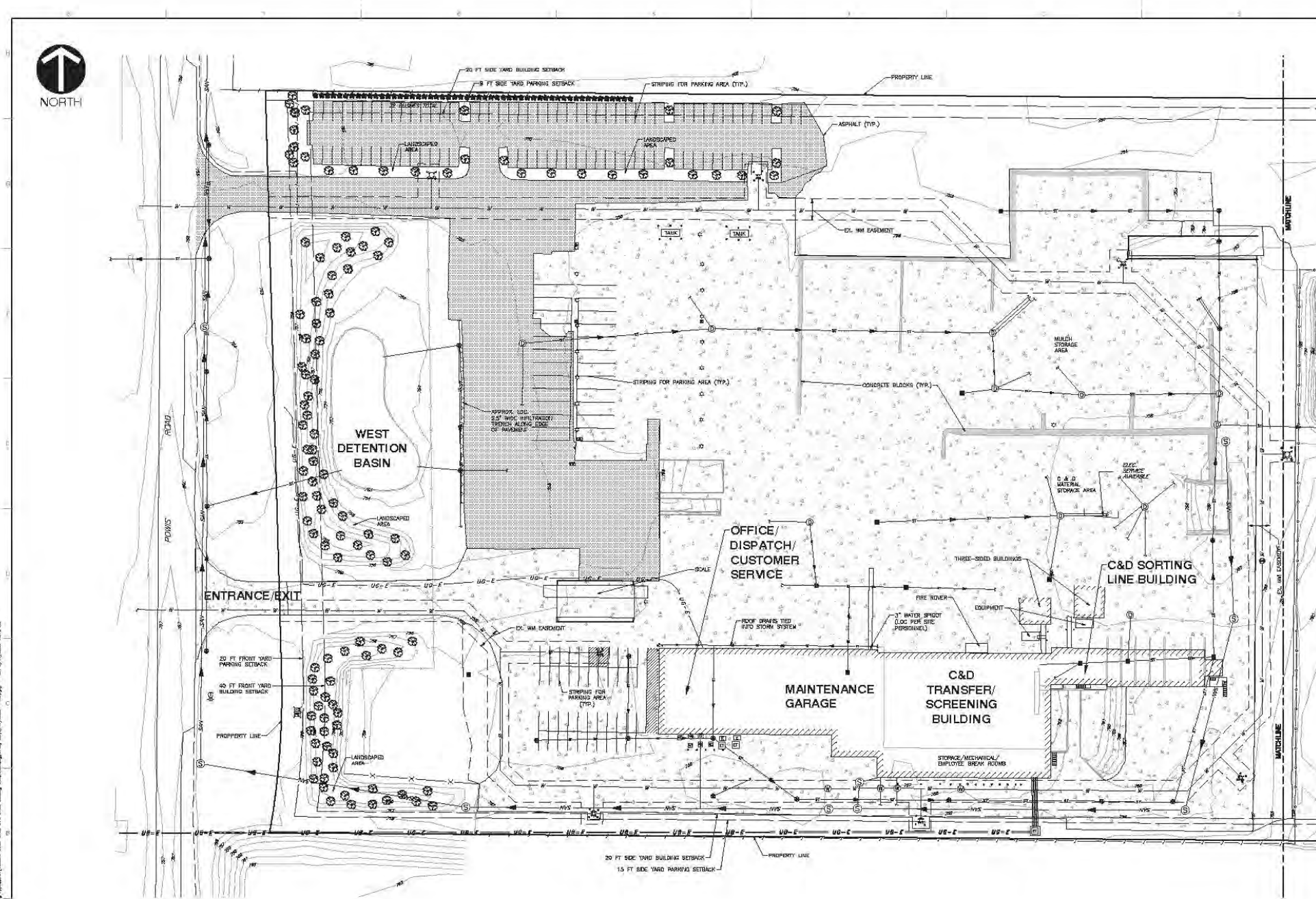
PHOTOGRAPHS OF THE SUBJECT PROPERTY

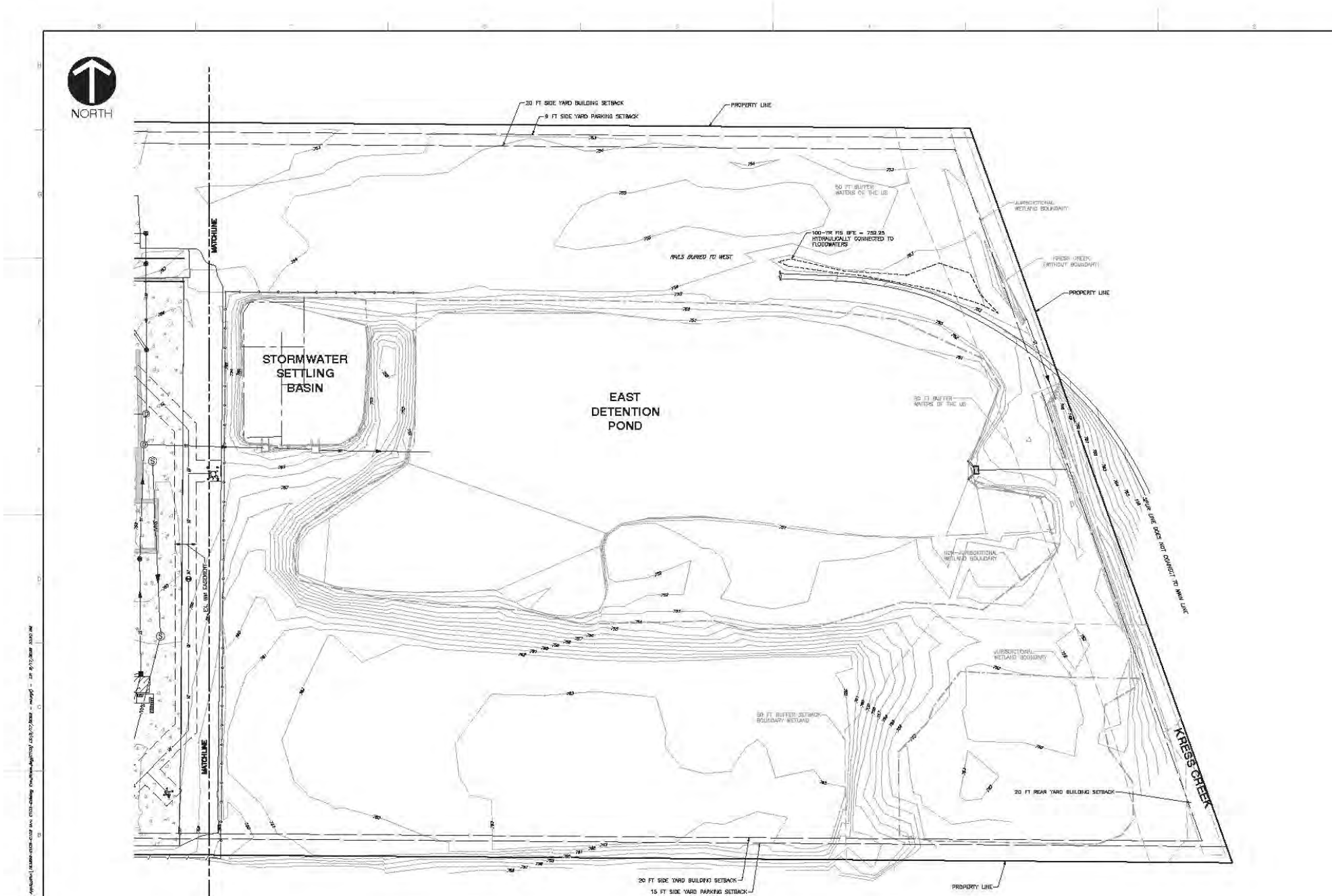
SUBJECT PROPERTY – STORAGE AREA LOOKING EAST

SUBJECT PROPERTY – STORAGE AREA LOOKING WEST

PHOTOGRAPHS OF THE SUBJECT PROPERTY

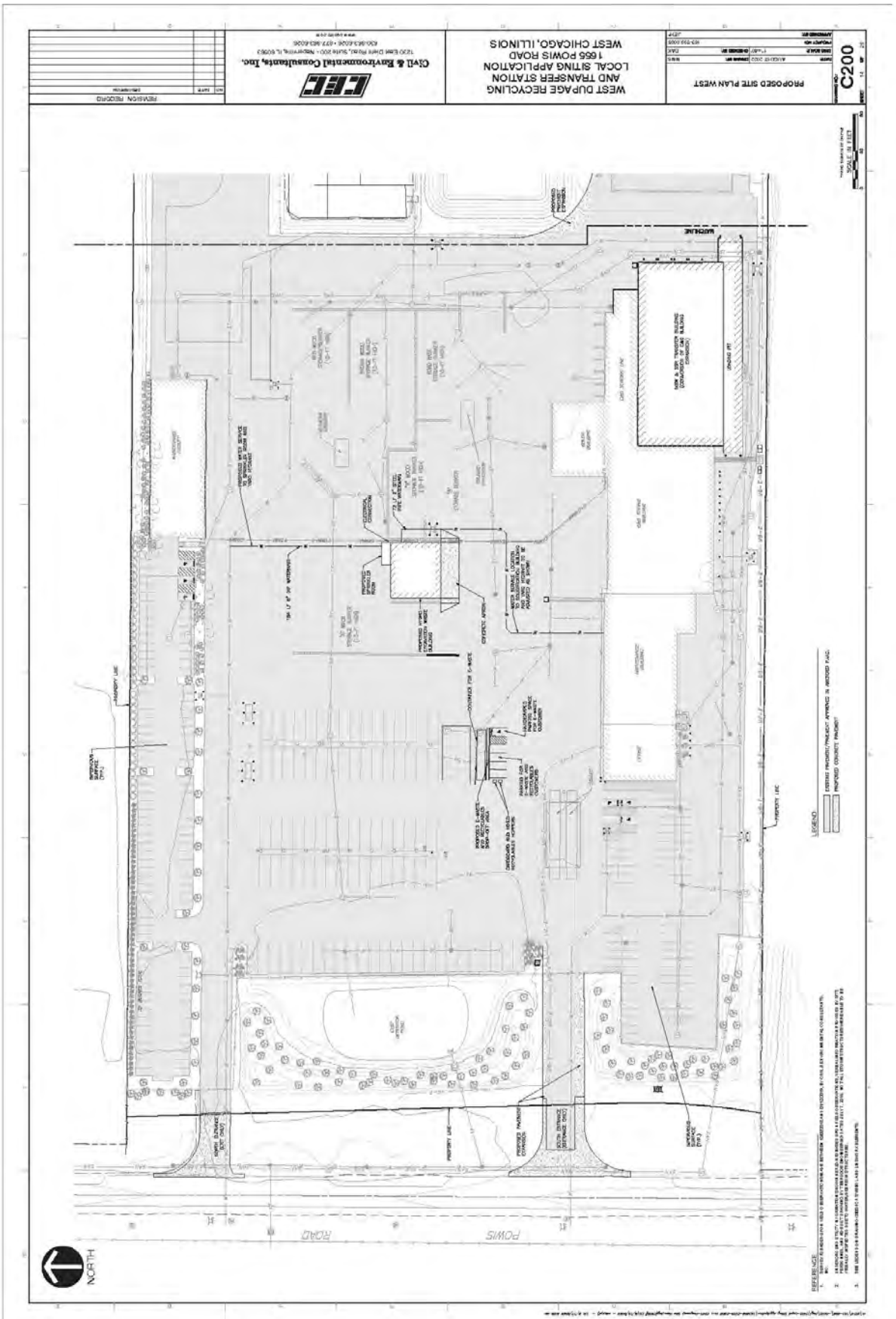
SUBJECT PROPERTY – RETENSION AREA LOOKING NE


NORTH
WEST DETENTION BASIN
OFFICE/ DISPATCH/ CUSTOMER SERVICE
C&D SORTING LINE BUILDING
MAINTENANCE GARAGE
C&D TRANSFER/ SCREENING BUILDING
ENTRANCE/EXIT
PROPERTY LINE
ASPHALT (TYP.)
STRIPING FOR PARKING AREA (TYP.)
LANDSCAPED AREA
EX. WM EASEMENT
CONCRETE BLOCKS (TYP.)
MULCH STORAGE AREA
C & D MATERIAL STORAGE AREA
THREE-SIDED BUILDINGS
FIRE ROVER
EQUIPMENT
ROOF DRAINS TIED INTO STORM SYSTEM
STORAGE/MECHANICAL/ EMPLOYEE BREAK ROOMS
20 FT FRONT YARD PARKING SETBACK
40 FT FRONT YARD BUILDING SETBACK
20 FT SIDE YARD BUILDING SETBACK
15 FT SIDE YARD PARKING SETBACK
POWS ROAD
MATCHLINE

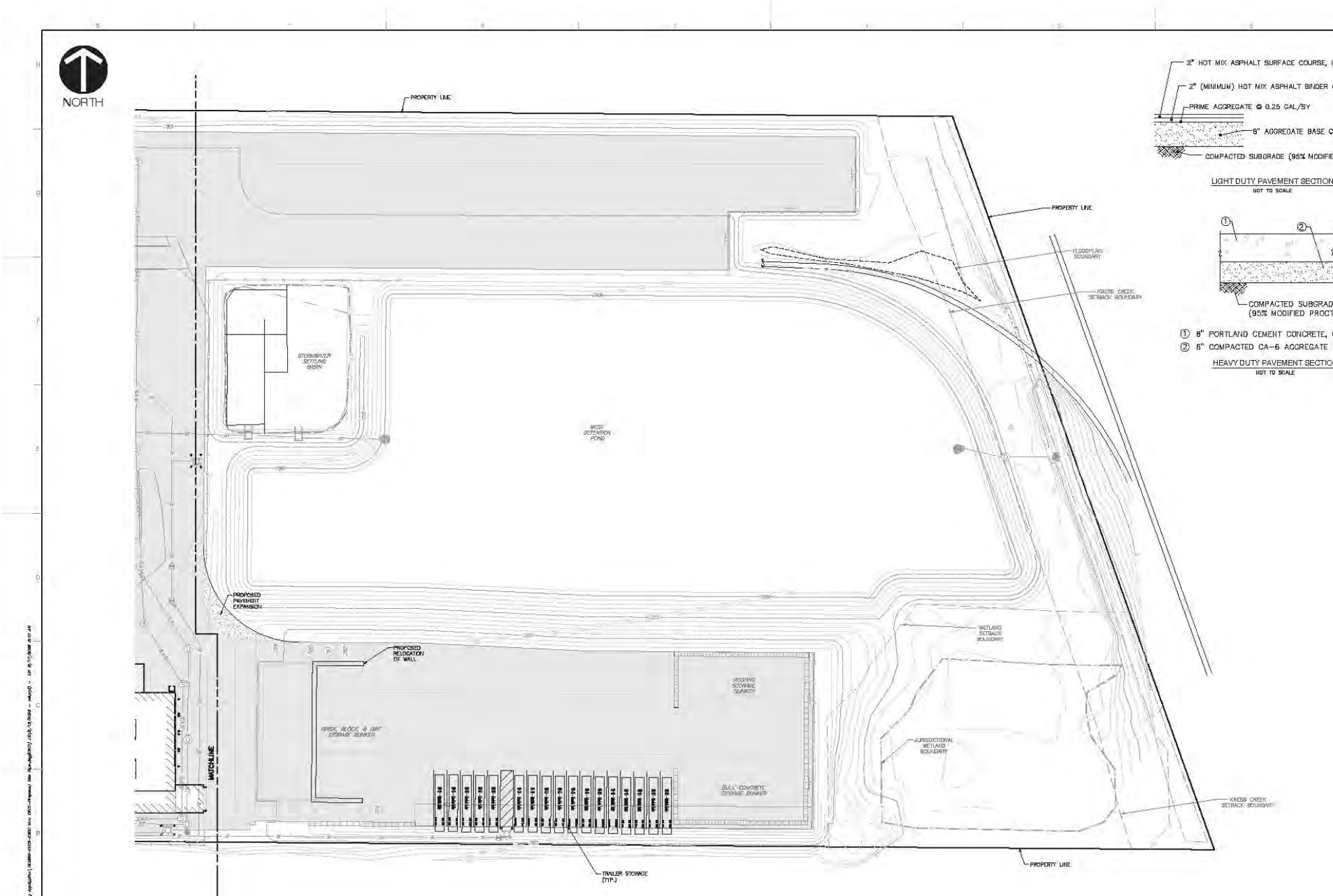


3-16 **ASSOCIATED PROPERTY COU**

SUBJECT PROPERTY – PROPOSED CONDITIONS



Electronic Filing: Received, Clerk's Office 04/19/2023 C001046



3-18 **ASSOCIATED PROPERTY COU**

3.3 HISTORIC AERIAL PHOTOS

The following aerial photographs demonstrate the development trends near the subject site from 1988 through 2012. The subject is bounded by Powis Road and the DuPage County Airport on the west; the Canadian National (E J & E), the Union Pacific Railroad Rights of Way and the Commonwealth Edison Power Line Right of Way to the east; a closed landfill and industrial facilities to the south; and industrial facilities to the north.

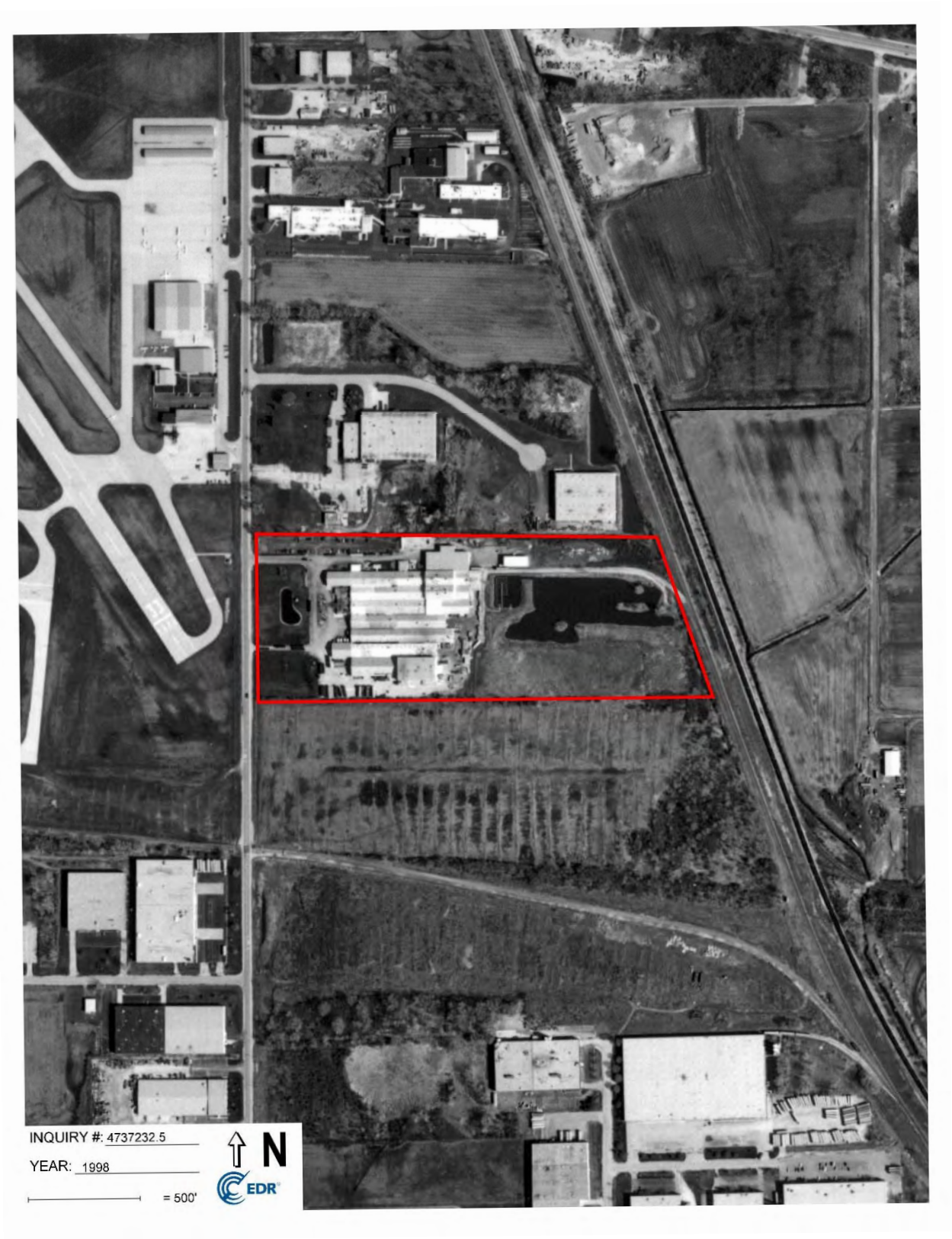
The aerial photos show limited industrial development in the area, indicating that nearby uses have remained generally consistent over an extended period of time. Although uses in the area are consistent, the photographs that follow demonstrate that the subject property has been modified on a regular and consistent basis to accommodate the current use and increase the efficiency of the site plan and circulation patterns. The elimination of certain building improvements and the construction of a new building demonstrate a commitment to the current use and area.

It is noteworthy that the most significant change in the area has been the development of the material yard, located within the southwest quadrant of West North Avenue (Illinois Route 64) and Reque Road. This property is reported to be owned by AA Conte & Sons Contractors (Excavating Contractor) and is consistent with the applications found in the vicinity of the subject property and proposed West DuPage Recycling and Transfer Station. See 1998 aerial photograph to identify approximate development date for the AA Conte property. Each subsequent aerial photo shows that the uses in this area have remained consistent over the past years.

1988

1993

1998



1999

2005

2006

2007

2009

2010

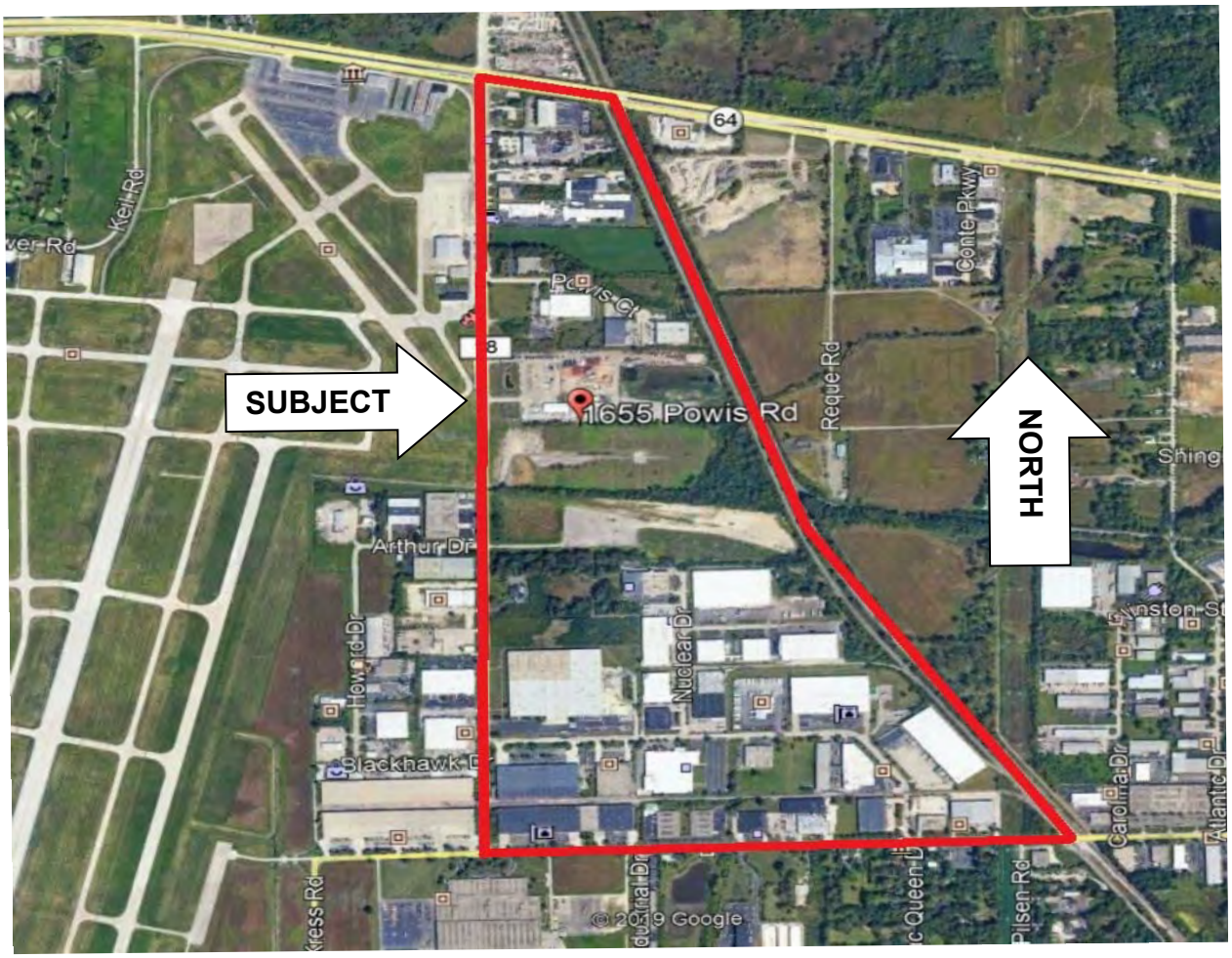
2011

2012

3.4 DEVELOPMENT IN THE STUDY AREA

The Project Area Map that follows this discussion identifies the location of the subject property and shows the uses that exist near the subject property. The site can only be accessed from Powis Road via North Avenue (Illinois Route 64) to the north and via West Hawthorne Lane to the south. The site cannot be accessed from the east or west between North Avenue (Illinois Route 64) and West Hawthorne Lane due to the presence of the Canadian National (E J & E) and the Union Pacific Railroad Rights of Way and the DuPage County Airport. It is noteworthy that all of the businesses along Powis Road are similar to the subject with respect to access from North Avenue (Illinois Route 64) and West Hawthorne Lane.

Manmade boundaries for the subject area are the DuPage County Airport, Powis Road (west), North Avenue – Illinois Route 64 (north), West Hawthorne Lane (south), the Canadian National (E J & E), the Union Pacific Railroad Rights of Way (east). The area within these boundaries encompasses approximately 405 acres. The man-made boundaries, applications within these boundaries and primary streets that define this area effectively isolate and buffer this 405 acre area from all adjacent applications. The impact of these locational features is to isolate and minimize any influence the uses within this 405 acre area have on properties outside the defined area. This includes the proposed development of the West DuPage Recycling and Transfer Station. See aerial photograph below.

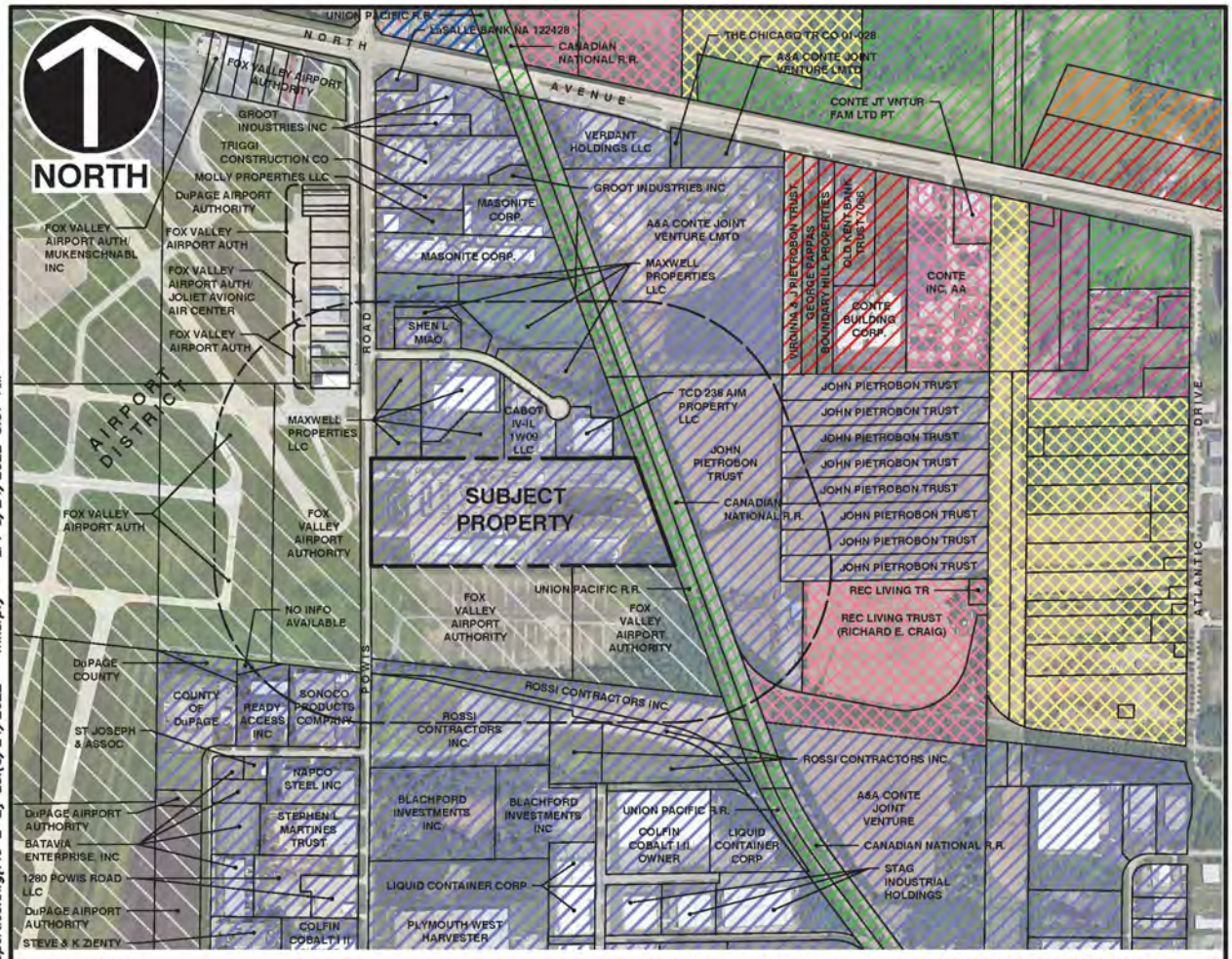


The study area (bounded in Red on the illustration above) shows the DuPage County Airport and Powis Road Drive to the west, the Canadian National (E J & E), the Union Pacific Railroad Rights of Way to the east, North Avenue (Illinois Route 64) to the north and West Hawthorne Lane to the south. Within these boundaries (and beyond) the area uses generally consists of industrial applications that include, recycling uses, contractor yards, outside storage, material storage, equipment storage, truck farms and general industrial warehouse and distribution buildings.

Uses like the proposed West DuPage Recycling and Transfer Station, Groot Industries and property occupied by the Fox Valley Airport Authority are common, and the photographs located elsewhere in this report demonstrate that Powis Road services uses that are consistent with similar industrial applications. It is noteworthy that a material handling yard is immediately east of the railroad right of way and immediately south of West North Avenue (Illinois Route 64).

The proposed West DuPage Recycling and Transfer Station is consistent with nearby uses while being isolated by the railroad right of way, DuPage County Airport, a closed landfill and other industrial property. Uses or development within the study area that include the above-mentioned range of industrial applications are identified on the Zoning Map that is located on the following page and the aerial photograph presented elsewhere.

No residences are located within the study area. The nearest residences are located along Atlantic Drive, which is over 3,000 feet to the east of the West DuPage Recycling and Transfer Station.



LEGEND

- SUBJECT PROPERTY
- SURROUNDING PROPERTY
- 1000 FOOT PROPERTY OFFSET

LEGEND - UNINCORPORATED ZONING

- UNINCORPORATED LIGHT INDUSTRIAL
- UNINCORPORATED SINGLE FAMILY

LEGEND - CITY OF WEST CHICAGO ZONING

- B-2 GENERAL BUSINESS DISTRICT
- B-3 REGIONAL SHOPPING DISTRICT
- ER-1 ESTATE RESIDENCE DISTRICT
- M MANUFACTURING DISTRICT
- R-6 MULTIPLE FAMILY RESIDENTIAL DISTRICT
- ORI OFFICE/RESEARCH/LIGHT INDUSTRIAL DISTRICT
- AIRPORT DISTRICT

REFERENCE

1. 2021 ZONING MAP BY THE CITY OF WEST CHICAGO.
2. IMAGE PROVIDED BY GOOGLE EARTH. GOOGLE MAP DATA © 2022.

SCALE IN FEET: 0 1000 2000

*HAND SIGNATURE ON FILE

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www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

SURROUNDING PROPERTIES AND ZONING FOR 1000 FOOT PROPERTY OFFSET

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:
DATE:	AUGUST 2022	DWG SCALE:	1"=1000'	PROJECT NO:	163-899.0005	2-2

P:\2016\163-899\-CADD\Dwg\CV06-Siting Application\163899-SW05-SD01-Surrounding Properties.dwg[FIG 2-2] LS:(8/24/2022 - mkarpl) - LP: 8/24/2022 8:07 AM

The above zoning map indicates that zoning classifications within the Study Area only include M, Manufacturing District and Airport District applications.

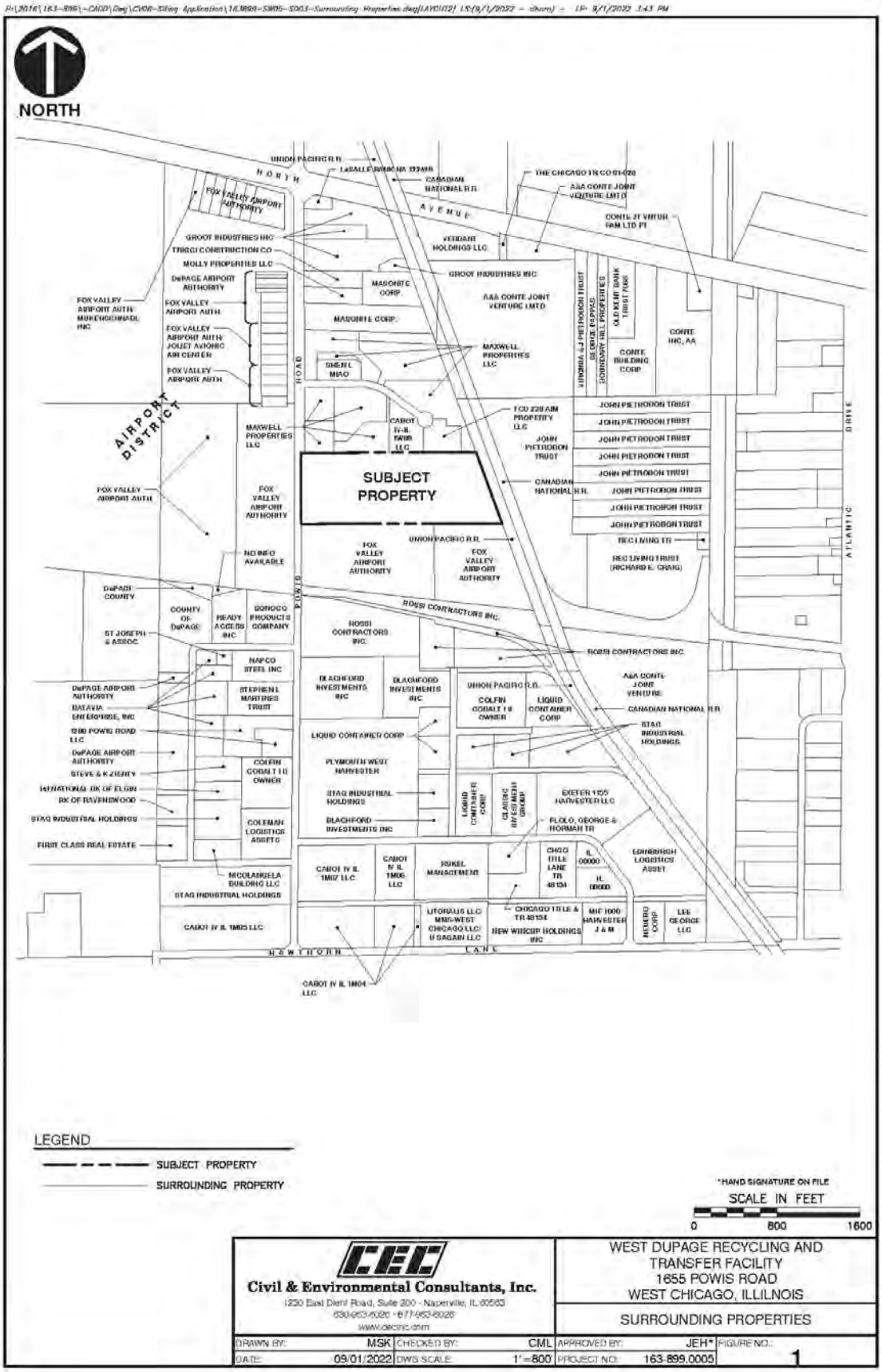
In summary, uses within the study area discussed above include the following:

- Recycling facilities
- Numerous outside storage yards and truck farms
- Railroad rights of way
- Open land that is part of the airport district
- The DuPage County Airport including various hangar, land base flight operations and open space.
- General industrial manufacturing and warehouse buildings.
- Open space- vacant land.

It is further noted that, airport, manufacturing, vacant land, railroad rights of way, waste management and/or material handling uses surround the proposed West DuPage Recycling and Transfer Station. Ownership or corporate entities that operate facilities surrounding the subject property include, but are not limited to, the DuPage County Airport, Groot Industries, Triggi Construction Company, Masonite Corporation, Stericycle Pharmaceutical Disposal, and Rossi Contractors, Inc. The location of each of these uses is identified on the maps that follow.

From an appraisal perspective it is significant to note that the value of any property is maximized, and the impact uses have on adjacent properties is minimized when individual and area developments comply with existing zoning requirements and adhere to the principle of conformity in a balanced market. Adherence to reasonable conformity and balance are supported by the above referenced inventory of nearby applications.

STUDY AREA USAGE MAP



3.5 PHOTOGRAPHS – SUBJECT LOCATION

Photographs of representative applications located along Powis Road, North Avenue, West Hawthorne Lane and the railroad right of way are demonstrated below. The photographs that follow are supportive evidence that the principles of conformity and balance have been met in the defined area. The Photographs identify the properties in the study are beginning at the Southeast Corner of North Avenue (Route 64) and Powis Road. These photographs include the properties located within the previously presented **Area Study Usage Map** on (page 3-35).

PHOTOGRAPHS –SUBJECT LOCATION – DuPage County Airport – WS of Powis

DuPage County Airport

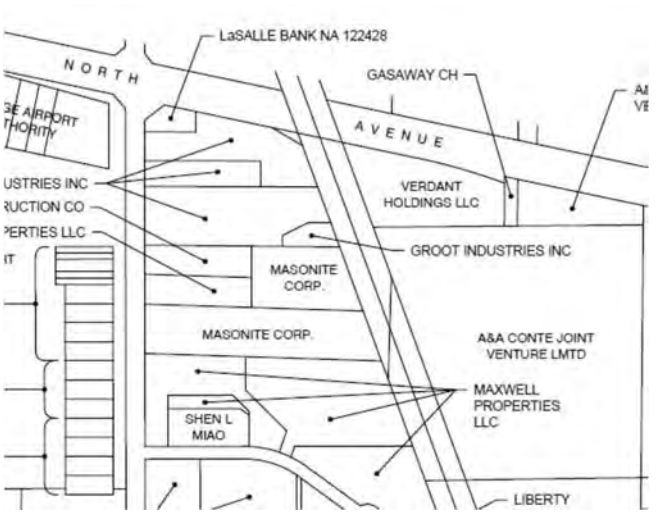
DuPage County Airport

DuPage County Airport

DuPage County Airport

PHOTOGRAPHS –SUBJECT LOCATION

Southeast Corner of Powis Road and North Ave -Overview



Southeast Corner of Powis Rd and North Ave -Overview

Groot Industries

Groot Industries

PHOTOGRAPHS –SUBJECT LOCATION

Triggi Construction

Molly Properties, LLC

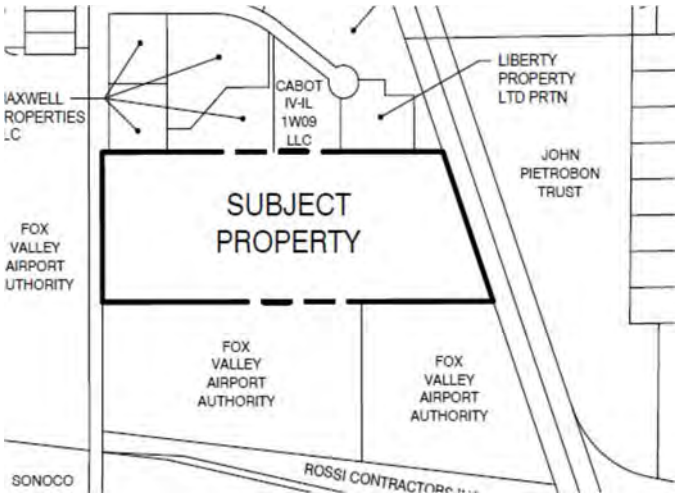
Masonite Properties

Maxwell Properties

Maxwell Properties

Maxwell Properties

PHOTOGRAPHS –SUBJECT LOCATION



North and South Of Subject Overview

Maxwell Properties

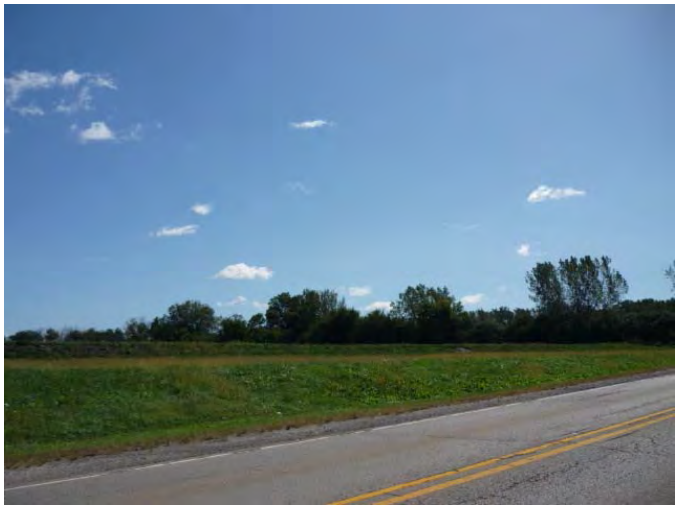
Maxwell Properties

Subject Property

Subject Property

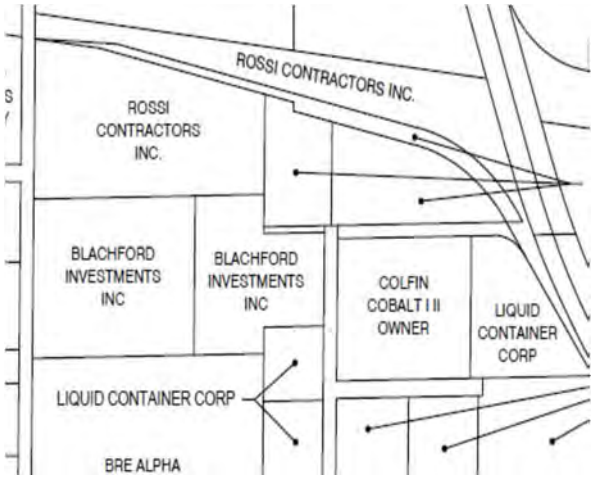
PHOTOGRAPHS –SUBJECT LOCATION

Subject Property



Fox Valley Airport Aurhority

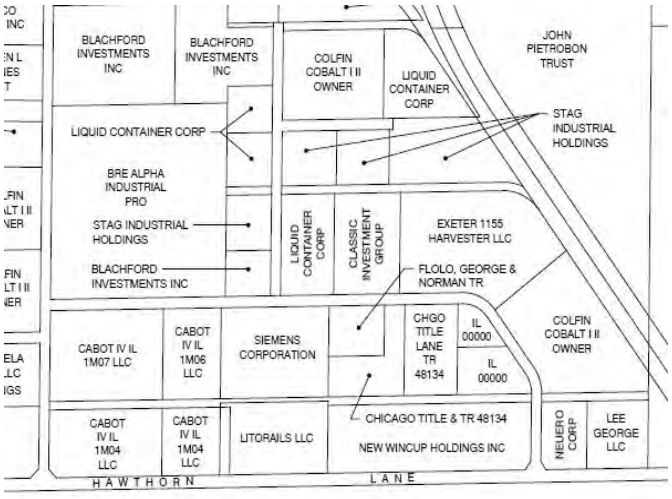
Rossi Property and South



Rossi Property

East Side Powis Road S of Rossi Contractors

PHOTOGRAPHS –SUBJECT LOCATION



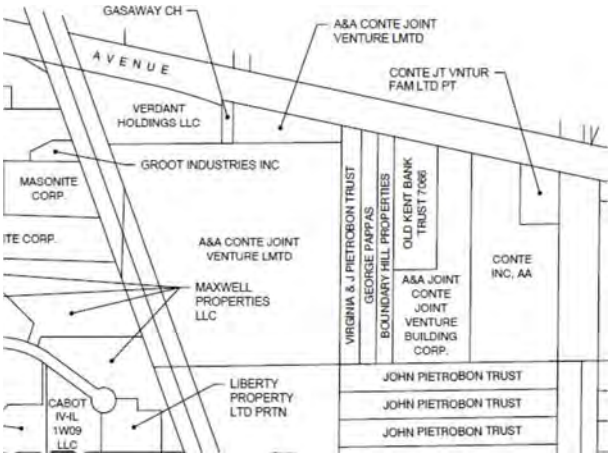
Industrial Development
East Side of Powis Road – North Side of Hawthorne Road – West of RR Right of Way – South of Rossi Property

Industrial Development
East Side of Powis Road – North Side of Hawthorne Road – West of RR Right of Way – South of Rossi Property

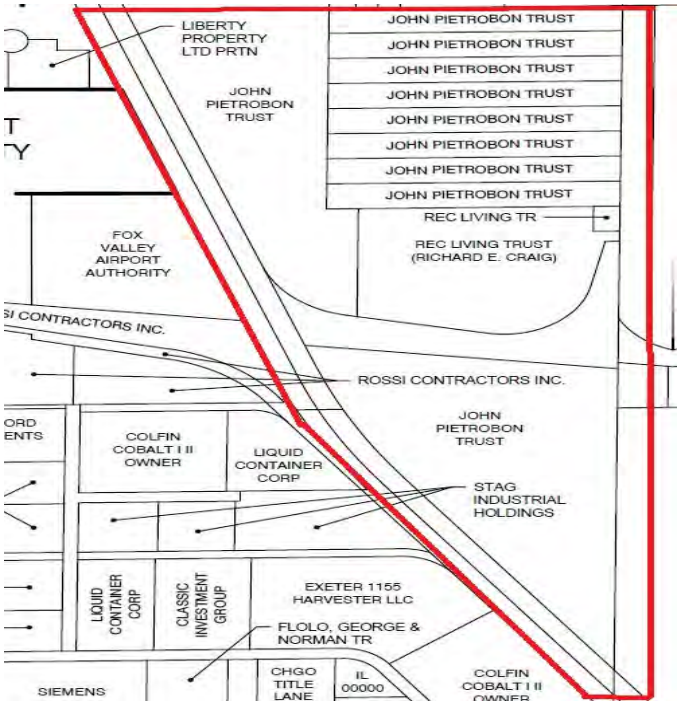
Typical Development Within
East Side of Powis Road – North Side of Hawthorne Road – West of RR Right of Way – South of Rossi Property

Typical Development Within
East Side of Powis Road – North Side of Hawthorne Road – West of RR Right of Way – South of Rossi Property

PHOTOGRAPHS –USES TO THE EAST OF THE RAILROAD RIGHT OF WAY



South of North Avenue – East of Railroad Right of Way – West of Commonwealth Edison Right of Way
A and A Conte & Son Excavation and Demolition
General Industrial South of North Avenue and West Of Commonwealth Edison Right of Way



Vacant Land East and North of Railroad Right of Way – West of Commonwealth Edison Right of Way

3.6 HIGHEST AND BEST USE

A Highest and Best Use Analysis was completed in this matter.

The following definition of Highest and Best Use is applied in this study.

> "The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity."

The following criteria must be met in determining Highest and Best Use:

1. Legal Permissibility. A property use that is either currently allowed or most probably allowable under zoning codes, building codes, environmental regulations, and other applicable laws and regulations that govern land use restrictions.
2. Physical Possibility. The land must be able to accommodate the size and shape of the ideal improvement.
3. Financial Feasibility. The ability of a property to generate sufficient income to support the use for which it was designed.
4. Maximum Productivity. The selected land use must yield the highest value of the possible uses.

COMMENTS ON PLANNING IN DUPAGE COUNTY AND THE CITY OF WEST CHICAGO

Within the City of West Chicago and DuPage County in general, planning and zoning issues are evaluated on an individual basis with consideration given to the merits of each application. My review of the various zoning ordinances, comprehensive plans and literature suggests that DuPage County and the City of West Chicago have areas and communities that are unique in character. These areas, communities and districts are designed with consideration given to manmade boundaries, natural boundaries, available infrastructure and growth patterns. Both the City of West Chicago and DuPage County encourage development to occur in consistent and defined areas so development can take place in an efficient manner based on available public services, and development patterns. Development is designed to respect existing land uses and avoid environmental conflicts.

Based on my inspection of the study area, in which the West DuPage Recycling and Transfer Station is to be located, we conclude that appropriate planning and zoning exists to maximize the value of area property and to minimize negative impacts on surrounding uses.

DISCUSSION OF LEGAL PERMISSIBILITY

According to the City of West Chicago Zoning Department, the subject site is zoned M, “Manufacturing District”. The subject site also received a special use permit from West Chicago for a construction and demolition debris recycling facility, fuel sales, and storage building material sales with outside storage and a preliminary and final planned unit development (Ordinance No. 15-0-0019).

In addition, the subject also received approval of an amended preliminary and final planned unit development (PUD) from West Chicago (Ordinance No. 20-0-0020) for additional site improvements.

Permitted uses in this district include, but are not limited to, “Abrasive manufacture, Apparel and other products manufactured from textile, Assembly, production, processing, wholesaling or warehousing, or manufacturing of any commodity from semi-finished (other than raw) materials, provided explosives or livestock are not involved, Bakeries (nonretail), Bedding manufacture, Bicycle manufacture, Boot and shoe manufacture, Bottling companies, Furniture manufacture, Carpet and rug cleaning, Cleaning, pressing and dying plants, Cold storage plants, Dairy products processing, Dry cleaning establishments and laundries employing more than ten (10) employees, Electronic and scientific precision instruments manufacture, Food storage and manufacture, packaging and processing, Glass products production and sales, Ice plants, Medical and dental clinics, Metal stamping, polishing and plating, Paper products manufacture, Plastics processing, Above ground service facilities, Printing and publishing, Radio and television stations and studios, Research and development facilities or parks, provided explosives or livestock are not involved, Warehousing and distribution”

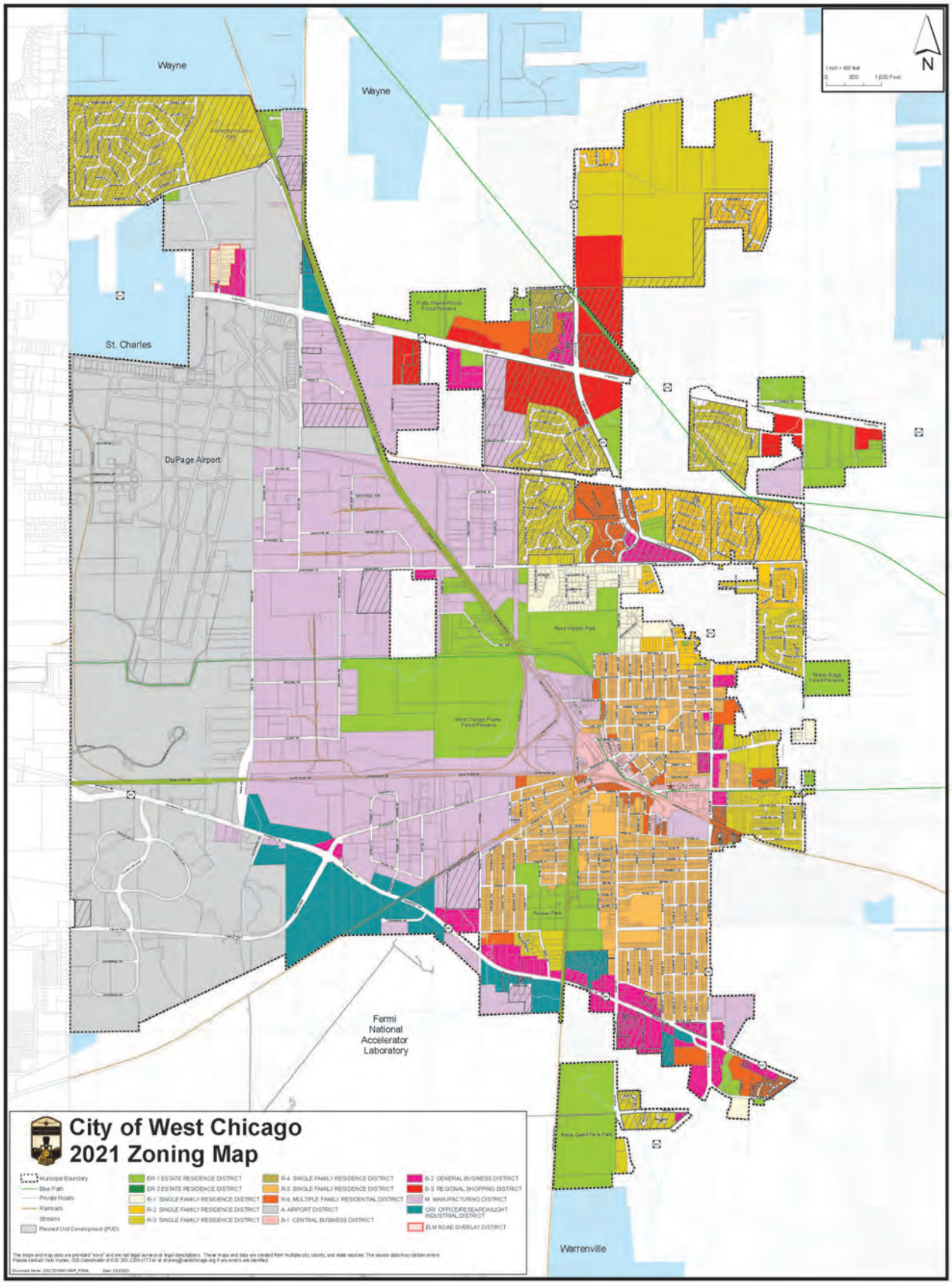
Special Uses within this district include, but are not limited to, “Alternative electric suppliers unless ancillary to a permitted or special manufacturing use, Asphaltic and concrete plants, Motor vehicle repair shops, Motor vehicle service stations, Motor vehicle body shops, Building material sales with outside storage, Cartage and express facilities and freight terminals, including air, motor and railroad, Chemical processing and manufacture, Cogeneration facilities unless ancillary to a permitted or special manufacturing use, Contractors equipment sales and leasing, Dwelling units for watchmen's quarters, Employment staffing agency, with any temporary employees reporting to agency to obtain a job order or to collect compensation, Fuel storage, sales and manufacturing, excluding public utilities, Governmental agency laboratories for the testing of radioactive materials from the City of West Chicago or the surrounding portions of the County of Du Page, over which the Illinois Department of Nuclear Safety, Illinois Environmental Protection Agency, United States Nuclear Regulatory Commission and/or the United States Environmental Protection Agency have jurisdiction, provided that such laboratories comply with all applicable laws, ordinances, codes, rules and regulations in their construction, use, operation and maintenance, Hotels, Kennels and animal hospitals and clinics, Landscape waste transfer stations, provided, however, that in addition to the requirements of section 5.4-6 of the zoning ordinance, an applicant for a landscape waste transfer station special use permit shall demonstrate that the proposed use shall comply with all applicable local, state and federal statutes, ordinances, codes, rules and regulations, including, but not limited to, all applicable local, state and federal requirements relating to location, siting and design, licenses, permits and/or other governmental approvals and/or review, Moving and storage facilities, Outside activity or storage ancillary to a permitted or special use, Planned unit developments on units of land not less than twenty (20) acres, Self-service storage facilities, Storage and distribution of flammable liquids, fats or oils unless ancillary to a permitted or special manufacturing use, Trade schools and adult educational facilities, Crematoriums, including those with facilities for conducting funeral services as accessory to the principal use. The space devoted to funeral services shall be less than that devoted to cremation, Utility substations, Salvage and recycling facilities, Motor vehicle sales, internet based, Medical marijuana cultivation centers and dispensaries, Construction and demolition debris recycling and Motor vehicle care centers”.

For additional information see the City of West Chicago and DuPage County zoning Ordinances, along with the Zoning Parcel Map that are located elsewhere.

DISCUSSION OF PHYSICAL POSSIBILITY

My review of the CEC Drawings and the Location Standards of the Criterion 2 report prepared by CEC indicate that no physical conditions exist that prohibit the development of the proposed West DuPage Recycling and Transfer Station in accordance with the provided specifications. My review of the above information, my physical inspection of the property, the presence of the current infrastructure allows me to conclude that there are no obvious issues that would cause us to believe that the property cannot be developed in accordance with the proposed plan.

ZONING MAP


Wayne
Wayne
St. Charles
DuPage Airport
Fermi
National
Accelerator
Laboratory
Warrenville
N
City of West Chicago
2021 Zoning Map
Municipal Boundary
Bike Path
Private Roads
Railroads
Streams
Planned Unit Development (PUD)
ER-1 ESTATE RESIDENCE DISTRICT
ER-2 ESTATE RESIDENCE DISTRICT
R-1 SINGLE FAMILY RESIDENCE DISTRICT
R-2 SINGLE FAMILY RESIDENCE DISTRICT
R-3 SINGLE FAMILY RESIDENCE DISTRICT
R-4 SINGLE FAMILY RESIDENCE DISTRICT
R-5 SINGLE FAMILY RESIDENCE DISTRICT
R-6 MULTIPLE FAMILY RESIDENTIAL DISTRICT
A AIRPORT DISTRICT
B-1 CENTRAL BUSINESS DISTRICT
B-2 GENERAL BUSINESS DISTRICT
B-3 REGIONAL SHOPPING DISTRICT
M MANUFACTURING DISTRICT
ORI OFFICE/RESEARCH/LIGHT INDUSTRIAL DISTRICT
ELM ROAD OVERLAY DISTRICT

DISCUSSION OF FINANCIAL FEASIBILITY

The test of financial feasibility examines if the intended development of the property will yield the greatest net return to the land for the longest period of time.

My analysis of available market data allows me to conclude that properties in the study area tend to be owner occupied and/or leased in third party transactions. Database material indicates that the inventory of total industrial space in West Chicago has remained generally consistent at approximately 17,000,000 square feet over the past five years. Within the available industrial market, approximately 1,500,000 to 1,700,000 square feet are available for sale with vacancy rates ranging from approximately 3 to 4 percent over the past five years. Current database information indicates that rental rates have increased over the past five year from $3.25 to approximately $5.25 per square foot. During this same period, the rate at which space has been absorbed has increased and marketing times are now less than one year when a vacancy occurs. Overall, the market condition for general industrial space is considered strong in the study area.

It is noteworthy that special purpose properties (property that is unique in style, design, use or zoning) tend to be owner occupied in the study area and these facilities are used by the owner for an extended period of time. For this property type, the Highest and Best Use and greatest net return to the land are derived from the ongoing operation of the facility and business located therein.

The intended use of the subject property as a recycling facility and transfer station is an industrial application that is unique in use because this development requires specific local approvals, intensive approvals from governmental agencies and constant monitoring/regulation for development and continued operation. The state and local permitting process is extensive, and the siting application carries with it an extensive examination of physical and operational issues. Few Transfer Stations are sold or leased and when a sale occurs the transaction typically includes the real estate, permits, and may include the ongoing business assets.

My search for sales data in the study area indicates that over 300 transactions occurred between 2013 and the present. The sales reviewed involved both improved and vacant properties with the greatest activity found in the light industrial districts of West Chicago. Only one sale involving the properties located in the “heavy industrial” portions of the study area was reported. The limited sales activity in the study area is evidence that the location is stable and conducive to long term occupancy by users like Lakeshore Recycling Systems, the DuPage County Airport, Groot Industries, Triggi Construction Company, Masonite Corporation, Rossi Contractors, Inc. and AA Conte & Sons Contractors.

DISCUSSION OF MAXIUM PRODUCTIVITY

Maximum productivity is the examination of the legally permissible, physically possible and financially feasible use that will yield the greatest net return to the land for the longest period of time. The examination of this test of Highest and Best Use requires a comparison of land values and the sale of similar improved properties.

It is noteworthy that the M, “Manufacturing District” zoning classification does not specifically mention transfer stations as a permissible use. Transfer Stations are not subject to zoning, but where they are present, they tend to be located in the most intensive industrial district of the community where that are located. In the City of West Chicago, the M, “Manufacturing District” is the most intensive industrial area where a transfer station can be developed.

Our examination of sales in the study area allows us to conclude that improved properties, with general industrial applications, sell at prices above that paid for vacant land. The data further indicates that special use properties that require a substantial effort for permitting or are sensitive to zoning considerations generally transfer between buyers and sellers who are in the same or related industries. These transfers typically reflect the “value in use” for the buyer. My search of data allowed me to conclude that the highest price paid for properties like the subject is achieved when the “special use” real estate (property that is unique in style, design, use or zoning) is compatible with the surrounding applications, is located with good access to transportation amenities and involves parties that are in similar industries. The current uses in the study area and the proposed West DuPage Recycling and Transfer Station meet the above referenced criterion. The intended use of the subject property for the development of the West DuPage Recycling and Transfer Station, therefore, is considered to be the maximally productive use of the subject property.

SUMMARY

Based on the examination of the above referenced tests and the factors presented, the Highest and Best Use of the subject site is for the development of the West DuPage Recycling and Transfer Station in accordance with the CEC Drawings. This development, as the Highest and Best Use of the property, will have the most positive impact on the surrounding property values and will not have a negative impact on the value of real estate in the subject area.

3.7 CONCLUSIONS

Based on the above information, APC concludes that the proposed development of the subject site, with the West DuPage Recycling and Transfer Station, meets the criteria set forth in the Illinois Environmental Protection Act, 415 ILCS 5/39.2 (a) (iii), commonly referred to as "Criterion 3" and that the facility is "located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property". This conclusion is supported by the following.

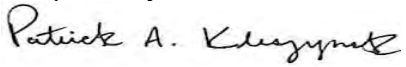
- The subject property is located in an area of historic and current industrial use and development.
- The industrial area within which the subject site is located has man-made boundaries that isolate and buffer the area. This effectively minimizes any influences the uses in this industrial area (including the proposed development of the West DuPage Recycling and Transfer Station) have on properties located outside of the area. It is noteworthy that the railroad right of way, located adjacent to the eastern boundary of the property, has an elevation approximately 10 feet greater than the adjacent Kress Creek which will further isolate the proposed West DuPage Recycling and Transfer station from adjacent properties.
- The location of the subject property has sufficient access to primary roadways of West North Avenue (Illinois Route 64) West Hawthorne Lane, Illinois Route 59, Kirk Road, Roosevelt Road (Illinois Route 38) and Interstate 355 to accommodate the development of the West DuPage Recycling and Transfer Station.
- Historical and current industrial activity in the area includes a large percentage of waste management and material handling uses that are similar to the intended use of the subject property. The proposed use is very consistent with the existing uses in the area.
- Both the City of West Chicago and DuPage County encourage development to occur in consistent and defined areas and the proposed use is consistent with zoning classifications in the area.
- Because the proposed use is consistent with and conforms to the current and planned uses in the subject area, the impact the proposed use will have on adjacent and nearby property values is minimized.
- The physical characteristics of the subject property, in the existing configuration and condition, are an underutilization of the property because the improvements require upgrading to extend their useful life. The intended development, with the West DuPage Recycling and Transfer Station, will include significant infrastructure and improvements that will be an enhancement to the property.
- The infrastructure improvements to the subject site will result in secondary improvements to nearby properties (e.g., improved storm water management and Powis Road improvements) and will improve the subject area.
- Market data demonstrates that users in the study area tend to be long term occupants of properties. The proposed use will ensure a long-term stable use of this property.
- Development with the proposed West DuPage Recycling and Transfer Station is the Highest and Best Use of the subject property, as improved.
- Development of property in accordance with its Highest and Best Use has the most positive impact on surrounding property values and minimizes the effect on the value of surrounding property.

3.8 CERTIFICATION

I certify that, to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions and conclusions.
- I have no present or prospective interest in the property that is the subject of this report and I have no personal interest with respect to the parties involved.
- I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
- My engagement in this assignment was not contingent upon developing or reporting predetermined results.
- My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics & Standards of Professional Appraisal Practice of the Appraisal Institute.
- The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- I, Dale J. Kleszynski, MAI, SRA, have made a personal inspection of the property that is the subject of this report.
- I, Patrick A. Kleszynski, MAI, provided significant appraisal assistance.
- No one provided significant real property appraisal assistance to the person signing this certification.
- As of the date of this report, I (Dale J. Kleszynski, MAI, SRA) have completed the continuing education program for Designated Members of the Appraisal Institute.
- As of the date of this report, I (Patrick A. Kleszynski, MAI) have completed the continuing education program for Designated Members of the Appraisal Institute.
- Other than ongoing work associated with this assignment, we have not completed an appraisal or analysis of the subject property during the past three years.

Respectfully submitted,



Patrick A. Kleszynski, MAI
Vice President
Associated Property Counselors, Ltd.
Certified General Real Estate Appraiser (IL License Number 553.002510)
Expires 9/30/2023

Dale J. Kleszynski, MAI, SRA
President
Associated Property Counselors, Ltd.
Certified General Real Estate Appraiser (IL License Number 553.000213)
Expires 9/30/2023

3.9 UNDERLYING ASSUMPTIONS AND LIMITING CONDITIONS

1. By this notice, all persons and firms reviewing, using or relying on this report in any manner bind themselves to accept these assumptions and limiting conditions. **Do not use this report if you do not accept these assumptions and limiting conditions**. These conditions are a preface to any certification, definition, fact or analysis, and are intended to establish as a matter of record that the consultant's function is to provide an opinion based on the appraiser's/consultant's observations of the subject property and real estate market as of a certain date. As the property and conclusions may be impacted by the passage of time due to various factors including, by way of description and not limitation: physical changes, economic changes and/or market activity, the opinions are considered to be reliable as of the date of the assignment. Subsequent to that date, the appraiser(s)/consultant(s) reserve the right to amend the analysis and/or conclusion in light of such changed conditions. This appraisal/consulting assignment and report are not an engineering, construction, legal or architectural study or survey and expertise in these areas is not implied.

2. The liability of Associated Property Counselors, Ltd., its officers, employees, contractors, and associate appraisers/consultants (hereinafter referred to collectively as "APC") is limited to the identified client. There is no accountability, obligation, or liability to any third party except if otherwise specifically stated within the report. APC's maximum liability relating to services rendered under this assignment (regardless of form of action, whether in contract, negligence or otherwise) shall be limited to the charges paid to APC for the portion of its services or work products giving rise to liability. In no event shall APC be liable for any consequential, special, incidental or punitive loss, damage or expense (including without limitation, lost profits, opportunity costs, etc.) even if advised of their possible existence. If this report is placed in the hands of anyone other than the client, the client shall make such party aware of all limiting conditions and assumptions of the assignment and related discussions. The appraisers/consultants are in no way responsible for any costs incurred to discover or correct any deficiency in the property. In the case of limited partnerships or syndication offerings or stock offerings in real estate, the client agrees that in case of lawsuit (brought by lender, partner, or part owner in any form of ownership, tenant, or any other party), the client will defend and hold Associated Property Counselors, Ltd., its officers, employees and associate appraisers/consultants completely harmless. Acceptance of and/or use of this report by the client or any third party is prima facie evidence that the user understands and agrees to these conditions.

3. The user/client agrees that any dispute arising from the completion of this assignment shall be settled through mediation and/or arbitration.

4. The report is intended to comply with the reporting requirements set forth in the Uniform Standards of Professional Appraisal Practice and it may or may not include discussions of the data, reasoning, and analysis used in the process of developing the appraiser's/consultant's opinion. The extent of the discussion and analysis applicable is based on the scope of work and report option outlined in the letter of transmittal and report. In some instances supporting documentation data, reasoning, and analyses is retained in the appraiser's file and/or office. The information contained in the report is specific to the needs of the client and for the intended use stated in the report. The appraiser/consultant is not responsible for unauthorized use of the report.

5. Unless otherwise specifically stated in the report, the assignment is based on the following assumptions: (a) that there is full compliance with all applicable federal, state and local environmental regulations and laws; (b) that all zoning, building, use regulations and restrictions of all types have been complied with; and (c) that all licenses, consents, permits, or other documentation required by any relevant legislative or administrative authority, local, state, federal and/or private entity or organization for any use considered in the value estimate have been or can be obtained or renewed.

6. As far as possible, the appraisers/consultants have inspected the property by personal observation. It is not, however, possible to observe conditions beneath the soil or hidden structural components. In this assignment it is assumed that the existing soil has the proper load bearing qualities to support the existing or proposed improvements where they exist or where they are proposed to exist. In this assignment no investigation of the potential for seismic hazard in the subject area was made. In this assignment mechanical components within the improvements were not critically inspected and no representations are made as to these matters unless specifically stated and considered in this report. In this assignment it is assumed that there are no conditions of the property site, subsoil, or structures, whether latent, patent or concealed, which would render it less valuable.

7. Unless otherwise stated within the report, no title evidence pertaining to easements, leases, reservations or other parties-in-interest was furnished.

8. In valuation assignments the property is appraised in fee simple estate unless otherwise noted.

9. In valuation assignments, the appraisal/consulting agreement assumes responsible ownership and competent management.

10. In this assignment it is assumed that the title of the property is good and merchantable. No responsibility is assumed for matters that are legal in nature, nor is any opinion of the state of the title to the property rendered herewith. A survey was not provided to the appraiser/consultant unless specifically stated in this report.

11. All data provided by the client or researched from public records is deemed reliable. If any errors are found that could have a material impact on the conclusion, APC reserves the right to recall this report and amend the analysis and/or conclusions. No guarantee is made for the accuracy of estimates or opinions furnished by others and contained in this report.

12. No liability is assumed for matters of legal character affecting the property, including by way of description and not limitation: title defects, encroachments, liens, overlapping lines.

13. Any liens or encumbrances that may now exist have been disregarded. In valuation assignments property is appraised as though free of indebtedness and as though no delinquency in payment of general taxes and special assessments exist.

14. In valuation or consulting assignments, any value assigned to improvements is in proportion to the contribution said improvements make to the value of the property as a whole.

15. Compensation for appraisal/consulting services is dependent only upon the delivery of the report.

16. In valuation or consulting assignments, the value found by the appraiser/consultant is in no way contingent upon the compensation to be paid or the appraisal services.

17. The assignment is completed in compliance with the Uniform Standards of Professional Appraisal Practice (USPAP) and the Code of Ethics of the Appraisal Institute.

18. In the event that the subject property enters into condemnation proceedings, it is assumed the appraiser/consultant will be given additional time for court preparation.

19. No portion of this report may be published or reproduced without the prior written consent of the appraiser/consultant and APC.

20. Unless specifically stated otherwise within the report, no earthquake compliance report, engineering report, flood zone analysis, hazardous waste or asbestos analysis was made, provided or ordered in conjunction with this assignment. The client is strongly urged to retain experts in these fields, if so desired.

21. In valuation assignments involving apartments, attempts were made to inspect a representative sample of the total number of units. In these assignments it is assumed that the condition and finish of all units is similar to the condition and finish of the inspected units. If it is determined that units not inspected differ from those inspected units in either condition or finish, the appraiser/consultant reserves the right to recall the appraisal to amend the analysis and/or conclusion.

22. Appraisal or consulting assignments involving less than the whole fee simple estate are subject to the following additional limitation: “The value reported for such estates relates to a fractional interest only in the real estate involved and the value of the fractional interest plus the value of all other fractional interests may or may not equal the value of the entire fee simple estate considered as a whole.”

23. Appraisal or consulting assignments that relate to geographical portions of a large parcel or tract of real estate are subject to the following additional limitation: “The value reported for such geographical portion relates to such portion only and should not be construed as applying with equal validity to other portions of the larger parcel or tract. The value reported for such geographical portion plus the value of all other geographical portions may or may not equal the value of the entire parcel or tract considered as an entity.”

24. The appraiser/consultant assumes that a any purchaser of the property that is the subject of this report is aware that (1) an appraisal of the subject property does not serve as a warranty of the condition of the property, (2) it is the responsibility of the purchaser to examine the property carefully and to take all necessary precautions before signing a purchase contract, and (3) any estimate for repairs is a non-warranted opinion of the appraiser/consultant unless otherwise stated.

25. Assignments prepared based upon provided plans and specifications are based on the assumption that the project is completed in a workmanlike manner in compliance with the plans and specifications. In prospective value assignments, it is understood and agreed that the appraiser/consultant cannot be held responsible for unforeseen events that impact the value or any conclusion presented. The user of the report and client agree that unforeseeable events may alter market conditions prior to completion of the project. The user and client agree the appraiser has the right to amend the report and conclusions in light of the identified changes.

26. In assignments where a Discounted Cash Flow Analysis is used as an analytical tool the user and client understand that the analysis has been prepared on the basis of information and assumptions identified in this report. The user/client understand that the achievement of any financial projections will be affected by fluctuating economic conditions and the conclusion is dependent upon the occurrence of other future events that cannot be assured Therefore, the actual results achieved may vary from the projections made and such variation may be material. The client agrees to allow the appraiser to revise the conclusion and report in light of these changes.

27. Prior to entering into an agreement to perform any assignment, an appraiser/consultant must carefully consider the knowledge and experience that will be required to complete the assignment competently; disclose any lack of specific knowledge or experience to the client; and take all steps necessary or appropriate to complete the assignment competently. The appraisers/consultants have both the knowledge and experience required to complete this assignment competently.

28. The appraisers/consultants have inspected the subject property with the due diligence expected of a professional real estate appraiser. The appraisers/consultants are not qualified to detect hazardous waste and/or toxic materials. Any comment by the appraisers/consultants that might suggest the possibility of the presence of hazardous waste and/or toxic materials are subject to review by a qualified expert in the field. The user/client agree that the appraiser/consultant has the right to amend the assignment, report and conclusion after an investigation by a qualified expert in the field of environmental assessment is completed.

29. The user/client understands that the presence of substances such as asbestos, urea formaldehyde foam insulation, or other hazardous substances or environmental conditions, may affect the property and the conclusions presented. The appraiser's/consultant's opinion and conclusions are predicated on the assumption that there is no such condition on, in or near the property that could cause a loss in value or an extension of the marketing time. The user/client agree to allow the appraiser/consultant to review and amend the analysis, report and conclusions if the referenced substances or others exist on the property.

30. No responsibility is assumed for any environmental conditions, or for any expertise or engineering knowledge required to discover them. The appraiser's/consultant's descriptions and resulting comments are the result of routine observations made during the appraisal process. The client is urged to retain an expert in this field, if so desired.

31. The Americans with Disabilities Act (ADA) became effective January 26, 1992. No specific compliance survey and analysis of this property have been made to determine whether or not it is in conformity with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more requirements of the Act. The user/client understands that, this fact could have an effect on the property and conclusions presented. In this assignment the possibility of non-compliance with the requirements of ADA was not considered. The user/client agree that the appraiser/consultant has the right to amend the assignment, report and conclusion after an investigation by a qualified expert in the field is completed.

3.10 STATEMENT OF PROFESSIONAL QUALIFICATIONS

DALE J. KLESZYNSKI, MAI, SRA

Dale J. Kleszynski, MAI, SRA, is president and principal shareholder of Associated Property Counselors, Ltd. He has served as an expert witness in various areas of litigation and arbitration practice including zoning issues and disputes, legal malpractice, appraisal malpractice, dispute management, mediation, appraisal methodology, damages and eminent domain matters. As part of his service, he has prepared use impact studies, highest and best use studies, feasibility studies, cost estimates, estimates of just compensation, leasehold interests and leased fee interests. In addition to the above services, he has provided documented appraisals for financial institutions, corporations, developers, municipalities, governmental agencies, law firms, school districts and private individuals. Appraisal, arbitration and consulting assignments have been completed on a regional and nationwide basis.

Mr. Kleszynski has taught numerous appraisal and USPAP courses for professional organizations and specialized groups and he served as part of the development team that authored courses for the Appraisal Institute. He serves as a qualified instructor for the Appraisal Institute and is a certified USPAP instructor for the Appraisal Foundation. During the past 25 years, he has served on numerous national and local committees for the State of Illinois and the Appraisal Institute. Mr. Kleszynski is licensed and certified to complete appraisal and consulting assignments in the states of Illinois, Indiana, and Michigan.

Educational Background

Loyola University of Chicago, Bachelor of Arts, 1971

Completed all educational, admissions, demonstration report and comprehensive examination requirements to be awarded the MAI and SRA designations by the Appraisal Institute

Currently certified under the Appraisal Institute Continuing Education Program

Currently certified under the Continuing Education Requirements of the State of Illinois

Currently certified under the Continuing Education Requirements of the State of Indiana

Currently certified under the Continuing Education Requirements of the State of Michigan

STATEMENT OF PROFESSIONAL QUALIFICATIONS

DALE J. KLESZYNSKI, MAI, SRA

Professional Designations and Certification

Member of the Appraisal Institute - MAI No. 6747
Senior Residential Appraiser - SRA

Illinois State Certified Real Estate Appraiser- License No. 553.000213
Indiana Certified General Appraiser - License No. CG49300022
Michigan State Certified Appraiser - License No. 12-01-004591

Appraisal and Consultation Experience

Since 1979, various types of real estate, including:

- Office and commercial buildings
- Assisted living facilities
- Apartment structures and complexes
  - Including Low Income Housing Tax Credit complexes
- Industrial and warehouse properties
- Single-family and condominium residential properties
- Vacant land
  - Residential, multi-family, commercial, and industrial
- Special purpose properties
  - Including bulk petroleum storage facilities, steel fabricating plants, hotels, soccer arenas, golf courses, motels, chemical processing facilities, restaurants, bank facilities and ice arenas
- Eminent domain projects
  - McCormick Place expansion
  - Extension of Interstate 355 in Cook and Will Counties
  - City of Hammond v. Great Lakes Marina
  - Palwaukee Airport expansion
  - Lansing Municipal Airport expansion
  - Little Calumet River and Levee and Flood Abatement Project
  - O'Hare International Airport expansion
  - Various road and municipal projects
- Various zoning and municipal projects
  - Adult use impact study - County of Cook
  - Impact study for group home zoning
  - Impact studies for cell tower development
  - School site selection
  - Commercial development impact studies
  - Real estate tax impact studies
- Arbitration
  - Sole arbitrator to determine just compensation for a fiber optic easement

STATEMENT OF PROFESSIONAL QUALIFICATIONS

DALE J. KLESZYNSKI, MAI, SRA

Service Offices

President - Chicago Chapter of the Appraisal Institute
Regional Representative - Appraisal Institute
Division of Faculty - Appraisal Institute
Regional Chairman - Ethics Administration
Assistant Regional Representative - Review and Counseling
National Board of Directors - Appraisal Institute
Vice Chairman - General Appraisal Board
Chairman - General Appraisal Board
Executive Committee - Appraisal Institute
National Nominating Committee - Appraisal Institute
General Appraisal Council

Professional Experience

President and Chief Appraiser, Associated Property Counselors, Ltd.
Staff Appraiser, Abacus Realty Appraisers, Inc., Chicago
Staff Appraiser, Property Assessment Advisors, Chicago
Staff Appraiser, Central Appraisal Company, Chicago
Mortgage Loan Officer, First Calumet City Savings and Loan, Calumet City, Illinois

Course and Seminar Development

Course 700 - Introduction to Litigation - Development Team
Course 710 - Eminent Domain - Part A - Development Team
Course 720 - Eminent Domain - Part B - Development Team
Individual seminars for the Cook County State’s Attorney

STATEMENT OF PROFESSIONAL QUALIFICATIONS

DALE J. KLESZYNSKI, MAI, SRA

Qualified Instructor for the Appraisal Institute

Courses:

Basic Income Capitalization
General Applications
7-Hour National USPAP Update Course
General Appraiser Sales Comparison Approach
15-Hour National USPAP Course
Business Practices and Ethics
Advanced Income Capitalization
Advanced Applications
The Appraiser as an Expert Witness: Preparation & Testimony
Litigation Appraising: Specialized Topics and Applications
Condemnation Appraising: Basic Principles and Applications
Condemnation Appraising: Advanced Topics and Applications

Seminars:

Litigation Skills for the Appraiser
Partial Interest Valuation – Undivided
Case Studies in Commercial Highest and Best Use
Understanding and Testing DCF Valuation Models
Appraisal Review – General
Supporting Capitalization Rates
Scope of Work: Expanding Your Range of Services
The Road Less Traveled: Special Purpose Properties
Real Estate Finance, Value, and Investment Performance
Introduction to Income Capitalization

STATEMENT OF PROFESSIONAL QUALIFICATIONS

PATRICK A. KLESZYNSKI, MAI

Patrick A. Kleszynski, MAI joined Associated Property Counselors, Ltd. in 2008. After completing both qualifying and continuing education coursework, professional experience requirements and examinations, he obtained his Certified General Real Estate Appraiser licensure with the state of Illinois in 2015 and the state of Indiana in 2016. In April 2016, Mr. Kleszynski received his MAI designation from the Appraisal Institute. Over the course of his career, he has provided real estate appraisal and consulting services involving a variety of residential, commercial, industrial and special purpose properties for mortgage financing, real estate tax appeal, estate planning and litigation assignments. Mr. Patrick A. Kleszynski, MAI is currently the vice president of Associated Property Counselors, Ltd. and is the firm's senior commercial staff appraiser.

EDUCATION

Illinois Wesleyan University, Bachelor of Arts, 2006

APPRAISAL COURSES

Real estate appraisal classes successfully completed through the Appraisal Institute:

- Basic Appraisal Principles
- Basic Appraisal Procedures
- 15-Hour National USPAP
- Business Practices and Ethics
- General Appraiser Income Approach (Part 1)
- General Appraiser Income Approach (Part 2)
- General Appraiser Site Valuation & Cost Approach
- General Appraiser Sales Comparison Approach
- General Appraiser Market Analysis & Highest and Best Use
- Real Estate Finance, Statistics and Valuation Modeling
- General Appraiser Report Writing and Case Studies
- Advanced Income Capitalization
- Advanced Market Analysis and Highest & Best Use
- Advanced Concepts and Case Studies

LICENSURE

Illinois State Certified General Real Estate Appraiser – License No. 553.002510
Indiana State Certified General Appraiser – License No. CG41600007
Currently certified under the Continuing Education Requirements of the State of Illinois and State of Indiana

AFFILIATIONS

MAI Designated member of the Appraisal Institute

PROFESSIONAL EXPERIENCE

Associated Property Counselors – July 2008 to Present

Responsibilities include appraising various types of real estate, both existing and proposed, including single-family homes, multi-family structures and complexes, industrial manufacturing and warehouse properties, commercial office and retail buildings, and vacant land (residential, commercial and industrial).

PARTIAL LIST OF CLIENTS

Financial Institutions

American Chartered Bank
Associated Bank
Bank of Choice
Baytree Bank
Centrue Bank
Cole Taylor Bank
Delaware Place Bank
Fifth Third Bank
First Choice Bank
First Financial Bank
First Midwest Bank
First Trust
George Washington Savings Bank
Harris Bank
Heritage Community Bank
LaSalle Bank
MB Financial
Mercantile Bank
Midwest Bank
National City Bank
Peoples Bank
S & T Bank
Standard Bank
State Bank of Countryside
The Private Bank

Government Services Administration

City of Chicago
City of Kankakee
City of Palos Heights
City of Park Ridge
Cook County State's Attorney
Department of Justice
DuPage County State's Attorney
DuPage County Assessor's Office
Federal Aviation Administration
Frankfort Square Park District
Homewood-Flossmoor Park District
Kankakee County State's Attorney
Lake County Parks Department
Lan Oak Park District
Lansing Municipal Airport
Little Calumet River Basin Development
Manteno Township Assessor's Office
McHenry County Conservation District
Office of Banks and Real Estate
Town of Hobart
Town of Munster
University of Illinois
Various School Districts in Cook, DuPage, Lake, and Will Counties
Village of Bradley
Village of Burr Ridge
Village of Crestwood
Village of Glen Ellyn
Village of Lansing
Village of Lombard
Village of Maywood
Village of Oak Lawn
Village of Orland Park
Village of Riverdale
Village of Rosemont
Village of Western Springs
Village of Wheeling
Waubonsee Community College
Will County State's Attorney
Wisconsin Department of Revenue

Corporations

The Archdiocese of Chicago
AT&T
Attorney's Title Insurance Fund, Inc.
BP International
BP Products – North America
Broadacre Management
Casey's General Store
Commonwealth Edison
FP International
Gallagher Asphalt
Gallagher & Henry
Garvey Marine
Lucent Technologies
McDonald's Corporation
Moser Enterprises
Pasquinelli Development
Peoples Energy
Prairie Material Sales, Inc.
The Pritzker Foundation
Robinson Engineering
RR Donnelley Company
Sherwin-Williams Company
T-Mobile USA, Inc.
Taco Bell
Travelers Insurance
U. S. Steel Corporation
Wiseman-Hughes Enterprises

PARTIAL LIST OF CLIENTS

Professional Law Firms

Antonopoulos & Virtel, P.C.
Arnstein & Lehr, LLP
Azulay Seiden Law Group
Baker & McKenzie
Bell, Boyd & Lloyd, LLP
Blachly, Tabor, Bozik & Hartman
Burke, Burns and Pinelli, Ltd.
Burke, Warren, McKay & Serritella, P.C.
Campion, Curran, Dunlop & Lamb
Casale, Woodward & Buls, LLP
Clifford Law Offices
Defrees & Fisk, LLC
DLA Piper
Dunn Martin Miller & Heathcock, Ltd.
Eiden & O'Donnell, Ltd.
Figliulo & Silverman, P.C.
Fioretti, Lower & Carbona, LLP
Foley & Lardner, LLP
Foran, O'Toole & Burke, LLC
Franczek Radelet P. C.
Goldstine, Skrodzki, Russian, Nemec & Hoff, Ltd.
Goodman, Katz and Scheele
Gordon & Pikarski
Green, Schoenfeld & Kyle, LLP
Harrison & Held
Helm and Wagner
Hinshaw & Culbertson, LLP
Holland and Knight, LLC
Huck Bouma
Jenner & Block, LLP
Joyce, Edward T. & Associates, P.C.
Klein, Thorpe & Jenkins, Ltd.
Koransky, Bouwer & Poracky, PC
Law Office of Eugene M. Feingold
Law Office of Matthew J. Carmody
Law Office of John K. Kallman
Law Office of Bryan P. Lynch
Law Office of Ronald N. Primack, LLC
Law Office of Randall A. Wolff
Liston & Tsantilis, P.C.
Masters, Charles J., Ltd.
McGuire Woods, LLP
Neal & Leroy, LLC
Newby, Lewis, Kaminski & Jones, LLP
Noonan & Lieberman, Ltd.
Peacock & McFarland, P.C.
Petersen and Houpt
Polsinelli Shughart PC
Pretzel & Stouffer, Chartered
Rathbun, Cservenyak & Kozol, LLC
Righeimer Martin and Cinquino
Robbins Schwartz
Ryan and Ryan
Sandrick Law Firm
Savaiano & Spear
Schain, Burney, Ross & Citron, Ltd.
Schopf & Weiss, LLP
Seyfarth Shaw
Shaw Fishman Glantz & Towbin
Sonnenschein Nath & Rosenthal, LLC
Sosin & Arnold, Ltd.
Sullivan, Hincks & Conway
Sullivan, John P., DDS, JD
Tressler, LLP
Whitt Law

Personal and case references available upon request

CRITERION 4:

“for a facility other than a sanitary landfill or waste disposal site, the facility is located outside the boundary of the 100-year floodplain or the site is flood-proofed”
415 ILCS 5/39.2(a)(iv)(A)

CRITERION 4:
FLOODPLAIN ASSESSMENT

The Illinois Environmental Protection Act, at 415 ILCS 5/39.2 (a)(vi), requires that an applicant for transfer station siting demonstrate that the proposed transfer station is located outside the boundary of the 100-year floodplain or that the site is flood proofed. This report demonstrates that the proposed Lakeshore Recycling Systems, LLC West DuPage Recycling and Transfer Station is outside the boundary of the 100-year floodplain or is flood proofed.

Prepared for:

LAKESHORE RECYCLING SYSTEMS, LLC
WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS
DUPAGE COUNTY

Prepared by:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
NAPERVILLE, ILLINOIS

CEC Project 163-899

AUGUST 2022

4.0 FLOODPLAIN ASSESSMENT

The current Federal Emergency Management Agency flood insurance rate map (FIRM) for the area of the West DuPage Recycling and Transfer Station (West DuPage RTS) is shown on Figure 4-1. The FIRM indicates that the Kress Creek 100-year base flood encroaches on the east side of the site (noted as Special Flood Hazard Area Zone AE) as shown on Drawing C100B. Special Flood Hazard Area Zone AE is an area where the base flood elevation (BFE) has been determined. The FIRM does not indicate presence of floodway on the West DuPage RTS. The FIRM states that information in the flood insurance study (FIS) that accompanies the FIRM should be 1) consulted to obtain more detailed information regarding the BFE and/or floodways areas, and 2) used in conjunction with the FIRM for construction and/or flood plain management.

The FIS information was used to confirm the BFE and determine the associated floodplain area at the West DuPage RTS as part of the Planned Unit Development (PUD) amendment for the West DuPage RTS, which was approved by West Chicago on June 15, 2020 (see Appendix 2-B in Criterion 2). As part of the PUD amendment review process, a stormwater report (last revised in November 2019) was submitted to DuPage County to demonstrate compliance with the DuPage County Countywide Stormwater and Floodplain Ordinance. DuPage County issued Stormwater Management Certification No. SM2019-0061 to the West DuPage RTS on December 6, 2019 (see Appendix 2-F2), which approved the November 2019 stormwater report. The floodplain evaluation (Tab 3 of the November 2019 stormwater report) that was approved is provided in Appendix 2-F1. A summary of the BFE confirmation, floodplain area determination, and site improvement evaluation from the approved stormwater report is provided below.

4.0.1 BFE CONFIRMATION AND FLOODPLAIN AREA DETERMINATION

Kress Creek abuts the property on the east side of the site. The outfall from the east detention pond discharges into Kress Creek. At the location of the outfall, the Kress Creek upstream tributary area includes approximately 0.99 square miles of drainage. A copy of the United States Geological Survey StreamStats report demonstrating the approximately 0.99-square-mile drainage area is provided in Attachment 3-1 of Tab 3 of Appendix 2-F1.

A FIS was conducted on the area and was most recently updated August 1, 2019 [Flood Insurance Study for DuPage County, Illinois and Incorporated Areas, Volume 1-6, Revised August 1, 2019]. The 100-year BFE based on the current FIS is 752.40 feet mean sea level. The relevant portions of the FIS are provided in Attachment 3-3 of Tab 3 in Appendix 2-F1, which includes the overall study summary and Kress Creek model summary from Volume 1 of 6, the floodway table for Kress Creek from Volume 3 of 6, and the Kress Creek flood profiles from Volume 6 of 6.

Based on the West DuPage RTS topographic survey, the BFE only encroaches on the site in an approximately 0.05-acre area located north of the east detention pond as shown on Drawing C105 in Criterion 2. The improvements in this area are offset a minimum of 25 feet from the BFE. The rest of the west bank of Kress Creek is greater than the BFE; therefore, no additional encroachments onto the West DuPage RTS exist. Portions of the east detention pond have a lower elevation than the banks of Kress Creek; however, due to the outfall restrictor, the east detention pond is hydraulically disconnected from the creek.

4.0.2 SITE IMPROVEMENT EVALUATION

The municipal solid waste (MSW) and single-stream recyclables (SSR) transfer building will be located on the west half of the site and has a design top of foundation elevation of 756.40. The top of ramp elevations for the loading pit for the MSW and SSR building ranges from 756.00 to 756.40. The hydro excavation waste building will also be located on the west half of the site, and the elevation of the ingress/egress apron is 756.00. As shown on Drawings C200 and C201 of Criterion 2, the buildings are well outside of the mapped floodplain and, based on top of foundation elevations, are approximately 4 feet higher than the BFE.

On-site stormwater detention structures have or will be improved as discussed in Section 2.3 of Criterion 2. The detention structures are sized to manage on-site surface water from the 100-year storm, and will release the detained surface water at a rate that meets regulatory requirements. The calculated high water elevations of the east and west detention ponds are 754.16 and 754.55, respectively. The MSW and SSR transfer building and hydro excavation waste buildings are over 1.5 feet higher than the calculated high water elevations of the detention ponds.

4.0.3 SUMMARY AND CONCLUSION

Based on the above information, the proposed West DuPage RTS is outside of the 100-year floodplain or flood proofed, and therefore will not restrict the flow of a 100-year flood, nor reduce the temporary water storage capacity of any 100-year floodplain.

4.1 CERTIFICATION

I hereby certify that all information contained in this Application for Local Siting Approval for Criterion 4 was prepared by me or under my direct supervision, and is true and correct to the best of my knowledge and belief.

John Hock, P.E.

6-14-2022
Date

062-047623 - IL
Professional Engineer Registration Number and State

CRITERION 4

FIGURES

Electronic Filing: Received, Clerk's Office 04/19/2023

NORTH

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or flood plain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or flood plain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

In the State of Illinois, any portion of a stream or watercourse that lies within the **floodway fringe** of a studied (AE) stream may have a state regulated floodway. The FIRM may not depict these state regulated floodways.

Floodways restricted by anthropogenic features such as bridges and culverts are drawn to reflect natural conditions and may not agree with the model computed widths listed in the Floodway Data table in the Flood Insurance Study report.

Multiple **topographic sources** may have been used in the delineation of Special Flood Hazard Areas. See Flood Insurance Study report for details on source resolution and geographic extent.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 16. The **horizontal datum** was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services, NOAA, N/NGS12
National Geodetic Survey SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by the Cook County Board of Commissioners. Color digital orthoimages with a 6-inch pixel resolution were photogrammetrically compiled from aerial photography acquired during the leaf-off period of spring 2012.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The Special Flood Hazard Areas and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the Map Service Center (MSC) website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map**, how to order products or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

LEGEND C001099

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% annual chance floodplain boundary
	0.2% annual chance floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

A — A	Cross section line
23 — 23	Transect line
45° 02' 08", 93° 02' 12"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
4989000 N	1000-meter Universal Transverse Mercator grid values, zone 16
1565000 FT	5000-foot grid tick: Illinois State Plane East Coordinate System, 3776 zone (FIPSZONE 1201) Transverse Mercator
DX5510$_X$	Bench mark (see explanation in Notes to Users section of this FIRM panel)
M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
DECEMBER 16, 2004

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
August 1, 2019 - to change Special Flood Hazard Areas, to add Base Flood Elevations, and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

LEGEND

SITE BOUNDARY

REFERENCE

1. IMAGE PROVIDED BY FEMA. FLOOD INSURANCE RATE MAP NUMBER 17043C0036J REVISED AUGUST 1, 2019.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 1500 3000

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:	4-1
DATE:	AUGUST 2022	DWG SCALE:	1"=1500'	PROJECT NO:	163-899.0005		

WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

FLOOD INSURANCE RATE MAP

P:\2016\163-899\-CADD\Dwg\CV06-Siting Application\163899-SW05-S104-Flood Insurance Rate Map.dwg[FIG 4-1] LS:(8/18/2022 - mkarpl) - LP: 8/18/2022 6:19 AM

CRITERION 5:

“the plan of operations for the facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents”
415 ILCS 5/39.2(a)(v)

CRITERION 5:
INCIDENT PREVENTION AND RESPONSE PLAN

The Illinois Environmental Protection Act, at 415 ILCS 5/39.2 (a)(v), requires that an applicant for a transfer station siting demonstrate that the plan of operations for the facility is designed to minimize the danger to the surrounding area from fires, spills, or other operational accidents. This report demonstrates that the proposed Lakeshore Recycling Systems, LLC West DuPage Recycling and Transfer Station will operate with minimal danger to the surrounding areas. It also explains the facility's incident prevention and response plan.

Prepared for:

LAKESHORE RECYCLING SYSTEMS, LLC

WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS
DUPAGE COUNTY

Prepared by:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
NAPERVILLE, ILLINOIS

CEC Project 163-899

AUGUST 2022

5.0 INTRODUCTION

The West DuPage Recycling and Transfer Station (West DuPage RTS) located at 1655 Powis Road, West Chicago, DuPage County, Illinois includes numerous design and operational features, which will minimize the danger to the surrounding area from fire, spills, or other operational accidents. These design and operational features are detailed in Criterion 2 of this Application for Local Siting Approval.

Additionally, an incident prevention and response plan (Plan), described below, has been prepared to specifically address fire, spill, and accident prevention and response for West DuPage RTS. The Plan is designed with two focuses. First, the Plan presents the actions to be taken to prevent fires, spills, and other operation accidents from occurring. Second, the Plan presents an organized and coordinated course of action to be taken in responding to potential fires, spills, or other operational accidents at West DuPage RTS, if any occur.

5.1 SAFETY OFFICER

West DuPage RTS will have a designated safety officer. The facility manager (or duly designated equipment operator) will serve as the safety officer to ensure an identified safety officer is on-site at all times during operation. The safety officer will be responsible for implementing procedures to prevent fires, spills, and other operational accidents, and to coordinate responses to incidents or emergencies, if any were to occur. Responses will be consistent with the Plan and with any government response to the incident, such as the police and fire department.

5.2 INCIDENT PREVENTION

5.2.1 FIRE PREVENTION AND CONTROL

West DuPage RTS has been designed to prevent fires from occurring and, if any fires should ignite, to minimize the impact on the site and prevent any impacts to the surrounding areas. The municipal solid waste (MSW) and single-stream recyclables (SSR) transfer building will be a pre-engineered metal building and be equipped with a dry pipe fire suppression system. All of the existing and proposed buildings at the West DuPage RTS are/will be equipped with wet or dry pipe fire suppression systems as noted on Figure 5-1. A water source is located on-site (fed from a water main that loops through the site as shown on Drawing C108 in Criterion 2) and seven hydrants, including one just southwest of the MSW and SSR transfer building. The location of all of the hydrants are shown on Figure 5-1. Access has been designed to accommodate emergency vehicles, including fire trucks, as also shown on Figure 5-1.

A Fire Rover is currently located north of the construction or demolition debris (C&D) tipping building (location shown on Figure 5-1), which provides additional fire protection for the C&D tipping building. The Fire Rover combines twenty-four hours per day, seven days per week remote thermal monitoring, and an automated fire-fighting foam system that can be released as quickly if a spike in temperature in the building is detected [https://firerover.com/demo/]. The Fire Rover is used at multiple Lakeshore Recycling Systems, LLC (LRS) facilities, and has been highly effective since companywide rollout in 2018.

LRS indicated that the system has identified multiple "flare up" fires in the pile at other facilities and a few of those "flare ups" required suppression. Information from Fire Rover indicates that the maximum piping length from the unit to the end point is 300 feet, but the optimal length of piping is 150–200 feet. This system will remain in place for the C&D tipping building.

In addition to the fire hydrants for use by the fire protection district, on-site fire equipment will include:

- Fire extinguishers in each piece of heavy equipment, the transfer station building, and the scale house.
- A water truck with a pressurized water supply and hose reel will be available on-site.
- A second Fire Rover located east of the MSW and SSR transfer building (location shown on Figure 5-1), which will provide additional fire protection for the MSW and SSR transfer building. As discussed above, the Fire Rover combines twenty-four hours per day, seven days per week remote thermal monitoring and an automated fire-fighting foam system that can be released quickly if a spike in temperature in the building is detected.

The following actions will be taken regularly by West DuPage RTS personnel to prevent fires:

- The equipment operators will be trained to be alert for signs of burning waste such as smoke, steam, or heat being released from incoming waste loads.
- Equipment used to move waste will be routinely cleaned through the use of high-pressure water. The high-pressure water will remove combustible waste and caked material, which can cause equipment overheating and increase fire potential.
- Smoking will not be permitted near waste management areas.

Fires in waste transfer stations do not frequently occur. When they do occur, they are usually caused by a smoldering load of waste being unloaded on the tipping floor or combustible papers/cardboard coming into contact with an ignition source.

All equipment operators and other personnel who are routinely inside the transfer building will be given instruction and training in initial fire response and control procedures. The training will include identifying all potential fire hazards on the site, learning the procedures to prevent fires from occurring, learning the proper methods to put out any fires that might occur, and learning how to use all fire equipment on-site. Personnel will also be trained to immediately contact the safety officer who will assess the need for local outside emergency response services.

If a "hot load" enters West DuPage RTS, it will be directed to the concrete area east of the transfer station building where the load can be contained and managed (see Figure 5-1). This location is readily accessible to waste hauling and emergency vehicles, yet far enough from the other site buildings that the potential for spread of fire will be minimized.

Incoming collection trucks recognized with hot loads can bypass the scale house and approach the designated area, which is the concrete area outside the transfer building where trucks begin to back into the building; alternatively, hot loads that have reached the scale can proceed directly to the designated area. Smoldering wastes located in the transfer building can be pushed directly to the designated area. Water will be available from water truck. In the unlikely event a transfer trailer is identified with a hot load, the trailer can be positioned in the hot load containment area, and the trailer disengaged from the tractor.

5.2.2 SPILL PREVENTION AND CONTROL

West DuPage RTS will not accept liquid waste at the MSW and SSR transfer building. The only spills that could occur at the MSW and SSR transfer building would be residual liquid from waste materials unloaded on the tipping floor, minor fluid leakage from equipment/vehicles, and refueling activities.

Some liquids may be present in the waste materials unloaded on the tipping floor of the MSW and SSR transfer building. These liquids would generally be small amounts and would normally be absorbed by the dry solid waste materials as the material is pushed along the tipping floor for loading onto the transfer trucks. Liquid that accumulates on the tipping floor or in the loading pit will be directed through an oil-water separator and then discharged into the sanitary sewer (see Drawing C302). No liquid from the tipping floor or the loading pit will be discharged to the stormwater system.

Hydro excavation wastes will be accepted at the site and managed at the hydro excavation waste building. Wastes will only be unloaded in the hydro excavation waste building, which will be fully contained by a perimeter concrete wall. Personnel will trained to remain with their vehicle at all times when the wastes are being unloaded into the mixing pits. Spill kits, including absorbent materials and storm drain barriers/seals, will be maintained at the hydro excavation waste building to contain any spill. Solidification material will also routinely be available to help contain and/or clean up any spill. LRS also has multiple regenerative air street sweepers on-site to help clean up any residual material.

Any free liquids from spills or equipment/vehicle leakage will be contained and removed with absorbent materials. The used absorbent materials will be handled and disposed according to the type of liquid material that was spilled. If any solid waste materials are significantly affected by a liquid spill, after they are identified, they will be segregated from other waste materials and managed according to the waste type.

West DuPage RTS has fuel tanks to refuel on-site equipment. The tanks are equipped with secondary containment and automatic shutoff controls. Personnel are trained to remain with their vehicle at all times when the tanks are being filled or when equipment is being fueled. A spill prevention control and countermeasure plan detailing these and other procedures has been prepared, and is implemented in accordance with the applicable regulations.

5.2.3 ACCIDENT PREVENTION AND CONTROL

Only trained and authorized employees will be allowed to operate any heavy equipment on-site. All employees working in the waste handling and transfer buildings will have received training on the equipment in the building and will receive periodic refresher instruction.

All employees will be provided with the appropriate personal protective equipment based on the work being performed. All employees will be required to wear the personal protective equipment assigned to them while they are working on-site, which will minimally include hard hats, steel-toed boots, and long pants. Failure to comply with these requirements will result in disciplinary action.

The safety officer will be knowledgeable of the proper operational accident prevention and site safety programs**.** The safety officer will ensure that all personnel are properly trained, and are operating the transfer station in accordance with the required standards.

5.2.4 TRAINING PROGRAM

West DuPage RTS is designed to ensure a safe work environment for all employees as well as those people using the site. All employees will be given training in safe operating procedures for all equipment, the use of the appropriate personal protective equipment, identification of potential hazards, and methods to avoid those hazards and instruction in handling any potential emergencies that might arise.

New employees will receive a comprehensive overview of all aspects of fire, spill, and accident prevention for transfer station operations, focusing on information that is necessary to enable them to perform their duties safely. Initial training subject matter will include applicable requirements found at the facility, and other plans such as the stormwater pollution prevention plan.

Safety meetings will be scheduled and conducted for all employees at least once per month. If a regular monthly meeting is canceled, it will be rescheduled or combined with the scheduled training the next month. Training sessions will be scheduled to allow facility operations to continue uninterrupted. Records of personnel attending each training session, and the topics covered, will be maintained at West DuPage RTS. Topics for monthly training may vary, but will include the following:

- Equipment safety;
- Personal protective equipment;
- Fire protection, prevention, and evacuation;
- Use and limitation of fire-fighting methods;
- Spill prevention and control;
- Emergency response;
- Litter control and windblown waste pick-up; and
- Waste screening and prohibited waste management.

5.3 INCIDENT RESPONSE

5.3.1 RESPONSE PROCEDURES

In the case of any incident on-site (i.e., fire, spill, or other operational accident), immediate assessment of the possible hazard(s) to public health, safety, or the environment will be made by the safety officer. West DuPage RTS personnel will respond as directed by the safety officer. Immediate action by on-site personnel will concentrate on preventing the spread of any fire/explosion/spill/leak situation that occurs. Immediate emergency medical attention will be provided to injured personnel. In the case of a fire or explosion, any possible sources of ignition will be removed from the incident area, provided this can be done without risk to personnel. Vehicular traffic will be suspended/redirected, and work ceased until the fire or incident can be safely contained and controlled.

If the site has a fire and/or explosion, spill or release, or other incident that presents a possible threat to public health, safety, or the environment, the safety officer will contact local authorities (police/fire department) in order to inform them of the situation and request assistance, as necessary.

In the event of a physical injury, the safety officer will quickly assess the situation for the need for outside assistance (i.e., ambulance). Temporary medical assistance will be administered as necessary for injuries. The safety officer (at least) will be qualified to provide first aid and cardiopulmonary resuscitation. The injured person will be transported to the closest medical care site, commensurate with the level of injury.

An internal communication system consisting of mobile phones will be available at the site for alerting personnel in the event of an emergency. This system will provide site personnel with immediate emergency notification capabilities, and the opportunity to receive necessary instructions in the event of an incident.

5.3.2 ADDITIONAL RESPONSE PROCEDURES IN THE EVENT OF A FIRE

Site personnel will take the following actions if a fire is discovered:

- Contact the local fire department by calling 911.
- Alert other site personnel.
- Assess extent of fire, possibilities for the fire to spread, and alternatives for extinguishing the fire.
- If it appears that the fire can be safely fought with available fire-fighting devices until arrival of the local fire department, attempt to contain or extinguish the fire.

- Upon arrival of local fire department personnel, direct them to the fire and provide assistance as appropriate.
- No attempt will be made to fight the fire without adequate personnel or personal protective equipment. Site personnel will be familiar with the use and limitations of fire-fighting equipment available on-site.

Firefighting methods for burning solid waste include smothering the waste, separating burning material from other waste, or spraying with water. Small fires might be controlled with hand-held extinguishers. A water truck with a pressurized water supply and hose reel will be available on-site.

If a fire occurs on a vehicle or piece of equipment, the equipment operator will bring the vehicle or equipment to a safe stop. If safety of personnel will allow, the vehicle will be parked away from fuel supplies, uncovered solid wastes, and other vehicles. The engine will be shut off, and the brake engaged to prevent movement of the vehicle or piece of equipment.

Portable fire extinguishers will be provided on all mobile equipment. The fire extinguishers will be type ABC, which are suitable for fighting combustible (A), flammable liquid and gas (B), and electrical (C) fires. The fire extinguishers will also be located within the buildings. Each extinguisher will be routinely inspected and recharged as necessary. A qualified service company will perform these inspections, and all extinguishers will display a current inspection tag. Inspection and recharging will be performed following each use.

5.3.3 WEST CHICAGO FIRE PROTECTION DISTRICT NOTIFICATION

After any fire occurs, the West Chicago Fire Protection District (fire department) will be contacted. West DuPage RTS will provide to West Chicago Fire Protection District as much information as possible regarding the fire and fire-fighting efforts, as soon as possible after the fire occurs. The fire prevention and fire control procedures for the site will be revisited in the event of an occurrence of a significant fire to determine if modifications are warranted.

Tours of West DuPage RTS will be made available to the police department, the fire department, and those agencies/services that would respond to emergency situations at the site to familiarize personnel with specific operations and layout of the site, and to seek their input on preventive measures.

5.3.4 EVACUATION

The safety officer will normally determine the need for evacuation of the site and communicate the need through the radio/telephone system. Due to the existing operations at the site, the

evacuation routes are posted in the existing site buildings and will be posted in any new site buildings. When evacuation is required, the following procedures will be followed:

- Alert all personnel using the radio/telephone system.
- Shut down all mobile equipment.
- Assist site users or visitors in the evacuation process.
- Proceed to the designated "regrouping area". Once assembled, this will permit a determination and identification of any missing persons.
- Exercise judgment and use prescribed evacuation routes to exit the buildings and assemble at the designated meeting location. For immediate evacuation, the nearest doorway or opening would be the preferred escape route from the building.

5.3.5 POST-INCIDENT ACTIVITIES

Following any incident, the safety officer will:

- Make arrangements for the storage or disposal of any recovered wastes, water, or any contaminated materials resulting from the incident.
- Ensure all emergency response equipment used will be cleaned and made fit for re-use, or replaced as necessary, so that the equipment will be available when West DuPage RTS operations resume. An inspection of all equipment will take place before operations resume ensuring that each item is in proper working condition. Procedures may include recharging of fire extinguishers, replacement of personal protective gear, restocking of disposable items, and other preparedness measures.
- Document the incident. Records will be retained on-site for the duration of the life of the transfer station and notifications/information will be filed with the appropriate agencies as required by law.

5.4 CERTIFICATION

I hereby certify that all information contained in this Application for Local Siting Approval for Criterion 5 was prepared by me or under my direct supervision, and is true and correct to the best of my knowledge and belief.

John Hock, P.E.

9-14-2022
Date

LICENSED PROFESSIONAL ENGINEER
JOHN E. HOCK
062-047623
9-14-22
STATE OF ILLINOIS

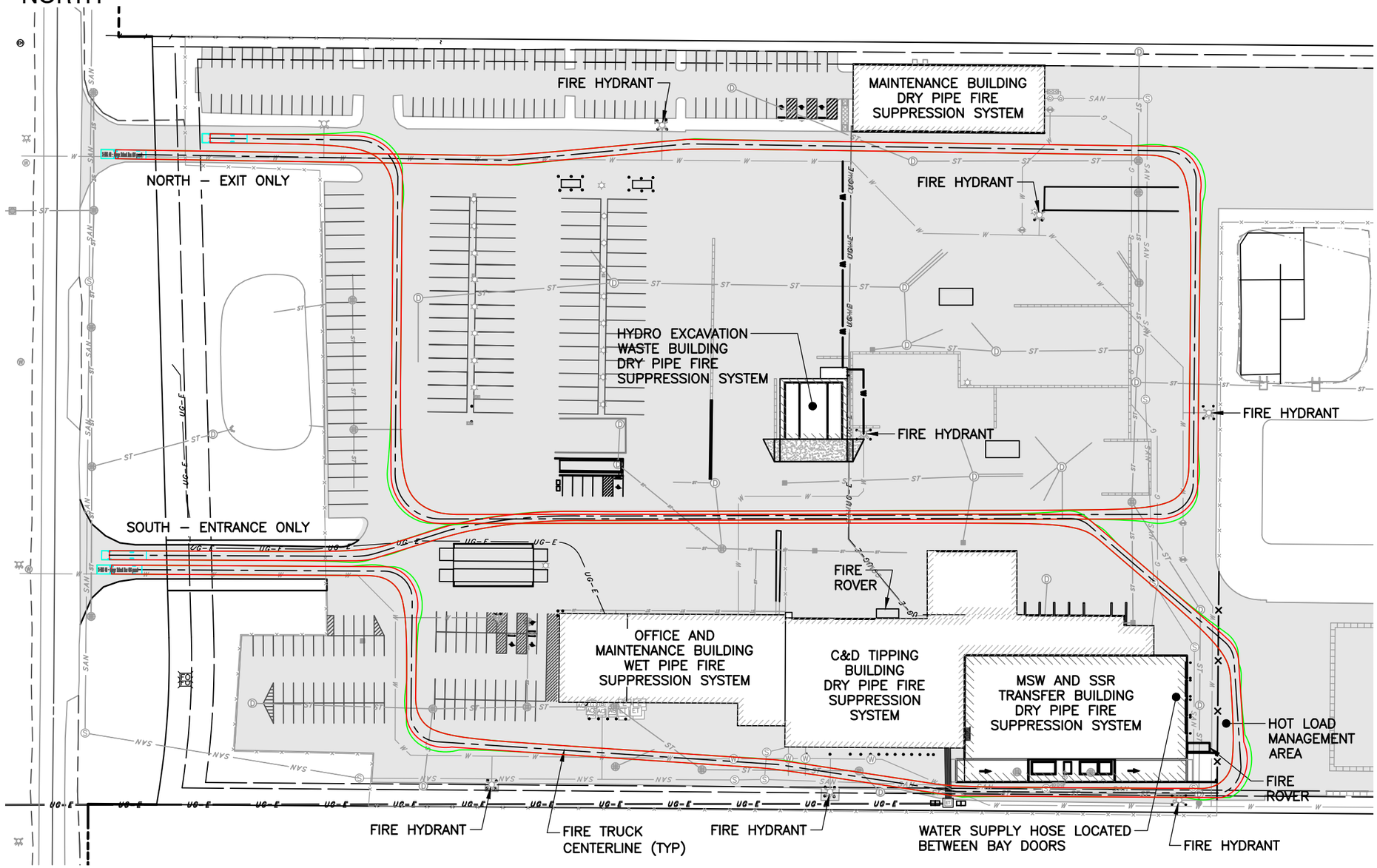
062-047623 - IL
Professional Engineer Registration Number and State

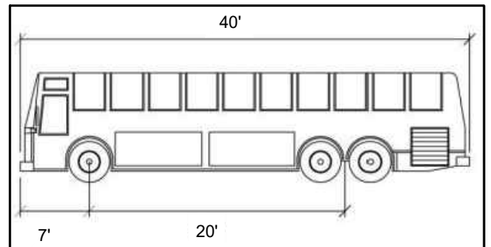
CRITERION 5

FIGURES

C001113

NORTH





40' BUS

WIDTH: 8.0'
TRACK: 8.0'
LOCK TO LOCK TIME: 5 SECONDS

NOTE

1. FIRE TRUCK INGRESS INTO, EGRESS OUT OF, AND ACCESS THROUGHOUT THE PROPERTY IS CONFIRMED SUITABLE FOR BOTH ACCESS POINTS USING A B40 BUS TEMPLATE IN ACCORDANCE WITH CITY REQUIREMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 100 200

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
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WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

EMERGENCY VEHICLE ACCESS AND FIRE CONTROL PLAN

DRAWN BY:	MSK	CHECKED BY:	JEH	APPROVED BY:	JEH*	FIGURE NO.:	5-1
DATE:	AUGUST 2022	DWG SCALE:	1"=100'	PROJECT NO:	163-899.0005		

P:\2016\163-899\-CADD\Dwg\CV05-Local Siting Application\163899-CV05-Emergency Vehicle Traffic Plan.dwg[5-1] LS:(8/18/2022 - mkarpl) - LP: 8/18/2022 6:20 AM

CRITERION 6:

“the traffic patterns to or from the facility are so designed as to minimize the impact on existing traffic flows”
415 ILCS 5/39.2(a)(vi)

Traffic Impact Study
West DuPage
Recycling and Transfer Station
West Chicago, Illinois

Prepared For:

LRS LAKESHORE Recycling Systems

KLOA
Kenig, Lindgren, O'Hara, Aboona, Inc.

September 12, 2022

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed municipal solid waste transfer station to be located in West Chicago, Illinois. The proposed waste transfer station is to be located at the existing Lakeshore Recycling Systems, LLC (LRS) West DuPage Recycling and Transfer facility located on the east side of Powis Road approximately one-half mile south of IL 64 (LRS site). Currently, the LRS site contains the following facilities and operations:

- A construction and demolition (C & D) recycling and transfer facility that is permitted to process 1,250 tons of materials per day
- The processing of wood into mulch and other products (erosion control)
- The maintenance and storage of up to 95 vehicles made up of streetsweepers, portable restroom trucks, packer and roll-off single-unit trucks, and transfer trailers
- The maintenance and storage of portable restrooms, containers, roll-off containers, and carts

Access to the current LRS site is provided via a single access drive located on Powis Road near the south end of the site. The current LRS site has a second access drive along the north property line that is currently gated and not used. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The West DuPage Recycling and Transfer facility is anticipated to accept up to 1,950 tons of materials per day of which up to 650 tons per day may be municipal solid waste (MSW), up to 300 tons per day may be hydro excavation wastes, up to 750 tons per day may be C & D, and up to 250 tons per day may be single-stream recyclables (SSR). The proposed transfer station is anticipated to receive and transfer waste and recyclables from 4:00 A.M. to midnight on weekdays and 4:00 A.M. to noon on Saturdays. As part of the transfer station, inbound access to the LRS site will be provided via the existing Powis Road southern access drive and access from the LRS site will be provided via the existing Powis Road northern access drive.

The waste/recyclables will be transported to the proposed transfer station via collection trucks and transported from the proposed transfer station to a distant disposal facility via transfer trailers. Transfer stations provide the means to safely and efficiently transfer waste/recyclables from the local collection trucks to transfer trailers, eliminating the need for collection trucks to travel to/from the landfills. It is important to note that transfer trailers transport three to six times the volume of waste/recyclables transported by collection trucks.

In addition, the proposed transfer station is to be located at the existing LRS site, which contains a storage and maintenance yard for trucks and containers that will support the operation of the proposed transfer station. Currently, the waste collected by these collection trucks/containers is disposed at an off-site transfer station before they return to the LRS site for storage and/or are parked at the end of the day. As proposed, the waste collected by the LRS collection trucks/containers will be disposed at the proposed transfer station and will not have to leave the LRS site. As such, the location of the proposed transfer station on the LRS site will result in a reduction of (1) the traffic generated by the transfer station and (2) the miles traveled by the LRS collection trucks/containers as many of the trucks/containers will remain at the LRS site after disposing their waste. In addition, a large percentage of the traffic generated by the proposed transfer station will consist of LRS trucks/containers that are already traversing the area roadway system.

KLOA, Inc. was asked to conduct this study to address the sixth siting criterion provided in Section 39.2 of the Illinois Environmental Protection Act. That criterion reads as follows: "The traffic patterns to or from the facility are so designed as to minimize the impact on existing traffic flows." Based on our review of the information described below, KLOA, Inc. has determined that the proposed LRS transfer will comply with that siting criterion.

The sections of this report present the following:

- Existing roadway conditions
- A description of the proposed transfer station and its operation
- Directional distribution of the traffic generated by the proposed transfer station
- Vehicle trip generation for the proposed transfer station
- Future traffic conditions including access to the site
- Traffic analyses for the weekday morning and evening peak hours
- Recommendations with respect to adequacy of the site access and adjacent roadway system

Traffic capacity analyses were conducted for the weekday morning and evening peak hours for the following conditions:

1. Existing Conditions - Analyze the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.

2. Projected Conditions – Analyze the capacity of the roadway system using the projected traffic volumes that include the existing traffic volumes, ambient traffic growth, and the traffic estimated to be generated by the proposed transfer station.

Site Location **Figure 1**

Aerial View of Site **Figure 2**

Electronic Filing: Received, Clerk's Office 04/19/2023 C0011119

2. Existing Conditions

Existing traffic and roadway conditions were documented based on field visits and traffic counts conducted by KLOA, Inc. The following provides a description of the geographical location of the site and a detailed description of the physical characteristics of the roadways including geometry and traffic control, adjacent land uses, and peak hour traffic flows along area roadways.

Site Location

The proposed waste transfer station is to be located at the existing LRS site located on the east side of Powis Road approximately one-half mile south of IL 64. Currently, the LRS site contains the following facilities and operations:

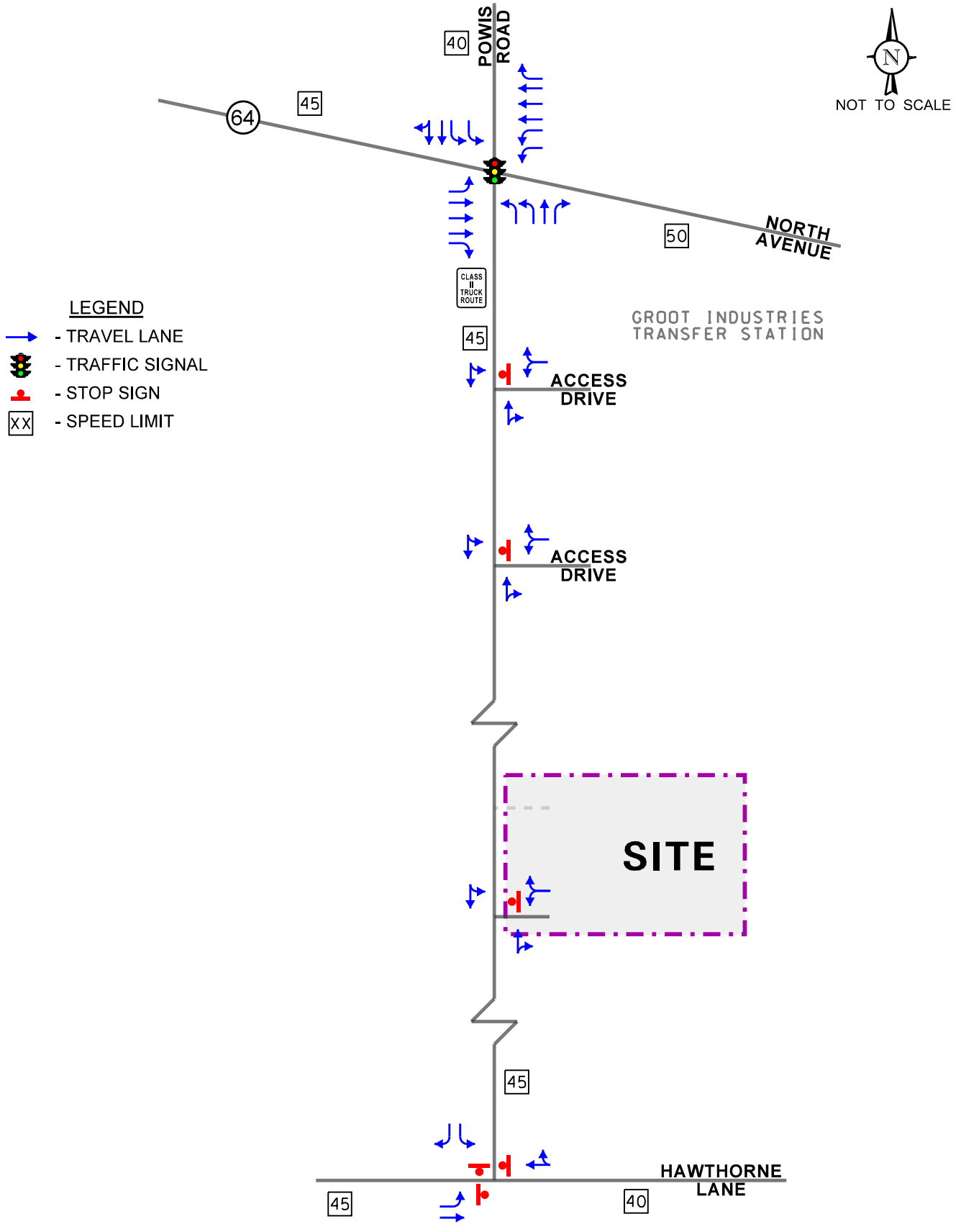
- A C & D recycling and transfer facility that is permitted to process 1,250 tons of materials per day
- The processing of wood into mulch and other products (erosion control)
- The maintenance and storage of up to 95 vehicles made up of streetsweepers, portable restroom trucks, packer and roll-off single-unit trucks, and transfer trailers
- The maintenance and storage of portable restrooms, containers, roll-off containers, and carts

Land uses in the area generally consist of industrial, manufacturing, and warehouse/distribution developments with the Groot transfer station located in the southeast quadrant of IL 64 with Powis Road. The DuPage Airport is located west of the LRS site.

Existing Roadway System Characteristics

The characteristics of the existing roadways that serve the LRS site are illustrated in **Figure 3** and described below.

IL 64 (North Avenue) is an east-west, major arterial road that has three lanes in each direction separated by a median. At its signalized intersection with Powis Road, IL 64 has dual left-turn lanes, three through lanes, and a separate right-turn lane on the westbound approach and a separate left-turn lane, three through lanes, and a separate right-turn lane on the eastbound approach. IL 64 is under the jurisdiction of the Illinois Department of Transportation (IDOT), is classified as a Class II truck route, and as a Strategic Arterial Route (SRA) by IDOT. East of Powis Road, IL 64 has a posted speed limit of 50 mph and an Average Annual Daily Traffic (AADT) volume of 33,400 (IDOT 2021). West of Powis Road, IL 64 has a posted speed limit of 45 mph and an AADT volume of 31,400 vehicles (IDOT 2021).



West DuPage Recycling and Transfer Station
West Chicago, Illinois

Existing Roadway Characteristics

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 19-027 Figure: 3

Powis Road (DuPage County 18) is a north-south, collector road that has one lane in each direction and an at-grade railroad crossing just north of Hawthorne Lane. At its signalized intersection with IL 64, Powis Road has dual left-turn lanes, a through lane, and a shared through/right-turn lane on its southbound approach and dual left-turn lanes, a through lane, and a separate right-turn lane on the northbound approach. At its all-way stop sign-controlled intersection with Hawthorne Lane, Powis Road has a separate left-turn lane and a separate right-turn lane on its southbound approach. Between IL 64 and Hawthorne Lane, Powis Road is under the jurisdiction of the DuPage County Division of Transportation, is classified as a Class II truck route, has a posted speed limit of 45 mph, and an AADT volume of 5,550 vehicles (IDOT 2021).

Hawthorne Lane is an east-west, collector road that has one lane in each direction and an at-grade railroad crossing just west of Carolina Drive. At its all-way stop sign-controlled intersection with Powis Road, Hawthorne Lane has a shared through/right-turn lane on its westbound approach and a separate left-turn lane and a through lane on its eastbound approach. Hawthorne Lane is under the jurisdiction of the DuPage County Division of Transportation west of Powis Road and the City of West Chicago east of Powis Road, is classified as a Class II truck route between Kress Road and Atlantic Drive, has a posted speed limit of 40 to 45 mph, and has an AADT volume of 3,450 vehicles (IDOT 2021).

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts at the following intersections:

- Powis Road with IL 64
- Powis Road with Hawthorne Lane
- Powis Road with the LRS site access drive
- Powis Road with the Groot transfer station access drives

The counts were conducted on Tuesday, October 1, 2019 during the weekday morning (6:00 to 9:00 A.M.) and weekday evening (3:00 to 6:00 P.M.) peak periods. The results of the traffic counts showed that the weekday morning peak hour of traffic occurred from 7:15 to 8:15 A.M. and the evening peak hour of traffic occurred from 4:30 to 5:30 P.M. In addition, daily traffic counts were conducted on October 1, 2019 along Powis Road south of IL 64. The results of the traffic counts showed that Powis Road had a daily traffic volume of 7,725 vehicles with approximately 21 percent of the vehicles consisting of single-unit trucks and semi-trailers. It should be noted that the existing C & D recycling and transfer facility processed a total of approximately 750 tons of material when the traffic counts were performed on Tuesday, October 1, 2019. Currently, the MSW and SSR collected by the collection trucks that are parked at the West Chicago site is disposed of at another waste transfer facility.

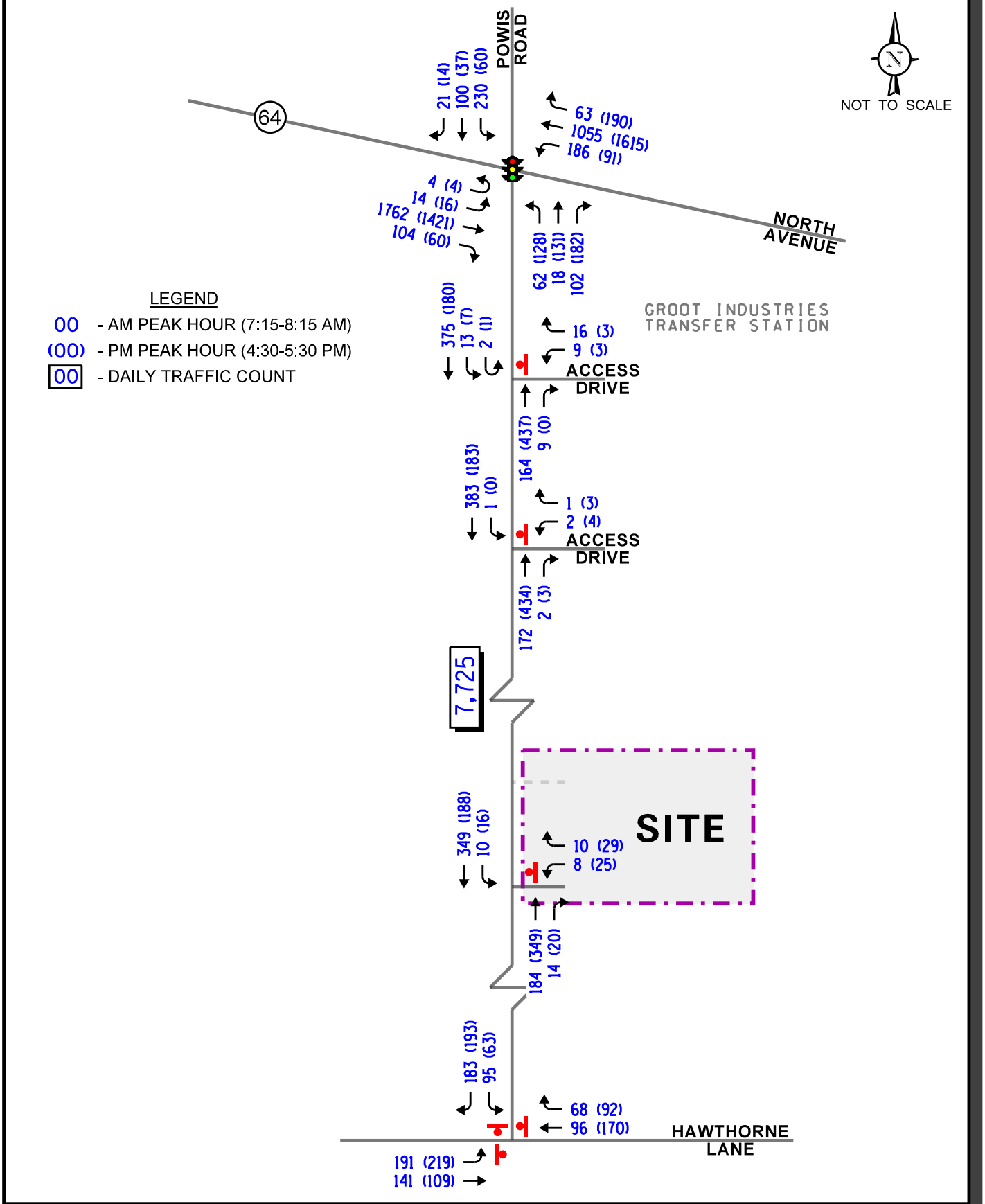
In order to determine if the traffic volumes in the area have changed since the October 2019 traffic counts were performed, updated traffic counts were performed during the weekday morning (6:00 A.M. to 9:00 A.M.) and evening (3:00 to 6:00 P.M.) peak periods on Thursday, February 10, 2022 at the intersections of Powis Road/North Avenue and Powis Road/Hawthorne Lane. A comparison of the 2019 and 2022 traffic counts is illustrated in **Table 1**.

Table 1
COMPARISON OF 2019 TO 2022 TRAFFIC VOLUMES

	October 2019 Traffic Volumes	February 2022 Traffic Volumes	Percent Difference (2019 Volumes vs 2022 Volumes)
Powis Road and North Avenue			
• Morning Peak Hour	3,721	2,809	32%
• Evening Peak Hour	3,949	3,300	20%
Powis Road and Hawthorne Lane			
• Morning Peak Hour	774	540	43%
• Evening Peak Hour	846	658	29%

From Table 1 it can be seen that the 2019 traffic volumes were higher than the 2022 traffic volumes. This is likely due to the fact that many business, government, and related activities are not fully operating at pre-COVID conditions. As such, the 2019 traffic volumes were used for this study which were performed prior to the COVID pandemic. It should be noted that when estimating the future traffic volumes with the proposed facility, the existing 2019 traffic volumes are increased by a yearly ambient growth factor for 10 years to represent Year 2029 background traffic volumes.

Figure 4 illustrates the Year 2019 existing peak hour and daily traffic volumes. Copies of the traffic count summary sheets are included in the Appendix.



West DuPage Recycling and Transfer Station
West Chicago, Illinois

Existing Traffic Volumes

KLOA Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 19-027 Figure: 4

Crash Analysis

KLOA, Inc. obtained crash data for the most recent available past five years (2015 to 2021) for the intersections of Powis Road/IL 64, Powis Road/Hawthorne Lane, and Powis Road/LRS site access drive. **Tables 2** and **3** provide a summary of the crash data for the intersections of Powis Road/IL 64 and Powis Road/Hawthorne Lane. A review of the crash data revealed there were no crashes at the Powis Road/LRS site access drive and no fatalities reported at any of the three intersections during the reviewed period.

Table 2
POWIS ROAD WITH IL 64 – CRASH SUMMARY

Year	Type of Accident Frequency						
	Angle	Object	Rear End	Sideswipe	Turning	Other	Total
2017	1	2	6	2	4	1	16
2018	0	1	3	0	0	0	4
2019	0	0	4	0	0	0	4
2020	0	0	2	0	1	0	3
2021	0	0	2	0	0	0	2
Total	**1**	**3**	**17**	**2**	**5**	**1**	**29**
Average/Year	**<1.0**	**<1.0**	**3.4**	**1.0**	**1.0**	**<1.0**	**5.8**

Table 3
POWIS ROAD WITH HAWTHORNE LANE – CRASH SUMMARY

Year	Type of Accident Frequency						
	Angle	Object	Rear End	Sideswipe	Turning	Other	Total
2017	0	0	0	0	0	0	0
2018	0	0	1	0	0	0	1
2019	0	0	1	0	0	0	1
2020	0	0	0	0	0	0	0
2021	0	0	2	0	0	0	2
Total	**0**	**0**	**4**	**0**	**0**	**0**	**4**
Average/Year	**0**	**0**	**<1.0**	**0**	**0**	**0**	**<1.0**

3. Traffic Characteristics of the Transfer Station

To evaluate the impact the proposed transfer station will have on the area roadway system, it was necessary to quantify the number of vehicle trips the proposed transfer station will generate during the weekday morning and evening peak hours and then determine the directions from which this traffic will approach and depart the LRS site.

Existing LRS Site

LRS proposes to develop a solid waste transfer station at their existing West DuPage Recycling and Transfer facility, which currently contains the following facilities and operations:

- A C & D recycling and transfer facility that is permitted to process 1,250 tons of materials per day
- The processing of wood into mulch and other products (erosion control)
- The maintenance and storage of up to 95 vehicles made up of streetsweepers, portable restroom trucks, packer and roll-off single-unit trucks, and transfer trailers
- The maintenance and storage of portable restrooms, containers, roll-off containers, and carts

The facility currently has a total of approximately 125 employees that consist of truck drivers, office personnel, laborers, and mechanics. (It should be noted that the current facility had approximately 150 employees when the 2019 traffic counts were performed.) The drivers and mechanics have staggered 12-hour shifts that start between 3:00 A.M. and 7:00 A.M., the laborers work from 6:00 A.M. to 3:00 P.M., and the office personnel have eight-hour shifts that start between 3:00 A.M. and 9:00 A.M. All the current operations are proposed to continue to operate at the subject site with the proposed transfer station.

Proposed Transfer Station

The West DuPage Recycling and Transfer facility is anticipated to accept up to 1,950 tons of materials of which up to 650 tons per day may be MSW, up to 300 tons per day may be hydro excavation wastes, up to 750 tons per day may be C & D, and up to 250 tons per day may be SSR. Further, it is anticipated that with the proposed transfer station, LRS will need to hire 15 additional employees. The proposed transfer station is anticipated to typically receive and transfer waste from 4:00 A.M. to midnight on weekdays and 4:00 A.M. to noon on Saturdays.

Facility Access

Access to the LRS site with the proposed transfer station will be provided via the following two existing access drives located on Powis Road:

- The existing southern access drive which is located on the east side of Powis Road approximately 3,100 feet south of IL 64. This access drive will be converted to an inbound only access drive and will provide one inbound lane. In addition, Powis Road will be widened to provide a 150-foot southbound left-turn lane with a 150-foot taper and a 115-foot right-turn lane with a 156-foot taper serving the access drive. Wide radii are provided between the access drive and Powis Road in order to accommodate turning truck traffic.

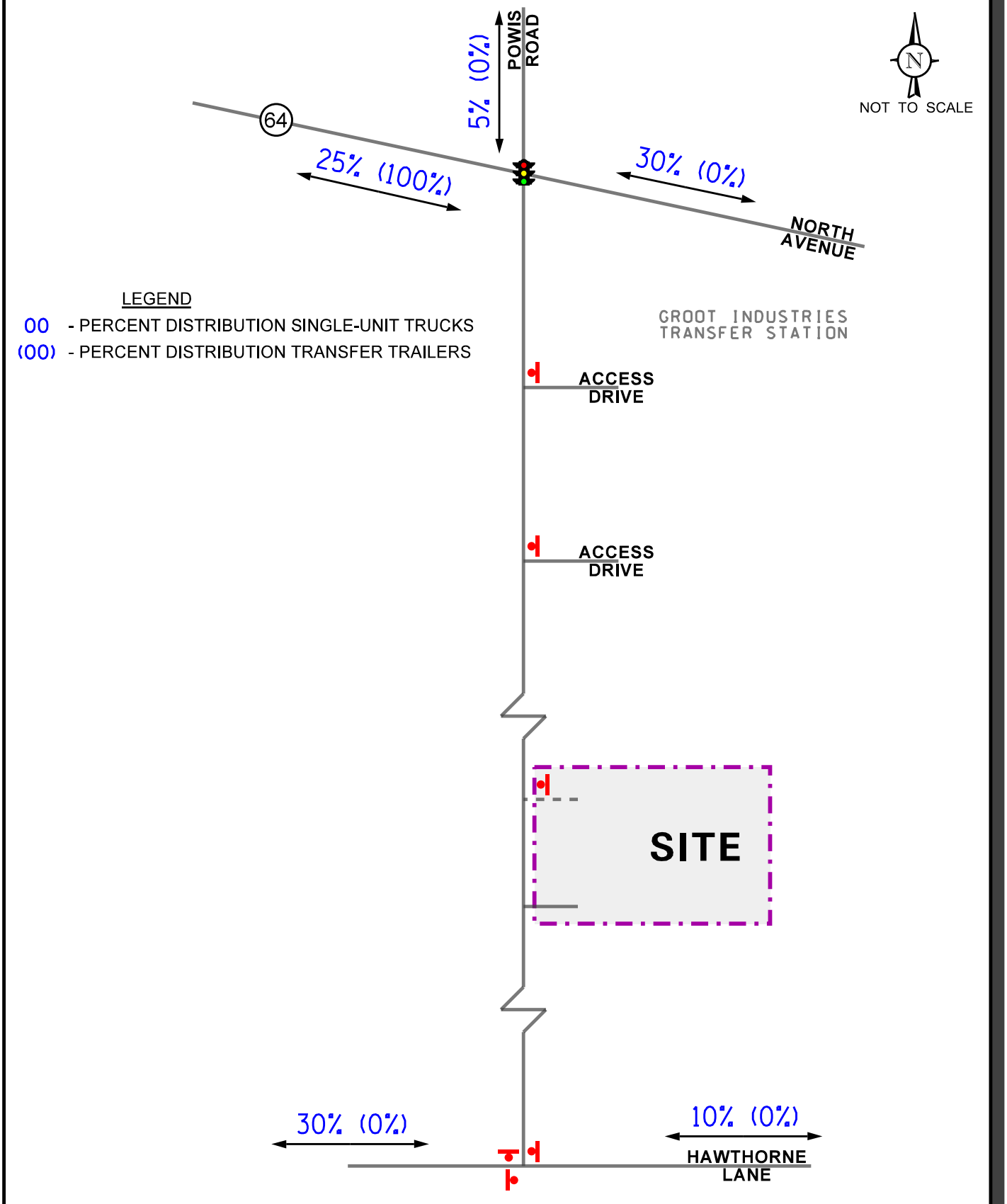
- The existing northern access drive which is located on the east side of Powis Road approximately 2,700 feet south of IL 64. This access drive will be converted to an outbound only access drive and provide two outbound lanes striped for a separate left-turn lane and a separate right-turn lane. The outbound lanes will be under stop sign control. In addition, the northern radius at this access drive will be improved to accommodate the turning truck traffic.

Appropriate "Do Not Enter" signs should be located at both access drives indicating the one-way flow of traffic. It should be noted that the location and design of the access drives as well as the Powis Road improvements have been conceptually approved by the DuPage County Division of Transportation. Further, Civil & Environmental Consultants has prepared and submitted final engineering plans of the improvements to the County and has received the County's initial comments. A copy of (1) the proposed LRS modified site plan and (2) the original final engineering plans for the Powis Road improvements are located in the Appendix.

Directional Distribution

The directional distribution for the collection trucks (inbound waste) was estimated based on the intended service area of the proposed station and the existing travel patterns, as determined from the traffic counts. LRS has indicated that the proposed transfer station will primarily serve DuPage County, eastern Kane County, and northwestern Will County. Further, a large portion of the collection trucks during the afternoon and evening will not be leaving the LRS site at they will be stored/parked at the facility

All the outbound waste will be transported from the proposed transfer station to a distant disposal facility. According to LRS officials, it is anticipated that the municipal waste will be delivered to the permitted landfills located west and south of the LRS site with all transfer trailers initially traveling west on IL 64 when leaving the site. The route that the transfer trailers will use to travel to and from the landfill will be northbound Powis Road to westbound IL 64 to southbound Kirk Road/Farnsworth Road to I-88. **Figure 5** illustrates the estimated directional distribution for the proposed transfer station.



West DuPage Recycling and Transfer Station
West Chicago, Illinois

Estimated Directional Distribution

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 19-027 Figure: 5

Trip Generation Estimates

The estimated traffic that will be generated by the proposed transfer station was based on the magnitude and character of the proposed facility and its intended service area. To be conservative and ensure that the analysis was conducted based on projections that exceed the anticipated traffic volumes, all the analyses and evaluations in this study are based on the proposed transfer station processing 650 tons of MSW per day, 300 tons of SSR per day, 750 tons of C & D per day, and 250 tons of hydro excavation wastes per day.

The majority of the direct haul inbound waste/recyclables will be transported to the proposed transfer station via four-ton (typical payload) roll-off trucks and eight-ton (typical payload) packer trucks. All of the waste/recyclables will be transported from the proposed transfer station via 20-ton and 24-ton (typical payload) transfer trailers. The estimate of the traffic to be generated by the proposed transfer station and the existing C & D recycling and transfer facility was based on the expected daily waste/recyclables that will be processed, the make-up of the type of traffic that will be transporting the waste, and the existing operations.

It is anticipated that with the proposed transfer station, LRS will hire up to 35 additional employees. As indicated previously, the LRS facility had approximately 150 employees when the 2019 traffic counts were performed, which was approximately 25 more employees than currently work at the LRS facility. Beyond employee and truck traffic, the proposed transfer station will generate several trips per day due to the maintenance/service of the proposed transfer station. It is anticipated that very few, if any, of these vehicles will arrive at or depart from the proposed transfer station during the weekday morning or evening commuter peak hours.

Table 4 shows the existing morning and evening peak hour traffic generated by the existing facility and the additional traffic projected to be generated by the proposed transfer station. It should be noted that the proposed transfer station is projected to generate very few, if any, new collection truck trips during the evening peak hour. However, to provide a conservative (worst-case) analysis, it was assumed to generate all additional inbound and outbound collection truck traffic during the evening peak hour.

Lastly, the proposed transfer station is to be located at the existing LRS site, which contains a storage and maintenance yard for trucks and containers that will support the operation of the proposed transfer station. Currently, the waste collected by these collection trucks/containers is disposed at an off-site transfer station before they return to the LRS site for storage and/or are parked at the end of the day. As proposed, the waste collected by the LRS collection trucks/containers will be disposed at the proposed transfer station and will not have to leave the LRS site. As such, the location of the proposed transfer station on the LRS site will result in a reduction of (1) the traffic generated by the transfer station and (2) the miles travel by the LRS collection trucks/containers as many of the trucks/containers will remain at the LRS site after disposing their waste. In addition, a large percentage of the traffic generated by the proposed transfer station will consist of LRS trucks/containers that are already traversing the area roadway system.

Table 4
PROPOSED EXPANDED LRS SITE
TRIP GENERATION ESTIMATES

	Morning Peak Hour		Evening Peak Hour	
	Inbound	**Outbound**	**Inbound**	**Outbound**
Existing LRS Site Traffic[1]				
Direct Haul (Single-Unit Truck)	8	10	25	0
Transfer Trailers (Semi-Trailers)	1	1	0	0
Passenger Vehicles	15	7	11	54
Total	**24**	**18**	**36**	**54**
Projected Increase in Traffic[2]				
Direct Haul (Single-Unit Truck)	4	4	27	27
Transfer Trailers (Semi-Trailers)	2	2	7	7
Passenger Vehicles	10	0	0	10
Total	**16**	**6**	**34**	**44**
Total Projected Traffic				
Direct Haul (Single-Unit Truck)	12	14	52	27
Transfer Trailers (Semi-Trailers)	3	3	7	7
Passenger Vehicles	25	7	11	64
Total	**40**	**24**	**70**	**98**

1. Existing C & D recycling and transfer facility processed 750 tons the day the traffic counts were completed.
2. Based on the proposed transfer station processing 650 tons of MSW per day, 250 tons of SSR per day, and 300 tons of hydro excavation waste per day.

4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed subject development.

Development Traffic Assignment

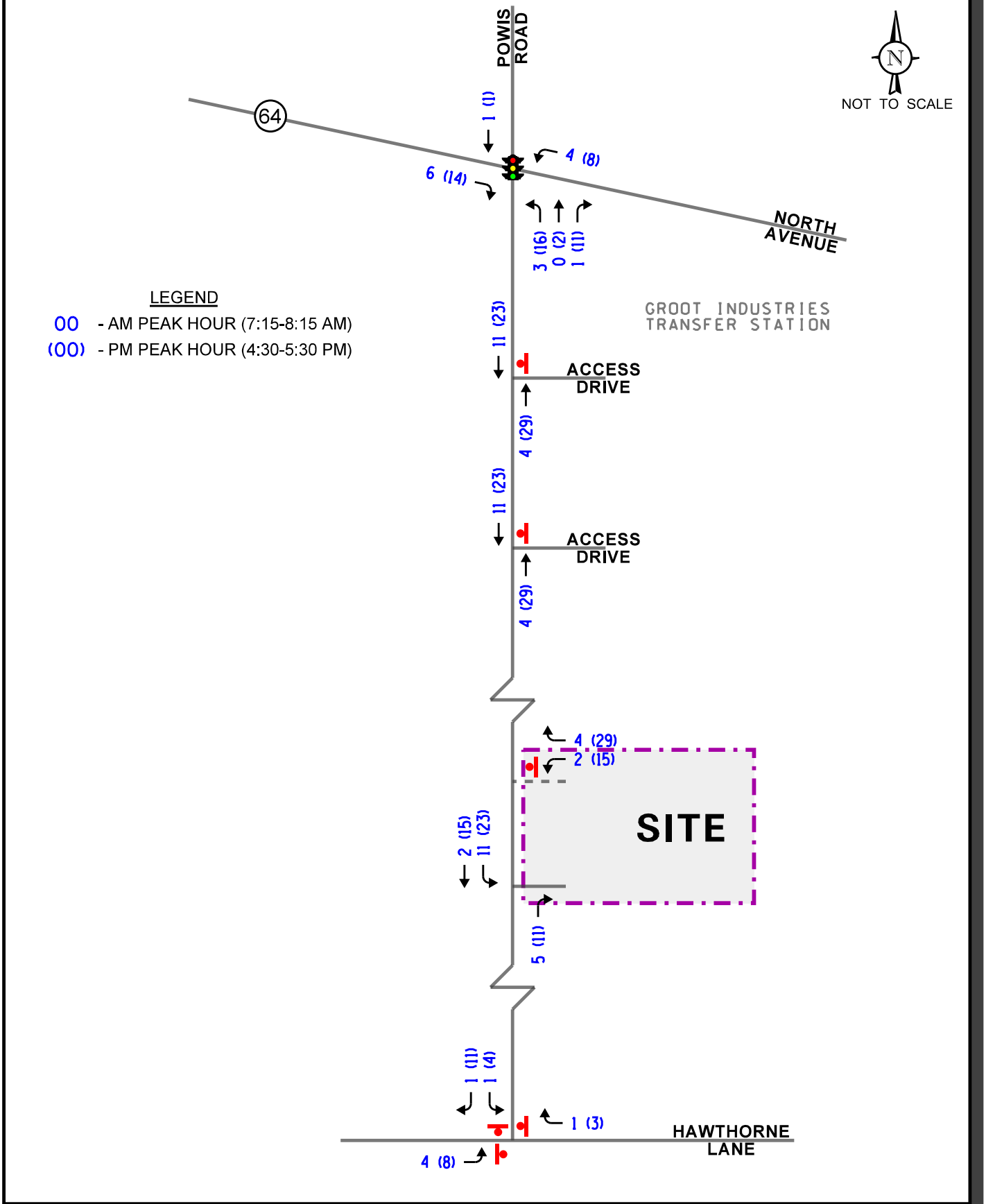
The estimated additional weekday morning and evening peak hour traffic volumes that will be generated by the proposed transfer station were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the additional traffic to be generated by the proposed transfer station.

Future Development Growth

The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on 2050 ADT projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes along Powis Road are projected to increase by a compound annual growth rate of approximately 1.0 percent per year. As such, the existing traffic volumes were increased by a total of 10.0 percent (one-year buildout plus five years) to represent Year 2029 conditions. A copy of the CMAP projections letter is included in the Appendix.

Total Projected Traffic Volumes

The additional traffic to be generated by the proposed transfer station was added to the existing traffic volumes accounting for background growth to determine the Year 2029 total projected traffic volumes, as shown in **Figure 7**. It is important to note that Figure 7 includes the redistribution of the existing outbound traffic from the south access drive to the north access drive.

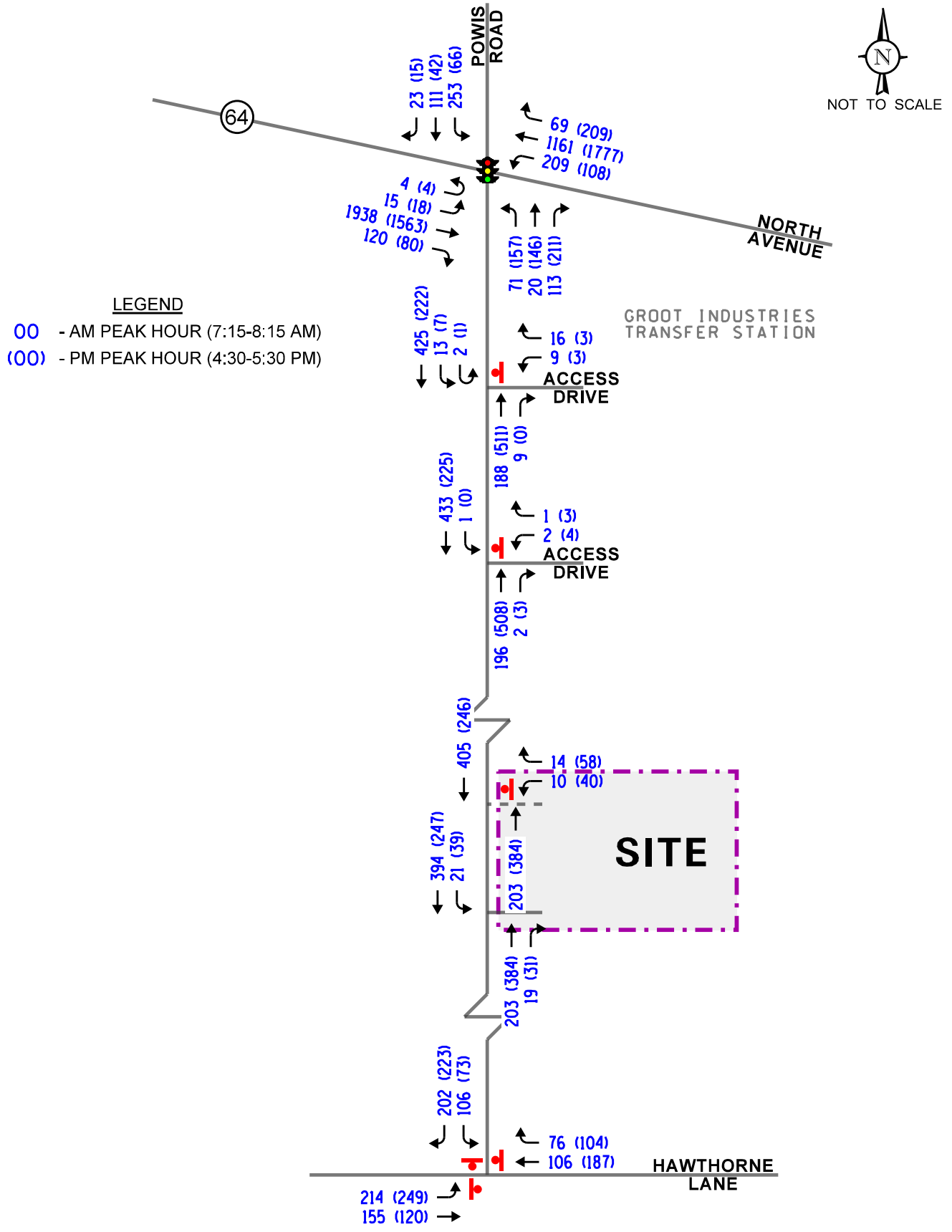


West DuPage Recycling and Transfer Station
West Chicago, Illinois

Additional Site-Generated Traffic Volumes

KLOA Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 19-027 Figure: 6



West DuPage Recycling and Transfer Station
West Chicago, Illinois

Year 2029 Total Projected Traffic Volumes

KLOA Kenig,Lindgren,O'Hara,Aboona,Inc.

Job No: 19-027 Figure: 7

5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and evening peak hours for the existing (Year 2019) as well as future projected (Year 2029) traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 6th Edition and analyzed using Synchro/SimTraffic 11 software. The analyses for the traffic-signal controlled intersections were accomplished using field measured cycle lengths and phasings to determine the average overall vehicle delay and levels of service.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing and Year 2029 total projected conditions are presented in **Tables 5** through **7**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 5
CAPACITY ANALYSIS RESULTS – IL 64 WITH POWIS ROAD – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound		Overall
		L	T	R	L	T	R	L	T	R	L	T/R	
Existing Conditions	Weekday Morning Peak Hour	E 64.6	C 22.1	A 9.0	E 60.8	B 10.8	A 3.0	E 63.2	E 61.1	E 66.9	D 52.9	E 57.6	C 25.5
		C – 21.8			B – 17.5			E – 65.1			D – 54.5		
	Weekday Evening Peak Hour	E 75.0	B 16.2	A 6.2	E 75.7	B 13.6	A 6.1	E 68.9	E 76.0	E 60.4	E 72.9	E 62.9	C 23.4
		B – 16.5			B – 15.8			E – 67.5			E – 68.3		
Year 2029 Conditions	Weekday Morning Peak Hour	E 64.8	C 25.3	A 9.6	E 64.3	B 11.9	A 3.3	E 64.5	E 61.8	E 64.3	E 56.0	E 56.6	C 27.7
		C – 24.7			B – 19.1			E – 64.1			E – 56.2		
	Weekday Evening Peak Hour	E 75.5	B 19.0	A 6.8	E 77.3	B 15.5	A 6.8	E 69.5	E 76.3	E 63.0	E 73.0	E 64.1	C 25.7
		B – 19.1			B – 17.8			E – 68.8			E – 68.9		

Letter denotes Level of Service
Delay is measured in seconds.
L – Left Turns
T – Through
R – Right Turns

Table 6
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTIONS
EXISTING YEAR 2019 CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Powis Road with Hawthorne Lane				
• Overall Intersection	B	11.4	B	12.8
• Eastbound Left Turn	B	13.1	B	14.8
• Eastbound Through	B	10.4	A	10.0
• Westbound Approach	B	10.8	B	13.6
• Southbound Left Turn	B	11.0	B	11.0
• Southbound Right Turn	B	11.1	B	11.7
Powis Road with Groot Transfer Station North Access Drive				
• Westbound Approach	B	13.3	C	17.8
• Southbound Left Turn	A	8.8	B	10.6
Powis Road with Groot Transfer Station South Access Drive				
• Westbound Approach	B	14.4	C	17.9
• Southbound Left Turn	A	8.8	A	0.0
Powis Road with LRS Site South Access Drive				
• Westbound Approach	B	12.8	B	14.0
• Southbound Left Turn	A	8.2	A	9.4

LOS = Level of Service
Delay is measured in seconds

Table 7
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTIONS
YEAR 2029 PROJECTED CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Powis Road with Hawthorne Lane				
• Overall Intersection	B	12.3	B	15.0
• Eastbound Left Turn	B	14.6	C	18.1
• Eastbound Through	B	10.9	B	10.7
• Westbound Approach	B	11.6	C	16.0
• Southbound Left Turn	B	11.6	B	11.8
• Southbound Right Turn	B	12.1	B	13.7
Powis Road with Groot Transfer Station North Access Drive				
• Westbound Approach	B	14.2	C	20.7
• Southbound Left Turn	A	8.9	B	11.2
Powis Road with Groot Transfer Station South Access Drive				
• Westbound Approach	C	15.6	C	20.9
• Southbound Left Turn	A	8.9	--	--
Powis Road with LRS Site South Access Drive				
• Southbound Left Turn	A	9.2	B	10.7
Powis Road with LRS Site North Access Drive				
• Westbound Left Turn	C	18.5	C	23.5
• Westbound Right Turn	B	11.1	C	15.4

LOS = Level of Service
Delay is measured in seconds

Discussion and Recommendations

The following summarizes how the intersections currently and are projected to operate and identifies any roadway and/or traffic control improvements necessary to accommodate the development traffic.

Powis Road with IL 64

The results of the capacity analysis indicate that this signalized intersection currently operates at an overall Level of Service (LOS C) during the weekday morning and weekday evening peak hours. It should be noted that the several of the Powis Road movements currently operate at LOS E during both peak hours. This is due to the long cycle length at the intersection and the fact that IL 64 is the major roadway at this intersection and is designated as an SRA route and, as a result, receives a majority of the green time. Further, the IL 64 left-turn movements currently operate at LOS E during both peak hours. This is due in part to the fact that the left-turn movements are permitted to make a left turn only during the protected left-turn green phase, which receives minimal green time.

Under Year 2029 total projected conditions, this intersection is projected to continue to operate at LOS C during the weekday morning and weekday evening peak hours with increases in delay of approximately two to three seconds. Further, all movements are projected to generally operate at the same level of service during both peak hours as compared to existing conditions. It should be noted that the additional traffic to be generated by the proposed transfer station represents approximately 1.2 percent or less of the Year 2029 total projected traffic volumes. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the proposed transfer station and no geometric improvements and/or traffic control modifications are required.

Powis Road with Hawthorne Lane

The results of the capacity analysis indicate that this all-way stop sign-controlled intersection currently operates at an overall LOS B during the weekday morning and weekday evening peak hours. In addition, all the movements operate at LOS B or better during both peak hours.

Under Year 2029 total projected conditions, this intersection is projected to continue to operate at LOS B during the weekday morning and weekday evening peak hours with increases in delay of approximately two seconds. Further, all the movements are projected to operate at LOS C or better. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the proposed transfer station and no geometric improvements and/or traffic control modifications are required.

Powis Road with North Groot Transfer Station Access Drive

The results of the capacity analysis indicate that all the critical movements at this stop sign controlled intersection currently operate at LOS C or better during the weekday morning and weekday evening peak hours. Under Year 2029 total projected conditions, all the critical movements at this intersection are projected to continue to operate at LOS C or better during both peak hours. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the proposed transfer station and no geometric improvements and/or traffic control modifications are required.

Powis Road with South Groot Transfer Station Access Drive

The results of the capacity analysis indicate that all of the critical movements at this stop sign controlled intersection currently operate at LOS C or better during both peak hours. Under Year 2029 total projected conditions, all the critical movements at this intersection are projected to continue to operate at LOS C or better during both peak hours. As such, the intersection has sufficient reserve capacity to accommodate the traffic to be generated by the proposed transfer station and no geometric improvements and/or traffic control modifications are required.

Powis Road with South LRS Site Access Drive

The results of the capacity analysis indicate that all the critical movements at this stop sign controlled intersection currently operate at LOS B or better during the weekday morning and weekday evening peak hours.

As part of the proposed transfer station, this access drive will be converted to an inbound only access drive and will provide one inbound lane. In addition, Powis Road will be widened to provide a 150-foot southbound left-turn lane with a 150-foot taper and a 115-foot right-turn lane with a 156-foot taper serving the access drive. Appropriate “Do Not Enter” signs should be located at the access drive indicating the one-way flow of traffic. Under Year 2029 total projected conditions, the inbound left-turn movement is projected to operate at LOS B or better during both peak hours. As such, the access drive will be sufficient to accommodate the projected traffic volumes with limited impact on the Powis Road through traffic.

Powis Road with North LRS Site Access Drive

This access drive is currently gated and not used by the facility. As part of the proposed transfer station, this access drive will be converted to an outbound only access drive and provide two outbound lanes striped for a separate left-turn lane and a separate right-turn lane. The outbound lanes will be under stop sign control. In addition, the northern radius at this access drive will be increased to accommodate the turning truck traffic. Appropriate “Do Not Enter” signs should be located at the access drive indicating the one-way flow of traffic. Under Year 2029 total projected conditions, the outbound movements are projected to operate at LOS C or better during the weekday morning and weekday evening peak hours. As such, the access drive will be sufficient to accommodate the projected traffic volumes with limited impact on the Powis Road through traffic.

Gap Study

Gap studies are conducted to determine whether a roadway traffic stream has sufficient available gaps to enable traffic to enter or exit a particular road or access drive. This is accomplished by surveying the number and lengths of available gaps in the traffic stream of a roadway. Gaps are defined as the headways (spacing) of the traffic flow (vehicles) on the roadway with the right-of-way at unsignalized intersections. The distribution of available gaps in a traffic stream is dependent on the traffic volume, the directional distribution of the traffic, the number of lanes on the roadway, and the degree and type of platooning in the traffic flow. (It should be noted that vehicles typically do not travel at constant [equal] headways. Vehicles tend to travel in platoons or groups, with varying headways [gaps] between successive vehicles). The demand for gaps in the traffic flow is a function of the number of vehicles entering and exiting a road or access drive.

The supply of gaps was determined by a field survey conducted in December 2019 along Powis Road at the LRS site. Counts and duration of available gaps were conducted during the morning and evening peak hours. The following types of gaps were measured:

- The gap required to make a right turn from the access drive to northbound Powis Road and to make a left turn from southbound Powis Road to the access drive, consisting of a break in the northbound flow of traffic along Powis Road.

- The gap required to make a left turn from the access drive to southbound Powis Road, consisting of a simultaneous break in both directions of travel along Powis Road.

(The right-turn movement from the major roadway [Powis Road] to the minor road [access drive] does not require a gap as it is not crossing or entering a traffic stream along the major road. As such, the right-turn movement from the major road to the minor road is not considered in a gap study.) The results of the gap study are included in the Appendix.

The number of gaps, their duration, and their type are summarized in **Table 8**. The gap sizes used were determined based on the time it takes transfer trailers to complete the left-turn in and the right-turn out movements and the time it takes single unit trucks to complete the left-turn out movement. These gap periods were based on the gap acceptance times provided in the IDOT *Bureau of Design and Environmental Manual* (BDE). It should be noted that single-unit trucks and passenger vehicles will also be entering and exiting the facility, which require shorter gaps than transfer trailers. As such, the gap study is conservative (worst case) as it assumes the longer gap periods required for transfer trailers or single-unit trucks to complete the turns. Based on the results of the gap study, adequate gaps are available in the Powis Road traffic stream to accommodate the traffic turning to and from the access drives.

Table 8
POWIS ROAD WITH LRS SITE ACCESS DRIVES
GAP DISTRIBUTION BY SIZE AND TYPE

Gap Interval (seconds)	Number of Vehicles Served per Each Gap Interval	Number of Gaps per Interval	
		Morning Peak Hour	Evening Peak Hour
Powis Road Northbound Gaps (Right Turn Out/Left Turn In)			
11.5 to 22.9	1	36	71
23.0+	2	48	22
Powis Road Combined Gaps (Left Turn Out)			
10.0 to 20.0	1	78	75
20.0+	2	33	24

6. Conclusion

Based on the preceding analyses and recommendations, the following conclusions have been made:

- Lakeshore Recycling Systems is proposing to develop a solid waste transfer station at their existing West DuPage Recycling and Transfer facility, which is located on the east side of Powis Road south of IL 64. The LRS site houses several facilities and operations, including a C & D recycling and transfer facility, the processing of wood into mulch and other products (erosion control), and the maintenance and storage of streetsweepers, packer and roll-off single-unit trucks, transfer trailers, portable restrooms, containers, roll-off containers, and carts.

- The West DuPage Recycling and Transfer facility is anticipated to accept up to 1,950 tons of materials of which up to 600 tons per day may be MSW, up to 300 tons per day may be hydro excavation wastes, up to 750 tons per day may be C & D, and up to 250 tons per day may be SSR. It is anticipated that with the proposed transfer station, LRS will hire 15 additional employees.

- Access to the LRS site with the proposed transfer station will be provided via the following two existing access drives located on Powis Road:

    - The existing southern access drive which is located on the east side of Powis Road approximately 3,100 feet south of IL 64. This access drive will be converted to an inbound only access drive and will provide one inbound lane. In addition, Powis Road will be widened to provide a 150-foot southbound left-turn lane with a 150-foot taper and a 115-foot right-turn lane with a 156-foot taper serving the access drive. Wide radii are provided between the access drive and Powis Road in order to accommodate turning truck traffic.

    - The existing northern access drive which is located on the east side of Powis Road approximately 2,700 feet south of IL 64. This access drive will be converted to an outbound only access drive and provide two outbound lanes striped for a separate left-turn lane and a separate right-turn lane. The outbound lanes will be under stop sign control. In addition, the northern radius at this access drive will be increased to accommodate the turning truck traffic.

  Appropriate “Do Not Enter” signs should be located at both access drives indicating the one-way flow of traffic. It should be noted that the location and design of the access drives as well as the Powis Road improvements have been conceptually approved by the DuPage County Division of Transportation. Further, Civil & Environmental Consultants has prepared and submitted final engineering plans of the improvements to the County and has received the County’s initial comments.

- The intersection capacity analyses have shown that the existing roadway system has sufficient reserve capacity to accommodate the additional traffic to be generated by the proposed transfer station. Further, the gap study has shown that adequate gaps are available in the Powis Road traffic stream to accommodate the traffic turning to and from the LRS site.

- Based on KLOA, Inc.'s analyses described in this study, it is our finding that the proposed transfer station has been designed to minimize the impact on existing traffic flow and, therefore, complies with the sixth siting criterion.

Appendix

2019 Traffic Count Summary Sheets
2022 Traffic Count Summary Sheets
LRS Site Modified Site Plan
Powis Road Engineering Plans
CMAP 2050 Projections Letter
Level of Service Criteria
Capacity Analysis Summary Sheets
Gap Study Summary Sheets

2019 Traffic Count Summary Sheets

West Chicago, IL Weather: Hot and Dry 10/03/19
Powis Rd and Lake Shore Recycling Access 10:09:55
Tuesday October 1, 2019 Single Unit Trucks Only

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 2 powis/lakeshorerecyc/single

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
600	0	7	2	6	0	5	0	8	0	0	0	0	28
615	0	4	1	7	0	4	0	1	0	0	0	0	17
630	0	4	0	10	0	3	0	5	0	0	0	0	22
645	0	4	2	5	0	4	1	2	0	0	0	0	18
700	0	0	2	3	0	2	0	5	0	0	0	0	12
715	0	6	1	4	0	0	1	7	0	0	0	0	19
730	0	4	0	1	0	0	3	9	0	0	0	0	17
745	0	8	1	0	0	1	0	5	0	0	0	0	15
800	0	6	1	2	0	2	1	7	0	0	0	0	19
815	0	6	2	2	0	0	1	5	0	0	0	0	16
830	0	5	2	4	0	1	3	6	0	0	0	0	21
845	0	5	2	2	0	1	1	4	0	0	0	0	15
1500	0	6	4	2	0	2	3	4	0	0	0	0	21
1515	0	5	6	3	0	3	2	3	0	0	0	0	22
1530	0	3	8	1	0	1	6	4	0	0	0	0	23
1545	0	3	3	4	0	1	6	3	0	0	0	0	20
1600	0	3	5	1	0	0	5	0	0	0	0	0	14
1615	0	3	2	1	0	0	3	8	0	0	0	0	17
1630	0	1	4	0	0	0	7	2	0	0	0	0	14
1645	0	2	0	0	0	0	4	4	0	0	0	0	10
1700	0	3	4	0	0	0	2	2	0	0	0	0	11
1715	0	1	2	0	0	0	2	2	0	0	0	0	7
1730	0	0	0	0	0	1	0	1	0	0	0	0	2
1745	0	2	0	0	0	0	1	4	0	0	0	0	7
Total	0	91	54	58	0	31	52	101	0	0	0	0	387

West Chicago, IL Weather: Hot and Dry 10/03/19
Powis Rd and Lake Shore Recycling Access 10:13:29
Tuesday October 1, 2019 Semi Trailer Trucks Only

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 3 powis/lakeshorerecyc/semi

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
600	0	4	0	0	0	1	0	0	0	0	0	0	5
615	0	5	3	0	0	0	0	0	0	0	0	0	8
630	0	5	2	0	0	0	0	8	0	0	0	0	15
645	0	4	0	2	0	0	0	3	0	0	0	0	9
700	0	6	0	2	0	0	0	2	0	0	0	0	10
715	0	7	0	1	0	0	0	5	0	0	0	0	13
730	0	5	1	0	0	0	0	4	0	0	0	0	10
745	0	8	0	0	0	0	0	12	0	0	0	0	20
800	0	5	0	0	0	0	0	3	0	0	0	0	8
815	0	8	2	0	0	0	0	4	0	0	0	0	14
830	0	5	0	1	0	0	0	7	0	0	0	0	13
845	0	8	2	1	0	0	0	7	0	0	0	0	18
1500	0	7	0	0	0	0	0	11	0	0	0	0	18
1515	0	6	0	0	0	0	0	5	0	0	0	0	11
1530	0	3	0	1	0	0	0	6	0	0	0	0	10
1545	0	8	2	1	0	0	1	3	0	0	0	0	15
1600	0	7	0	0	0	1	0	11	0	0	0	0	19
1615	0	4	0	0	0	0	0	6	0	0	0	0	10
1630	0	5	0	0	0	0	0	3	0	0	0	0	8
1645	0	5	0	0	0	0	0	6	0	0	0	0	11
1700	0	6	0	0	0	0	0	5	0	0	0	0	11
1715	0	4	0	0	0	0	0	4	0	0	0	0	8
1730	0	2	0	0	0	0	0	6	0	0	0	0	8
1745	0	2	0	0	0	0	0	2	0	0	0	0	4
Total	0	129	12	9	0	2	1	123	0	0	0	0	276

West Chicago, IL Weather: Hot and Dry 10/03/19
Powis Rd and Lake Shore Recycling Access 09:57:54
Tuesday October 1, 2019 Passenger Vehicles Only

TURNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 1 powis/lakeshorerecyccars

Begin	N-Approach			E-Approach			S-Approach			W-Approach			Int
Time	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
600	0	39	9	1	0	2	7	31	0	0	0	0	89
615	0	46	5	0	0	0	1	16	0	0	0	0	68
630	0	55	6	0	0	1	6	26	0	0	0	0	94
645	0	100	4	3	0	2	4	21	0	0	0	0	134
700	0	71	2	2	0	0	0	40	0	0	0	0	115
715	0	53	2	0	0	0	2	25	0	0	0	0	82
730	0	87	1	1	0	3	2	28	0	0	0	0	122
745	0	83	3	1	0	1	2	42	0	0	0	0	132
800	0	77	0	0	0	1	3	37	0	0	0	0	118
815	0	61	0	0	0	1	3	40	0	0	0	0	105
830	0	43	2	1	0	1	0	34	0	0	0	0	81
845	0	41	1	1	0	1	1	20	0	0	0	0	65
1500	0	44	4	5	0	3	1	78	0	0	0	0	135
1515	0	32	3	2	0	6	1	72	0	0	0	0	116
1530	0	28	0	4	0	5	1	103	0	0	0	0	141
1545	0	28	2	4	0	5	3	57	0	0	0	0	99
1600	0	39	2	12	0	6	0	96	0	0	0	0	155
1615	0	30	2	9	0	5	1	75	0	0	0	0	122
1630	0	34	2	7	0	4	0	76	0	0	0	0	123
1645	0	41	1	9	0	8	3	70	0	0	0	0	132
1700	0	50	2	7	0	10	1	102	0	0	0	0	172
1715	0	36	1	6	0	3	1	73	0	0	0	0	120
1730	0	29	1	3	0	1	1	51	0	0	0	0	86
1745	0	26	0	3	0	1	0	43	0	0	0	0	73
Total	0	1173	55	81	0	70	44	1256	0	0	0	0	2679

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Powis Road with North Access Drive
Site Code:
Start Date: 10/01/2019

Turning Movement Data

Start Time	North Access Drive Westbound					Powis Road Northbound					Powis Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
6:00 AM	0	2	8	0	10	0	41	1	0	42	0	4	65	0	69	121
6:15 AM	0	0	5	0	5	0	23	2	0	25	1	4	68	0	73	103
6:30 AM	0	1	5	0	6	0	44	4	0	48	1	1	75	0	77	131
6:45 AM	0	3	2	0	5	0	30	1	0	31	1	7	116	0	124	160
Hourly Total	0	6	20	0	26	0	138	8	0	146	3	16	324	0	343	515
7:00 AM	0	0	7	0	7	0	55	3	0	58	0	8	91	0	99	164
7:15 AM	0	2	3	0	5	0	32	2	0	34	0	3	70	0	73	112
7:30 AM	0	3	4	0	7	0	38	2	0	40	2	3	99	0	104	151
7:45 AM	0	0	6	0	6	0	45	3	0	48	0	3	108	0	111	165
Hourly Total	0	5	20	0	25	0	170	10	0	180	2	17	368	0	387	592
8:00 AM	2	2	3	0	7	0	41	2	0	43	0	4	98	0	102	152
8:15 AM	0	2	5	0	7	0	49	1	0	50	0	5	90	0	95	152
8:30 AM	0	1	4	0	5	0	57	1	0	58	1	3	63	0	67	130
8:45 AM	0	0	3	0	3	0	29	1	0	30	1	6	63	0	70	103
Hourly Total	2	5	15	0	22	0	176	5	0	181	2	18	314	0	334	537
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	2	2	0	4	0	96	1	0	97	1	4	60	0	65	166
3:15 PM	0	1	3	0	4	0	88	1	0	89	0	1	52	0	53	146
3:30 PM	0	1	1	0	2	0	129	0	0	129	0	2	39	0	41	172
3:45 PM	0	1	2	0	3	0	74	2	0	76	0	0	50	0	50	129
Hourly Total	0	5	8	0	13	0	387	4	0	391	1	7	201	0	209	613
4:00 PM	0	0	2	0	2	0	125	0	0	125	0	1	58	0	59	186
4:15 PM	0	0	3	0	3	0	104	0	0	104	0	1	39	0	40	147
4:30 PM	0	0	2	0	2	0	105	0	0	105	0	4	39	0	43	150
4:45 PM	0	1	1	0	2	0	94	0	0	94	0	1	45	0	46	142
Hourly Total	0	1	8	0	9	0	428	0	0	428	0	7	181	0	188	625
5:00 PM	0	2	0	0	2	0	138	0	0	138	1	2	58	0	61	201
5:15 PM	0	0	0	0	0	0	93	0	0	93	0	0	36	0	36	129
5:30 PM	0	0	0	0	0	0	72	0	0	72	1	0	33	0	34	106
5:45 PM	0	0	2	0	2	0	55	0	0	55	1	1	27	0	29	86
Hourly Total	0	2	2	0	4	0	358	0	0	358	3	3	154	0	160	522
Grand Total	2	24	73	0	99	0	1657	27	0	1684	11	68	1542	0	1621	3404
Approach %	2.0	24.2	73.7	-	-	0.0	98.4	1.6	-	-	0.7	4.2	95.1	-	-	-
Total %	0.1	0.7	2.1	-	2.9	0.0	48.7	0.8	-	49.5	0.3	2.0	45.3	-	47.6	-
Lights	0	8	12	-	20	0	1369	7	-	1376	10	16	1279	-	1305	2701
% Lights	0.0	33.3	16.4	-	20.2	-	82.6	25.9	-	81.7	90.9	23.5	82.9	-	80.5	79.3

Buses	0	0	0	-	0	0	7	0	-	7	0	0	1	-	1	8
% Buses	0.0	0.0	0.0	-	0.0	-	0.4	0.0	-	0.4	0.0	0.0	0.1	-	0.1	0.2
Single-Unit Trucks	2	14	44	-	60	0	133	20	-	153	0	38	106	-	144	357
% Single-Unit Trucks	100.0	58.3	60.3	-	60.6	-	8.0	74.1	-	9.1	0.0	55.9	6.9	-	8.9	10.5
Articulated Trucks	0	2	17	-	19	0	148	0	-	148	1	14	156	-	171	338
% Articulated Trucks	0.0	8.3	23.3	-	19.2	-	8.9	0.0	-	8.8	9.1	20.6	10.1	-	10.5	9.9
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Powis Road with North Access Drive
Site Code:
Start Date: 10/01/2019

Turning Movement Peak Hour Data (7:15 AM)

Start Time	North Access Drive Westbound					Powis Road Northbound					Powis Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
7:15 AM	0	2	3	0	5	0	32	2	0	34	0	3	70	0	73	112
7:30 AM	0	3	4	0	7	0	38	2	0	40	2	3	99	0	104	151
7:45 AM	0	0	6	0	6	0	45	3	0	48	0	3	108	0	111	165
8:00 AM	2	2	3	0	7	0	41	2	0	43	0	4	98	0	102	152
Total	2	7	16	0	25	0	156	9	0	165	2	13	375	0	390	580
Approach %	8.0	28.0	64.0	-	-	0.0	94.5	5.5	-	-	0.5	3.3	96.2	-	-	-
Total %	0.3	1.2	2.8	-	4.3	0.0	26.9	1.6	-	28.4	0.3	2.2	64.7	-	67.2	-
PHF	0.250	0.583	0.667	-	0.893	0.000	0.867	0.750	-	0.859	0.250	0.813	0.868	-	0.878	0.879
Lights	0	2	1	-	3	0	103	2	-	105	2	1	334	-	337	445
% Lights	0.0	28.6	6.3	-	12.0	-	66.0	22.2	-	63.6	100.0	7.7	89.1	-	86.4	76.7
Buses	0	0	0	-	0	0	1	0	-	1	0	0	1	-	1	2
% Buses	0.0	0.0	0.0	-	0.0	-	0.6	0.0	-	0.6	0.0	0.0	0.3	-	0.3	0.3
Single-Unit Trucks	2	5	14	-	21	0	23	7	-	30	0	10	11	-	21	72
% Single-Unit Trucks	100.0	71.4	87.5	-	84.0	-	14.7	77.8	-	18.2	0.0	76.9	2.9	-	5.4	12.4
Articulated Trucks	0	0	1	-	1	0	29	0	-	29	0	2	29	-	31	61
% Articulated Trucks	0.0	0.0	6.3	-	4.0	-	18.6	0.0	-	17.6	0.0	15.4	7.7	-	7.9	10.5
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Powis Road with North Access Drive
Site Code:
Start Date: 10/01/2019

Turning Movement Peak Hour Data (4:30 PM)

Start Time	North Access Drive Westbound					Powis Road Northbound					Powis Road Southbound					
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	Int. Total
4:30 PM	0	0	2	0	2	0	105	0	0	105	0	4	39	0	43	150
4:45 PM	0	1	1	0	2	0	94	0	0	94	0	1	45	0	46	142
5:00 PM	0	2	0	0	2	0	138	0	0	138	1	2	58	0	61	201
5:15 PM	0	0	0	0	0	0	93	0	0	93	0	0	36	0	36	129
Total	0	3	3	0	6	0	430	0	0	430	1	7	178	0	186	622
Approach %	0.0	50.0	50.0	-	-	0.0	100.0	0.0	-	-	0.5	3.8	95.7	-	-	-
Total %	0.0	0.5	0.5	-	1.0	0.0	69.1	0.0	-	69.1	0.2	1.1	28.6	-	29.9	-
PHF	0.000	0.375	0.375	-	0.750	0.000	0.779	0.000	-	0.779	0.250	0.438	0.767	-	0.762	0.774
Lights	0	3	2	-	5	0	399	0	-	399	0	6	143	-	149	553
% Lights	-	100.0	66.7	-	83.3	-	92.8	-	-	92.8	0.0	85.7	80.3	-	80.1	88.9
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	1	-	1	0	8	0	-	8	0	1	11	-	12	21
% Single-Unit Trucks	-	0.0	33.3	-	16.7	-	1.9	-	-	1.9	0.0	14.3	6.2	-	6.5	3.4
Articulated Trucks	0	0	0	-	0	0	23	0	-	23	1	0	24	-	25	48
% Articulated Trucks	-	0.0	0.0	-	0.0	-	5.3	-	-	5.3	100.0	0.0	13.5	-	13.4	7.7
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Powis Road with Hawthorne Lane
Site Code:
Start Date: 10/01/2019

Turning Movement Data

Start Time	Hawthorne Lane Eastbound					Hawthorne Lane Westbound					Powis Road Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
6:00 AM	0	35	15	0	50	0	16	16	0	32	0	8	41	0	49	131
6:15 AM	0	30	25	0	55	0	13	4	0	17	0	14	39	0	53	125
6:30 AM	0	46	24	0	70	0	19	18	0	37	0	19	28	0	47	154
6:45 AM	0	53	40	0	93	0	18	14	0	32	0	37	41	0	78	203
Hourly Total	0	164	104	0	268	0	66	52	0	118	0	78	149	0	227	613
7:00 AM	0	41	25	0	66	0	21	23	0	44	0	22	49	0	71	181
7:15 AM	0	40	28	0	68	0	20	15	0	35	0	24	29	0	53	156
7:30 AM	0	38	42	0	80	0	26	19	0	45	0	25	56	0	81	206
7:45 AM	0	64	44	0	108	0	23	15	0	38	0	25	41	0	66	212
Hourly Total	0	183	139	0	322	0	90	72	0	162	0	96	175	0	271	755
8:00 AM	0	49	27	0	76	0	27	19	0	46	0	21	57	0	78	200
8:15 AM	0	48	27	0	75	0	22	11	0	33	0	25	45	0	70	178
8:30 AM	0	38	14	0	52	0	21	6	0	27	0	17	30	0	47	126
8:45 AM	0	38	27	0	65	0	27	9	0	36	0	18	25	0	43	144
Hourly Total	0	173	95	0	268	0	97	45	0	142	0	81	157	0	238	648
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	53	33	0	86	0	31	23	0	54	0	20	86	0	106	246
3:15 PM	0	45	28	0	73	0	44	16	0	60	0	22	48	0	70	203
3:30 PM	0	67	33	0	100	0	88	34	0	122	0	19	50	0	69	291
3:45 PM	0	33	24	0	57	0	32	23	0	55	0	13	31	0	44	156
Hourly Total	0	198	118	0	316	0	195	96	0	291	0	74	215	0	289	896
4:00 PM	0	58	33	0	91	0	44	30	0	74	0	28	50	0	78	243
4:15 PM	0	59	25	0	84	0	37	24	0	61	0	17	30	0	47	192
4:30 PM	0	48	27	0	75	0	44	19	0	63	0	13	39	0	52	190
4:45 PM	0	56	38	0	94	0	44	21	0	65	0	17	48	0	65	224
Hourly Total	0	221	123	0	344	0	169	94	0	263	0	75	167	0	242	849
5:00 PM	0	66	26	0	92	0	48	26	0	74	0	12	66	0	78	244
5:15 PM	0	49	18	0	67	0	34	26	0	60	0	21	40	0	61	188
5:30 PM	0	30	20	0	50	0	22	18	0	40	0	10	36	0	46	136
5:45 PM	0	23	13	0	36	0	16	16	0	32	0	5	31	0	36	104
Hourly Total	0	168	77	0	245	0	120	86	0	206	0	48	173	0	221	672
Grand Total	0	1107	656	0	1763	0	737	445	0	1182	0	452	1036	0	1488	4433
Approach %	0.0	62.8	37.2	-	-	0.0	62.4	37.6	-	-	0.0	30.4	69.6	-	-	-
Total %	0.0	25.0	14.8	-	39.8	0.0	16.6	10.0	-	26.7	0.0	10.2	23.4	-	33.6	-
Lights	0	880	610	-	1490	0	665	390	-	1055	0	398	830	-	1228	3773
% Lights	-	79.5	93.0	-	84.5	-	90.2	87.6	-	89.3	-	88.1	80.1	-	82.5	85.1

Buses	0	1	0	-	1	0	2	6	-	8	0	1	1	-	2	11
% Buses	-	0.1	0.0	-	0.1	-	0.3	1.3	-	0.7	-	0.2	0.1	-	0.1	0.2
Single-Unit Trucks	0	107	19	-	126	0	28	19	-	47	0	14	82	-	96	269
% Single-Unit Trucks	-	9.7	2.9	-	7.1	-	3.8	4.3	-	4.0	-	3.1	7.9	-	6.5	6.1
Articulated Trucks	0	118	27	-	145	0	42	30	-	72	0	37	123	-	160	377
% Articulated Trucks	-	10.7	4.1	-	8.2	-	5.7	6.7	-	6.1	-	8.2	11.9	-	10.8	8.5
Bicycles on Road	0	1	0	-	1	0	0	0	-	0	0	2	0	-	2	3
% Bicycles on Road	-	0.1	0.0	-	0.1	-	0.0	0.0	-	0.0	-	0.4	0.0	-	0.1	0.1
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Powis Road with Hawthorne Lane
Site Code:
Start Date: 10/01/2019

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Hawthorne Lane Eastbound					Hawthorne Lane Westbound					Powis Road Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:15 AM	0	40	28	0	68	0	20	15	0	35	0	24	29	0	53	156
7:30 AM	0	38	42	0	80	0	26	19	0	45	0	25	56	0	81	206
7:45 AM	0	64	44	0	108	0	23	15	0	38	0	25	41	0	66	212
8:00 AM	0	49	27	0	76	0	27	19	0	46	0	21	57	0	78	200
Total	0	191	141	0	332	0	96	68	0	164	0	95	183	0	278	774
Approach %	0.0	57.5	42.5	-	-	0.0	58.5	41.5	-	-	0.0	34.2	65.8	-	-	-
Total %	0.0	24.7	18.2	-	42.9	0.0	12.4	8.8	-	21.2	0.0	12.3	23.6	-	35.9	-
PHF	0.000	0.746	0.801	-	0.769	0.000	0.889	0.895	-	0.891	0.000	0.950	0.803	-	0.858	0.913
Lights	0	152	133	-	285	0	87	55	-	142	0	85	139	-	224	651
% Lights	-	79.6	94.3	-	85.8	-	90.6	80.9	-	86.6	-	89.5	76.0	-	80.6	84.1
Buses	0	1	0	-	1	0	0	0	-	0	0	1	0	-	1	2
% Buses	-	0.5	0.0	-	0.3	-	0.0	0.0	-	0.0	-	1.1	0.0	-	0.4	0.3
Single-Unit Trucks	0	17	4	-	21	0	3	5	-	8	0	5	14	-	19	48
% Single-Unit Trucks	-	8.9	2.8	-	6.3	-	3.1	7.4	-	4.9	-	5.3	7.7	-	6.8	6.2
Articulated Trucks	0	21	4	-	25	0	6	8	-	14	0	4	30	-	34	73
% Articulated Trucks	-	11.0	2.8	-	7.5	-	6.3	11.8	-	8.5	-	4.2	16.4	-	12.2	9.4
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Powis Road with Hawthorne Lane
Site Code:
Start Date: 10/01/2019

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Hawthorne Lane Eastbound					Hawthorne Lane Westbound					Powis Road Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
4:30 PM	0	48	27	0	75	0	44	19	0	63	0	13	39	0	52	190
4:45 PM	0	56	38	0	94	0	44	21	0	65	0	17	48	0	65	224
5:00 PM	0	66	26	0	92	0	48	26	0	74	0	12	66	0	78	244
5:15 PM	0	49	18	0	67	0	34	26	0	60	0	21	40	0	61	188
Total	0	219	109	0	328	0	170	92	0	262	0	63	193	0	256	846
Approach %	0.0	66.8	33.2	-	-	0.0	64.9	35.1	-	-	0.0	24.6	75.4	-	-	-
Total %	0.0	25.9	12.9	-	38.8	0.0	20.1	10.9	-	31.0	0.0	7.4	22.8	-	30.3	-
PHF	0.000	0.830	0.717	-	0.872	0.000	0.885	0.885	-	0.885	0.000	0.750	0.731	-	0.821	0.867
Lights	0	182	107	-	289	0	158	88	-	246	0	56	177	-	233	768
% Lights	-	83.1	98.2	-	88.1	-	92.9	95.7	-	93.9	-	88.9	91.7	-	91.0	90.8
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	18	2	-	20	0	5	3	-	8	0	1	3	-	4	32
% Single-Unit Trucks	-	8.2	1.8	-	6.1	-	2.9	3.3	-	3.1	-	1.6	1.6	-	1.6	3.8
Articulated Trucks	0	18	0	-	18	0	7	1	-	8	0	6	13	-	19	45
% Articulated Trucks	-	8.2	0.0	-	5.5	-	4.1	1.1	-	3.1	-	9.5	6.7	-	7.4	5.3
Bicycles on Road	0	1	0	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	-	0.5	0.0	-	0.3	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: North Avenue with Powis Road
Site Code:
Start Date: 10/01/2019

Turning Movement Data

Start Time	North Avenue Eastbound						North Avenue Westbound						Powis Road Northbound						Powis Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
6:00 AM	0	5	192	12	0	209	0	38	142	4	0	184	0	15	8	22	0	45	0	30	18	5	0	53	491
6:15 AM	0	4	271	17	0	292	0	70	173	12	0	255	0	7	6	17	0	30	0	39	15	3	0	57	634
6:30 AM	0	2	374	19	0	395	0	34	215	15	0	264	0	14	15	20	0	49	0	55	26	3	0	84	792
6:45 AM	0	4	359	31	0	394	0	53	264	14	0	331	0	16	5	14	0	35	0	55	35	2	0	92	852
Hourly Total	0	15	1196	79	0	1290	0	195	794	45	0	1034	0	52	34	73	0	159	0	179	94	13	0	286	2769
7:00 AM	0	4	386	23	0	413	0	52	221	13	0	286	0	16	8	30	0	54	0	61	25	6	0	92	845
7:15 AM	1	5	424	18	0	448	0	34	235	16	0	285	0	18	1	22	0	41	0	74	20	4	0	98	872
7:30 AM	1	1	491	30	0	523	0	56	283	12	0	351	0	17	6	18	0	41	0	62	17	5	0	84	999
7:45 AM	1	4	455	31	0	491	0	50	307	18	0	375	0	10	8	32	0	50	0	48	29	7	0	84	1000
Hourly Total	3	14	1756	102	0	1875	0	192	1046	59	0	1297	0	61	23	102	0	186	0	245	91	22	0	358	3716
8:00 AM	1	4	392	23	0	420	1	44	230	17	0	292	0	17	3	30	0	50	0	46	33	5	0	84	846
8:15 AM	1	1	396	32	0	430	0	44	233	12	0	289	0	16	4	29	0	49	0	46	16	7	0	69	837
8:30 AM	0	4	349	21	0	374	1	25	239	13	0	278	0	11	13	34	0	58	0	42	15	2	0	59	769
8:45 AM	1	2	270	21	1	294	0	33	234	7	0	274	0	12	3	20	1	35	0	28	14	6	0	48	651
Hourly Total	3	11	1407	97	1	1518	2	146	936	49	0	1133	0	56	23	113	1	192	0	162	78	20	0	260	3103
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	3	4	316	17	0	340	0	30	251	25	0	306	0	21	23	44	0	88	0	20	20	5	0	45	779
3:15 PM	0	2	274	21	0	297	0	24	291	19	0	334	0	21	22	59	0	102	0	18	9	3	0	30	763
3:30 PM	1	3	334	10	0	348	0	23	299	25	0	347	0	38	32	55	0	125	0	21	8	7	0	36	856
3:45 PM	1	3	267	14	0	285	0	21	353	18	0	392	0	32	22	27	0	81	0	16	11	3	0	30	788
Hourly Total	5	12	1191	62	0	1270	0	98	1194	87	0	1379	0	112	99	185	0	396	0	75	48	18	0	141	3186
4:00 PM	2	4	332	16	0	354	0	24	380	34	0	438	0	38	32	49	0	119	0	18	16	9	0	43	954
4:15 PM	0	9	303	9	0	321	0	20	400	37	0	457	0	39	25	44	0	108	0	12	14	8	0	34	920
4:30 PM	1	3	352	10	0	366	0	24	384	36	0	444	0	31	35	40	0	106	0	12	7	3	0	22	938
4:45 PM	1	4	349	19	0	373	0	17	427	36	0	480	0	28	27	37	0	92	0	12	11	6	0	29	974
Hourly Total	4	20	1336	54	0	1414	0	85	1591	143	0	1819	0	136	119	170	0	425	0	54	48	26	0	128	3786
5:00 PM	1	2	381	15	0	399	0	35	394	63	0	492	0	41	37	63	0	141	0	17	15	2	0	34	1066
5:15 PM	1	7	339	16	0	363	0	15	410	55	0	480	0	28	32	42	0	102	0	19	4	3	0	26	971
5:30 PM	1	2	304	11	0	318	0	14	438	41	0	493	0	23	19	28	0	70	0	22	8	1	0	31	912
5:45 PM	1	0	220	10	0	231	0	14	384	31	0	429	0	34	15	18	0	67	0	11	5	0	0	16	743
Hourly Total	4	11	1244	52	0	1311	0	78	1626	190	0	1894	0	126	103	151	0	380	0	69	32	6	0	107	3692
Grand Total	19	83	8130	446	1	8678	2	794	7187	573	0	8556	0	543	401	794	1	1738	0	784	391	105	0	1280	20252
Approach %	0.2	1.0	93.7	5.1	-	-	0.0	9.3	84.0	6.7	-	-	0.0	31.2	23.1	45.7	-	-	0.0	61.3	30.5	8.2	-	-	-
Total %	0.1	0.4	40.1	2.2	-	42.9	0.0	3.9	35.5	2.8	-	42.2	0.0	2.7	2.0	3.9	-	8.6	0.0	3.9	1.9	0.5	-	6.3	-
Lights	17	77	7719	369	-	8182	2	567	6812	544	-	7925	0	455	378	560	-	1393	0	733	370	92	-	1195	18695

% Lights	89.5	92.8	94.9	82.7	-	94.3	100.0	71.4	94.8	94.9	-	92.6	-	83.8	94.3	70.5	-	80.1	-	93.5	94.6	87.6	-	93.4	92.3
Buses	1	0	61	2	-	64	0	0	56	0	-	56	0	7	0	2	-	9	0	1	1	6	-	8	137
% Buses	5.3	0.0	0.8	0.4	-	0.7	0.0	0.0	0.8	0.0	-	0.7	-	1.3	0.0	0.3	-	0.5	-	0.1	0.3	5.7	-	0.6	0.7
Single-Unit Trucks	1	4	166	35	-	206	0	103	146	21	-	270	0	33	15	109	-	157	0	34	12	3	-	49	682
% Single-Unit Trucks	5.3	4.8	2.0	7.8	-	2.4	0.0	13.0	2.0	3.7	-	3.2	-	6.1	3.7	13.7	-	9.0	-	4.3	3.1	2.9	-	3.8	3.4
Articulated Trucks	0	2	184	40	-	226	0	124	173	8	-	305	0	48	8	122	-	178	0	15	8	4	-	27	736
% Articulated Trucks	0.0	2.4	2.3	9.0	-	2.6	0.0	15.6	2.4	1.4	-	3.6	-	8.8	2.0	15.4	-	10.2	-	1.9	2.0	3.8	-	2.1	3.6
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	1	-	1	0	1	0	0	-	1	2
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.1	-	0.1	-	0.1	0.0	0.0	-	0.1	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: North Avenue with Powis Road
Site Code:
Start Date: 10/01/2019

Turning Movement Peak Hour Data (7:15 AM)

Start Time	North Avenue Eastbound						North Avenue Westbound						Powis Road Northbound						Powis Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:15 AM	1	5	424	18	0	448	0	34	235	16	0	285	0	18	1	22	0	41	0	74	20	4	0	98	872
7:30 AM	1	1	491	30	0	523	0	56	283	12	0	351	0	17	6	18	0	41	0	62	17	5	0	84	999
7:45 AM	1	4	455	31	0	491	0	50	307	18	0	375	0	10	8	32	0	50	0	48	29	7	0	84	1000
8:00 AM	1	4	392	23	0	420	1	44	230	17	0	292	0	17	3	30	0	50	0	46	33	5	0	84	846
Total	4	14	1762	102	0	1882	1	184	1055	63	0	1303	0	62	18	102	0	182	0	230	99	21	0	350	3717
Approach %	0.2	0.7	93.6	5.4	-	-	0.1	14.1	81.0	4.8	-	-	0.0	34.1	9.9	56.0	-	-	0.0	65.7	28.3	6.0	-	-	-
Total %	0.1	0.4	47.4	2.7	-	50.6	0.0	5.0	28.4	1.7	-	35.1	0.0	1.7	0.5	2.7	-	4.9	0.0	6.2	2.7	0.6	-	9.4	-
PHF	1.000	0.700	0.897	0.823	-	0.900	0.250	0.821	0.859	0.875	-	0.869	0.000	0.861	0.563	0.797	-	0.910	0.000	0.777	0.750	0.750	-	0.893	0.929
Lights	3	11	1674	93	-	1781	1	145	984	60	-	1190	0	48	13	52	-	113	0	217	94	17	-	328	3412
% Lights	75.0	78.6	95.0	91.2	-	94.6	100.0	78.8	93.3	95.2	-	91.3	-	77.4	72.2	51.0	-	62.1	-	94.3	94.9	81.0	-	93.7	91.8
Buses	0	0	19	1	-	20	0	0	1	0	-	1	0	0	0	1	-	1	0	0	0	2	-	2	24
% Buses	0.0	0.0	1.1	1.0	-	1.1	0.0	0.0	0.1	0.0	-	0.1	-	0.0	0.0	1.0	-	0.5	-	0.0	0.0	9.5	-	0.6	0.6
Single-Unit Trucks	1	3	25	6	-	35	0	17	36	3	-	56	0	5	4	27	-	36	0	10	3	2	-	15	142
% Single-Unit Trucks	25.0	21.4	1.4	5.9	-	1.9	0.0	9.2	3.4	4.8	-	4.3	-	8.1	22.2	26.5	-	19.8	-	4.3	3.0	9.5	-	4.3	3.8
Articulated Trucks	0	0	44	2	-	46	0	22	34	0	-	56	0	9	1	22	-	32	0	3	2	0	-	5	139
% Articulated Trucks	0.0	0.0	2.5	2.0	-	2.4	0.0	12.0	3.2	0.0	-	4.3	-	14.5	5.6	21.6	-	17.6	-	1.3	2.0	0.0	-	1.4	3.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: North Avenue with Powis Road
Site Code:
Start Date: 10/01/2019

Turning Movement Peak Hour Data (4:30 PM)

Start Time	North Avenue Eastbound						North Avenue Westbound						Powis Road Northbound						Powis Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	1	3	352	10	0	366	0	24	384	36	0	444	0	31	35	40	0	106	0	12	7	3	0	22	938
4:45 PM	1	4	349	19	0	373	0	17	427	36	0	480	0	28	27	37	0	92	0	12	11	6	0	29	974
5:00 PM	1	2	381	15	0	399	0	35	394	63	0	492	0	41	37	63	0	141	0	17	15	2	0	34	1066
5:15 PM	1	7	339	16	0	363	0	15	410	55	0	480	0	28	32	42	0	102	0	19	4	3	0	26	971
Total	4	16	1421	60	0	1501	0	91	1615	190	0	1896	0	128	131	182	0	441	0	60	37	14	0	111	3949
Approach %	0.3	1.1	94.7	4.0	-	-	0.0	4.8	85.2	10.0	-	-	0.0	29.0	29.7	41.3	-	-	0.0	54.1	33.3	12.6	-	-	-
Total %	0.1	0.4	36.0	1.5	-	38.0	0.0	2.3	40.9	4.8	-	48.0	0.0	3.2	3.3	4.6	-	11.2	0.0	1.5	0.9	0.4	-	2.8	-
PHF	1.000	0.571	0.932	0.789	-	0.940	0.000	0.650	0.946	0.754	-	0.963	0.000	0.780	0.885	0.722	-	0.782	0.000	0.789	0.617	0.583	-	0.816	0.926
Lights	4	15	1361	50	-	1430	0	65	1575	182	-	1822	0	125	128	154	-	407	0	59	35	14	-	108	3767
% Lights	100.0	93.8	95.8	83.3	-	95.3	-	71.4	97.5	95.8	-	96.1	-	97.7	97.7	84.6	-	92.3	-	98.3	94.6	100.0	-	97.3	95.4
Buses	0	0	4	0	-	4	0	0	6	0	-	6	0	1	0	0	-	1	0	0	0	0	-	0	11
% Buses	0.0	0.0	0.3	0.0	-	0.3	-	0.0	0.4	0.0	-	0.3	-	0.8	0.0	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	28	3	-	31	0	10	16	5	-	31	0	1	1	8	-	10	0	1	0	0	-	1	73
% Single-Unit Trucks	0.0	0.0	2.0	5.0	-	2.1	-	11.0	1.0	2.6	-	1.6	-	0.8	0.8	4.4	-	2.3	-	1.7	0.0	0.0	-	0.9	1.8
Articulated Trucks	0	1	28	7	-	36	0	16	18	3	-	37	0	1	2	20	-	23	0	0	2	0	-	2	98
% Articulated Trucks	0.0	6.3	2.0	11.7	-	2.4	-	17.6	1.1	1.6	-	2.0	-	0.8	1.5	11.0	-	5.2	-	0.0	5.4	0.0	-	1.8	2.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

2022 Traffic Count Summary Sheets

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Powis Road with Hawthorne Road
6-9a and 3-6p
Site Code:
Start Date: 02/10/2022

Turning Movement Data

Start Time	Hawthorne Lane Eastbound					Hawthorne Lane Westbound					Powis Road Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
6:00 AM	0	29	19	0	48	0	10	22	0	32	0	12	29	0	41	121
6:15 AM	0	27	14	0	41	0	5	4	0	9	0	16	24	0	40	90
6:30 AM	1	25	23	0	49	1	8	10	0	19	0	18	25	0	43	111
6:45 AM	0	39	26	0	65	0	11	10	0	21	0	30	25	0	55	141
Hourly Total	1	120	82	0	203	1	34	46	0	81	0	76	103	0	179	463
7:00 AM	0	29	16	0	45	0	9	10	0	19	0	13	27	0	40	104
7:15 AM	0	30	21	0	51	0	16	13	0	29	0	6	33	0	39	119
7:30 AM	1	26	37	0	64	0	13	13	0	26	0	16	32	0	48	138
7:45 AM	0	26	37	0	63	0	18	12	0	30	0	29	33	0	62	155
Hourly Total	1	111	111	0	223	0	56	48	0	104	0	64	125	0	189	516
8:00 AM	0	42	18	0	60	0	15	7	0	22	0	14	32	0	46	128
8:15 AM	0	26	27	0	53	0	11	5	0	16	0	16	30	0	46	115
8:30 AM	0	24	22	0	46	0	8	7	0	15	0	11	24	0	35	96
8:45 AM	0	21	15	0	36	0	16	8	0	24	0	13	29	0	42	102
Hourly Total	0	113	82	0	195	0	50	27	0	77	0	54	115	0	169	441
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	32	20	0	52	0	26	17	0	43	0	16	60	0	76	171
3:15 PM	0	28	23	0	51	0	34	19	0	53	0	10	32	0	42	146
3:30 PM	0	42	30	0	72	0	47	19	0	66	0	12	39	0	51	189
3:45 PM	0	21	24	0	45	0	28	19	0	47	0	10	37	0	47	139
Hourly Total	0	123	97	0	220	0	135	74	0	209	0	48	168	0	216	645
4:00 PM	0	33	21	0	54	0	44	18	0	62	0	16	48	0	64	180
4:15 PM	0	33	15	0	48	0	32	18	0	50	0	17	35	0	52	150
4:30 PM	0	36	12	0	48	0	48	30	0	78	0	9	41	0	50	176
4:45 PM	0	33	22	0	55	0	27	24	0	51	0	7	29	0	36	142
Hourly Total	0	135	70	0	205	0	151	90	0	241	0	49	153	0	202	648
5:00 PM	0	53	14	0	67	0	21	23	0	44	0	9	46	0	55	166
5:15 PM	0	36	18	0	54	0	11	16	0	27	0	9	32	0	41	122
5:30 PM	0	29	7	0	36	0	24	19	0	43	0	10	24	0	34	113
5:45 PM	0	24	8	0	32	0	12	9	0	21	0	8	15	0	23	76
Hourly Total	0	142	47	0	189	0	68	67	0	135	0	36	117	0	153	477
Grand Total	2	744	489	0	1235	1	494	352	0	847	0	327	781	0	1108	3190
Approach %	0.2	60.2	39.6	-	-	0.1	58.3	41.6	-	-	0.0	29.5	70.5	-	-	-
Total %	0.1	23.3	15.3	-	38.7	0.0	15.5	11.0	-	26.6	0.0	10.3	24.5	-	34.7	-
Lights	2	560	419	-	981	0	437	303	-	740	0	295	588	-	883	2604
% Lights	100.0	75.3	85.7	-	79.4	0.0	88.5	86.1	-	87.4	-	90.2	75.3	-	79.7	81.6

Buses	0	4	13	-	17	0	9	1	-	10	0	0	4	-	4	31
% Buses	0.0	0.5	2.7	-	1.4	0.0	1.8	0.3	-	1.2	-	0.0	0.5	-	0.4	1.0
Single-Unit Trucks	0	81	25	-	106	1	12	16	-	29	0	14	100	-	114	249
% Single-Unit Trucks	0.0	10.9	5.1	-	8.6	100.0	2.4	4.5	-	3.4	-	4.3	12.8	-	10.3	7.8
Articulated Trucks	0	99	32	-	131	0	36	32	-	68	0	18	89	-	107	306
% Articulated Trucks	0.0	13.3	6.5	-	10.6	0.0	7.3	9.1	-	8.0	-	5.5	11.4	-	9.7	9.6
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Powis Road with Hawthorne Road
6-9a and 3-6p
Site Code:
Start Date: 02/10/2022

Turning Movement Peak Hour Data (7:15 AM)

Start Time	Hawthorne Lane Eastbound					Hawthorne Lane Westbound					Powis Road Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
7:15 AM	0	30	21	0	51	0	16	13	0	29	0	6	33	0	39	119
7:30 AM	1	26	37	0	64	0	13	13	0	26	0	16	32	0	48	138
7:45 AM	0	26	37	0	63	0	18	12	0	30	0	29	33	0	62	155
8:00 AM	0	42	18	0	60	0	15	7	0	22	0	14	32	0	46	128
Total	1	124	113	0	238	0	62	45	0	107	0	65	130	0	195	540
Approach %	0.4	52.1	47.5	-	-	0.0	57.9	42.1	-	-	0.0	33.3	66.7	-	-	-
Total %	0.2	23.0	20.9	-	44.1	0.0	11.5	8.3	-	19.8	0.0	12.0	24.1	-	36.1	-
PHF	0.250	0.738	0.764	-	0.930	0.000	0.861	0.865	-	0.892	0.000	0.560	0.985	-	0.786	0.871
Lights	1	89	100	-	190	0	52	35	-	87	0	61	100	-	161	438
% Lights	100.0	71.8	88.5	-	79.8	-	83.9	77.8	-	81.3	-	93.8	76.9	-	82.6	81.1
Buses	0	1	4	-	5	0	1	0	-	1	0	0	0	-	0	6
% Buses	0.0	0.8	3.5	-	2.1	-	1.6	0.0	-	0.9	-	0.0	0.0	-	0.0	1.1
Single-Unit Trucks	0	16	1	-	17	0	1	3	-	4	0	2	12	-	14	35
% Single-Unit Trucks	0.0	12.9	0.9	-	7.1	-	1.6	6.7	-	3.7	-	3.1	9.2	-	7.2	6.5
Articulated Trucks	0	18	8	-	26	0	8	7	-	15	0	2	18	-	20	61
% Articulated Trucks	0.0	14.5	7.1	-	10.9	-	12.9	15.6	-	14.0	-	3.1	13.8	-	10.3	11.3
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Powis Road with Hawthorne Road
6-9a and 3-6p
Site Code:
Start Date: 02/10/2022

Turning Movement Peak Hour Data (3:30 PM)

Start Time	Hawthorne Lane Eastbound					Hawthorne Lane Westbound					Powis Road Southbound					
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	Int. Total
3:30 PM	0	42	30	0	72	0	47	19	0	66	0	12	39	0	51	189
3:45 PM	0	21	24	0	45	0	28	19	0	47	0	10	37	0	47	139
4:00 PM	0	33	21	0	54	0	44	18	0	62	0	16	48	0	64	180
4:15 PM	0	33	15	0	48	0	32	18	0	50	0	17	35	0	52	150
Total	0	129	90	0	219	0	151	74	0	225	0	55	159	0	214	658
Approach %	0.0	58.9	41.1	-	-	0.0	67.1	32.9	-	-	0.0	25.7	74.3	-	-	-
Total %	0.0	19.6	13.7	-	33.3	0.0	22.9	11.2	-	34.2	0.0	8.4	24.2	-	32.5	-
PHF	0.000	0.768	0.750	-	0.760	0.000	0.803	0.974	-	0.852	0.000	0.809	0.828	-	0.836	0.870
Lights	0	97	75	-	172	0	137	63	-	200	0	46	123	-	169	541
% Lights	-	75.2	83.3	-	78.5	-	90.7	85.1	-	88.9	-	83.6	77.4	-	79.0	82.2
Buses	0	0	1	-	1	0	3	0	-	3	0	0	1	-	1	5
% Buses	-	0.0	1.1	-	0.5	-	2.0	0.0	-	1.3	-	0.0	0.6	-	0.5	0.8
Single-Unit Trucks	0	17	4	-	21	0	1	4	-	5	0	4	15	-	19	45
% Single-Unit Trucks	-	13.2	4.4	-	9.6	-	0.7	5.4	-	2.2	-	7.3	9.4	-	8.9	6.8
Articulated Trucks	0	15	10	-	25	0	10	7	-	17	0	5	20	-	25	67
% Articulated Trucks	-	11.6	11.1	-	11.4	-	6.6	9.5	-	7.6	-	9.1	12.6	-	11.7	10.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: North Avenue with Powis Road
Site Code:
Start Date: 02/10/2022

Turning Movement Data

Start Time	North Avenue Eastbound						North Avenue Westbound						Powis Road Northbound						Powis Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
6:00 AM	0	0	140	12	0	152	0	33	122	5	0	160	0	18	4	18	0	40	0	14	7	0	0	21	373
6:15 AM	0	2	191	10	0	203	0	35	148	5	0	188	0	9	0	12	0	21	0	20	11	2	0	33	445
6:30 AM	0	1	262	18	0	281	0	32	194	5	0	231	0	5	5	18	0	28	0	31	14	3	0	48	588
6:45 AM	0	3	251	22	0	276	0	48	221	13	0	282	0	6	1	11	0	18	1	30	26	4	0	61	637
Hourly Total	0	6	844	62	0	912	0	148	685	28	0	861	0	38	10	59	0	107	1	95	58	9	0	163	2043
7:00 AM	0	0	278	14	0	292	0	21	184	10	0	215	0	7	3	22	0	32	0	33	15	2	0	50	589
7:15 AM	1	1	284	12	0	298	0	36	212	17	0	265	0	5	1	7	0	13	0	42	17	1	0	60	636
7:30 AM	0	4	342	18	0	364	0	47	258	14	0	319	0	16	4	10	0	30	0	34	11	1	0	46	759
7:45 AM	0	1	324	24	0	349	0	44	279	20	0	343	0	6	2	19	0	27	0	38	22	3	0	63	782
Hourly Total	1	6	1228	68	0	1303	0	148	933	61	0	1142	0	34	10	58	0	102	0	147	65	7	0	219	2766
8:00 AM	0	8	281	22	0	311	0	30	205	11	0	246	0	12	4	12	0	28	0	27	16	4	0	47	632
8:15 AM	3	1	247	17	0	268	0	31	249	6	0	286	0	7	4	23	0	34	0	18	9	3	0	30	618
8:30 AM	0	2	213	12	0	227	0	26	232	6	0	264	0	7	4	12	0	23	0	24	6	0	0	30	544
8:45 AM	0	1	214	15	0	230	0	44	226	10	0	280	0	12	0	19	0	31	0	17	8	1	0	26	567
Hourly Total	3	12	955	66	0	1036	0	131	912	33	0	1076	0	38	12	66	0	116	0	86	39	8	0	133	2361
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	2	5	275	16	0	298	0	26	276	16	0	318	0	21	18	29	0	68	0	19	4	10	0	33	717
3:15 PM	2	6	316	11	0	335	0	18	273	28	0	319	0	21	9	47	0	77	0	11	4	2	0	17	748
3:30 PM	1	3	279	10	0	293	0	16	325	28	0	369	0	27	16	40	0	83	0	14	3	3	0	20	765
3:45 PM	0	1	272	11	0	284	0	16	335	27	0	378	0	16	6	28	0	50	0	16	10	1	0	27	739
Hourly Total	5	15	1142	48	0	1210	0	76	1209	99	0	1384	0	85	49	144	0	278	0	60	21	16	0	97	2969
4:00 PM	2	0	235	10	0	247	1	29	319	22	0	371	0	25	15	39	0	79	0	20	11	4	0	35	732
4:15 PM	1	3	259	10	0	273	0	18	338	12	0	368	0	21	24	34	0	79	0	14	5	2	0	21	741
4:30 PM	0	0	300	9	0	309	0	17	320	32	0	369	0	31	29	42	0	102	0	15	5	3	0	23	803
4:45 PM	2	1	303	5	0	311	0	19	354	23	0	396	0	13	16	36	0	65	0	11	2	2	0	15	787
Hourly Total	5	4	1097	34	0	1140	1	83	1331	89	0	1504	0	90	84	151	0	325	0	60	23	11	0	94	3063
5:00 PM	3	0	312	8	0	323	0	19	325	23	0	367	0	40	21	53	0	114	0	8	1	4	0	13	817
5:15 PM	0	0	358	7	0	365	0	17	361	41	0	419	0	16	16	49	0	81	0	19	6	3	0	28	893
5:30 PM	2	1	316	5	0	324	0	17	323	28	0	368	0	17	12	28	0	57	0	5	8	0	0	13	762
5:45 PM	1	1	265	11	0	278	0	14	288	20	0	322	0	14	10	21	0	45	0	15	2	1	0	18	663
Hourly Total	6	2	1251	31	0	1290	0	67	1297	112	0	1476	0	87	59	151	0	297	0	47	17	8	0	72	3135
Grand Total	20	45	6517	309	0	6891	1	653	6367	422	0	7443	0	372	224	629	0	1225	1	495	223	59	0	778	16337
Approach %	0.3	0.7	94.6	4.5	-	-	0.0	8.8	85.5	5.7	-	-	0.0	30.4	18.3	51.3	-	-	0.1	63.6	28.7	7.6	-	-	-
Total %	0.1	0.3	39.9	1.9	-	42.2	0.0	4.0	39.0	2.6	-	45.6	0.0	2.3	1.4	3.9	-	7.5	0.0	3.0	1.4	0.4	-	4.8	-
Lights	19	42	6195	244	-	6500	1	462	6072	411	-	6946	0	309	218	454	-	981	1	482	215	49	-	747	15174

% Lights	95.0	93.3	95.1	79.0	-	94.3	100.0	70.8	95.4	97.4	-	93.3	-	83.1	97.3	72.2	-	80.1	100.0	97.4	96.4	83.1	-	96.0	92.9
Buses	0	0	23	1	-	24	0	3	20	0	-	23	0	2	0	3	-	5	0	0	0	5	-	5	57
% Buses	0.0	0.0	0.4	0.3	-	0.3	0.0	0.5	0.3	0.0	-	0.3	-	0.5	0.0	0.5	-	0.4	0.0	0.0	0.0	8.5	-	0.6	0.3
Single-Unit Trucks	1	2	151	31	-	185	0	97	117	10	-	224	0	26	6	75	-	107	0	12	7	4	-	23	539
% Single-Unit Trucks	5.0	4.4	2.3	10.0	-	2.7	0.0	14.9	1.8	2.4	-	3.0	-	7.0	2.7	11.9	-	8.7	0.0	2.4	3.1	6.8	-	3.0	3.3
Articulated Trucks	0	1	148	33	-	182	0	91	158	1	-	250	0	35	0	97	-	132	0	1	1	1	-	3	567
% Articulated Trucks	0.0	2.2	2.3	10.7	-	2.6	0.0	13.9	2.5	0.2	-	3.4	-	9.4	0.0	15.4	-	10.8	0.0	0.2	0.4	1.7	-	0.4	3.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: North Avenue with Powis Road
Site Code:
Start Date: 02/10/2022

Turning Movement Peak Hour Data (7:15 AM)

Start Time	North Avenue Eastbound						North Avenue Westbound						Powis Road Northbound						Powis Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:15 AM	1	1	284	12	0	298	0	36	212	17	0	265	0	5	1	7	0	13	0	42	17	1	0	60	636
7:30 AM	0	4	342	18	0	364	0	47	258	14	0	319	0	16	4	10	0	30	0	34	11	1	0	46	759
7:45 AM	0	1	324	24	0	349	0	44	279	20	0	343	0	6	2	19	0	27	0	38	22	3	0	63	782
8:00 AM	0	8	281	22	0	311	0	30	205	11	0	246	0	12	4	12	0	28	0	27	16	4	0	47	632
Total	1	14	1231	76	0	1322	0	157	954	62	0	1173	0	39	11	48	0	98	0	141	66	9	0	216	2809
Approach %	0.1	1.1	93.1	5.7	-	-	0.0	13.4	81.3	5.3	-	-	0.0	39.8	11.2	49.0	-	-	0.0	65.3	30.6	4.2	-	-	-
Total %	0.0	0.5	43.8	2.7	-	47.1	0.0	5.6	34.0	2.2	-	41.8	0.0	1.4	0.4	1.7	-	3.5	0.0	5.0	2.3	0.3	-	7.7	-
PHF	0.250	0.438	0.900	0.792	-	0.908	0.000	0.835	0.855	0.775	-	0.855	0.000	0.609	0.688	0.632	-	0.817	0.000	0.839	0.750	0.563	-	0.857	0.898
Lights	1	13	1165	56	-	1235	0	123	904	57	-	1084	0	22	11	18	-	51	0	139	63	7	-	209	2579
% Lights	100.0	92.9	94.6	73.7	-	93.4	-	78.3	94.8	91.9	-	92.4	-	56.4	100.0	37.5	-	52.0	-	98.6	95.5	77.8	-	96.8	91.8
Buses	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	2	-	2	5
% Buses	0.0	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	22.2	-	0.9	0.2
Single-Unit Trucks	0	1	35	10	-	46	0	20	23	4	-	47	0	9	0	15	-	24	0	1	3	0	-	4	121
% Single-Unit Trucks	0.0	7.1	2.8	13.2	-	3.5	-	12.7	2.4	6.5	-	4.0	-	23.1	0.0	31.3	-	24.5	-	0.7	4.5	0.0	-	1.9	4.3
Articulated Trucks	0	0	28	10	-	38	0	14	27	1	-	42	0	8	0	15	-	23	0	1	0	0	-	1	104
% Articulated Trucks	0.0	0.0	2.3	13.2	-	2.9	-	8.9	2.8	1.6	-	3.6	-	20.5	0.0	31.3	-	23.5	-	0.7	0.0	0.0	-	0.5	3.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
(847)518-9990

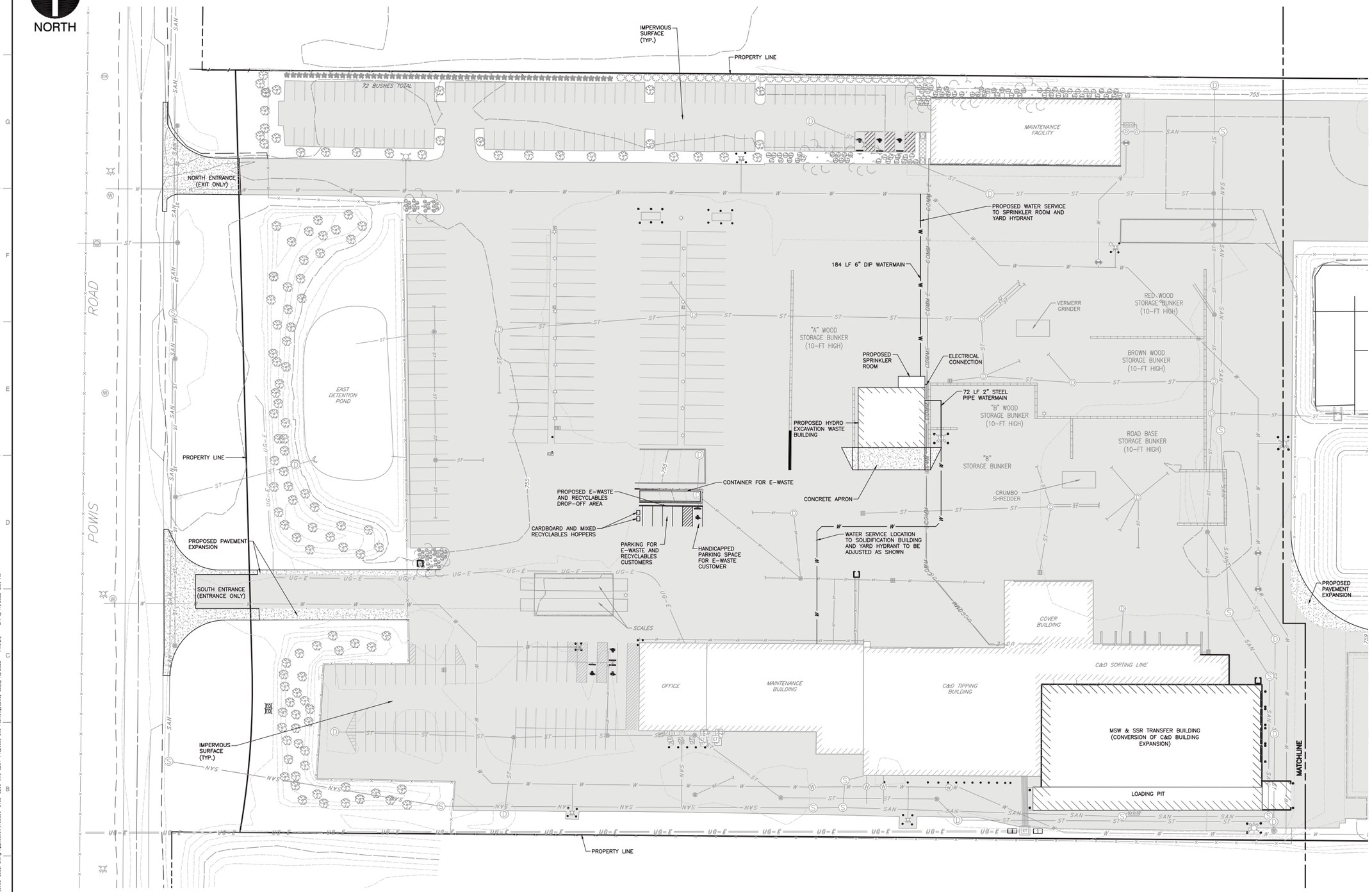
Count Name: North Avenue with Powis Road
Site Code:
Start Date: 02/10/2022

Turning Movement Peak Hour Data (4:30 PM)

Start Time	North Avenue Eastbound						North Avenue Westbound						Powis Road Northbound						Powis Road Southbound						
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
4:30 PM	0	0	300	9	0	309	0	17	320	32	0	369	0	31	29	42	0	102	0	15	5	3	0	23	803
4:45 PM	2	1	303	5	0	311	0	19	354	23	0	396	0	13	16	36	0	65	0	11	2	2	0	15	787
5:00 PM	3	0	312	8	0	323	0	19	325	23	0	367	0	40	21	53	0	114	0	8	1	4	0	13	817
5:15 PM	0	0	358	7	0	365	0	17	361	41	0	419	0	16	16	49	0	81	0	19	6	3	0	28	893
Total	5	1	1273	29	0	1308	0	72	1360	119	0	1551	0	100	82	180	0	362	0	53	14	12	0	79	3300
Approach %	0.4	0.1	97.3	2.2	-	-	0.0	4.6	87.7	7.7	-	-	0.0	27.6	22.7	49.7	-	-	0.0	67.1	17.7	15.2	-	-	-
Total %	0.2	0.0	38.6	0.9	-	39.6	0.0	2.2	41.2	3.6	-	47.0	0.0	3.0	2.5	5.5	-	11.0	0.0	1.6	0.4	0.4	-	2.4	-
PHF	0.417	0.250	0.889	0.806	-	0.896	0.000	0.947	0.942	0.726	-	0.925	0.000	0.625	0.707	0.849	-	0.794	0.000	0.697	0.583	0.750	-	0.705	0.924
Lights	4	1	1230	24	-	1259	0	34	1329	119	-	1482	0	91	81	157	-	329	0	52	14	11	-	77	3147
% Lights	80.0	100.0	96.6	82.8	-	96.3	-	47.2	97.7	100.0	-	95.6	-	91.0	98.8	87.2	-	90.9	-	98.1	100.0	91.7	-	97.5	95.4
Buses	0	0	0	1	-	1	0	1	2	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	4
% Buses	0.0	0.0	0.0	3.4	-	0.1	-	1.4	0.1	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks	1	0	19	2	-	22	0	18	7	0	-	25	0	5	1	5	-	11	0	1	0	1	-	2	60
% Single-Unit Trucks	20.0	0.0	1.5	6.9	-	1.7	-	25.0	0.5	0.0	-	1.6	-	5.0	1.2	2.8	-	3.0	-	1.9	0.0	8.3	-	2.5	1.8
Articulated Trucks	0	0	24	2	-	26	0	19	22	0	-	41	0	4	0	18	-	22	0	0	0	0	-	0	89
% Articulated Trucks	0.0	0.0	1.9	6.9	-	2.0	-	26.4	1.6	0.0	-	2.6	-	4.0	0.0	10.0	-	6.1	-	0.0	0.0	0.0	-	0.0	2.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LRS Site Modified Site Plan

NORTH



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3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

LEGEND

- EXISTING PAVEMENT/PAVEMENT APPROVED IN AMENDED P.U.D.
- PROPOSED CONCRETE PAVEMENT

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

PROPOSED SITE PLAN WEST

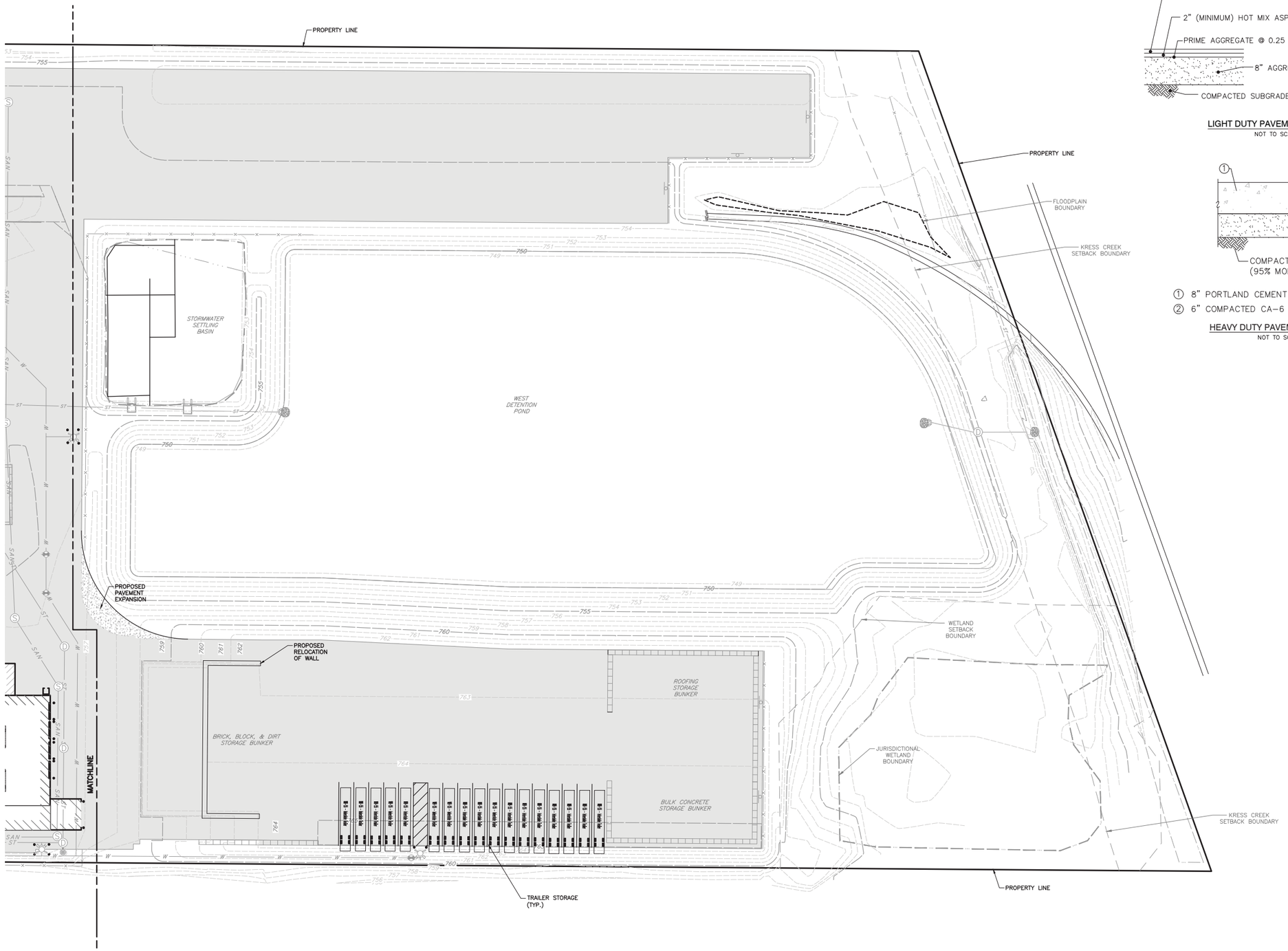
DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1" = 40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

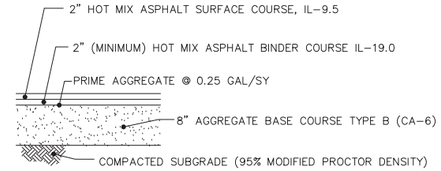
DRAWING NO.: C200

SHEET 14 OF 26

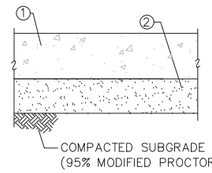
P:\2016\163-899 - CADD\Dwg\LDSI-Local Siting Application\163899-DWG-C200.dwg, C201-Proposed Site Plan.dwg[C200] LDSI, 8/15/2022 - 10:44am, Jeff, 8/17/2023 8:09 AM

NORTH





LIGHT DUTY PAVEMENT SECTION
NOT TO SCALE



① 8" PORTLAND CEMENT CONCRETE, CLASS PV
② 6" COMPACTED CA-6 AGGREGATE BASE COURSE

HEAVY DUTY PAVEMENT SECTION
NOT TO SCALE

REFERENCE:

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3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

LEGEND

- EXISTING PAVEMENT/PAVEMENT APPROVED IN AMENDED P.U.D.
- PROPOSED CONCRETE PAVEMENT

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

PROPOSED SITE PLAN EAST

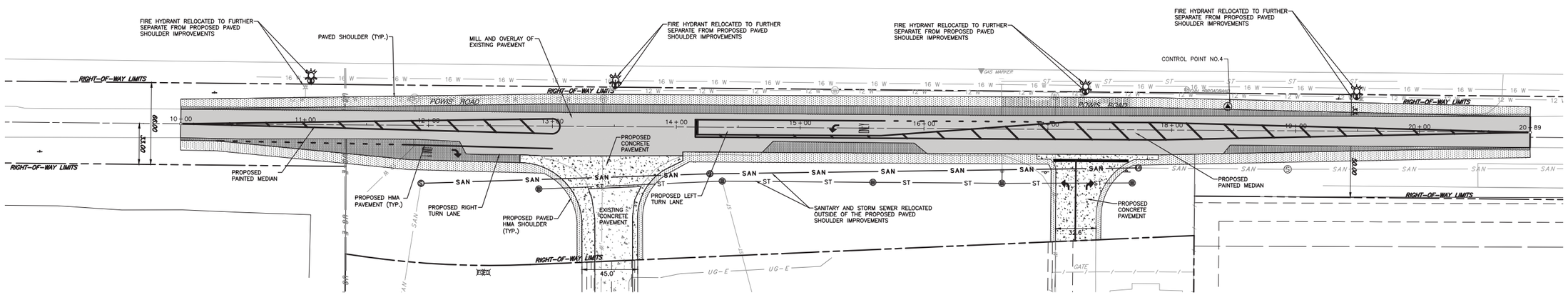
DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1" = 40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.:
C201
SHEET 15 OF 26

P:\2016\163-899\~CAD\Dwg\CIVIL\Local Siting Application\163899-CIVIL-C200 thru C201-Proposed Site Plan.dwg[C201] | 8/15/2022 - mkemp | LP: 8/17/2022 8:10 AM

Powis Road Engineering Plans

NORTH



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2. THE BEARINGS SHOWN HEREON ARE BASED UPON ILLINOIS STATE PLANE EAST ZONE. VERTICAL DATUM OF SITE BASED UPON OBSERVATION OF DUPAGE COUNTY BENCHMARK DK3273 AND DK 3275 (NAVD 88 DATUM).
3. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.

SITE PLAN NOTES:

1. REFER TO SHEETS C201 AND C202 FOR DETAILED PAVING AND GEOMETRIC INFORMATION.
2. REFER TO SHEET C500 FOR DETAILED PROPOSED UTILITY INFORMATION.

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION
1	00.00.0000	COUNTY COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, LLC
POWIS ROAD IMPROVEMENTS PLANS
1655 POWIS ROAD
WEST CHICAGO, IL

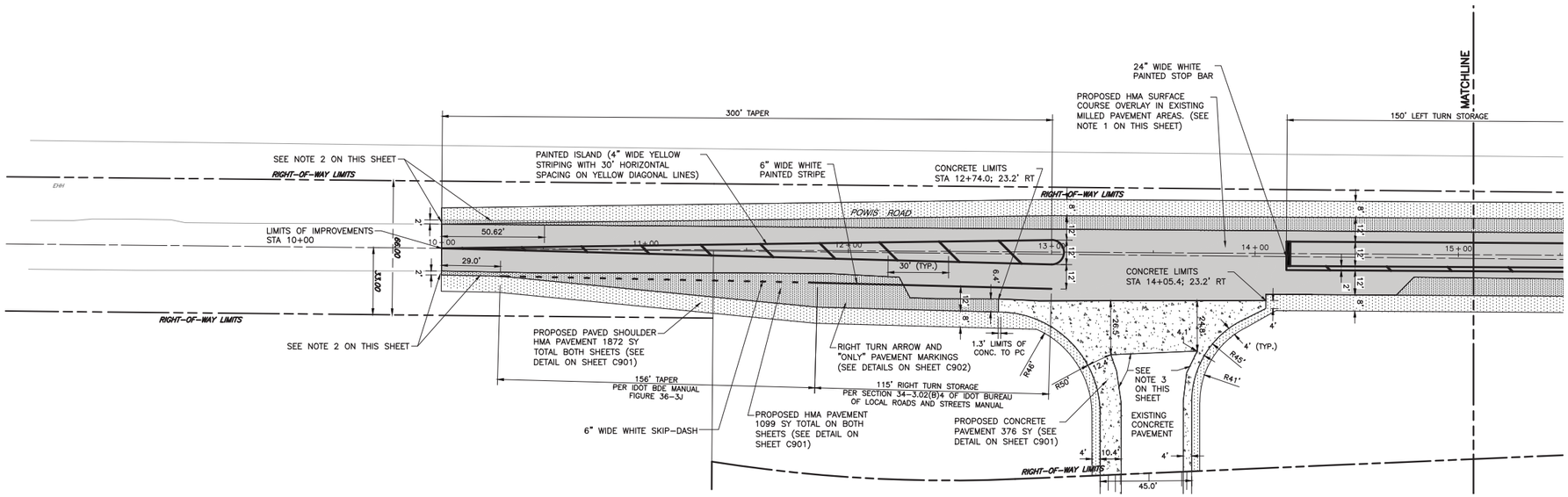
OVERALL SITE PLAN

DATE: 04/29/2020 | DRAWN BY: TJG
DWG SCALE: 1"=40' | CHECKED BY: DAK
PROJECT NO: 163-899.0005 | APPROVED BY: JEH

DRAWING NO.: C200
SHEET 6 OF 19

P:\2016\163-899\~CAD\Dwg\C00-Cover Ref Turn Lane\163899-0000-C200-Site Plan.dwg[C200 OVERALL SITE PLAN] LS 6/25/2020 - lgreen 6/25/2020 12:57 PM

NORTH



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PAVING AND GEOMETRIC PLAN NOTES:

1. PROPOSED HMA SURFACE COURSE OVERLAID IN THE AREAS WHERE THE EXISTING ASPHALT PAVEMENT WAS MILLED SHOULD BE 2-INCHES THICKNESS. CONTRACTORS' RESPONSIBILITY TO MILL ACCORDINGLY TO MAINTAIN THE UNIFORM PROPOSED THICKNESS.
2. PROVIDE 2' WIDE PORTION OF THE HMA PAVEMENT AT THE LIMITS OF THE TAPER TO ALLOW THE PROPER PLACEMENT/COMPACTION OF AGGREGATE BASE COURSE AND HMA PAVEMENT LIFTS.
3. TIE PROPOSED CONCRETE PAVEMENT INTO THE EXISTING CONCRETE PAVEMENT. DRILL AND EPOXY 18-INCH LONG #6 DOWEL BARS @ 12-INCHES ON CENTER. DOWELS SHALL BE EMBEDDED INTO EXISTING AND PROPOSED PAVEMENT 9-INCHES.

SCALE IN FEET
0 30 60

REVISION RECORD

NO	DATE	DESCRIPTION
1	06/30/2020	COUNTY COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, LLC
POWIS ROAD IMPROVEMENTS PLANS
1655 POWIS ROAD
WEST CHICAGO, IL

PAVING AND GEOMETRIC PLAN - SOUTH

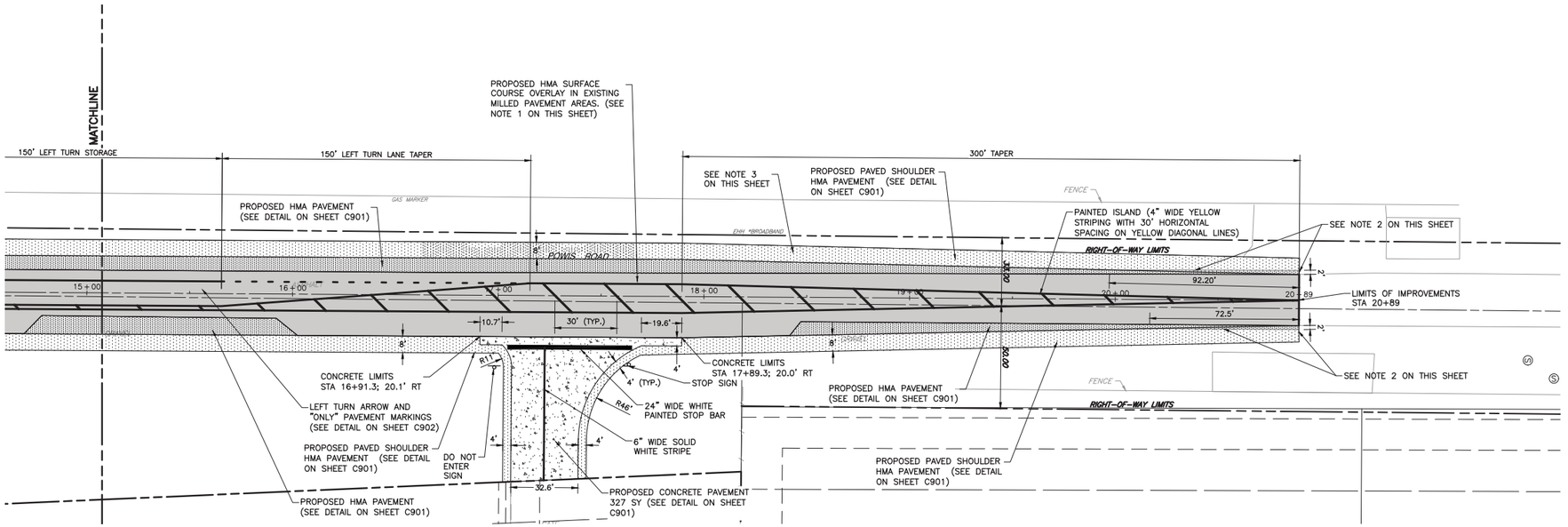
DATE:	04/29/2020
DRAWN BY:	TJG
DWG SCALE:	1" = 30'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH

DRAWING NO.: C201

SHEET 7 OF 19

P:\2016\163-899\~CAD\Dwg\C02-Plans\Rt Turn Lane\163899-C02R-C201-Paving and Geometric Plan-Dwg[C201-GEOMETRIC PLAN - SOUTH] LS(6/25/2020 - tgreen) - LP: 6/25/2020 12:57 PM

NORTH



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PAVING AND GEOMETRIC PLAN NOTES:

1. PROPOSED HMA SURFACE COURSE OVERLAID IN THE AREAS WHERE THE EXISTING ASPHALT PAVEMENT WAS MILLED SHOULD BE 2-INCHES THICKNESS. CONTRACTORS' RESPONSIBILITY TO MILL ACCORDINGLY TO MAINTAIN THE UNIFORM PROPOSED THICKNESS.
2. PROVIDE 2' WIDE PORTION OF THE HMA PAVEMENT AT THE LIMITS OF THE TAPER SO TO ALLOW THE PROPER PLACEMENT/COMPACTION OF AGGREGATE BASE COURSE AND HMA PAVEMENT LIFTS.
3. CONTRACTOR TO HAVE CONTROL POINT 4 RE-SET BY A LICENSED SURVEYOR WHEN IT IS REMOVED DURING THE CONSTRUCTION OF THE PAVED SHOULDER. PROVIDE THE SURVEYING FIELD NOTES TO THE DESIGN ENGINEER IN ORDER TO NOTATE RECORD DRAWINGS.

SCALE IN FEET
0 30 60

REVISION RECORD

NO	DATE	DESCRIPTION
1	06/30/2020	COUNTY COMMENTS

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 - 877-963-6026
www.cecinc.com

LAKESHORE RECYCLING SYSTEMS, LLC
POWIS ROAD IMPROVEMENTS PLANS
1655 POWIS ROAD
WEST CHICAGO, IL

PAVING AND GEOMETRIC PLAN - NORTH

DATE:	04/29/2020
DRAWN BY:	TJG
DWG SCALE:	1" = 30'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH

DRAWING NO.: C202

SHEET 8 OF 19

P:\2016\163-899\~CAD\Dwg\C202-Powis Rd Turn Lane\163899-C202-Paving and Geometric Plan-Dwg(C202-GEOMETRIC PLAN -NORTH) LS(6/25/2020 - tjmac) - LS, 6/25/2020 12:57 PM

Year 2050 Projections Letter

Chicago Metropolitan Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, Illinois 60606

312 454 0400
www.cmap.illinois.gov

April 25, 2019

Andrew Bowen
Consultant
Kenig, Lindgren, O'Hara and Aboona, Inc.
9575 West Higgins Road
Suite 400
Rosemont, IL 60018

Subject: ***Powis Road @ North Avenue***
IDOT

Dear Mr. Bowen:

In response to a request made on your behalf and dated April 23, 2019, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

ROAD SEGMENT	Current Volumes	Year 2050 ADT
North Ave (IL 64) west of Powis Rd	32,900	45,000
North Ave (IL 64) east of Powis Rd	37,300	47,700
Powis Rd south of North Ave	5, 800	9,800
Hawthorn Ln east of Powis Rd	4,450	8,100
Kress Rd south of Hawthorn Ln	7,050	7,400

Traffic projections are developed using existing ADT data provided in the request letter and the results from the March 2019 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806.

Sincerely,

Jose Rodriguez, PTP, AICP
Senior Planner, Research & Analysis

cc: Quigley (IDOT)
S:\AdminGroups\ResearchAnalysis\2019_ForecastsTraffic\WestChicago\du-13-19\du-13-19.docx

Level of Service Criteria

LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤10
B	Good progression, with more vehicles stopping than for Level of Service A.	>10 - 20
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	>20 - 35
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	>35 - 55
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	>55 - 80
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	>80.0

Unsignalized Intersections	
Level of Service	Average Total Delay (SEC/VEH)
A	0 - 10
B	> 10 - 15
C	> 15 - 25
D	> 25 - 35
E	> 35 - 50
F	> 50

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – Existing Conditions

Lanes, Volumes, Timings
1: Powis Road & North Avenue

09/02/2022

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	4	14	1762	104	186	1055	63	62	18	102	230	100
Future Volume (vph)	4	14	1762	104	186	1055	63	62	18	102	230	100
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900
Storage Length (ft)		200		300	275		200	250		0	190	
Storage Lanes		1		1	2		1	2		1	2	
Taper Length (ft)		200			300			300			300	
Lane Util. Factor	0.91	1.00	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	0.97	0.95
Ped Bike Factor		1.00					0.98	0.99		0.99	1.00	1.00
Frt				0.850			0.850			0.850		0.974
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1481	5200	1482	2894	5103	1538	2847	1562	1084	3303	3262
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1478	5200	1482	2894	5103	1506	2822	1562	1069	3297	3262
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			50			50			45			40
Link Distance (ft)			2692			3293			449			1311
Travel Time (s)			36.7			44.9			6.8			22.3
Confl. Peds. (#/hr)	1	1					1	3		1	1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	25%	21%	5%	9%	21%	7%	5%	23%	28%	49%	6%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	1895	112	200	1134	68	67	19	110	247	131
Turn Type	Prot	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	5	2	3	1	6	7	3	8	1	7	4
Permitted Phases				2			6			8		
Detector Phase	5	5	2	3	1	6	7	3	8	1	7	4
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0	3.0	3.0	8.0
Minimum Split (s)	7.5	7.5	21.0	7.5	7.5	21.0	7.5	7.5	14.0	7.5	7.5	14.0
Total Split (s)	15.0	15.0	69.0	15.0	18.0	72.0	23.0	15.0	20.0	18.0	23.0	28.0
Total Split (%)	11.5%	11.5%	53.1%	11.5%	13.8%	55.4%	17.7%	11.5%	15.4%	13.8%	17.7%	21.5%
Yellow Time (s)	3.0	3.0	4.0	3.0	3.0	4.0	3.0	3.0	4.0	3.0	3.0	4.0
All-Red Time (s)	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0	6.0	4.0	4.0	6.0	4.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Min	None	None	C-Min	None	None	None	None	None	None
Act Effct Green (s)		7.3	73.1	87.5	15.5	87.5	110.6	8.4	8.7	20.2	21.1	13.0
Actuated g/C Ratio		0.06	0.56	0.67	0.12	0.67	0.85	0.06	0.07	0.16	0.16	0.10
v/c Ratio		0.23	0.65	0.11	0.58	0.33	0.05	0.36	0.18	0.66	0.46	0.40
Control Delay		64.6	22.1	9.0	60.8	10.8	3.0	63.2	61.1	66.9	52.9	57.6
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		64.6	22.1	9.0	60.8	10.8	3.0	63.2	61.1	66.9	52.9	57.6
LOS		E	C	A	E	B	A	E	E	E	D	E
Approach Delay			21.8			17.5			65.1			54.5
Approach LOS			C			B			E			D

Lanes, Volumes, Timings
1: Powis Road & North Avenue 09/02/2022

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	21
Future Volume (vph)	21
Ideal Flow (vphpl)	1900
Storage Length (ft)	375
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	0.95
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	3
Peak Hour Factor	0.93
Heavy Vehicles (%)	19%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Lanes, Volumes, Timings
1: Powis Road & North Avenue 09/02/2022

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Queue Length 50th (ft)		16	400	32	80	110	0	28	16	89	93	56
Queue Length 95th (ft)		42	523	64	122	230	26	52	42	136	144	85
Internal Link Dist (ft)			2612			3213			369			1231
Turn Bay Length (ft)		200		300	275		200	250			190	
Base Capacity (vph)		125	2923	1026	362	3433	1292	240	168	174	549	552
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.15	0.65	0.11	0.55	0.33	0.05	0.28	0.11	0.63	0.45	0.24

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 117 (90%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 25.5		Intersection LOS: C	
Intersection Capacity Utilization 67.5%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Powis Road & North Avenue

Lane Group	SBR
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

HCM 6th TWSC

2: Powis Road & North Groot Access 09/02/2022

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	16	164	9	15	375
Future Vol, veh/h	9	16	164	9	15	375
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	100	100	22	100	100	33
Mvmt Flow	10	18	186	10	17	426

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	651	191	0	0	196	0
Stage 1	191	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	311	653	-	-	956	-
Stage 1	653	-	-	-	-	-
Stage 2	472	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	304	653	-	-	956	-
Mov Cap-2 Maneuver	304	-	-	-	-	-
Stage 1	653	-	-	-	-	-
Stage 2	461	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	462	956	-
HCM Lane V/C Ratio	-	-	0.061	0.018	-
HCM Control Delay (s)	-	-	13.3	8.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	172	2	1	383
Future Vol, veh/h	2	1	172	2	1	383
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	100	100	22	100	100	33
Mvmt Flow	2	1	195	2	1	435

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	633	196	0	0	197	0
Stage 1	196	-	-	-	-	-
Stage 2	437	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	320	648	-	-	955	-
Stage 1	649	-	-	-	-	-
Stage 2	486	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	320	648	-	-	955	-
Mov Cap-2 Maneuver	320	-	-	-	-	-
Stage 1	649	-	-	-	-	-
Stage 2	486	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	385	955	-
HCM Lane V/C Ratio	-	-	0.009	0.001	-
HCM Control Delay (s)	-	-	14.4	8.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	10	184	14	10	349
Future Vol, veh/h	8	10	184	14	10	349
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	38	80	28	40	40	14
Mvmt Flow	10	12	219	17	12	415

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	667	228	0	0	236	0
Stage 1	228	-	-	-	-	-
Stage 2	439	-	-	-	-	-
Critical Hdwy	6.78	7	-	-	4.5	-
Critical Hdwy Stg 1	5.78	-	-	-	-	-
Critical Hdwy Stg 2	5.78	-	-	-	-	-
Follow-up Hdwy	3.842	4.02	-	-	2.56	-
Pot Cap-1 Maneuver	373	651	-	-	1137	-
Stage 1	732	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	368	651	-	-	1137	-
Mov Cap-2 Maneuver	368	-	-	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	572	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	485	1137	-
HCM Lane V/C Ratio	-	-	0.044	0.01	-
HCM Control Delay (s)	-	-	12.8	8.2	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

HCM 2010 AWSC

5: Hawthorn Lane & Powis Road 09/02/2022

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	191	141	96	68	95	183
Future Vol, veh/h	191	141	96	68	95	183
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	20	6	9	19	10	24
Mvmt Flow	210	155	105	75	104	201
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	12	10.8	11.1
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	59%	0%	0%
Vol Right, %	0%	0%	41%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	141	164	95	183
LT Vol	191	0	0	95	0
Through Vol	0	141	96	0	0
RT Vol	0	0	68	0	183
Lane Flow Rate	210	155	180	104	201
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.379	0.248	0.281	0.194	0.32
Departure Headway (Hd)	6.498	5.753	5.62	6.694	5.722
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	556	626	640	538	629
Service Time	4.219	3.473	3.643	4.417	3.445
HCM Lane V/C Ratio	0.378	0.248	0.281	0.193	0.32
HCM Control Delay	13.1	10.4	10.8	11	11.1
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	1.8	1	1.1	0.7	1.4

Capacity Analysis Summary Sheets

Weekday Evening Peak Hour – Existing Conditions

Lanes, Volumes, Timings
1: Powis Road & North Avenue

09/02/2022

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	4	16	1421	60	91	1615	190	128	131	182	60	37
Future Volume (vph)	4	16	1421	60	91	1615	190	128	131	182	60	37
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900
Storage Length (ft)		200		300	275		200	250		0	190	
Storage Lanes		1		1	2		1	2		1	2	
Taper Length (ft)		200			300			300			300	
Lane Util. Factor	0.91	1.00	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	0.97	0.95
Frt				0.850			0.850			0.850		0.959
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1721	5250	1380	2714	5353	1553	3433	1961	1404	3433	3341
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1721	5250	1380	2714	5353	1553	3433	1961	1404	3433	3341
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			50			50			45			40
Link Distance (ft)			2692			3293			449			1311
Travel Time (s)			36.7			44.9			6.8			22.3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	6%	4%	17%	29%	2%	4%	2%	2%	15%	2%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	1528	65	98	1737	204	138	141	196	65	55
Turn Type	Prot	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	5	2	3	1	6	7	3	8	1	7	4
Permitted Phases				2			6			8		
Detector Phase	5	5	2	3	1	6	7	3	8	1	7	4
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0	3.0	3.0	8.0
Minimum Split (s)	7.5	7.5	21.0	7.5	7.5	21.0	7.5	7.5	14.0	7.5	7.5	14.0
Total Split (s)	15.0	15.0	82.0	21.0	21.0	88.0	21.0	21.0	26.0	21.0	21.0	26.0
Total Split (%)	10.0%	10.0%	54.7%	14.0%	14.0%	58.7%	14.0%	14.0%	17.3%	14.0%	14.0%	17.3%
Yellow Time (s)	3.0	3.0	4.0	3.0	3.0	4.0	3.0	3.0	4.0	3.0	3.0	4.0
All-Red Time (s)	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0	6.0	4.0	4.0	6.0	4.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Min	None	None	C-Min	None	None	None	None	None	None
Act Effct Green (s)		7.4	94.1	114.5	10.7	101.4	115.6	14.4	17.0	33.7	8.2	13.6
Actuated g/C Ratio		0.05	0.63	0.76	0.07	0.68	0.77	0.10	0.11	0.22	0.05	0.09
v/c Ratio		0.25	0.46	0.06	0.51	0.48	0.17	0.42	0.64	0.62	0.35	0.18
Control Delay		75.0	16.2	6.2	75.7	13.6	6.1	68.9	76.0	60.4	72.9	62.9
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		75.0	16.2	6.2	75.7	13.6	6.1	68.9	76.0	60.4	72.9	62.9
LOS		E	B	A	E	B	A	E	E	E	E	E
Approach Delay			16.5			15.8			67.5			68.3
Approach LOS			B			B			E			E
Queue Length 50th (ft)		20	273	15	48	303	53	68	134	174	32	26
Queue Length 95th (ft)		50	376	36	78	412	98	103	202	244	57	49

Lanes, Volumes, Timings
1: Powis Road & North Avenue 09/02/2022

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	14
Future Volume (vph)	14
Ideal Flow (vphpl)	1900
Storage Length (ft)	375
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.93
Heavy Vehicles (%)	0%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

1: Powis Road & North Avenue 09/02/2022

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Internal Link Dist (ft)			2612			3213			369			1231
Turn Bay Length (ft)		200		300	275		200	250			190	
Base Capacity (vph)		126	3293	1089	307	3618	1287	418	268	373	389	445
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.17	0.46	0.06	0.32	0.48	0.16	0.33	0.53	0.53	0.17	0.12

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 143 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 23.4		Intersection LOS: C	
Intersection Capacity Utilization 60.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Powis Road & North Avenue

Lanes, Volumes, Timings
1: Powis Road & North Avenue 09/02/2022

Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

HCM 6th TWSC

2: Powis Road & North Groot Access 09/02/2022

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	3	437	0	8	180
Future Vol, veh/h	3	3	437	0	8	180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	100	100	7	100	100	20
Mvmt Flow	4	4	568	0	10	234

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	822	568	0	0	568	0
Stage 1	568	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	239	376	-	-	657	-
Stage 1	413	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	235	376	-	-	657	-
Mov Cap-2 Maneuver	235	-	-	-	-	-
Stage 1	413	-	-	-	-	-
Stage 2	596	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.8	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	289	657	-
HCM Lane V/C Ratio	-	-	0.027	0.016	-
HCM Control Delay (s)	-	-	17.8	10.6	0
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	3	434	3	0	183
Future Vol, veh/h	4	3	434	3	0	183
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	100	100	7	100	100	20
Mvmt Flow	5	4	564	4	0	238

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	804	566	0	0	568	0
Stage 1	566	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	246	378	-	-	657	-
Stage 1	414	-	-	-	-	-
Stage 2	618	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	246	378	-	-	657	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	414	-	-	-	-	-
Stage 2	618	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	289	657	-
HCM Lane V/C Ratio	-	-	0.031	-	-
HCM Control Delay (s)	-	-	17.9	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	29	349	20	16	188
Future Vol, veh/h	25	29	349	20	16	188
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	0	0	8	63	63	14
Mvmt Flow	32	37	447	26	21	241

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	743	460	0	0	473	0
Stage 1	460	-	-	-	-	-
Stage 2	283	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.73	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.767	-
Pot Cap-1 Maneuver	386	605	-	-	834	-
Stage 1	640	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	375	605	-	-	834	-
Mov Cap-2 Maneuver	375	-	-	-	-	-
Stage 1	640	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	471	834	-
HCM Lane V/C Ratio	-	-	0.147	0.025	-
HCM Control Delay (s)	-	-	14	9.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

HCM 6th AWSC

5: Hawthorn Lane & Powis Road 09/02/2022

Intersection	
Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	219	109	170	92	63	193
Future Vol, veh/h	219	109	170	92	63	193
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	17	2	7	4	11	8
Mvmt Flow	252	125	195	106	72	222
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	13.2	13.6	11.5
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	65%	0%	0%
Vol Right, %	0%	0%	35%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	219	109	262	63	193
LT Vol	219	0	0	63	0
Through Vol	0	109	170	0	0
RT Vol	0	0	92	0	193
Lane Flow Rate	252	125	301	72	222
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.46	0.203	0.472	0.142	0.357
Departure Headway (Hd)	6.584	5.819	5.645	7.056	5.788
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	549	618	638	508	621
Service Time	4.317	3.552	3.677	4.792	3.523
HCM Lane V/C Ratio	0.459	0.202	0.472	0.142	0.357
HCM Control Delay	14.8	10	13.6	11	11.7
HCM Lane LOS	B	A	B	B	B
HCM 95th-tile Q	2.4	0.8	2.5	0.5	1.6

Capacity Analysis Summary Sheets

Weekday Morning Peak Hour – Projected Conditions

Lanes, Volumes, Timings
1: Powis Road & North Avenue

09/02/2022

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	4	15	1938	120	209	1161	69	71	20	113	253	111
Future Volume (vph)	4	15	1938	120	209	1161	69	71	20	113	253	111
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900
Storage Length (ft)		200		300	275		200	250		0	190	
Storage Lanes		1		1	2		1	2		1	2	
Taper Length (ft)		200			300			300			300	
Lane Util. Factor	0.91	1.00	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	0.97	0.95
Ped Bike Factor		1.00					0.98	0.99		0.99	1.00	1.00
Frt				0.850			0.850			0.850		0.974
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1482	5200	1380	2824	5103	1538	2673	1493	1062	3303	3238
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1479	5200	1380	2824	5103	1506	2650	1493	1048	3297	3238
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			50			50			45			40
Link Distance (ft)			2692			3293			449			1311
Travel Time (s)			36.7			44.9			6.8			22.3
Confl. Peds. (#/hr)	1	1					1	3		1	1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	25%	21%	5%	17%	24%	7%	5%	31%	34%	52%	6%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	2084	129	225	1248	74	76	22	122	272	144
Turn Type	Prot	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	5	2	3	1	6	7	3	8	1	7	4
Permitted Phases				2			6			8		
Detector Phase	5	5	2	3	1	6	7	3	8	1	7	4
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0	3.0	3.0	8.0
Minimum Split (s)	7.5	7.5	21.0	7.5	7.5	21.0	7.5	7.5	14.0	7.5	7.5	14.0
Total Split (s)	15.0	15.0	69.0	15.0	18.0	72.0	23.0	15.0	20.0	18.0	23.0	28.0
Total Split (%)	11.5%	11.5%	53.1%	11.5%	13.8%	55.4%	17.7%	11.5%	15.4%	13.8%	17.7%	21.5%
Maximum Green (s)	11.0	11.0	63.0	11.0	14.0	66.0	19.0	11.0	14.0	14.0	19.0	22.0
Yellow Time (s)	3.0	3.0	4.0	3.0	3.0	4.0	3.0	3.0	4.0	3.0	3.0	4.0
All-Red Time (s)	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0	6.0	4.0	4.0	6.0	4.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	7.0	3.0	3.0	7.0	3.0	3.0	4.0	3.0	3.0	4.0
Recall Mode	None	None	C-Min	None	None	C-Min	None	None	None	None	None	None
Act Effct Green (s)		7.3	71.3	86.2	15.7	85.8	107.5	8.9	8.9	22.6	19.7	14.1
Actuated g/C Ratio		0.06	0.55	0.66	0.12	0.66	0.83	0.07	0.07	0.17	0.15	0.11
v/c Ratio		0.24	0.73	0.14	0.66	0.37	0.06	0.42	0.22	0.67	0.54	0.41
Control Delay		64.8	25.3	9.6	64.3	11.9	3.3	64.5	61.8	64.3	56.0	56.6
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		64.8	25.3	9.6	64.3	11.9	3.3	64.5	61.8	64.3	56.0	56.6
LOS		E	C	A	E	B	A	E	E	E	E	E

Lanes, Volumes, Timings
1: Powis Road & North Avenue 09/02/2022

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	23
Future Volume (vph)	23
Ideal Flow (vphpl)	1900
Storage Length (ft)	375
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	0.95
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	3
Peak Hour Factor	0.93
Heavy Vehicles (%)	19%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Maximum Green (s)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

Lanes, Volumes, Timings
1: Powis Road & North Avenue

09/02/2022

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Approach Delay			24.7			19.1			64.1			56.2
Approach LOS			C			B			E			E
Queue Length 50th (ft)		16	478	39	94	143	7	31	18	90	114	60
Queue Length 95th (ft)		44	606	73	138	263	29	57	47	150	158	92
Internal Link Dist (ft)			2612			3213			369			1231
Turn Bay Length (ft)		200		300	275		200	250			190	
Base Capacity (vph)		125	2852	937	352	3367	1260	226	160	188	522	547
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.16	0.73	0.14	0.64	0.37	0.06	0.34	0.14	0.65	0.52	0.26

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 130			
Offset: 117 (90%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 27.7		Intersection LOS: C	
Intersection Capacity Utilization 72.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 1: Powis Road & North Avenue

Lane Group	SBR
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

HCM 6th TWSC

2: Powis Road & North Groot Access 09/02/2022

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	16	188	9	15	425
Future Vol, veh/h	9	16	188	9	15	425
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	100	100	28	100	100	37
Mvmt Flow	10	18	214	10	17	483

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	736	219	0	0	224	0
Stage 1	219	-	-	-	-	-
Stage 2	517	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	273	627	-	-	930	-
Stage 1	632	-	-	-	-	-
Stage 2	440	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	266	627	-	-	930	-
Mov Cap-2 Maneuver	266	-	-	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	429	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	421	930	-
HCM Lane V/C Ratio	-	-	0.067	0.018	-
HCM Control Delay (s)	-	-	14.2	8.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	196	2	1	433
Future Vol, veh/h	2	1	196	2	1	433
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	100	100	28	100	100	37
Mvmt Flow	2	1	223	2	1	492

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	718	224	0	0	225	0
Stage 1	224	-	-	-	-	-
Stage 2	494	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	281	622	-	-	929	-
Stage 1	628	-	-	-	-	-
Stage 2	453	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	281	622	-	-	929	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	628	-	-	-	-	-
Stage 2	453	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	344	929	-
HCM Lane V/C Ratio	-	-	0.01	0.001	-
HCM Control Delay (s)	-	-	15.6	8.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	203	19	21	394
Future Vol, veh/h	0	0	203	19	21	394
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	115	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	28	100	100	18
Mvmt Flow	0	0	242	23	25	469

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	761	242	0	0	265	0
Stage 1	242	-	-	-	-	-
Stage 2	519	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	3.1	-
Pot Cap-1 Maneuver	376	802	-	-	892	-
Stage 1	803	-	-	-	-	-
Stage 2	601	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	365	802	-	-	892	-
Mov Cap-2 Maneuver	365	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	584	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	892	-
HCM Lane V/C Ratio	-	-	-	0.028	-
HCM Control Delay (s)	-	-	0	9.2	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	14	203	0	0	405
Future Vol, veh/h	10	14	203	0	0	405
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	100	100	28	0	0	18
Mvmt Flow	12	17	242	0	0	482

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	724	242	0	-	-	-
Stage 1	242	-	-	-	-	-
Stage 2	482	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	-	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	-	-
Pot Cap-1 Maneuver	278	606	-	0	0	-
Stage 1	615	-	-	0	0	-
Stage 2	460	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	278	606	-	-	-	-
Mov Cap-2 Maneuver	278	-	-	-	-	-
Stage 1	615	-	-	-	-	-
Stage 2	460	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	WBLn2	SBT
Capacity (veh/h)	-	278	606	-
HCM Lane V/C Ratio	-	0.043	0.028	-
HCM Control Delay (s)	-	18.5	11.1	-
HCM Lane LOS	-	C	B	-
HCM 95th %tile Q(veh)	-	0.1	0.1	-

HCM 6th AWSC

5: Hawthorn Lane & Powis Road 09/02/2022

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	214	155	106	76	106	202
Future Vol, veh/h	214	155	106	76	106	202
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	23	6	9	22	11	26
Mvmt Flow	235	170	116	84	116	222
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	13	11.6	11.9
HCM LOS	B	B	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	58%	0%	0%
Vol Right, %	0%	0%	42%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	214	155	182	106	202
LT Vol	214	0	0	106	0
Through Vol	0	155	106	0	0
RT Vol	0	0	76	0	202
Lane Flow Rate	235	170	200	116	222
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.439	0.28	0.322	0.223	0.366
Departure Headway (Hd)	6.713	5.915	5.801	6.895	5.938
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	539	608	620	522	606
Service Time	4.441	3.642	3.831	4.626	3.669
HCM Lane V/C Ratio	0.436	0.28	0.323	0.222	0.366
HCM Control Delay	14.6	10.9	11.6	11.6	12.1
HCM Lane LOS	B	B	B	B	B
HCM 95th-tile Q	2.2	1.1	1.4	0.8	1.7

Capacity Analysis Summary Sheets

Weekday Evening Peak Hour – Projected Conditions

Lanes, Volumes, Timings
1: Powis Road & North Avenue

09/02/2022

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	4	18	1563	80	108	1777	209	157	146	211	66	42
Future Volume (vph)	4	18	1563	80	108	1777	209	157	146	211	66	42
Ideal Flow (vphpl)	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	1900
Storage Length (ft)		200		300	275		200	250		0	190	
Storage Lanes		1		1	2		1	2		1	2	
Taper Length (ft)		200			300			300			300	
Lane Util. Factor	0.91	1.00	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	0.97	0.95
Frt				0.850			0.850			0.850		0.961
Flt Protected		0.950			0.950			0.950			0.950	
Satd. Flow (prot)	0	1720	5250	1114	2483	5353	1553	2993	1923	1324	3433	3231
Flt Permitted		0.950			0.950			0.950			0.950	
Satd. Flow (perm)	0	1720	5250	1114	2483	5353	1553	2993	1923	1324	3433	3231
Right Turn on Red				No			No			No		
Satd. Flow (RTOR)												
Link Speed (mph)			50			50			45			40
Link Distance (ft)			2692			3293			449			1311
Travel Time (s)			36.7			44.9			6.8			22.3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	6%	4%	45%	41%	2%	4%	17%	4%	22%	2%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	1681	86	116	1911	225	169	157	227	71	61
Turn Type	Prot	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	5	5	2	3	1	6	7	3	8	1	7	4
Permitted Phases				2			6			8		
Detector Phase	5	5	2	3	1	6	7	3	8	1	7	4
Switch Phase												
Minimum Initial (s)	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	8.0	3.0	3.0	8.0
Minimum Split (s)	7.5	7.5	21.0	7.5	7.5	21.0	7.5	7.5	14.0	7.5	7.5	14.0
Total Split (s)	15.0	15.0	82.0	21.0	21.0	88.0	21.0	21.0	26.0	21.0	21.0	26.0
Total Split (%)	10.0%	10.0%	54.7%	14.0%	14.0%	58.7%	14.0%	14.0%	17.3%	14.0%	14.0%	17.3%
Yellow Time (s)	3.0	3.0	4.0	3.0	3.0	4.0	3.0	3.0	4.0	3.0	3.0	4.0
All-Red Time (s)	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.0	6.0	4.0	4.0	6.0	4.0	4.0	6.0	4.0	4.0	6.0
Lead/Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Min	None	None	C-Min	None	None	None	None	None	None
Act Effct Green (s)		7.5	90.9	113.5	12.2	99.6	114.1	16.6	18.4	36.6	8.5	13.1
Actuated g/C Ratio		0.05	0.61	0.76	0.08	0.66	0.76	0.11	0.12	0.24	0.06	0.09
v/c Ratio		0.27	0.53	0.10	0.58	0.54	0.19	0.51	0.67	0.70	0.37	0.22
Control Delay		75.5	19.0	6.8	77.3	15.5	6.8	69.5	76.3	63.0	73.0	64.1
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		75.5	19.0	6.8	77.3	15.5	6.8	69.5	76.3	63.0	73.0	64.1
LOS		E	B	A	E	B	A	E	E	E	E	E
Approach Delay			19.1			17.8			68.8			68.9
Approach LOS			B			B			E			E
Queue Length 50th (ft)		22	334	22	57	365	62	83	149	204	35	30
Queue Length 95th (ft)		54	459	49	90	494	114	122	219	278	61	53

Lanes, Volumes, Timings
1: Powis Road & North Avenue 09/02/2022

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	15
Future Volume (vph)	15
Ideal Flow (vphpl)	1900
Storage Length (ft)	375
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	0.95
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.93
Heavy Vehicles (%)	0%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Turn Type	
Protected Phases	
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	

Lanes, Volumes, Timings

1: Powis Road & North Avenue 09/02/2022

Lane Group	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Internal Link Dist (ft)			2612			3213			369			1231
Turn Bay Length (ft)		200		300	275		200	250			190	
Base Capacity (vph)		126	3182	857	281	3552	1268	369	269	365	389	430
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.18	0.53	0.10	0.41	0.54	0.18	0.46	0.58	0.62	0.18	0.14

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 150			
Offset: 143 (95%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 25.7		Intersection LOS: C	
Intersection Capacity Utilization 63.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: Powis Road & North Avenue

Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

HCM 6th TWSC

2: Powis Road & North Groot Access 09/02/2022

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	3	511	0	8	222
Future Vol, veh/h	3	3	511	0	8	222
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	100	100	15	100	100	37
Mvmt Flow	4	4	664	0	10	288

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	972	664	0	0	664	0
Stage 1	664	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	190	326	-	-	595	-
Stage 1	367	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	186	326	-	-	595	-
Mov Cap-2 Maneuver	186	-	-	-	-	-
Stage 1	367	-	-	-	-	-
Stage 2	557	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.7	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	237	595	-
HCM Lane V/C Ratio	-	-	0.033	0.017	-
HCM Control Delay (s)	-	-	20.7	11.2	0
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	3	508	3	0	225
Future Vol, veh/h	4	3	508	3	0	225
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	100	100	15	100	100	37
Mvmt Flow	5	4	660	4	0	292

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	954	662	0	0	664	0
Stage 1	662	-	-	-	-	-
Stage 2	292	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	5.1	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	3.1	-
Pot Cap-1 Maneuver	195	327	-	-	595	-
Stage 1	368	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	195	327	-	-	595	-
Mov Cap-2 Maneuver	195	-	-	-	-	-
Stage 1	368	-	-	-	-	-
Stage 2	579	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	236	595	-
HCM Lane V/C Ratio	-	-	0.039	-	-
HCM Control Delay (s)	-	-	20.9	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	384	31	39	247
Future Vol, veh/h	0	0	384	31	39	247
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	115	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	0	0	8	100	100	30
Mvmt Flow	0	0	492	40	50	317

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	909	492	0	0	532	0
Stage 1	492	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	5.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	3.1	-
Pot Cap-1 Maneuver	308	581	-	-	681	-
Stage 1	619	-	-	-	-	-
Stage 2	669	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	286	581	-	-	681	-
Mov Cap-2 Maneuver	286	-	-	-	-	-
Stage 1	619	-	-	-	-	-
Stage 2	620	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	681	-
HCM Lane V/C Ratio	-	-	-	0.073	-
HCM Control Delay (s)	-	-	0	10.7	-
HCM Lane LOS	-	-	A	B	-
HCM 95th %tile Q(veh)	-	-	-	0.2	-

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	58	384	0	0	246
Future Vol, veh/h	40	58	384	0	0	246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	100	100	8	0	0	30
Mvmt Flow	51	74	492	0	0	315

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	807	492	0	-	-	-
Stage 1	492	-	-	-	-	-
Stage 2	315	-	-	-	-	-
Critical Hdwy	7.4	7.2	-	-	-	-
Critical Hdwy Stg 1	6.4	-	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-	-
Follow-up Hdwy	4.4	4.2	-	-	-	-
Pot Cap-1 Maneuver	245	421	-	0	0	-
Stage 1	454	-	-	0	0	-
Stage 2	563	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	245	421	-	-	-	-
Mov Cap-2 Maneuver	245	-	-	-	-	-
Stage 1	454	-	-	-	-	-
Stage 2	563	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	WBLn2	SBT
Capacity (veh/h)	-	245	421	-
HCM Lane V/C Ratio	-	0.209	0.177	-
HCM Control Delay (s)	-	23.5	15.4	-
HCM Lane LOS	-	C	C	-
HCM 95th %tile Q(veh)	-	0.8	0.6	-

HCM 6th AWSC

5: Hawthorn Lane & Powis Road 09/02/2022

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	249	120	187	104	73	223
Future Vol, veh/h	249	120	187	104	73	223
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	24	2	7	8	19	15
Mvmt Flow	286	138	215	120	84	256
Number of Lanes	1	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	2
HCM Control Delay	15.7	16	13.2
HCM LOS	C	C	B

Lane	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	64%	0%	0%
Vol Right, %	0%	0%	36%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	249	120	291	73	223
LT Vol	249	0	0	73	0
Through Vol	0	120	187	0	0
RT Vol	0	0	104	0	223
Lane Flow Rate	286	138	334	84	256
Geometry Grp	7	7	4	7	7
Degree of Util (X)	0.555	0.234	0.55	0.174	0.439
Departure Headway (Hd)	6.982	6.095	5.922	7.459	6.17
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	515	589	609	481	582
Service Time	4.728	3.84	3.966	5.21	3.921
HCM Lane V/C Ratio	0.555	0.234	0.548	0.175	0.44
HCM Control Delay	18.1	10.7	16	11.8	13.7
HCM Lane LOS	C	B	C	B	B
HCM 95th-tile Q	3.3	0.9	3.3	0.6	2.2

Gap Study Summary Sheets

Kenig, Lindgren, O'Hara, Aboona, Inc.

9575 West Higgins Road, Suite 400
Rosemont, Illinois, 60018

File Name : Powis - AM
Site Code : Powis
Start Date : 12/6/2019
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Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
06:30 AM	0	4	2	2	0	3	2	1	2	1	0	2	1	1	1	11	33	18 - 19
06:45 AM	0	4	2	2	3	4	2	7	2	1	2	0	1	0	2	9	41	14 - 15
Total	0	8	4	4	3	7	4	8	4	2	2	2	2	1	3	20	74	14 - 15
07:00 AM	0	5	2	1	2	0	0	1	2	1	1	2	0	1	0	13	31	22 - 23
07:15 AM	0	7	6	3	4	5	2	3	3	3	2	1	1	1	0	9	50	12 - 13
07:30 AM	0	4	6	2	2	2	1	1	5	0	1	2	1	1	0	7	35	14 - 15
07:45 AM	0	10	2	1	2	1	1	1	1	0	1	1	3	0	0	11	35	14 - 15
Total	0	26	16	7	10	8	4	6	11	4	5	6	5	3	0	40	151	14 - 15
08:00 AM	0	3	6	1	1	2	0	4	0	0	1	2	0	1	1	12	34	20 - 21
08:15 AM	0	1	5	3	2	5	1	2	3	0	2	1	2	0	3	9	39	16 - 17
08:30 AM	0	0	3	4	2	3	1	3	1	2	3	0	0	0	0	11	33	16 - 17
08:45 AM	0	8	4	1	1	3	2	2	1	0	1	0	2	1	0	13	39	14 - 15
Total	0	12	18	9	6	13	4	11	5	2	7	3	4	2	4	45	145	14 - 15
09:00 AM	0	4	2	3	0	2	3	1	3	1	2	0	1	1	2	9	34	16 - 17
09:15 AM	0	10	5	0	0	2	1	1	1	1	0	1	0	1	0	12	35	12 - 13
Grand Total	0	60	45	23	19	32	16	27	24	10	16	12	12	8	9	126	439	14 - 15
Total %		13.7	10.3	5.2	4.3	7.3	3.6	6.2	5.5	2.3	3.6	2.7	2.7	1.8	2.1	28.7		

Kenig, Lindgren, O'Hara, Aboona, Inc.

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06:30 AM	0	14	8	2	6	4	5	6	2	1	1	2	4	2	2	4	63	10 - 11
06:45 AM	0	24	21	7	9	4	3	6	3	2	5	0	0	0	0	3	87	4 - 5
Total	0	38	29	9	15	8	8	12	5	3	6	2	4	2	2	7	150	6 - 7
07:00 AM	0	37	19	7	6	4	1	2	4	2	0	2	1	0	1	4	90	4 - 5
07:15 AM	0	31	17	11	8	6	4	4	2	3	2	1	0	1	2	2	94	4 - 5
07:30 AM	0	29	10	4	7	6	7	8	4	1	1	3	0	1	0	2	83	6 - 7
07:45 AM	0	29	20	11	8	5	3	5	2	2	0	3	1	1	0	3	93	4 - 5
Total	0	126	66	33	29	21	15	19	12	8	3	9	2	3	3	11	360	4 - 5
08:00 AM	0	34	14	9	3	5	3	7	1	0	1	0	1	1	1	6	86	4 - 5
08:15 AM	0	27	13	5	8	7	3	2	4	2	1	2	0	1	1	4	80	6 - 7
08:30 AM	0	11	12	6	8	4	2	3	2	4	3	0	3	2	1	5	66	8 - 9
08:45 AM	0	28	16	5	7	1	4	8	2	2	0	0	2	0	2	4	81	4 - 5
Total	0	100	55	25	26	17	12	20	9	8	5	2	6	4	5	19	313	6 - 7
09:00 AM	0	22	14	7	6	4	8	1	2	1	2	2	0	0	2	7	78	6 - 7
09:15 AM	0	16	14	2	4	3	2	1	4	0	1	1	1	1	1	8	59	4 - 5
Grand Total	0	302	178	76	80	53	45	53	32	20	17	16	13	10	13	52	960	6 - 7
Total %		31.5	18.5	7.9	8.3	5.5	4.7	5.5	3.3	2.1	1.8	1.7	1.4	1.0	1.4	5.4		

Kenig, Lindgren, O'Hara, Aboona, Inc.

9575 West Higgins Road, Suite 400
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Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
04:00 PM	0	22	20	13	8	6	6	5	1	4	3	2	0	1	0	1	92	6 - 7
04:15 PM	0	8	7	6	5	0	5	4	2	0	2	3	0	1	1	8	52	12 - 13
04:30 PM	0	36	20	10	10	5	8	3	3	0	3	1	1	1	0	1	102	4 - 5
04:45 PM	0	12	10	4	8	6	7	2	6	1	5	2	1	1	1	2	68	10 - 11
Total	0	78	57	33	31	17	26	14	12	5	13	8	2	4	2	12	314	6 - 7
05:00 PM	0	27	13	12	6	9	4	0	2	4	4	2	1	0	1	2	87	6 - 7
05:15 PM	0	11	8	4	7	5	2	1	3	4	3	1	0	0	2	8	59	8 - 9
05:30 PM	0	11	5	7	2	2	2	1	2	3	3	1	1	1	2	8	51	10 - 11
05:45 PM	0	20	12	10	4	2	5	1	4	2	1	1	0	3	1	6	72	6 - 7
Total	0	69	38	33	19	18	13	3	11	13	11	5	2	4	6	24	269	6 - 7
06:00 PM	0	26	16	15	5	3	4	3	4	1	1	2	1	0	0	5	86	6 - 7
06:15 PM	0	10	11	9	4	3	3	1	3	3	4	2	1	0	2	6	62	8 - 9
06:30 PM	0	15	7	8	5	4	3	3	0	1	1	1	2	5	0	6	61	8 - 9
06:45 PM	0	11	7	3	3	2	0	2	3	2	3	1	1	2	1	7	48	10 - 11
Total	0	62	41	35	17	12	10	9	10	7	9	6	5	7	3	24	257	6 - 7
Grand Total	0	209	136	101	67	47	49	26	33	25	33	19	9	15	11	60	840	6 - 7
Total %		24.9	16.2	12.0	8.0	5.6	5.8	3.1	3.9	3.0	3.9	2.3	1.1	1.8	1.3	7.1		

Kenig, Lindgren, O'Hara, Aboona, Inc.

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Start Time	Volume	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	>29	Int. Total	Average
04:00 PM	0	39	34	13	7	4	7	5	2	3	0	0	0	1	0	0	115	4 - 5
04:15 PM	0	23	15	10	13	2	6	5	2	0	4	1	0	2	0	4	87	6 - 7
04:30 PM	0	50	25	13	12	4	2	4	3	0	2	1	0	1	0	0	117	4 - 5
04:45 PM	0	32	19	11	8	6	10	3	3	0	3	1	0	1	0	1	98	4 - 5
Total	0	144	93	47	40	16	25	17	10	3	9	3	0	5	0	5	417	4 - 5
05:00 PM	0	38	19	12	9	8	5	3	3	2	2	0	0	1	1	0	103	4 - 5
05:15 PM	0	22	10	12	6	10	2	4	1	2	2	0	0	1	2	5	79	6 - 7
05:30 PM	0	26	12	10	6	4	1	3	3	3	3	1	0	1	0	5	78	6 - 7
05:45 PM	0	34	18	13	6	7	8	2	4	1	1	2	0	2	0	1	99	4 - 5
Total	0	120	59	47	27	29	16	12	11	8	8	3	0	5	3	11	359	6 - 7
06:00 PM	0	37	27	14	6	6	3	3	1	2	1	3	0	0	0	2	105	4 - 5
06:15 PM	0	24	17	15	7	7	4	1	4	2	1	2	3	0	1	1	89	6 - 7
06:30 PM	0	22	9	10	4	8	5	5	2	1	2	2	1	2	0	2	75	6 - 7
06:45 PM	0	11	15	3	5	4	1	2	3	2	2	1	1	3	1	7	61	8 - 9
Total	0	94	68	42	22	25	13	11	10	7	6	8	5	5	2	12	330	6 - 7
Grand Total	0	358	220	136	89	70	54	40	31	18	23	14	5	15	5	28	1106	4 - 5
Total %		32.4	19.9	12.3	8.0	6.3	4.9	3.6	2.8	1.6	2.1	1.3	0.5	1.4	0.5	2.5		

CRITERION 7:

“if the facility will be treating, storing or disposing of hazardous waste, an emergency response plan exists for the facility which includes notification, containment, and evacuation procedures to be used in case of an accidental release”
415 ILCS 5/39.2(a)(vii)

CRITERION 7:
HAZARDOUS WASTE PRECLUSION

The Illinois Environmental Protection Act, at 415 ILCS 5/39.2 (a)(vii), requires that an applicant for transfer station siting demonstrate that the proposed transfer station will not be treating, storing or disposing of hazardous waste. This report demonstrates that the proposed Lakeshore Recycling Systems, LLC West DuPage Recycling and Transfer Station will not be accepting hazardous waste and an emergency response plan is not required at the time this Application for Local Siting Approval was submitted.

Prepared for:

LAKESHORE RECYCLING SYSTEMS, LLC
WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS
DUPAGE COUNTY

Prepared by:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
NAPERVILLE, ILLINOIS

CEC Project 163-899

AUGUST 2022

7.0 HAZARDOUS WASTE PRECLUSION

The proposed West DuPage Recycling and Transfer Station (West DuPage RTS) will accept general non-hazardous municipal solid waste, single-stream recyclables, and hydro excavation wastes. No regulated quantities of hazardous wastes, radioactive materials, potentially infectious medical wastes, or polychlorinated biphenyls will be accepted. Waste acceptance procedures for the West DuPage RTS are provided in Section 2.4 of Criterion 2 of this Application for Local Siting Approval.

Accordingly, as the proposed West DuPage RTS will not be treating, storing, or disposing of hazardous waste, Criterion 7 does not apply and an emergency response plan is not required.

7.1 CERTIFICATION

I hereby certify that all information contained in this Application for Local Siting Approval for Criterion 7 was prepared by me or under my direct supervision, and is true and correct to the best of my knowledge and belief.

John Hock, P.E.

4-14-2023
Date

LICENSED PROFESSIONAL ENGINEER
JOHN E. HOCK
062-047623
4-14-2023
STATE OF ILLINOIS

062-047623 - IL
Professional Engineer Registration Number and State

CRITERION 8:

“if the facility is to be located in a county where a county board has adopted a solid waste management plan consistent with the planning requirements of the Local Solid Waste Disposal Act or the Solid Waste Planning and Recycling Act, the facility is consistent with that plan”
415 ILCS 5/39.2(a)(viii)

CRITERION 8:
SOLID WASTE MANAGEMENT PLAN CONSISTENCY ANALYSIS

The Illinois Environmental Protection Act, at 415 ILCS 5/39.2 (a)(viii), requires that an applicant for a transfer station siting demonstrate that the proposed transfer station is consistent with a solid management waste plan adopted pursuant to the planning requirements of the Local Solid Waste Disposal Act or the Solid Waste Planning and Recycling Act. This report demonstrates that the proposed Lakeshore Recycling Systems, LLC West DuPage Recycling and Transfer Station is consistent with the DuPage County Solid Waste Management Plan in effect at the time this Application for Local Siting Approval was submitted.

Prepared for:

LAKESHORE RECYCLING SYSTEMS, LLC
WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS
DUPAGE COUNTY

Prepared by:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
NAPERVILLE, ILLINOIS

CEC Project 163-899

AUGUST 2022

8.0 INTRODUCTION

The Illinois Environmental Protection Act requires that if a pollution control facility, such as the transfer station that is the subject of this Application for Local Siting Approval (Application), is to be located in a county where the county board has adopted a solid waste management plan pursuant to the Local Solid Waste Disposal Act or the Solid Waste Planning and Recycling Act, the transfer station must be consistent with the county plan. This demonstration must be consistent with the plan in effect when an application for siting approval is submitted for local approval. This report demonstrates that the Lakeshore Recycling Systems, LLC (LRS) West DuPage Recycling and Transfer Station (West DuPage RTS) is consistent with the DuPage County Solid Waste Management Plan (SWMP) now in effect.

8.1 WEST DUPAGE RECYCLING AND TRANSFER STATION FACILITY

The West DuPage RTS is located on an approximately 27.66-acre parcel located at 1655 Powis Road, West Chicago, DuPage County, Illinois. LRS currently operates a permitted solid waste management facility [Permit No. 2015-124-OP] that receives, sorts/separates, transfers and recycles construction or demolition debris (C&D) on approximately 6.11 acres of the site (C&D Recycling Facility). The C&D Recycling Facility includes the site entrance, the scale, the C&D transfer/screening building, the C&D sorting line building, and storage bunkers.

The site also includes an office, maintenance building, parking areas, additional hard surfaced areas, access controls, utilities, outdoor lighting, and a stormwater control system. As such, LRS currently performs other operations at the site that support its overall business. In addition, most of the infrastructure, personnel, and systems required to appropriately operate the West DuPage RTS are already present at the site. In summary, LRS currently conducts the following operations at the site:

- Receipt, sorting/separation, recycling and transfer of up to an annualized average of 1,250 tons per day of C&D;
- Staging and removal of recyclable materials;
- Mulch production and sales from recycled wood;
- Parking and maintenance of waste collection vehicles;
- Parking and maintenance of street sweepers;
- Parking and maintenance of portable restroom transportation vehicles;
- Staging and maintenance of containers, totes and portable toilets; and
- Dispatch and customer service (call center).

As proposed, West DuPage RTS will also perform the following operations:

- Receipt and transfer of non-hazardous municipal solid wastes (referred to as “MSW” or more generally as “solid waste”);
- Receipt, solidification and transfer of hydro excavation wastes;
- Receipt and transfer of single-stream recyclables (referred to as “SSR” or more generally as “recyclables”);
- Drop-off area for West Chicago residents of electrical/electronic devices; and
- Drop-off area for recyclables generated by residents and small businesses.

Loads of MSW from collection vehicles will be consolidated into larger loads for transport to an area landfill for disposal. Loads of hydro excavation wastes will be solidified and then transported

to an area landfill for disposal. Electronic waste from West Chicago citizens will be consolidated and transported to a recovery facility. Loads of recyclables from collection vehicles (and recyclables from residents) will be consolidated into larger loads for transport to a material recovery facility (MRF), such as LRS's MRF in Forest View, for re-use as a commodity. The proposed operations at the West DuPage RTS will allow for more efficient processing and/or transportation of these materials to a MRF or disposal facility (landfill). In addition, the expanded operations at the facility will allow for more improved recycling of the C&D.

West DuPage RTS is a unique facility due its desirable location, relatively large size, and diversity of operations, and will be a premier waste management and recycling facility in the State of Illinois.

Subject to Illinois Environmental Protection Agency (IEPA) permitting, West DuPage RTS is anticipated to accept up to 1,950 tons per day of which up to 650 tons per day may be MSW, up to 300 tons per day may be hydro excavation wastes, up to 750 tons per day may be C&D, and up to 250 tons per day may be SSR.

8.2 COUNTY SOLID WASTE PLANNING REQUIREMENTS

The Illinois Solid Waste Planning and Recycling Act (Waste Planning Act), initially promulgated in 1988, required that each county in the state adopt a twenty-year plan for managing the MSW generated within its boundaries [415 ILCS 15/1 et seq.]. Each county waste management plan is required to be updated and reviewed every five years.

Each SWMP is required to contain, at a minimum, the following provisions:

- A description of the origin, content, and weight or volume of municipal waste currently generated within the county's boundaries, and the origin, content, and weight or volume of municipal waste that will be generated within the county's boundaries during the next twenty years, including an assessment of the primary variables affecting this estimate and the extent to which they can reasonably be expected to occur.
- A description of the facilities where municipal waste is currently being processed or disposed of and the remaining available permitted capacity of such facilities.
- A description of the facilities and programs that are proposed for the management of municipal waste generated within the county's boundaries during the next twenty years, including, but not limited to, their size, expected cost, and financing method.
- An evaluation of the environmental, energy, life cycle cost, and economic advantages and disadvantages of the proposed waste management facilities and programs.
- A description of the time schedule for the development and operation of each proposed facility or program.
- The identity of potential sites within the county where each proposed waste processing, disposal, and recycling program will be located or an explanation of how the sites will be chosen. For any facility outside the county that the county proposes to utilize, the plan shall explain the reasons for selecting such facility.
- The identity of the governmental entity that will be responsible for implementing the plan on behalf of the county and explanation of the legal basis for the entity's authority to do so.

The Waste Planning Act also requires that each county SWMP shall also include a recycling program. Such recycling programs:

- Shall be designed to recycle, by the end of the third and fifth years of the program, respectively 15%, and 25% of the municipal waste generated in the county, subject to the existence of a viable market for the recycled material, based on measurements of recycling and waste generated in terms of weight.

- May provide for the construction and operation of one or more recycling centers by a unit of local government, or for contracting with other public or private entities for the operation of recycling centers.
- Shall include public education and notification programs to foster understanding of and encourage compliance with the recycling program.
- Shall include provisions for compliance, including incentives and penalties.
- Shall include provisions for (i) recycling the collected materials, (ii) identifying potential markets for at least three recyclable materials, and (iii) promoting the use of products made from recovered or recycled materials among businesses, newspapers, and local governments in the county.

8.3 DUPAGE COUNTY SOLID WASTE MANAGEMENT PLAN

The DuPage County Board approved its first SWMP in February 1991 (Adopted SWMP). The Adopted SWMP was prepared by the Department of Environmental Concerns, Division of Solid Waste for the DuPage County Solid Waste Planning Committee and consists of the following:

- Volume 1 - Sections 1.0 through 7.0 including existing Solid Waste Management System and Assessment of Needs (Section 2.0), Solid Waste Management Systems (Section 3.0), and Plan of Action (Section 7.0);
- Volume 2 - Appendices A-1 through A-3 entitled Needs Assessment (Appendix A-1), Waste Reduction, Recycling and Landscape Waste Diversion (Appendix A-2), and Materials Recovery by Waste Processing (Appendix A-3);
- Volume 3 - Appendix A-4 entitled Final Waste Processing/Disposal Options, which includes a transfer assessment; and
- Volume 4 - Appendix B consisting of principal legislations including the Solid Waste Management Act and Section 39.2 of the Environmental Protection Act.

Updates to the SWMP were approved by the DuPage County Board in 1996, 2001, 2007, 2012, and 2017 (Updates). Relevant portions of Volumes 1 through 3 of the Adopted SWMP are contained in Appendices 8-A through 8-C, respectively. Volume 4 contains outdated, publicly available information, and is not attached. The 1996 through 2017 Updates are contained in Appendices 8-D through 8-H, respectively. The 1996 Updates consisted of two volumes. Volume II of the 1996 Updates only contains outdated agreements and related information regarding two closed landfills and is not included in Appendix 8-D.

8.3.1 ADOPTED SWMP

The Adopted SWMP provides various information regarding DuPage County's waste generation and disposal needs, and summarizes recommended actions. The following are relevant excerpts:

- DuPage County has a total land area of 332 square miles, thirty-two incorporated cities or villages (twenty-three of which lie wholly within the county), and a population of 658,875 according to the 1980 census, resulting in a population density of approximately 1,985 persons per square mile [Appendix 8-A, Section 2.1, page 2-1].
- The DuPage County Planning Department predicted the population to increase to 922,631 persons by the year 2000, fueled by an expansion in a variety of commercial sector activities ranging from manufacturing to retail and increases in households [Appendix 8-A, Section 2.1, pages 2-1, and 2-4].

- DuPage County is considered to be one of the most affluent counties in the United States, which translates to a higher than average per capita waste generation rate [Appendix 8-A, Section 2.1, page 2-4].
- The principle method of solid waste disposal in DuPage County is landfilling at the Greene Valley and Mallard Lake Landfills [Appendix 8-A, Section 2.1, page 2-12].
- The waste generation is estimated to be 8.0 pounds per capita per day (or 3,125 tons per day) for DuPage County in 1990, and is estimate to increase to 9.3 pounds per capita per day (or 4,580 tons per day) by 2010 [Appendix 8-A, Section 2.1, page 2-18].
- Waste reduction is a pivotal component of DuPage County's solid waste system including source reduction, waste prevention, and pollution abatement [Appendix 8-A, Section 3.1.1, pages 3-1 through 3-5].
- In order to accomplish waste reduction goals, recycling strategies have been developed [Appendix 8-A, Section 3.1.2, pages 3-6 through 3-5].
- The residential sector has been the central focus of recycling initiatives including drop-off facilities, curbside collection programs, and intermediate processing facilities [Appendix 8-A, Section 3.1.2, pages 3-8 through 3-11].
- The need exists for at least two intermediate processing facilities in the county, preferably a northern and southern facility, where recyclable materials would be collected in quantity, sorted by type, and processed into marketable quantities [Appendix 8-A, Section 3.1.2, page 3-11].
- Construction/demolition waste accounts for nearly 29% of the total DuPage County waste stream. Expansion of recycling activities for these materials is encouraged [Appendix 8-A, Section 3.1.2, pages 3-1 through 3-5].
- Phase I of the proposed solid waste management system provides for reducing, recycling, and otherwise diverting materials, which can be recovered from the total waste stream. Further reduction in the waste stream will be possible by the implementation of a post-consumer mixed waste processing system, which is Phase II of the proposed solid waste management system [Appendix 8-A, Section 3.2.1, page 3-27].
- The general categories of post-collection materials recovery alternatives including dump and pick, mechanically assisted hand separation, and mechanical separation processes [Appendix 8-A, Section 3.2.2, page 3-28].
- Mechanically assisted hand separation systems employ a series of conveyors which carry the waste past workers at picking stations. More advanced mechanical separation processes employ increased levels of automatic materials separation including size reduction/shredding, vibrating screens, and magnetic separation. One of the most common applications of post-collection materials recovery processes is at waste transfer stations [Appendix 8-A, Section 3.2.2, page 3-29 through 3-32].

- Phase III of the proposed solid waste management system consists of final waste processing/disposal options including transfer stations, combustion options, landfills composting, pyrolysis, and bioconversion [Appendix 8-A, Section 3.3, page 3-37 through 3-155].
- The recommended actions include the following regarding recycling of construction/demolition waste:
    - Goals for the reduction of this component of the waste stream should parallel other county recycling goals. The county should encourage steps leading towards a minim reduction in this waste component of 15% in three years and 25% within five years [Appendix 8-A, Section 3.3, page 7-10].
    - The provision of equipment and facilities for construction/demolition waste recycling should be sought first from private developers [Appendix 8-A, Section 3.3, page 7-11].
- The recommended actions for waste transfer include the consideration of the following if it is determined that waste transfer is to be implemented:
    - The availability of in-county disposal capacity should be determined. Even if in-county disposal capability will be available for an extended period of time the practicality and desirability of providing transfer capability in the county should be evaluated as a mechanism to improve waste transport efficiencies and to minimize local traffic impacts [Appendix 8-A, Section 3.3, page 7-17].
    - If waste disposal outside of the county is to be sought, the delivery requirements at outside-county disposal location should be determined. For transfer of waste to out-of-county disposal sites, it is preferable to know the delivery requirements of the specific site prior to construction of the transfer station(s) [Appendix 8-A, Section 3.3, page 7-17].
    - If it is determined that transfer capability should be provided, a transfer station siting analysis should be performed. The analysis would include, at a minimum, the determination of waste generation profiles in the county and provide a site screening process to identify possible sites for the placement of one or multiple transfer station(s) [Appendix 8-A, Section 3.3, page 7-17].

8.3.2 1996 UPDATE

The 1996 Update builds upon the planning and implementation basis provided by the Adopted SWMP. The following are relevant excerpts:

- Waste is estimated to be generated at a rate of 7.17 pounds per capita per day for 1994. The decline in generation rate compared to the generation rate in the Adopted SWMP may be due to a variety of factors [Appendix 8-D, Section 2.3.4, page 17].

- The 1990 census estimates the DuPage County population to be 781,666, an increase of 19% in a ten-year period from 1980 to 1990 [Appendix 8-D, Section 2.1, page 9].
- The landfilling option in DuPage County was greatly limited when a consent decree ordered the two DuPage County landfills (Greene Valley and Mallard Lake Landfills) to close by December 31, 2000. The landfill operators (Waste Management and Brown-Ferris Industries (BFI)) decided to direct significantly more waste to the landfills, which will close the landfills earlier than the ordered closure date [Appendix 8-D, Section 4.7, page 100].
- The recommended actions include the following regarding recycling of construction/demolition waste:
    - Goals for the reduction of this component of the waste stream should parallel other county recycling goals. The county should encourage steps leading towards a minim reduction in this waste component of 25% in three years and 50% within five years. A 1995 waste stream characterization estimated that approximately 34% of all waste generated in DuPage County and deposited in both county landfills was C&D material [Appendix 8-D, Section 4.3, pages 76 and 77].
    - DuPage County will focus on reducing the C&D materials that will be leaving DuPage County for disposal once the two county landfills close [Appendix 8-D, Section 4.3, page 79].
    - DuPage County should reduce disposal of the C&D waste stream by 50% through reuse and recycling by the year 2000 [Appendix 8-D, Section 4.3, page 80].
    - In cooperation with the private sector, DuPage County will promote whenever appropriate, legislation to enhance C&D recycling [Appendix 8-D, Section 4.3, page 80].
    - The provision of equipment and facilities for construction/demolition waste recycling should be sought first from private developers, but thus far, limited interest for recycling C&D materials has come from the private developers [Appendix 8-D, Section 4.3, page 81].
- The recommended actions include the following regarding waste hauling and transfer stations:
    - DuPage County should encourage the development of three to five waste transfer facilities throughout the county. Although no permitted waste transfer stations are currently located within the boundaries of DuPage County, DuPage County recognizes the development of waste transfer facilities are an integral part of the total solid waste management program [Appendix 8-D, Section 4.3, pages 107 and 109].

8.3.3 2001 UPDATE

The 2001 Update provides the second five-year update to the Adopted Plan. The following are relevant excerpts:

- The Illinois Environmental Protection Agency has estimated that Illinoisans generated waste at a rate of 6.9 pounds per capita per day for 1999 [Appendix 8-E, Section 1.0, page 3].
- The 2000 census estimates the DuPage County population to be 904,161 [Appendix 8-E, Section 1.0, page 3].
- The countywide total diversion and recycling rate is currently about 35% for residential waste sources based on reporting data for 2000. Considering the recycling rate of 35%, the county is landfilling 740,000 tons of waste each year [Appendix 8-E, Section 1.0, page 3].
- The DuKane Transfer Facility is the only facility in the county that accepts solid waste for transfer to landfills outside DuPage County. This facility is permitted to accept a maximum of 1,950 tons of waste per day with an annual average amount not to exceed 1,500 tons per day [Appendix 8-E, Section 2.0, page 3].
- It is recommended that the permitted capacity of the DuKane Transfer Facility be increased from 1,500 tons per day to 2,500 tons per day. DuPage County would still have a remaining need for an additional one, or two transfer facilities [Appendix 8-E, Section 2.0, page 4].
- A second and/or third transfer station is expected to increase competition, reduce wear on roads, reduce overall truck miles traveled, and decrease truck air emissions [Appendix 8-E, Section 2.0, page 4].

8.3.4 2007 UPDATE

The 2007 Update reviews the current status of the solid waste management activities within DuPage County and sets the priorities for the next five years. The following are relevant excerpts:

- Waste is estimated to be disposed at a rate of 7.5 pounds per capita per day in 2006 [Appendix 8-F, page 1].
- The 2006 population was estimated to be 932,670, with thirty-nine municipalities wholly or partially in DuPage County. The county is disposing 3,498 tons of waste per day for a total of 1,276,592 tons per year. Considering the recycling rate of 31%, the county is landfilling 893,614 tons of waste each year [Appendix 8-F, pages 2 and 3].
- DuPage County has achieved a residential recycling rate of 37% and a commercial recycling rate of 22%, making the overall recycling rate 31% (which is well above the State

mandated 25%). There is room for improvement in commercial recycling [Appendix 8-F, page 2].

- DuPage County is currently home to one MSW transfer station, one landscape waste transfer station, and three construction/demolition debris recycling facilities. The capacity of the one MSW transfer station (DuKane Transfer Facility) was increased to 3,000 tons per day. The trend in the Chicagoland area has been to utilize transfer stations because viable landfills are closing [Appendix 8-F, page 2].
- DuPage County has no operating landfills, and due to the setback and expansive space requirements, siting a new landfill is nearly impossible [Appendix 8-F, page 3].
- Based on an analysis using an ideal maximum of a 10-mile one-way travel distance, the northwestern portion of the county is being served by one in-county, and three out-of-county transfer stations; the northeastern portion of the county is being, and/or could be, served by three transfer stations; and the only areas that may benefit from a waste transfer station are located in the southern portion of the county. The position at this time is to rely on existing stations both inside and outside the county borders [Appendix 8-F, page 3].
- The summary of 1996 to 2007 accomplishments and recommendations include the following:
    - DuPage County will focus on reducing the C&D materials that will be leaving DuPage County for disposal once the two county landfills close. DuPage County assisted in the development of a C&D recycling guidebook and conducted a pilot program working with general contractors [Appendix 8-F, page 10].
    - DuPage County should reduce disposal of the C&D waste stream by 50% through reuse and recycling by the year 2000. Two recycling facilities are operating, but tracking of C&D recycling is difficult [Appendix 8-F, page 10].
    - In cooperation with the private sector, DuPage County will promote whenever appropriate, legislation to enhance C&D recycling. DuPage County assisted in changing regulations to allow C&D facilities operating in DuPage County to be exempt from IEPA permits [Appendix 8-F, page 10].
    - The provision of equipment and facilities for construction/demolition waste recycling should be sought first from private developers. DuPage County has taken an approach to allow the private sector and the market to drive this economy [Appendix 8-F, page 11].
    - The practicality and desirability of providing transfer capability in the county should be evaluated as a mechanism to improve waste transport efficiencies and to minimize local traffic impacts. Transfer of waste is the preferable method of disposal, and DuPage County recommended siting additional transfer stations in the 2001 Update [Appendix 8-F, page 14].

- DuPage County should encourage the development of three to five waste transfer facilities throughout the county. DuPage County is currently evaluating disposal capacity, and transfer of waste is the preferred method [Appendix 8-F, page 14].

8.3.5 2012 UPDATE

The 2012 Update reconsiders the current waste disposal capacity of DuPage County and includes new recycling successes due to the landfill ban placed on electronics, the commercial recycling program, and new food scrap collection and composting programs. The following are relevant excerpts:

- Waste is estimated to be generated at a rate of 9.19 pounds per capita per day based on the rate identified in the 2009 Illinois Commodity/Waste Generation Study for the Chicago Metropolitan Region [Appendix 8-G, page 2].
- The 2010 population was estimated to be 916,924. Assuming a growth rate of 1.4% over the subsequent five years, this plan needs to account for 929,760 residents generating 1,537,842 tons of waste per year [Appendix 8-G, page 2].
- DuPage County has achieved a residential recycling rate of 42% in 2011. Commercial recycling data is unavailable and is much lower. The estimated combined recycling rate is 30% [Appendix 8-G, pages 1 and 3].
- DuPage County is currently home to one MSW transfer station, three landscape waste transfer stations, and two construction/demolition debris recycling facilities. The capacity of the one MSW transfer station (DuKane Transfer Facility) is 3,000 tons per day. The capacity of the construction/demolition debris recycling facilities is not specified [Appendix 8-G, page 3].
- The DuKane Transfer Facility is estimated to receive 50% of its waste from DuPage County (based on previous studies by Shaw Environmental) [Appendix 8-G, page 4].
- The county's Commercial Recycling program is working with DuPage County businesses to launch food waste composting [Appendix 8-G, page 6]
- DuPage County participated in the effort to make it easier to recycle construction and demolition debris [Appendix 8-G, pages 4 and 5].
- Certain electronics products were banned from landfills as of January 1, 2012. The county has been working with governmental partners since 2008 to provide electronics recycling drop-off locations, and promote events and locations [Appendix 8-G, page 5].
- The county has no operating landfills and new landfills are not needed or possible within the county. The preferred method for waste disposal continues to be waste transfer [Appendix 8-G, page 5].

- Maps are provided for permitted landfills and transfer stations in the region. Service areas for transfer stations are shown from siting documents or a 10-mile radius determined to be the maximum economical distance for a waste hauling company [Appendix 8-G, page 5].
- Factors that contribute to the need for new transfer stations are an increasing population, rising waste generation rate, and fuel/operating costs. Future conditions may necessitate a new transfer station in the southern portion of the county [Appendix 8-G, page 5].
- It is potentially foreseeable that the out-of-county facilities may cease servicing all, or parts, of the current DuPage County area. In the event this occurs, there would be a service gap in the affected areas thereby creating a potential need for a new facility [Appendix 8-G, page 5].

8.3.6 2017 UPDATE

The 2017 Update evaluates the waste disposal capacity of DuPage County, electronic recycling coverage, and identifies food scrap collection and compost feasibility. The 2017 Update also discusses the accomplishment of several goals. The following are relevant excerpts:

- Waste is estimated to be generated at a rate of 8.7 pounds per capita per day based on the rate identified in the 2015 Illinois Commodity/Waste Generation and Characterization Study update. The estimated MSW generation rate is 4,042 tons per day or 1,475,604 tons per year [Appendix 8-H, page 8].
- The 2010 population was estimated to be 916,924. Current U.S. Census estimates put the population at 929,368 [Appendix 8-H, page 5].
- The DuPage County residential recycling rate was calculated to be 41% in 2011, with commercial recycling much lower. The estimated combined recycling rate is 30% [Appendix 8-H, page 8].
- The Waste Management DuPage County Recycling Center drop-off center in Carol Stream is available to all residents, while the recycling centers in Addison and Naperville are limited to residents within their boundaries [Appendix 8-H, page 9]. The 2017 DuPage County Waste and Recycling Report indicates that the Carol Stream facility closed in 2017.
- Recycling has seen a significant amount of change over the last decade with volatile market values, contamination issues, and shrinking end users. The county recognizes the local challenges of these issues as limiting factors in expanding or increasing programs or the diversion rate [Appendix 8-H, page 17].
- DuPage County is currently home to one MSW transfer station, four landscape waste transfer station, and three construction/demolition debris recycling facilities. The capacity of the one MSW transfer station (DuKane Transfer Facility) is 3,000 tons per day. The capacity of the construction/demolition debris recycling facilities is not specified [Appendix 8-H, page 15].

- Certain electronics products were banned from landfills as of January 1, 2012. The program to work with electronic recyclers has struggled to remain sustainable. In 2016, the county pursued a system using a recycling free for harder-to-handle items, and relaunched collection sites. The Electronics Products Recycling and Reuse Act was significantly amended in 2017, and mandated a specified number of collection sites in counties based on population density. The changes are effective January 1, 2019, and DuPage County is expected to receive five collection sites [Appendix 8-H, pages 10 and 11].
- Based on waste generation and recycling rates, DuPage County is estimated to need to dispose of approximately 929,431 tons of waste annually. The DuKane Transfer Facility is permitted to accept up to 3,000 tons per operating day so it can move 939,000 tons per year. However, service areas must be considered, as well as the market forces of private sector waste hauling entities. Large regions of the county are not optimally served due to the lengthy transportation routes, which lead to increased costs and air emissions. To address this, DuPage County will consider new or expanded facilities handling, treating, and recycling waste on a case-by-case basis [Appendix 8-H, page 16].

8.4 SUMMARY

DuPage County has a long history of encouraging and working towards a solid waste management system that provides for recycling and otherwise diverting materials, which can be recovered from the total waste stream. Recycling efforts have included C&D, and DuPage County was active in the legislation that made it easier to permit C&D recycling facilities. The West DuPage RTS is an existing C&D recycling facility whose development was facilitated by the above legislative efforts.

DuPage County recognizes the benefits of proven materials recovery techniques to enhance recycling such as dump and pick, mechanically assisted hand separation, and mechanical separation processes. The current operations at the West DuPage RTS utilize each of these techniques to recycle C&D debris, and the proposed West DuPage RTS would facilitate an increase in the amount of C&D recycling.

Electronics products were banned from landfills as of January 1, 2012, and DuPage County is in need of drop-off locations. The West DuPage RTS would serve as a drop-off location for electronic wastes.

DuPage County has relied on transfer stations to transport non-recyclable waste and MSW to out-of-county landfills. More than half of DuPage County's waste is handled by out-of-county transfer stations. DuPage County has evaluated the need for additional transfer stations over time, and most recently stated that new or expanded facilities for handling, treating, and recycling waste would be considered on a case-by-case basis. The West DuPage RTS would enhance the capability and capacity of DuPage County to handle, treat, and recycle waste.

Attachment 8-I contains an April 23, 2020 letter from Joy Hinz of DuPage County (DuPage County Letter), who is responsible for overseeing the SWMP. The DuPage County Letter indicates that the 2017 Update:

- Finds that service areas of existing facilities be considered as well as market forces;
- Observes that the county lacks disposal capacity for the waste generated within its borders; and
- Observes that additional pollution control facilities may be needed but will be considered on a case-by-case basis.

The DuPage County Letter concludes that the proposed West DuPage RTS appears to be consistent with the 2017 Update.

8.5 CONCLUSION

Consistency requires that West DuPage RTS be in accordance with the SWMP. This report has demonstrated that West DuPage RTS is consistent with the SWMP and all provisions in effect at the time of the submittal of this Application. The following factors support this conclusion:

- The SWMP encourages recycling of C&D. The site currently is recycling C&D and the proposed West DuPage RTS would increase the amount of C&D that is recycled.
- The SWMP recognizes the current challenges of implementing recycling programs for SSR, and the West DuPage RTS would provide a facility for the economic transfer of SSR to a MRF(s) and serve as a drop-off location for residents.
- The SWMP states that additional drop-off locations for electronics waste are needed, and the West DuPage RTS would serve as a drop-off location for electronic wastes.
- The SWMP indicates that DuPage County has relied on transfer stations to transport non-recyclable waste and MSW to out-of-county landfills; at least half of DuPage County's waste is handled by out-of-county transfer stations; and new or expanded facilities for handling, treating, and recycling waste would be considered on a case-by-case basis. The West DuPage RTS would enhance the capability and capacity of DuPage County to handle, treat, and recycle a variety of wastes.
- The DuPage County Letter concludes that the proposed West DuPage RTS appears to be consistent with the 2017 Update.

For the reasons cited above, West DuPage RTS meets the requirements of Criterion 8, as it is consistent with the DuPage County SWMP now in effect.

8.6 CERTIFICATION

I hereby certify that all information contained in this Application for Local Siting Approval for Criterion 8 was prepared by me or under my direct supervision, and is true and correct to the best of my knowledge and belief.

John Hock, P.E.

6-14-2022
Date

LICENSED PROFESSIONAL ENGINEER
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APPENDIX 8-A

DUPAGE COUNTY SWMP
VOLUME 1

Electronic Filing: Received, Clerk's Office 04/19/2023 C001248

February, 1991

DuPage County

Solid Waste Management Plan

Volume 1 of 4

Prepared For:
DuPage County Solid Waste
Planning Committee

Prepared By:

Department of Environmental Concerns
Division of Solid Waste

DuPAGE
COUNTY
RECYCLING
PROGRAM

Electronic Filing: Received, Clerk's Office 04/19/2023 C001249

DUPAGE COUNTY

SOLID WASTE MANAGEMENT PLAN

- 1990 -

Prepared By The Solid Waste Division Of
The DuPage County Department Of Environmental Concerns

February, 1991

THIS DOCUMENT IS PRINTED ON RECYCLED PAPER

DUPAGE SOLID WASTE PLANNING/
REDUCTION COMMITTEE (Approving Committee)

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Robert W. Schroeder (Dist. 5) Vice Chairman	Gwendolyn Henry (Dist. 4)
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Portions of this document were prepared with the assistance of Camp, Dresser and McKee, Inc. - Chicago, Illinois

Special thanks are extended to Ms. Jean Wojtasiak for her extensive efforts in preparation of this document and to Ms. Darlene Lynch for her coordination of and support to the Citizens' Advisory Committee.

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- Transfer Assessment
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- Landfilling Assessment
- Other Technologies Assessment

APPENDIX B - PRINCIPAL LEGISLATION

- Public Act 84-963: "The Local Solid Waste Disposal Act"
- Public Act 84-1319: "The Solid Waste Management Act"
- Public Act 85-14: "An Act In Relation To Local Government And Finance"
- Public Act 85-1198: "Solid Waste Planning And Recycling Act"
- Illinois Revised Statutes, Chapter 111 1/2:
"The Environmental Protection Act", Section 39.2

SUPPLEMENTAL REPORTS

1. Alternative Refuse Disposal Systems - Resource Recovery Study - Phase I, February 1986

2. DuPage County Solid Waste Recycling Study, November 1987

3. DuPage County Solid Waste-To-Energy Study, December 1987

4. DuPage County Landfill/Ashfill Feasibility Study, January 1988

5. DuPage County Solid Waste Management Summary Feasibility Report, January 1988

6. DuPage County Solid Waste Management Landscape Waste Feasibility Report, August 1989

7. DuPage County Solid Waste Recycling Plan - Phase I - Residential, November 1988

8. DuPage County Solid Waste Recycling Plan - Phase I - Residential, Public Comment/County Response, January 12, 1990

9. DuPage County Solid Waste Plan, September 1988

GLOSSARY OF TERMS

The terms and definitions which appear in this glossary are designed to assist the interested reader in reviewing all or part of this solid waste management plan. The definitions are not legal definitions.

air pollution control equipment
any equipment or facility of a type intended to eliminate, prevent, reduce or control the emission of specified air contaminants to the atmosphere.

ambient air quality
the standards set by the USEPA to establish the maximum ground level concentration of designated pollutants in the atmosphere in the vicinity of a given area, such as the air in and around DuPage County.

ash residue
the noncombustible material that remains after solid waste has been burned; refers to bottom ash from the combustion grates, fly ash collected in the boiler or by the air pollution control equipment, and reagent from the acid gas removal equipment collected in the air pollution control equipment.

attainment area
any geographic area of the United States that is considered to have air quality as good as or better than the National Ambient Air Quality Standards as defined in the Clean Air Act; an area may be an attainment area for one pollutant and a nonattainment area for others.

baghouse
also referred to as a "fabric filter." A type of pollution control equipment which uses a fabric filtration system (similar to a vacuum cleaner) to collect particles (such as fly ash) in the flue gas of an incinerator by passing the gas through a device containing tubular fabric filter media (bags).

Best Available Control Technology (BACT)
an emission limitation or pollution control system designed to achieve the maximum degree of pollutant reduction which the IEPA determines is achievable through the application of production processes or available methods, systems and techniques, taking into account energy, environmental and economic impacts.

bottom ash
the ash residue which is discharged and collected from the grates of an incinerator following combustion of solid waste or other solid fuels.

capacity
see "disposal capacity"

collection
the process whereby solid waste, recyclable materials and yard waste are picked up at the point of generation. collection of these materials often occurs at the curb or backdoor for residential waste and from dumpsters and compactors for commercial and industrial waste.

commercial waste
solid waste generated at stores, restaurants, institutions, office buildings, banks, gas stations, recreational facilities and other similar wholesale, retail and service establishments.

commingled system
a system for recycling where the paper fraction is separated from the non-paper fraction but all non-paper components are commingled on the collection vehicle and separated later.

composting
the biological process by which microorganisms decompose the organic fraction of waste, producing a humus-like material for use as a soil conditioner or for other, similar applications.

construction and demolition waste
waste generated as a result of construction and demolition activities, consisting of concrete, brick, stone, cement and other materials which do not decompose or produce a foul odor during decomposition.

conversion rates
rates used to convert between tons and cubic yards of solid waste. The following conversion rates have been used in the Plan:

(i) one ton consumes 2.08 cubic yards of landfill space, including cover dirt
(ii) one ton occupies 1.66 cubic yards of landfill space, excluding cover dirt
(iii) one cubic yard of solid waste received at the landfill gate consumes 0.63 cubic yards of landfill space after compaction, including cover dirt
(iv) one cubic yard of solid waste received at the landfill gate occupies 0.50 cubic yards of landfill space after compaction, excluding cover dirt
(v) one cubic yard of municipal solid waste in a packer truck weighs 800 pounds on average.

County
DuPage County, Illinois.

cubic yard
a common measurement of solid waste volume equal to 27 cubic feet. The weight of a cubic yard of solid waste varies widely, depending upon the composition of the waste and the extent to which it has been compacted. One cubic yard of residential waste at the curb may weigh between 100 and 200 pounds; one cubic yard of solid waste in a garbage truck may weigh 600 to 800 pounds; one cubic yard of waste in a landfill may

weigh approximately 1200 pounds. (For additional discussion on yards and tons, see "conversion rates.")

curbside collection of recyclables
the process whereby citizens are requested to separate recyclable materials from regular refuse and place the recyclables at the curb for collection by municipal or private collection vehicles. Also referred to as "source separated" in the Plan.

curbside (or truckside) sort
a collection approach for recycling where materials are separated (processed) during the collection process by the truckdriver.

CY
abbreviation for cubic yards.

disposal capacity
the amount of waste which a disposal facility, such as an incinerator or landfill, is designed to accept over a given period of time; usually expressed as tons or cubic yards of daily capacity, annual capacity or total capacity.

electrostatic precipitator (ESP)
a type of pollution control equipment which collects particulate matter from the air or gas leaving an incinerator by placing an electrical charge on the particles and attracting them to a metal electrode which is oppositely charged.

emissions
materials which may be released to the air, surface water, groundwater or land as a by-product of solid waste management and disposal activities, some of which are potentially harmful if not properly controlled or if emitted in excessive quantities. Systems described in the Plan are designed to minimize the release of potentially harmful emissions into the environment.

energy markets
users of the heat, steam or electrical energy which is collected from the process of incineration of solid waste. Examples of energy markets include industries which require steam in their manufacturing processes and electric utilities.

fabric filter
see "baghouse."

flow control
actions taken by the County to require that waste generated within its jurisdiction is delivered to specified disposal, processing or recycling facilities developed in accordance with the Plan.

fly ash
the very small particles of ash entrained in flue gases created by the

combustion of solid waste or other fuel and collected in the boiler or air pollution control equipment.

hauling
the process whereby solid waste, recyclable materials and yard waste are transported from the point of generation to an intermediate processing site or final market or disposal site.

hazardous waste
as defined by the Illinois Environmental Protection Act, Section 3.15: "waste, or combination of wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating reversible, illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed, and which has been identified, by characteristics or listing, as hazardous pursuant to Section 3001 of the Resource Conservation and Recovery Act of 1976, P.L. 94-580, or pursuant to (Illinois Pollution Control) Board regulations."

hierarchy
see "waste management hierarchy."

household hazardous materials
household items that have hazardous or toxic constituents, such as furniture polish, car wax, cleaners, paint thinners, solvents, oils, pesticides, and fertilizers.

IDENR
the Illinois Department Of Energy And Natural Resources.

IEPA
the Illinois Environmental Protection Agency.

incineration
the controlled burning of solid waste in a properly engineered furnace equipped with pollution control equipment and operated in accordance with all applicable environmental regulation.

industrial waste
solid waste generated at manufacturing or industrial process facilities.

institutional waste
solid waste generated at governmental facilities and quasi-governmental facilities such as schools, colleges and hospitals. This waste is included in the commercial and industrial waste quantity estimates contained in the Plan.

integrated system
a solid waste management and disposal system composed of interrelated

programs for volume reduction, including volume reduction at the source, recycling, composting, incineration with energy recovery, and a program for landfilling the remaining waste.

Intermediate Processing Facility
a facility constructed to separate, densify and load for transport those source-separated recycled materials collected by curbside programs.

landfill (also sanitary landfill)
a land disposal site which is permitted by the IEPA for disposal of waste without creating nuisances or hazards to public health or safety. At such sites the solid waste is spread in layers, compacted to the smallest practical volume, and covered with material, usually soil, at the end of each operating day.

landfill surcharges
fees collected by the State of Illinois for each ton or cubic yard of solid waste disposed of in landfills in the state. The term "landfill charges" also refers to fees collected by the County of DuPage for each ton or cubic yard of solid waste disposed of in landfills within the county. The fees are for use in enforcement programs, solid waste planning, and other functions as designated by the state and County.

landscape waste
leaves, grass clippings, brush cuttings, tree trimmings and other organic wastes generated from the care of yards and lawns.

leachate
a liquid that results from water moving through solid waste in a landfill, yard waste compost pile, or other storage or disposal site where waste is exposed to rain or another water source.

mass burn
the incineration process whereby unrecycled solid waste is burned to recover energy with little or no preprocessing of the waste prior to combustion.

material markets
end users of recovered (recycled) materials that process the recovered materials into new products; examples of material markets include tissue and paper mills, detinning plants, glass container manufacturing plants, and nurseries.

materials recovery
the act of processing waste into its individual components in order to recover recyclable materials; remove undesireable components; improve the quality of feedstock wastes for subsequent processes; and reduce the amount of material to be further processed, transported and disposed.

materials recovery facility
a facility constructed to process waste into individual components for materials recovery.

monofill (or ashfill)
a landfill which accepts only one type of waste usually ash. The Plan recommends a monofill for disposal of the nonrecycled or reused ash residue from the incinerator.

multi-material recycling center (MMRC)
a dropoff recycling facility serving more than one material.

municipal waste
a term which generally refers to residential, institutional and commercial waste. It usually does not include industrial waste and construction/demolition waste.

nonhazardous waste
solid waste which does not fall under the definition of hazardous waste.

O & M costs
operation and maintenance costs associated with the operation of solid waste management and disposal facilities.

permitting
the process of obtaining federal, state and local permits for the location, development, construction and operation of solid waste management and disposal facilities.

Plan
the DuPage County Solid Waste Management Plan.

Prevention of Significant Deterioration (PSD)
the USEPA permit program, administered by the IEPA, that analyzes the impacts of air emissions from new or modified sources of emissions, such as an incinerator, in places where the existing air quality is better than required by ambient air quality standards. This process also verifies that the Best Available Control Technology is being used to control pollutants emitted in significant amounts.

problematic materials
solid wastes which may pose special handling and disposal problems, including tires, household hazardous materials, used motor oil, and batteries.

procurement
the process of selecting and contracting with consultants and vendors specialized in particular aspects of solid waste planning, management, program implementation, and disposal services.

putrescible waste
wastes which are liable to decay or decompose and produce rotten or foul odors. Residential, commercial and industrial waste generally fall within this category.

RCRA
the Resource Conservation and Recovery Act, passed by the U.S. Congress in 1976 and designed to regulate solid and hazardous waste disposal. It is periodically amended, including a major revision in 1984.

recyclable materials
materials which have a useful second life in the economic cycle if they are successfully collected, separated, processed and marketed for return to the economic mainstream; examples include newspaper, aluminum, tin cans, glass containers, yard waste compost, and plastics.

Recycling Act
the Illinois Solid Waste Planning and Recycling Act (PA85-1198, sometimes referred to as SB 1616).

recycling
the process by which materials that would otherwise become waste, including but not limited to metals, glass, paper, leaves, yard wastes, and plastics, are collected, separated and processed, and returned to the economic mainstream in the form of reusable materials or new products. (Refer to October 5, 1989 IEPA guidance at end of definitions section for additional information)

refuse-derived fuel (RDF)
the fuel that is produced when solid waste is processed before combustion in order to reduce the size and quantity of inert materials and prepare a more homogeneous fuel source.

regional pollution control facilities
a solid waste storage, transfer, treatment, incineration or disposal facility that accepts waste from more than one unit of local government (see the Illinois Environmental Protection Act for a more detailed definition).

releases
see "emissions."

residential waste
solid waste generated by individual citizens or from household activities.

resource recovery
a term often used to describe the recovery of recyclable materials or energy from municipal waste. Although historically used in reference to waste-to-energy facilities, the term is now more broadly used to indicate various recovery practices prior to landfilling.

SB-172 siting process
the local site review and approval hearing process required by Illinois law (PA82-682) for all regional pollution control facilities.

secondary materials
an alterative term for recovered or recyclable materials.

siting
the process of identifying, evaluating and selecting locations for solid waste management and disposal facilities.

solid waste management system
a group of interrelated facilities and programs designed to reduce waste generation and to process, manage and dispose of all solid waste generated within a particular area.

solid waste management plan
a document or set of documents which (i) identify the solid waste problem for a particular area; (ii) present data concerning the dimensions of the problem; (iii) identify programs, facilities, standards, and other goals and objectives to remedy the problem; and (iv) develop a schedule and method for implementing the programs and facilities as well as for achieving the goals and objectives.

solid waste
nonhazardous solid or semi-solid materials which result from residential, institutional, commercial, office, industrial, construction and demolition activities and which are discarded as garbage, refuse or other waste.

special waste
defined by the Illinois Environmental Protection Act as "any industrial process waste, pollution control waste or hazardous waste" (see the Illinois Environmental Protection Act for further definition).

tipping fee
the fee charged to deposit waste materials at a transfer station, incinerator, landfill or other disposal site. This fee is usually expressed in terms of dollars per ton of waste material or dollars per cubic yard of waste material.

transfer station (waste)
a facility where waste is transferred from several smaller collection vehicles, such as residential garbage trucks, to a larger-volume truck or other shipping container designed to haul the waste to final disposal sites. Does not include facilities which receive source separated recyclables for processing and shipping.

USEPA
the United States Environmental Protection Agency.

volume reduction at the source
the reduction of waste volumes at the point of generation, accomplished by changes in packaging, consumer purchasing habits, and industrial processes; by public education; and by changes or modifications in other waste generating activities.

waste management hierarchy
the order of priority for consideration of solid waste management options designated in the Illinois Administrative Code Chapter II, Section 870.204. In order of preference, the options are (i) volume reduction at the source: (ii) recycling and reuse; (iii) combustion with energy recovery; (iv) combustion for volume reduction; and (v) disposal in landfills.

waste generation rate
an estimate of the average amount of solid waste which is generated by each person in DuPage County; measured as pounds of solid waste per capita per day (pcd).

wastestream
an alternative term for solid waste which emphasizes the concept of waste "flowing" from generators, such as homes or businesses, to management or disposal sites.

waste generation
actions or activities on the part of individuals, businesses, institutions and governments which create solid waste materials that require management or disposal.

waste reduction
a program of facility which reduces the volume of waste to be landfilled; examples include volume reduction at the source, recycling, composting and incineration.

waste-to-energy
the recovery and use of energy, in the form of heat, steam, or electrical energy, derived during the incineration of solid waste.

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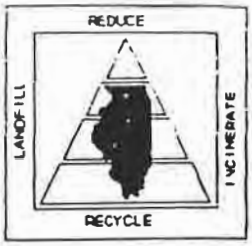


MEMO

DATE: October 5, 1989
TO: Interested Parties
FROM: IEPA Division of Land Pollution Control
SUBJECT: Recycling Rate Calculation for Solid Waste Planning

The Agency has received many questions from planners, consultants planning grant applicants and others concerning how to interpret several items in recycling rate determination and planning required in the Solid Waste Planning and Recycling Act. The definitions of "recycling" and "municipal waste" are not always clear and are even inconsistent with definitions of the same terms in other statutes. It is clear that the Agency should provide its interpretation of the applicability of the Act's definitions as it applies to several points.

Rather than attempt to re-define municipal waste and recycling that are already defined in the statute this policy will focus on specific points where an interpretation is needed. Remember, these interpretations do not define "municipal waste" and "recycling"; the statute does that. This policy simply addresses the Agency's interpretation of a number of questions. An activity or material that is not included in the interpretations below should simply be compared to the statutory definitions. The policy should be amended as new issues are identified. For reference, the definitions of "Municipal waste" and "Recycling" in the Solid Waste Planning and Recycling Act are included below:

"Municipal waste" means any garbage, refuse, industrial lunchroom or office waste, and other material resulting from operation of residential, municipal, commercial or institutional establishments and from community activities.

"Recycling" means any process by which materials that would otherwise become municipal waste, including but not limited to metals, glass, paper, leaves, and plastics, are collected, separated or processed and returned to the economic mainstream in the form of raw materials or products.

AGENCY INTERPRETATION AND POLICY ON CERTAIN QUESTIONS:
Municipal waste does include:
a) abandoned or discarded household or commercial appliances such as stoves, refrigerators, washing machines and the like.
b) special wastes generated from municipal, commercial or institutional establishments such as POTW sludge, waste oil from service stations and the like.
c) abandoned or waste parts from motor vehicles normally removed as a part of regular maintenance such as tires and batteries.
d) construction and demolition debris from buildings and roads.
e) wastes collected in a household hazardous waste collection.
f) landscape waste.

Municipal waste does not include:
a) abandoned or "junk" motor vehicles.
b) special waste generated through an industrial operation or process.
c) hazardous waste.
d) earth materials moved or removed during demolition or construction.
e) scrap metal from industrial operations such as machining, lathe work, tool and die operations and the like.
f) municipal waste used as clean fill, road base material or other uses constituting disposal.

Recycling does include:
a) composting operations where the waste, once composted, is returned to the economic mainstream or replaces other raw materials for fertilizer, soil conditioner or mulch.
b) shredding operations where the waste is returned to the economic mainstream or replaces other raw materials as soil conditioner, mulch or erosion control.
c) re-using construction or demolition debris for building construction purposes or re-use as road surface materials.
d) using waste for commercial feed such as mink farms, swine operations or fish production.
e) processing waste at a rendering facility for return to the economic mainstream.
f) processing municipal waste, particularly metal appliances, for metal recovery.
g) applying landscape or other municipal waste directly to agricultural land at agronomic rates.

Municipal waste recycling rate is calculated: as the percentage derived by dividing the weight of the municipal waste generated within the area of concern being recycled (or planned for recycling) over a year by the weight of the municipal waste generated (or expected to be generated) within the area of concern during the same year.

The weight of municipal waste being recycled: is the weighed amount of municipal waste received (or planned for receipt) for recycling minus the weighed amount of material remaining after processing that is not recyclable.

SECTION 1.0
INTRODUCTION, BACKGROUND AND PURPOSE

- PURPOSE -

The purpose of this document is to provide options for long-term solid waste disposal first in an environmentally sound and, second, in a cost-effective manner for the residents of DuPage County. This document has been prepared in order to provide decision makers with a guidance document for future actions as well as to meet a State of Illinois mandate for the preparation of a solid waste plan.

1.1 INTRODUCTION

In 1988 the Illinois Legislature passed Public Act 85-0990 which requires counties having a population of 100,000 or more to prepare, consider and adopt solid waste plans for submittal to the Illinois Environmental Protection Agency (IEPA) by March 1, 1991. This document has been prepared in order to satisfy the State mandate and provides a waste management plan for the long-term management of municipal solid waste generated in the DuPage County planning area. This document entitled "DuPage County Solid Waste Management Plan, 1990" will be referred to as "Plan-1990" throughout the document.

Plan-1990 presents information describing current waste generation and disposal practices in the planning area as well as projections for future waste generation and disposal capabilities. This information is used to identify solid waste management needs in the planning area. After definition of solid waste management needs, Plan-1990 presents and evaluates various options available to satisfy apparent needs in the future.

1.2 ORGANIZATION

Plan-1990 consists of two principal divisions. The first division (this volume) provides the base reporting and recommendation document for the solid waste planning effort. The second division consists of technical appendices which provide the detailed analyses and information used in Plan-1990. The appendices are listed as follows:

A-1 Needs Assessment

A-2 Waste Reduction, Recycling And Landscape Waste Diversion (Phase I Waste Management)

A-3 Materials Recovery By Waste Processing (Phase II Waste Management)

A-4 Final Waste Processing/Disposal Options (Phase III Waste Management)

- Combustion Technology Assessment
- Landfilling Technology Assessment
- Transfer Technology Assessment
- Other Technologies Assessment

In addition to the appendices listed above, Plan-1990 is supported by the waste planning documents which have been previously developed by the County. These planning documents are listed and summarized in Section 1.4.

1.3 REQUIREMENTS FOR SOLID WASTE PLAN

1.3.1 Legislative Requirements

Public Act 85-0990 requires the County to develop, consider and adopt a solid waste plan by March 1, 1991. The plan is to be submitted to the IEPA for its review within ten days of adoption. Further, the County is required to implement the plan within one year of adoption.

The solid waste plan must conform to the requirements for contents as provided in the Act, a copy of which is included in Appendix B. However, major requirements of the Act for content of the plan may be summarized as follows:

- It must contain an assessment of the generation of waste in the planning area at the current time and an assessment of the amount of waste to be generated during a 20 year planning period.

- It must describe the current disposal facilities available in the planning area and assess the remaining capacity.

- It must describe the facilities and programs proposed for the management of waste throughout the 20 year planning period and in this description must evaluate the facility in terms of environmental, energy and cost factors.

- It must provide a time schedule for the implementation of the plan.

- It must identify potential sites for waste management facilities proposed in the county or a method by which such sites will be chosen. Further, for sites chosen which are located outside of the county, the plan shall describe the reasons for selecting the facility.

- It must identify the **governmental entity** responsible for implementing the plan.

- **It must be updated at 5 year intervals after its formal adoption by the county.**

- It must conform with the State Of Illinois' hierarchy for the management of municipal solid waste.

- It must contain a recycling program which shall be implemented throughout the county and be designed to recycle, by the end of the third and fifth years respectively, 15% and 25% of the municipal waste generated within the county.

The Act also requires that the plan be afforded the opportunity for public comment and input during the preparation and consideration process. It requires the formation of a "citizens' advisory committee" to participate in the preparation and review of the plan. It also requires that the plan be subjected to formal

public comment by a defined process prior to its adoption by the county.

Finally, the Act allows for a civil penalty of $5,000 for violation of any provision of the Act.

1.3.2 Assigned Committees

Solid waste activities at the County have been directed by two committees of the County Board for the period from 1988 through 1990. They were the DuPage Solid Waste Planning Committee (Waste Planning Committee) and the DuPage County Wastestream Reduction Committee (Wastestream Reduction Committee). The Waste Planning Committee had the principal responsibility of planning for the management of waste while the Wastestream Reduction Committee evaluated options to reduce the amount of waste requiring management, processing and disposal. Beginning in 1991, these two committees will be combined into a single committee.

The DuPage **County** Solid Waste Planning Committee was formed in 1982 to evaluate and recommend activities necessary to insure long-term solid waste disposal capability for DuPage County residents. Several issues during the early 1980's spurred the committee to conclude that it should carefully examine solid waste issues. For this subject, it was clear to the Committee that comprehensive long-range planning was required.

Until 1986 the Committee was a standing committee of the DuPage County Board and was comprised only of County Board members. In 1986 representatives from the DuPage Mayors And Managers Conference were seated on the Committee in order to provide local government representation. In 1987 the DuPage Solid Waste Planning Committee was formed in accordance with the newly enacted Public Act 85-14, the text of which was developed through discussions between county representatives and members of the DuPage Mayors And

Managers Conference regarding possible methods to provide coordinated solid waste planning and implementation authority. For further information on this formation, the reader is directed to the DuPage County Solid Waste Management Summary Feasibility Report, January, 1988. The Waste Planning Committee is currently comprised of equal membership from the DuPage County Board and the DuPage Mayors And Managers Conference. Five members are appointed from each group with a County Board member and municipal member from each of the five County Board districts.

The Wastestream Reduction Committee was comprised of five County Board members. Its activities were coordinated with the Waste Planning Committee and vice versa by regular chairman's reports in each committee, each chairman serving on the alternate committee as a member. In 1991 this committee will be combined with the Waste Planning Committee. The new DuPage Waste Planning And Waste Reduction Committee will have five municipal members and five County Board members.

1.3.3 Authorities And Responsibilities

The Waste Planning/Reduction Committee has been authorized by the County Board to develop the solid waste plan for the County as required by Public Act 85-0990. The DuPage County Board is the designated governmental authority for implementation of the solid waste plan developed by the Waste Planning/Reduction Committee. However, the joint county/municipal committee is also empowered to direct the implementation of the plan. Public Act 85-14 sets out authorities allowed to the Waste Planning/Reduction Committee and the County Board relative to solid waste plan preparation and implementation. Key provisions are summarized as follows:

- The exercise of powers related to solid waste management are authorized throughout the county after adoption of the solid waste plan by the County Board.

- The County is authorized to plan for, enter into contracts for, and own and operate waste management systems.

- The County has the power to produce and sell any product resulting from the storage, treatment and disposal of waste, including but not limited to the generation of steam, hot water and electricity by combustion, refuse-derived fuel (RDF), and any recycled or reused materials withdrawn from the wastestream by activities of the County.

- The County is authorized to acquire land for the specified purposes.

- The County is authorized to regulate and control the method of disposal of wastes generated from any premises within the borders of the county.

- A process for formation of a Solid Waste Committee made up of equal County Board and municipal official membership is established with the authority to prepare and implement the plan.

- The County is authorized to prepare a Solid Waste Management Plan as is described in the Local Solid Waste Disposal Act.

- The County is authorized to [control] the disposal of waste within the borders of the county except that the County shall not have the authority to [control] the collection of waste within municipal corporate boundaries.

- In addition to revenue bond authority, the County is authorized to issue general obligation bonds for waste management facilities following approval by general referendum.

In addition to the above authorities, Public Act 85-0990 provides the County with the authority to require mandatory separation of recyclable components of the wastestream in order to implement the recycling elements of the solid waste plan.

1.4 PREVIOUS SOLID WASTE PLANNING EFFORTS

1.4.1 Introduction

Plan-1990 is preceded by three phases of solid waste planning. They can be described as technology review, detailed feasibility analyses, and a draft solid waste plan. Also, a landscape waste feasibility report was previously developed as was an interim version of a recycling plan. These previous reports are described in Sections 1.4.2 through 1.4.9. All were prepared by the Department of Environmental Concerns for review by the Wastestream Reduction and Waste Planning Committees. The reports are available as supplemental reports supporting this document and are listed as follows:

1. Alternatives Refuse Disposal Systems - Resource Recovery Phase I, February 1986.
2. DuPage County Solid Waste Recycling Study, November 1987.
3. DuPage County Solid Waste Waste-To-Energy Study, December 1987.
4. DuPage County Landfill/Ashfill Feasibility Study, January 1988.
5. DuPage County Solid Waste Management Summary Feasibility Report, January 1987.
6. DuPage County Solid Waste Management Landscape Waste Feasibility Report, August 1989.
7. DuPage County Solid Waste Recycling Plan - Phase I - Residential, November 1988.
8. DuPage County Solid Waste Management Plan, September 1988.

1.4.2 Alternative Refuse Disposal Systems - Resource Recovery Phase 1, February 1986

The first phase of solid waste planning consisted of preparation of one report titled Alternative Refuse Disposal Systems - Resource Recovery Phase 1, February, 1986. The purpose of this study was to review various solid waste disposal systems providing alternatives to the current disposal method of sanitary landfilling. A shortened list of preferred waste management technologies which represented commercially viable alternatives to current disposal methods was derived.

Thirty alternative solid waste disposal technologies were reviewed and compared to the existing sub-regional sanitary landfill method of refuse disposal. After review, the preferred technologies endorsed by the Waste Planning Committee and the County Board (reference Resolution SW-002-86) included in decreasing order of preference: mass burn incineration; refuse derived fuel for local reuse or resale; landfilling; and no action. For additional information regarding the detailed process by which this determination of preferred technologies was made, the reader is directed to the DuPage County Solid Waste Management Summary Feasibility Report, January 1988. At the same time that this expression for technology was made, the Waste Planning Committee also recognized the importance of recycling as a waste reduction measure. The County Board officially recognized that waste reduction through recycling should be a goal of DuPage County and its municipalities (reference Resolution SW-003-86). Therefore, recycling was incorporated into the preferred technologies for evaluation.

1.4.3 DuPage County Solid Waste Recycling Study, November 1987

This study assessed recycling as a waste disposal technology and included the following:

- A description of local community conditions
- An evaluation of recycling feasibility in light of local conditions
- An assessment of current recycling in DuPage County and other state and Illinois communities
- A review of recycling technologies and the formulation of alternative recycling program options appropriate for DuPage County
- The identification of implementation strategies and the estimation of program option costs
- An evaluation of markets for recyclable materials

The study recommended a framework for recycling plan development including the following six key elements:

- Program Organization and Initiation
- Expansion of Existing Programs
- Composting Program for Yard Wastes
- Establishment of Additional Drop-off Centers
- Curbside Collection
- Curbside/Industrial/Institutional Outreach

1.4.4 DuPage County Solid Waste Waste-To-Energy Study, December 1987

This study provided a detailed evaluation of the feasibility of construction of one or more waste-to-energy plants in DuPage County. Major components of the study included the following:

- Examination of the current solid waste collection and disposal systems in DuPage County, and an assessment of current and projected solid waste generation, expected seasonal variations, and wastestream composition
- Identification, description, and comparison of waste-to-energy technologies as recommended in Phase I
- Assessment of the availability and viability of potential energy markets for the sale of steam, hot water and electricity throughout the County

- Development of three alternative scenarios for waste-to-energy plants including design capacity, candidate sites, and energy products
- Evaluation of recommended alternatives
- Assessment of potential environmental impacts of proposed facilities and review of pertinent environmental regulations
- Examination of legal/institutional issues affecting project development and a proposed schedule for implementation

1.4.5 DuPage County Landfill/Ashfill Feasibility Study, January 1988

This study provided a detailed evaluation of the feasibility of siting and developing new sanitary landfill(s) or ash monofill(s) in the county. Major components of the study included the following:

- Examination of transport and disposal of waste in DuPage County
- Examination of regulations affecting provision and operation of landfill facilities
- Discussion of incinerator residue disposal considerations
- Examination of the economics of landfilling
- Examination of potential site availability for landfill development in the county utilizing a successively more restrictive site screening procedure
- Discussion of landfill development and ownership issues
- Identification of groundwater protection, leachate and gas management issues requiring consideration in design
- A proposed schedule for subsequent project development activities

1.4.6 DuPage County Solid Waste Management Summary Feasibility Report, January 1987

The summary feasibility report provided background information in satisfaction of Public Act 85-1319, The Solid Waste Management Act; summarized recommendations and conclusions from the recycling, waste-to-energy, and landfill/ashfill feasibility studies; and made overall recommendations listed below for solid waste management in DuPage County. An Executive Summary for DuPage County Solid Waste Management Summary Feasibility Report was also prepared as a separate document. Recommendations of the summary feasibility report included the following:

- The no-action alternative was not recommended because it did not insure long-term solid waste disposal capability for DuPage County residents. The no-action alternative would not provide options for long-term solid waste disposal capability in an environmentally sound, cost-effective manner.

- Waste reduction through recycling was recommended. Although recycling cannot by itself insure adequate disposal capability in an environmentally sound cost-effective manner, it maximizes the disposal capabilities of other options and was considered a necessary component of any waste disposal system.

- It was recommended that appropriate steps be taken to assure interim disposal capability until alternate facilities are placed on-line.

- Coordinated transportation of waste outside of the county for disposal was not recommended, at the time, due to current and future uncertainty over site(s) availability and financial and environmental liabilities.

- It was recommended that phased implementation of waste-to-energy be given additional consideration and analysis by the Committee.

- Additional broad recommendations were made with the above recommendations in mind. They were:

  1. If waste-to-energy technology is not pursued:

- waste reduction via recycling should be pursued to minimize landfilling;

- landfill capacity should be assured at existing sites or new sites with sites 9, 13, and 10 (identified in the Landfill/Ashfill Study) having apparently suitable geology based on very limited information; and

- "other sites"* may be considered

2. If waste-to-energy technology is pursued:

- waste reduction via recycling should be pursued to minimize additional processing and landfilling;

- residue disposal capability should be assured at existing sites or new sites, with sites 9, 13, 10, and 7 having apparently suitable geology based on very limited information. Existing sites, as currently developed and operated, were not recommended for disposal of ash;

- Waste-to-energy facility(ies) should be provided to serve markets, in preliminary order of preference, at:

  1. Argonne National Laboratory;

  2. Naperville;

  3. A northern site for Commonwealth Edison; and

  4. "Other markets"*

  * "Other sites and markets" are those facilities which may arise in the future and which are not currently identified

(Note: Sites 9 and 10 were subsequently dropped from consideration by the Committee. Much of site 13 was subsequently purchased by the Forest Preserve District.)

1.4.7 DuPage County Solid Waste Management Landscape Waste Feasibility Report, August 1989

The Landscape Waste Feasibility Report provides a comprehensive overview of the landscape waste practices and alternatives applicable to DuPage County. Although prepared after other feasibility reports it is described here due to its purpose as a feasibility report. The feasibility report addressed all aspects inherent in the management of the targeted wastestream from collection methods to processing and disposal options. This document served as the foundation for the county's planning and coordination activities directed towards timely compliance with Illinois Public Act 85-1430.

After a thorough assessment of the collection, processing and disposal alternatives available to DuPage County, the following recommendations were set forth in the Landscape Waste Feasibility Report. The recommendations were reviewed by the Wastestream Reduction Committee.

- The County should develop and implement a public education campaign to encourage source reduction of landscape waste. In particular, steps should be taken to encourage homeowners not to pick-up their grass clippings for collection and off-site disposal.
- The County and municipalities should take appropriate steps to attain flow control capability for landscape waste.
- The County should enact an ordinance prohibiting the open burning and illegal disposal of landscape waste in the unincorporated areas.
- Realizing that a composting site(s) will be required for the processing of landscape waste, while recognizing the inherent uncertainties associated with the management of this component of the wastestream, such facilities should be located at existing available sites suitable for such purposes on an interim basis.

- In order to facilitate a regional approach to landscape waste management, standardized collection practices for the target wastestream should be established.

- After establishment of (at a minimum) interim disposal capability, the County should move expeditiously to perform a comprehensive marketing survey and to develop a market/disposal strategy for processed landscape waste products.

- Data regarding generation rates and system requirements obtained from the interim landscape waste management operations should be used to develop plans for the establishment of long-term disposal capability. Fees charged for the provision of interim disposal should incorporate a surcharge to offset future project development costs.

- The alternative use of grass clippings as a daily cover material at local landfills should be pursued.

- Wood wastes should be addressed in a comprehensive manner with components. Processing capability for wood waste commingled with other landscape waste as well as any that is collected separately should be established.

1.4.8 DuPage County Solid Waste Recycling Plan - Phase I - Residential, November 1988

The Recycling Plan serves as an interim working document pending approval of a comprehensive solid waste plan. The recycling plan:

- Examined existing recycling programs in the area and offered observations on recycling status;

- Defined roles and responsibilities of entities to be involved in recycling program;

- Provided the conceptual design of a recycling system and program for the county; and

- Described an implementation mechanism for the recycling program.

The Recycling Plan was first released in September 1988 and revised in November 1988. The Recycling Plan was subjected to two

formal public comment processes. The second public comment period ended January 12, 1990 and the Recycling Plan as revised was approved by the Waste Planning Committee on January 17, 1990. The Recycling Plan was approved by the County Board on January 23, 1990 (reference Ordinance OSW-002-89). Public comments and subsequent revisions for the Recycling Plan have been compiled in the DuPage County Solid Waste Management Recycling Plan Phase I - Residential, Public Comment/County Response document dated January 12, 1990.

1.4.9 DuPage County Solid Waste Management Plan, September 1988

This planning document was prepared as a draft version of a complete solid waste plan. It was prepared after preparation of the feasibility reports described above (except the Landscape Waste Feasibility Report) and after extensive public comment on the feasibility reports. Public comments were used in order to refine basic alternatives which had been presented in the feasibility reports. It recommended the development of a set of programs and facilities which together would provide DuPage County residents with a reliable system for environmentally responsible and cost-effective means of solid waste disposal.

The document recommended a detailed set of recycling programs and facilities to decrease the amount of waste requiring disposal by a minimum of 25% within five years. The proposed recycling program included curbside collection of materials; additional drop-off centers; central processing facilities for the sorting of collected materials and preparation for shipment to markets; a program for the collection and composting of yard wastes; and a commercial/industrial/institutional outreach program to encourage recycling there.

Supplementing the recycling program would be a waste-to-energy facility which would recover energy in the wastes remaining after recycling while also reducing the volume of waste requiring

disposal by landfilling. The provision of landfill capacity for those wastes not recycled or combusted as well as ashfill capacity for the ash generated by the waste-to-energy facility were also addressed.

The major recommendations presented in the document plan follow. The document was never endorsed by the Waste Planning Committee nor approved by the County Board and the following recommendations are presented only for historical perspective. **They do not constitute recommendations for Plan-1990.** For additional information regarding the justification of these recommendations, which represented nearly three years of investigation and analysis, the reader is directed to the supplemental reports.

1. The County should adopt a goal of reducing the amount of residential, commercial and industrial waste to be disposed by a minimum of 25% within five years through a combination of strategically selected recycling and waste diversion activities. (This goal was endorsed by County Board adoption of the Recycling Plan.)

2. Waste processing by waste-to-energy should replace landfilling as the primary means of disposal of non-recycled wastes.

3. Both of the existing publicly-owned sanitary landfills should not be closed in 1993, the time at which the operating contracts expire. If only one of the landfills is kept open, it is recommended that the Greene Valley Landfill be that facility.

4. The preferred location of a waste-to-energy facility in the county is adjacent to existing sanitary landfill operations at the Greene Valley landfill.

5. Disposal of residue from the proposed waste-to-energy facility should occur at a specially designed monofill cell(s) at the Greene Valley Landfill.

6. The County should proceed immediately with subsequent activities leading to implementation of a waste-to-energy facility.

7. The need for a transfer station and a separately sited ashfill should be evaluated and addressed as part of subsequent solid waste planning efforts.

8. The County should proceed with those actions which are necessary to implement, within DuPage County, the disposal facilities recommended in the plan. However, the County should not preclude the possibility, until necessary, of using out-of-county disposal facilities as long-term waste management methods, if such facilities can meet required assurances for environmental protection, financial commitments and long-term dedicated capacity.

9. The County should pursue the schedule provided to implement the plan.

1.5 STATUS OF PREVIOUS SOLID WASTE PLANNING EFFORTS

A description of activities related to review and public comment on the reports preceding the DuPage County Solid Waste Management Plan, September 1988 is contained in that document. That plan document was met with much criticism at the time of its release due to its consideration that at least one, if not both, of the existing landfills in DuPage County would be available for disposal for an extended period of time and at least beyond the contract termination dates of 1993. However, the controlling contracts for the operation of the two landfill sites fall under the authority of the DuPage Forest Preserve District and the decision to extend the contract completion dates had not been made.

Summarizing previous opposing public comments made relative to site selection, when alternatives for waste disposal which involved new sites in the county were discussed, public reaction was that existing sites had much remaining capacity and that new sites were not needed. However, when the continued use of existing sites was discussed, public reaction from surrounding residents was that the existing sites should be closed when the current contracts for operation expire in 1993.

In 1989 the Waste Planning Committee suspended the discussion of alternatives for the long-term disposal of waste pending clarification of contract status by the Forest Preserve District. The Waste Planning Committee took this action after realizing that its consideration of waste disposal options and, especially, its credibility in being able to present disposal options to the public hinged upon some resolution of whether or not the existing landfills would be available for an extended period of time in the future. Although the status of contracts for operation had not been resolved by the Forest Preserve District at the time of initial preparation of this document, the Forest Preserve District had determined that the two existing landfills should be filled to their permitted capacities and not be closed prior to reaching those capacities (reference FPD Resolutions 90-202 and 90-203).

On November 28, 1990 the Forest Preserve District approved amendments to the two landfill operating contracts which will substantially change the manner of waste receipt at the two sites in the future. The amendments, effective in 1992, will allow the Forest Preserve to limit the receipt of waste and effectively allow for the landfills to receive DuPage waste for an extended period of time.

The Review Draft editions of Waste Plan-1990 were issued in October of 1990. The current version of Plan-1990 has been revised throughout to reflect this important development in providing local solid waste disposal capability.

1.6 OBJECTIVES AND CONDITIONS OF THE PLANNING EFFORT

The principal objective in the preparation of Plan-1990 is to provide options for long-term solid waste disposal capability first in an environmentally sound and, second, in a cost-effective manner for the residents of DuPage County. Plan-1990 has been prepared in order to meet the requirements of Public Act 85-0990 which mandates

its preparation and adoption as well as to serve as a tool for the County of DuPage in implementation of a comprehensive solid waste management strategy for the future.

Key conditions and limits which have been important in defining scope, emphases, and assumptions of the waste planning efforts are as follows:

- Service Area: The defined service area for this planning effort is the County of DuPage with the consideration of DuPage County communities that may have borders which may extend beyond county lines to participate in the County's program. Communities with at least 33 percent of their population in the county now or during the planning period are allowed this option (reference Resolution SW-0002-90).

- Wastestream: Wastestreams proposed for service include residential, commercial, institutional, industrial and construction/demolition waste generally regarded as municipal solid waste.

- Preference For Waste Management Techniques: The planning effort has been conducted to conform with the State of Illinois' waste management hierarchy as required by Public Act 85-0990 and as directed by the County Board in resolutions SW-002-86 and SW-003-86.

- Existing Disposal Sites: The two existing landfill sites in DuPage County are owned by the Forest Preserve District with operations contracted out to private operators. The contracts for operation were amended by the Forest Preserve and the operators on November 28, 1990. The amendments effectively allow for the two landfills to remain open until filled to capacity and allow filling operations to be limited thereby allowing for the sites to remain open for an extended period of time. Plan-1990 assumes that the two landfills will be available for final disposal for an extended period of time. However, options which could replace existing landfill operations as the final disposal sites are assumed to not be implemented until such time as the two existing landfills are no longer available or disposal is limited. Options preceding final disposal and providing for the processing or preparation of waste prior to final disposal could be implemented while the two existing landfills are operational in order to provide additional disposal capacity.

- Planning Period: The period used for analyses in Plan-1990 is the 20 year period from 1990 to 2010. However, the options presented which would by their implementation replace the two existing landfills may not be implemented for several years. Therefore, this document addresses a planning period which may extend beyond the 20 year planning period identified.

plan1

SECTION 2.0
EXISTING SOLID WASTE MANAGEMENT SYSTEM AND ASSESSMENT OF NEEDS

2.1 PLANNING AREA (DUPAGE COUNTY) LOCATION AND DEMOGRAPHICS

Located in northeastern Illinois, DuPage County is bordered by Cook County to the east and north, Kane County to the west, and Will County to the south. Figure 2-1 illustrates the location of DuPage County within the State of Illinois. DuPage County's boundaries encompass 332 square miles. The county is divided into nine townships and includes 35 incorporated cities or villages, 23 of which lie wholly within the county. A map of the county identifying the location of individual municipalities is presented as Figure 2-2.

Twenty miles west of Chicago, DuPage County's proximity to the highly urbanized areas of the greater Chicago metropolitan area has historically had a significant impact upon its solid waste management system. DuPage County itself has become more metropolitan over the past 15 years. The sustained economic growth experienced in the area has had a clear effect upon its demographic characteristics.

According to the U.S. Census Bureau, approximately 658,876 people resided in DuPage County in 1980. Recent projections developed by the DuPage County Planning Department indicate that the population will have climbed to 813,806 by 1990, an increase of over 23% in just ten years. By the year 2000 the population is expected to increase another 6% to approximately 922,631 people.

The major catalyst fueling this dramatic increase in population has been the impressive amount of economic development occurring within the planning area. DuPage County has enjoyed an expansion in a variety of commercial sector activities ranging from

FIGURE 2-1

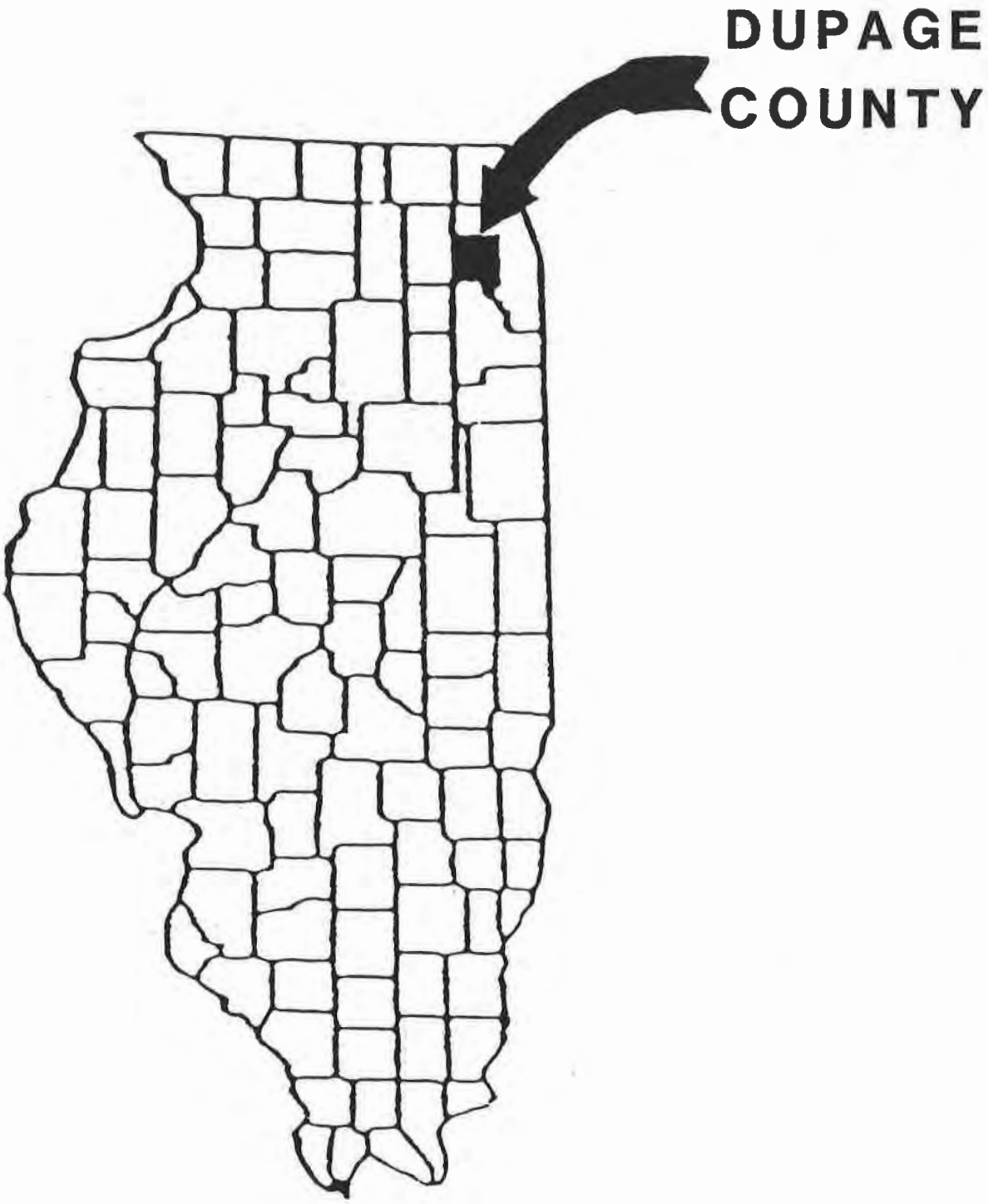
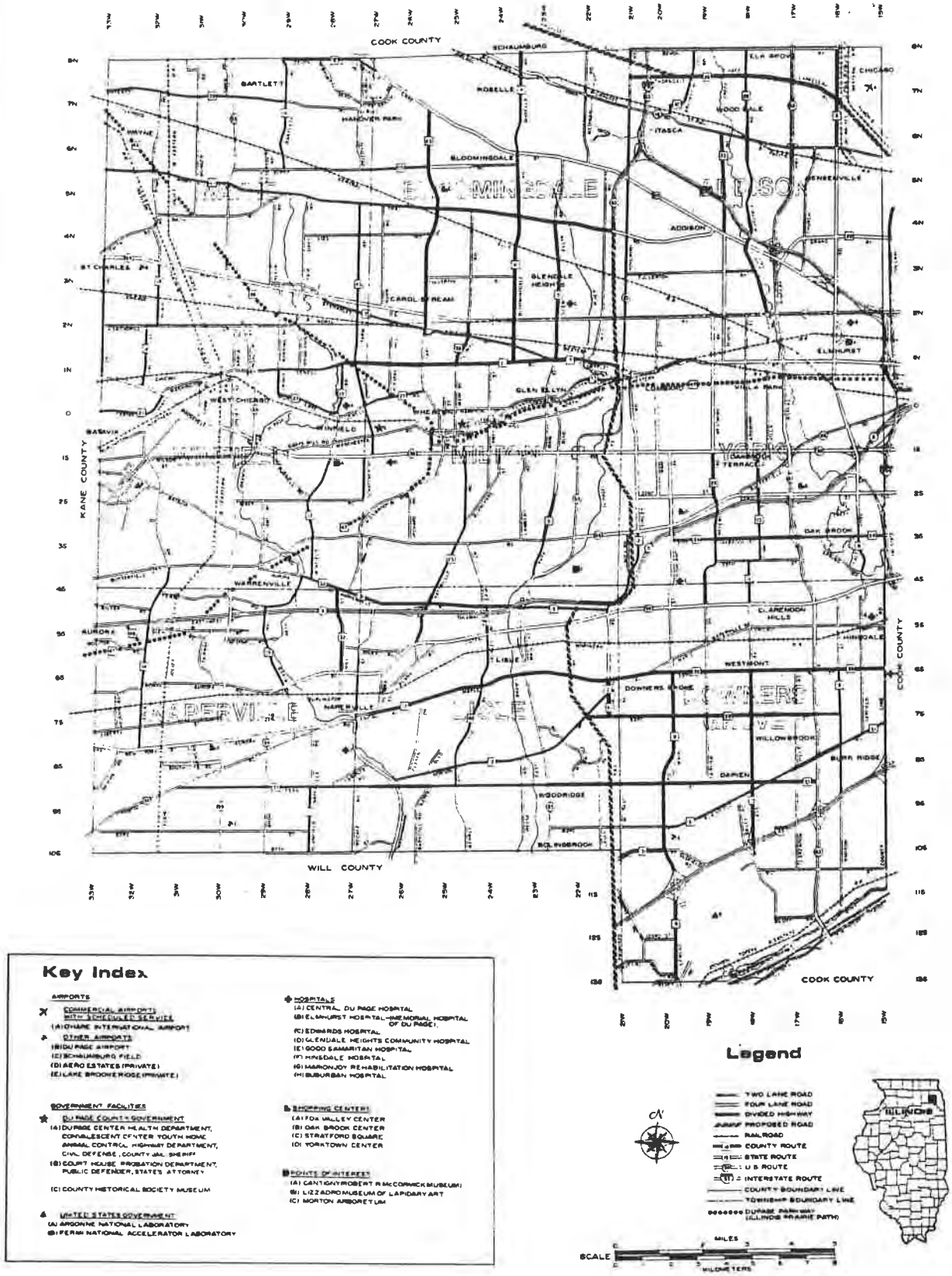


FIGURE 2-2

DuPage County



Key Index

AIRPORTS

- COMMERCIAL AIRPORTS WITH SCHEDULED SERVICE
  - (A) O'HARE INTERNATIONAL AIRPORT
- OTHER AIRPORTS
  - (B) DU PAGE AIRPORT
  - (C) SCHAUMBURG FIELD
  - (D) AERO ESTATES (PRIVATE)
  - (E) LAKE BROOKE RIDGE (PRIVATE)

GOVERNMENT FACILITIES

- DU PAGE COUNTY GOVERNMENT
  - (A) DU PAGE CENTER HEALTH DEPARTMENT, CONVALESCENT CENTER YOUTH HOME, ANIMAL CONTROL, HIGHWAY DEPARTMENT, CIVIL DEFENSE, COUNTY JAIL, SHERIFF
  - (B) COURT HOUSE PROBATION DEPARTMENT, PUBLIC DEFENDER, STATE'S ATTORNEY
  - (C) COUNTY HISTORICAL SOCIETY MUSEUM
- UNITED STATES GOVERNMENT
  - (A) ARGONNE NATIONAL LABORATORY
  - (B) FERMI NATIONAL ACCELERATOR LABORATORY

HOSPITALS

- (A) CENTRAL DU PAGE HOSPITAL
- (B) ELMHURST HOSPITAL-MEMORIAL HOSPITAL OF DU PAGE)
- (C) EDWARDS HOSPITAL
- (D) GLENDALE HEIGHTS COMMUNITY HOSPITAL
- (E) GOOD SAMARITAN HOSPITAL
- (F) HINSDALE HOSPITAL
- (G) MARIONJOY REHABILITATION HOSPITAL
- (H) SUBURBAN HOSPITAL

SHOPPING CENTERS

- (A) FOX VALLEY CENTER
- (B) OAK BROOK CENTER
- (C) STRATFORD SQUARE
- (D) YORKTOWN CENTER

POINTS OF INTEREST

- (A) CANTIGNY/ROBERT R McCORMICK MUSEUM)
- (B) LIZZADRO MUSEUM OF LAPIDARY ART
- (C) MORTON ARBORETUM

Legend

- TWO LANE ROAD
- FOUR LANE ROAD
- DIVIDED HIGHWAY
- PROPOSED ROAD
- RAILROAD
- COUNTY ROUTE
- STATE ROUTE
- U S ROUTE
- INTERSTATE ROUTE
- COUNTY BOUNDARY LINE
- TOWNSHIP BOUNDARY LINE
- DUPAGE PARKWAY (ILLINOIS PRAIRIE PATH)

ILLINOIS

SCALE: MILES, KILOMETERS

manufacturing to retail services. Several large corporations have located their home offices and/or research centers within the area. Employment statistics provided by the Planning Department reflect this trend. In 1985, 376,630 people found employment in DuPage County. Projections show this number increasing to 415,857 (up 10.4%) by 1990.

This rapid expansion of the job market within DuPage County is expected to continue throughout the 1990's. By the year 2000, the estimated number in the work force will have reached about 521,600 - a dramatic 28% increase in just 15 years. Considered to be one of the most affluent counties within the United States, the per capita income for DuPage County residents was estimated at $16,924 in 1987. The economic prosperity experienced within the area over the past ten years has important implications for this planning effort. For example, the relative affluence found within the county will translate into a higher than average per capita waste generation rate.

Accompanying this steady economic growth, there has been a significant increase in the assessed valuations within the county. During the 1980's, the total assessed valuations for DuPage County more than doubled - exceeding $12 billion by 1989. A portion of this increase can be attributed to the construction of residential dwellings intended to house the influx of individuals finding employment within the county. By 1985 a total of 169,040 single family households and 83,010 multiple family households had been established in DuPage County (67% and 33% of the total, respectively). Projections made by the Planning Department indicate that the county can expect the total number of households to increase by about 33% by the year 2000. The growth in the number of multiple family dwellings during this period is expected to narrow the gap between single family and multiple family households. By 2000 it has been estimated that there will be

202,210 single family units (60.4%) and 334,640 multiple family units (39.6%).

According to projections made by the Northeastern Illinois Planning Commission (NIPC), this expansion is expected to continue over the next twenty years. The impressive growth rates experienced in DuPage County since the early 1980's have established it as one of the fastest growing counties in the Midwest. This rapid fluctuation in the demographic characteristics of the planning area will necessitate the continuous monitoring of population and employment trends. This activity would be especially important prior to the construction of any large scale disposal facilities.

2.2 EXISTING WASTE COLLECTION, DISPOSAL AND MANAGEMENT SYSTEMS

2.2.1 State of Illinois and Northeast Illinois

In October, 1990, the IEPA prepared its fourth annual report on "Available Disposal Capacity for Solid Waste in Illinois." This report indicates that northeastern Illinois currently has 25 active solid waste landfills and 1 waste-to-energy facility. These facilities are listed in Table 2-1 and their locations are shown in Figure 2-3. The region's waste-to-energy facility and landfills reported a total available capacity of 167,707,092 cubic yards as of April 1, 1990. Table 2-2 provides a summary of disposal practices by county. Available data on landfill capacity and disposal volumes was used to estimate the life expectancy of the existing solid waste capacity in northeastern Illinois. The IEPA report contends that at current disposal rates, the region's capacity is likely to be exhausted between 1995 and 1997.

TABLE 2-1
SOLID WASTE DISPOSAL CAPACITY IN NORTHEASTERN ILLINOIS
AS OF 10/90

Facility (reported)	Remaining Capacity (cu. yd.)	Waste Disposed (cu. yd.)	Years Remaining (reported)
COOK			
American Grading Co.	596,957	141,360	4
Chicago Heights Refuse	0	0	0
Chicago Northwest Incinerator		1,322,893	
CID #2 (WMI)	11,179,746	1,728,648	6
Fitz-Mar Landfill	0	120, 569	0
Lake Landfill (WMI)	9,656,286	3,366,508	2
Land & Lakes #3	2,438,728	662,203	4
Land & Lakes #2	946,061	1,009,516	1
Land & Lakes (Dolton)	1,503,590	179,825	3
Paxton Landfill #2	0	891,159	0
Sexton (Lansing)	0	394,874	0
Sexton #2	6,918,975	2,981,025	3
Winnetka Municipal	436,208	43,896	10
DUPAGE			
Greene Valley (WMI)	36,566,505	2,612,508	14
Mallard Lake	29,668,692	4,248,854	7

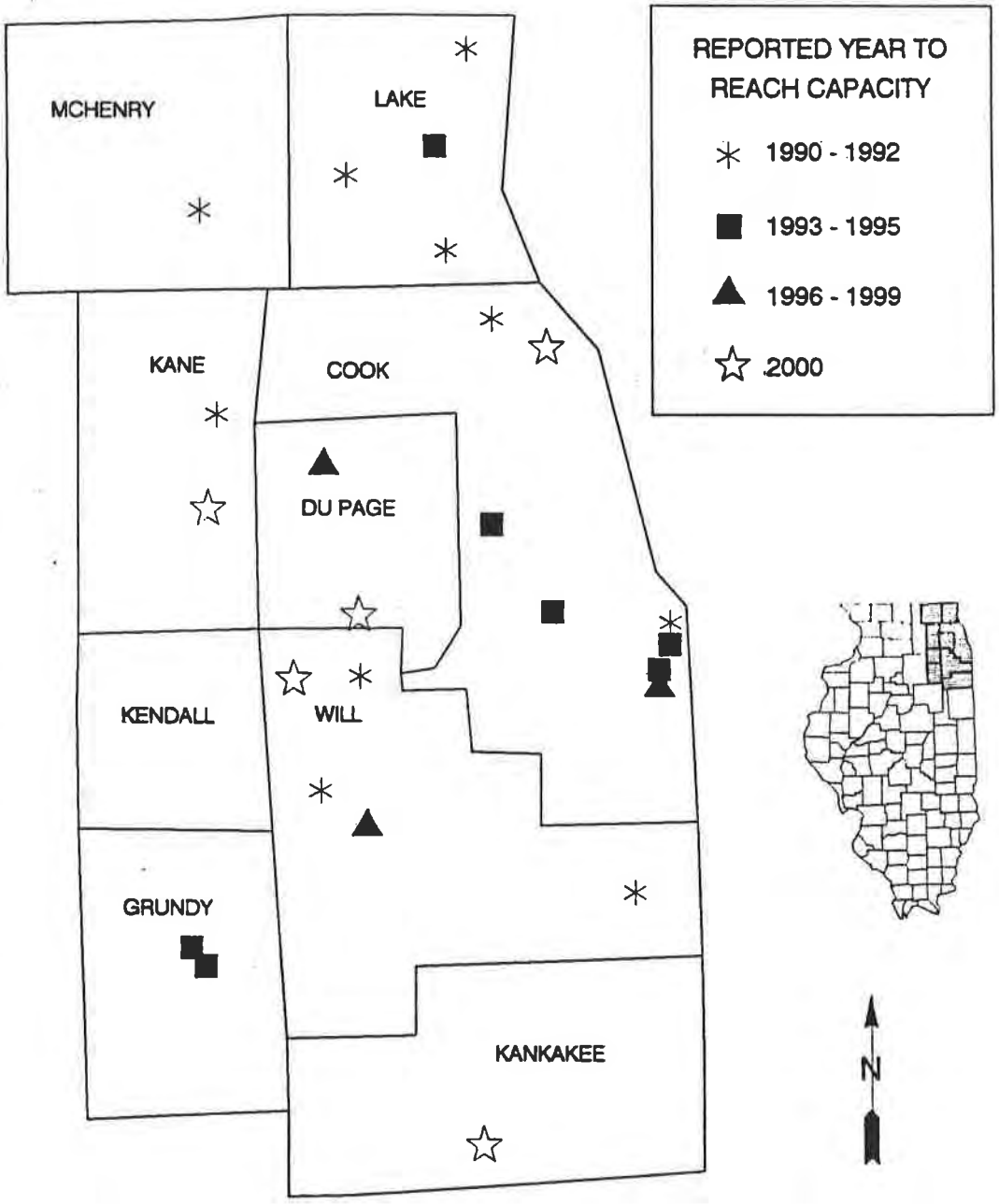
TABLE 2-1 (Cont.)

Facility (reported)	Remaining Capacity (cu. yd.)	Waste Disposed (cu. yd.)	Years Remaining (reported)
KANE			
Settler's Hill (WMI)	21,338,258	1,900,151	11
Woodland Landfill (WMI)	12,376,325	820,442	15
LAKE			
Land & Lakes (Wheeling)	737,654	367,034	2
ARF Landfill Corp.	1,075,289	711,269	2
BFI #2	1,429, 051	1,358,354	1
Lake Bluff Muni. #2	1,080	0	3
Lake County Grading Co.	663,107	136,894	5
Zion Municipal #2	0	2,654	0
MCHENRY			
McHenry Co. Sanitary Landfill	92,953	57,346	2
WILL			
Wheatland Prairie	10,432,199	375,403	28
CDT Landfill Corp.	606,680	953,252	1
Land & Lakes (Lemont)	592,160	521,444	1
Beecher Development	5,789,058	1,210,942	2
ESL, Inc.	890,500	120,483	7

Source: IEPA, Available Disposal Capacity for Solid Waste in Illinois, October, 1990

FIGURE 2-3

REGION 2 - 1990 ACTIVE NON-HAZARDOUS LANDFILLS SUBJECT TO STATE FEE



SOURCE: IEPA, AVAILABLE DISPOSAL CAPACITY FOR SOLID WASTE IN ILLINOIS, OCTOBER, 1990

TABLE 2-2
SOLID WASTE DISPOSAL AND CAPACITY BY COUNTY
1990

COUNTY	TOTAL WASTE GENERATED (cu yds)	TOTAL WASTE DISPOSED (cu yds)	TOTAL REMAINING CAPACITY (cu yds)
COOK	22,145,615	12,842,476	33,676,551
DUPAGE	2,551,840	6,861,362	66,235,197
KANE	1,291,097	2,720,593	33,714,583
LAKE	2,509,850	2,576,205	3,905,101
MCHENRY	688,344	57,346	92,953
WILL	859,783	3,181,524	18,310,597
TOTAL	30,046,529	28,239,506	155,934,982

Source: IEPA, Available Disposal Capacity for Solid Waste in Illinois, October, 1990

Provision of additional capacity within northeastern Illinois has been considerably limited. The most often cited factor affecting the provision of new or expanded waste disposal facilities in Illinois is Public Act 82-682, an "Act Related To The Location of Sanitary Landfills and Hazardous Waste Disposal Sites" (SB-172).

The SB-172 process applies to Regional Pollution Control Facilities (RPCF). The IEPA defines a RPCF as any waste storage site, sanitary landfill, waste disposal site, waste transfer station, waste treatment facility or waste-to-energy facility that accepts waste from or that serves an area that exceeds or extends over the boundaries of any local general purpose unit of government. Excluded from the definition of "Regional Pollution Control Facility" are:

1. Sites located within the boundary of a local general purpose unit of government and intended to serve only that entity;

2. Waste storage sites regulated under 40 CFR (Code of Federal Regulations), Part 761.42;

3. Sites used by any person for waste storage, treatment, disposal, transfer, or incineration operation for wastes generated by such person's own activities, when such wastes are stored, treated, disposed of, transferred or incinerated within the site owned, controlled or operated by such person, or when such wastes are transported within or between sites owned, controlled or operated by such person;

4. Sites at which the State is performing removal or remedial action pursuant to Section 22.2 (of the Act); or

5. Sites used by any person to specifically conduct a landscape waste composting operation; abandoned quarries used solely for the disposal of concrete, earth materials, gravel or road construction debris conducted by a unit of government or underground construction activities conducted by a public utility company; or regional facilities as defined in the Central Midwest Interstate Low-Level Radioactive Waste Compact.

A proposer of a RPCF must not only seek a permit from the IEPA but must also first file a site approval request with the local government (siting authority) in which the facility is to be located. The requirements of SB-172 set out specific and detailed procedural requirements which may be summarized as follows:

1. IEPA will not issue a permit for the new site until the permit applicant can show that the location of the facility has been approved by a county or municipal government;

2. The applicant must comply with certain notice requirements and must present a proposal which meets the site criteria of the law;

3. The public is afforded notice of the proposal and an opportunity to comment on it; and

4. The local officials are assigned the responsibility of examining the application and public comments and must make a determination as to whether the site meets the requirements of the law.

The provisions of SB-172 require the local siting authority to consider the application only within the context of criteria listed below. The SB-172 process as such supersedes local zoning requirements. Criteria to be considered include:

1. The facility is necessary to accommodate the waste needs of the area it is intended to serve;

2. The facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected;

3. The facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property;

4. The facility is located outside the boundary of the 100 year flood plain or the site is flood-proofed;

5. The plan of operations for the facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents;

6. The traffic patterns to or from the facility are so designed as to minimize the impact on existing traffic flows;

7. If the facility will be treating, storing or disposing of hazardous waste, an emergency response plan exists for the facility which includes notification, containment and evacuation procedures to be used in case of an accidental release; and

8. If the facility is to be located in a county where the county board has adopted a solid waste management plan, the facility is consistent with that plan; and

9. If the facility will be located within a regulated [groundwater] recharge area, any applicable requirements specified by the Board for such areas have been met.

The apparent effect of SB-172 is that it has substantially altered the siting of new facilities. With increased local control over facility approval, developers are being held to an extremely high standard. Further, the process incorporates a lengthy and often expensive appeal process culminating in potential final decision-making by the Illinois Supreme Court. At the very least,

SB-172 has substantially complicated the provision of new waste facilities and is playing a major role in the developing solid waste disposal crisis.

2.2.2 DuPage County

The principle method of solid waste disposal in DuPage County is sanitary landfilling. The IEPA-permitted landfills located within DuPage County serving as disposal facilities for municipal solid waste are located at Greene Valley and Mallard Lake Forest Preserves. Both facilities are owned by the Forest Preserve District of DuPage with operations contracted to private firms. E & E Hauling, a subsidiary of Browning Ferris Industries, operates the Mallard Lake facility while Waste Management of Illinois operates the Greene Valley facility. The purpose set forth for landfilling activities on Forest Preserve District land is the development of recreational facilities. The above-ground fills are proposed to provide topographic relief for recreational purposes. The contracts for operation of the sites were approved in 1974 and until recently were set to expire in term in 1993. On November 28, 1990 the Forest Preserve District adopted amendments to contracts at both sites which will allow the sites to remain open until filled to permitted capacities.

Other facilities within the county which provide restricted waste disposal needs include Argonne National Laboratory landfill and Elmhurst-Chicago Stone Quarry. The Argonne facility is used for waste generated on-site. Table 2-3 lists the 1989 annual disposal volumes of the landfills within DuPage County indicated by the facility operators. Landfills located outside of the county which receive wastes generated in DuPage County are shown in Figure 2-4.

TABLE 2-3
1989 ANNUAL DISPOSAL VOLUMES

Site	Solids	Liquid
- Mallard Lake Landfill	4,760,909 cu. yd.	1560 cu. yd.
- Greene Valley Landfill	3,747,304 cu. yd.	---
- Argonne National Laboratories	35,000 cu. yd.	---
- Elmhurst-Chicago Stone	75,000 cu. yd.	---

Solid waste generated within DuPage County is collected by private scavenger services through one of several arrangements including private collection, contract collection, or franchise collection. In DuPage County there is one municipality which depends on private collection, thirteen which contract for collection, and twenty-three which franchise collection. A description of these services is provided in Appendix A-1.

Waste collection in the unincorporated areas of the county is generally unregulated, whereby residents either make individual arrangements with scavengers or, in a limited number of cases, haul their own refuse to a sanitary landfill. Commercial wastes generally are collected on a private basis and a number of communities license these scavengers. Disposal arrangements for industrial waste include collection of different components of the waste stream by specialty scavengers which may recycle, salvage, or conduct special disposal; disposal and/or treatment on site; or a combination of these methods.

In 1987, the IEPA Division of Air Pollution Control's Boiler Report identified 44 permitted incineration facilities within DuPage County. These facilities include 17 commercial sites, 17 schools, 7 hospitals, and 3 animal hospitals. Referencing the DuPage County Solid Waste Management Summary Feasibility Report (January 1988), Table 2-4 summarizes the categorized volumes of waste incinerated for volume reduction as reported in the feasibility report.

FIGURE 2-4

MAP OF LOCAL LANDFILLS

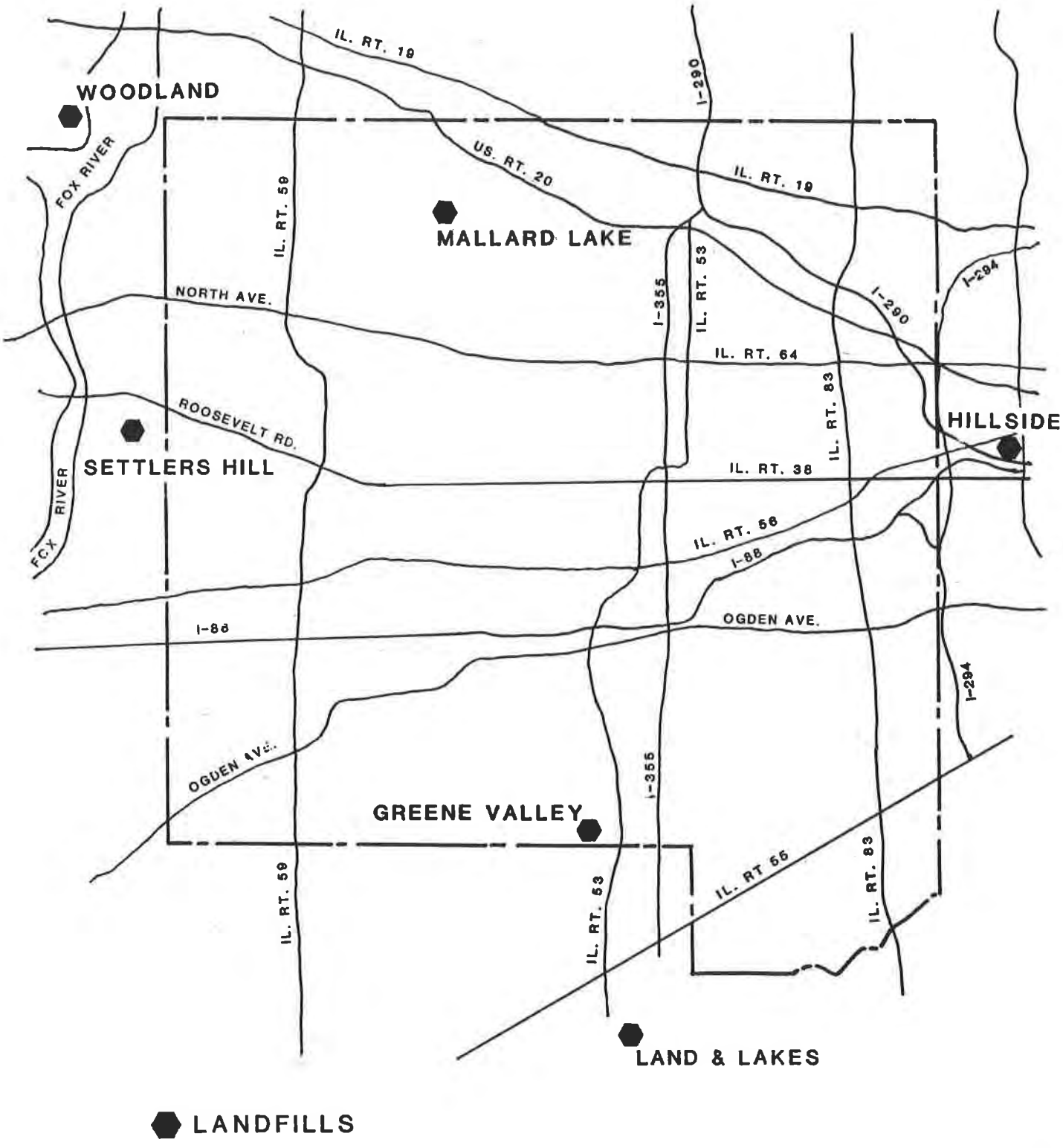


TABLE 2-4
WASTE INCINERATION VOLUME

- Schools	355 tons/year
- Commercial/Industrial	1,536+ tons/year
- Hospitals	1,796+ tons/year
- Animal Hospitals/Crematoria	275+ tons/year
Total	3,962+ tons/year
	or approximately 11 tons/day

According to the 1987 "Inventory of Waste-to-Energy Facilities in Illinois", prepared by the Illinois Department of Energy and Natural Resources, two facilities reported energy recovery. They are Hinsdale Hospital and Good Samaritan Hospital. Both reportedly use generated steam for hospital use. Reported installed capacity was 43.2 tons per day with average processed tonnage equalling 6.4 tons per day.

Table 2-5 summarizes the above information and also includes current data for recycling and landscape waste diversion/composting which is described in greater detail in Appendix A-2.

TABLE 2-5
WASTE MANAGEMENT SUMMARY

Waste Management Method	Quantity
- Landfilled (last updated 1989)	8,619,773 cu.yd./yr.
- Incinerated (last updated 1987)	3,962 cu.yd./yr.
- Incinerated with Energy Recovery (last updated 1987)	2336 tons/yr.
- Composted at a Municipal or Regional Facility (1990)	89,015 cu.yd. (1)
- Recycled	
- residential: multi-material drop off centers and curbside collection (1990)	35,573 tons (2)
- commercial/industrial/institutional (1990)	21,219 tons (3)

(1) Reported volumes from the Naperville landscape facility and the DuPage County landscape waste site for 1990.
(2) DuPage Department of Environmental Concerns' estimate based on the program's September/October 1990 volume average multiplied by the program's duration.
(3) DuPage Department of Environmental Concerns estimate assumes level similar to residential rate.

2.3 CURRENT AND PROJECTED WASTE GENERATION QUANTITIES

Appendix A-1 NEEDS ASSESSMENT describes in detail the methods which have been used to estimate waste generation quantities for DuPage County. There are three categories of municipal waste examined in Plan-1990 including "residential", "commercial/industrial/institutional", and "construction/demolition".

Waste generation estimates were previously developed in 1988 during preparation of the DuPage County Solid Waste Waste-To-Energy Study. According to that study, estimated per capita waste generation quantities were 2.1 pounds per capita per day for residential; 1.7 pounds per capita per day for commercial; 1.0 pounds per capita per day for industrial; and 0.7 pounds per capita per day for construction/demolition.

Waste generation estimates have been recalculated during the preparation of Plan-1990 utilizing the latest information available. The methodology employed for estimates in each wastestream category as described as follows.

1. Residential Waste Generation: A survey of DuPage municipalities was conducted to determine local waste generation rates. Only seven DuPage municipalities were able (or agreed to) provide waste generation data for this purpose. Data collected by the Forest Preserve District of DuPage during its 1990 survey of waste received at the landfills was also examined.

   This data was averaged to arrive at an average 1990 waste generation figure of 3.5 pounds per capita per day for this component of the wastestream. This waste generation quantity was compared to the waste generation quantity for this component as prepared by five other Illinois counties involved in solid waste planning and was found to be supportable considering the relative levels of urban development.

2. Commercial/Industrial/Institutional: The derivation of generation estimates for this waste category is difficult. Reasons for this difficulty include the fact that this category of waste is collected by private haulers who do not have set collection boundaries; do not distinguish between commercial, industrial and institutional accounts; and, most importantly, are generally unwilling to discuss specifics of their collection routes.

   For the preparation of Plan-1990, a new modelling program supplied by the Illinois Department of Energy and Natural Resources (IDENR) to local governments involved in solid waste planning has been used for generation estimates for this waste category. The modelling program, "WASTE PLAN", generates estimates for this component of the wastestream given certain data inputs for the area to be modelled including:

   - Retail & Merchandise - Sales
   - Furniture & Home Furnishings - Sales
   - Food Stores - Sales
   - Restaurants - Sales
   - Schools - Number of students
   - Nursing Homes - Number of beds
   - Office Buildings - Total square feet
   - Large & Small Manufacturing - Number of employees

Plan-1990 has used data generated by WASTEPLAN for estimating the per capita waste generation quantity for the commercial/institutional/industrial component of the wastestream. The estimated 1990 waste generation quantity for the commercial, industrial and institutional component is 2.2 pounds per capita per day.

3. Construction/Demolition: In order to derive the waste generation estimate for this category of waste, the results from the "Survey Of Origin Of Waste: Greene Valley & Mallard Lake" prepared by the Forest Preserve District has been used. According to this report, the waste generation estimate for this category of waste has been estimated at 2.3 pounds per capita per day.

   The Forest Preserve District also defines a category of "dirt/clay/sludge" for receipt of waste of the two landfills. This category of waste is estimated to add an additional approximate 2.0 pounds per capita per day to waste generation estimates.

Using the above estimates results in a base waste generation estimate of 8.0 pounds per capita per day for DuPage County. The addition of the category of "dirt,clay/sludge" adds approximately 2.0 pounds per capita per day. However, these materials have not been included in the overall waste generation estimates for the County. The following table provides the waste generation estimates for DuPage during the planning period.

Year	Population	Per Capita Generation(lbs)*	Tons of Waste Generated Per Day	Per Year
1990	781,200	8.0	3,125	1,140,625
1995	847,600	8.3	3,518	1,284,070
2000	901,178	8.6	3,875	1,414,375
2005	936,300	8.9	4,166	1,520,590
2010	985,000	9.3	4,580	1,671,700

*excludes dirt/clay/sludge (~2 lbs/capita/day)

In the consideration and design of any solid waste disposal facilities the size (capacity) of the facilities has a direct bearing on cost and, for landfills, life expectancy. The waste generation quantities presented in the above table must be regarded as estimates of a theoretical average until later confirmed by actual measurement of waste. Several variables will influence this expected waste generation including the following:

- Are the assumptions made about waste generation accurate?
- What is the variability in the daily waste generation amount?
- Are the estimates for future population accurate?
- Are the assumptions for the increase in waste generation and changes in the wastestream which influence waste generation accurate?

Prior to the construction of capital intensive facilities targeting processing or disposal of the total wastestream, additional data should be collected to determine actual waste quantity and daily variability. Such information could also be vital to the County's efforts to document recycling levels. Unfortunately, the collection of more detailed information will probably be impossible without increased reporting requirements from haulers and municipalities. However, this seems unlikely in the near future based upon the general unavailability of information produced during previous surveys by the County's Solid Waste Division.

2.4 CHARACTERIZATION OF WASTE

The following two pages represent modelled waste characterizations for the residential and commercial/industrial/institutional waste categories. The charts have been generated by WASTE PLAN.

2.5 EXISTING DISPOSAL CAPABILITIES

The principal method of disposal in DuPage County at this time is landfilling. The vast majority of waste is disposed at Mallard Lake and Greene Valley landfills. The Illinois Environmental Protection Agency (IEPA) has estimated that the disposal capacity in northeastern Illinois, including Mallard Lake and Greene Valley, will be completely depleted sometime between 1994 and 1996 if

CHARACTERIZATION OF MATERIALS

RESIDENTIAL WASTE STREAM SUMMARY

TOTAL RESIDENTIAL WASTES GENERATED (TONS PER YEAR):

WASTE NAME	1990
Newspapers	40,917
Books and Magazines	27,445
Office Paper	2,994
Commercial Printing Paper	7,485
Tissue and Towel	14,970
Nonpackaging Paper(junkmail)	5,988
Packaging Paper/Paperboard	14,471
Corrugated Cardboard	25,449
Glass Containers(clear)	25,948
Glass Containers(green)	13,972
Glass Containers(amber)	8,982
Misc Glass	4,990
Aluminum Containers/packaging	4,990
Misc Scrap Aluminum	2,994
Ferrous Containers	12,475
Major Appliances	13,972
Miscellaneous Ferrous Scrap	19,461
Plastic Containers/Packaging	19,461
Nonpackaging Plastic	15,968
Leaves	71,356
Yardwaste (grass and brush)	50,897
Stumps	13,972
Woodwaste (pallets, etc)	2,994
Foodwaste	31,935
Textiles	8,982
Leather/Rubber	9,980
Tires	6,487
Ceramics, Misc Inorganics	15,469
Miscellaneous Organics	3,992
TOTALS	498,992

PER CAPITA WASTE GENERATION (POUNDS PER PERSON PER DAY)

WASTE NAME	1990
Newspapers	0.29
Books and Magazines	0.19
Office Paper	0.02
Commercial Printing Paper	0.05
Tissue and Towel	0.11
Nonpackaging Paper(junkmail)	0.04
Packaging Paper/Paperboard	0.10
Corrugated Cardboard	0.18
Glass Containers(clear)	0.18
Glass Containers(green)	0.10
Glass Containers(amber)	0.06
Misc Glass	0.04
Aluminum Containers/packaging	0.04
Misc Scrap Aluminum	0.02
Ferrous Containers	0.09
Major Appliances	0.10
Miscellaneous Ferrous Scrap	0.14
Plastic Containers/Packaging	0.14
Nonpackaging Plastic	0.11
Leaves	0.50
Yardwaste (grass and brush)	0.36
Stumps	0.10
Woodwaste (pallets, etc)	0.02
Foodwaste	0.22
Textiles	0.06
Leather/Rubber	0.07
Tires	0.05
Ceramics, Misc Inorganics	0.11
Miscellaneous Organics	0.03
TOTAL	3.50

CHARACTERIZATION OF MATERIALS

COMMERCIAL WASTE STREAM SUMMARY

TOTAL COMMERCIAL WASTES GENERATED (TONS PER YEAR):

WASTE NAME	1990
Newspapers	7,265
Books and Magazines	0
Office Paper	34,961
Commercial Printing Paper	0
Tissue and Towel	0
Nonpackaging Paper(junkmail)	23,535
Packaging Paper/Paperboard	32,295
Corrugated Cardboard	121,007
Glass Containers(clear)	3,223
Glass Containers(green)	1,823
Glass Containers(amber)	1,056
Misc Glass	1,660
Aluminum Containers/packaging	873
Misc Scrap Aluminum	0
Ferrous Containers	1,465
Major Appliances	0
Miscellaneous Ferrous Scrap	6,133
Plastic Containers/Packaging	8,861
Nonpackaging Plastic	10,171
Leaves	0
Yardwaste (grass and brush)	3,254
Stumps	0
Woodwaste (pallets, etc)	11,694
Foodwaste	25,830
Textiles	1,978
Leather/Rubber	0
Tires	0
Ceramics, Misc Inorganics	6,667
Miscellaneous Organics	9,111
TOTALS	312,860

COMPOSITION OF COMMERCIAL WASTES (IN PERCENT):

WASTE NAME	1990
Newspapers	2.32
Books and Magazines	0.00
Office Paper	11.17
Commercial Printing Paper	0.00
Tissue and Towel	0.00
Nonpackaging Paper(junkmail)	7.52
Packaging Paper/Paperboard	10.32
Corrugated Cardboard	38.68
Glass Containers(clear)	1.03
Glass Containers(green)	0.58
Glass Containers(amber)	0.34
Misc Glass	0.53
Aluminum Containers/packaging	0.28
Misc Scrap Aluminum	0.00
Ferrous Containers	0.47
Major Appliances	0.00
Miscellaneous Ferrous Scrap	1.96
Plastic Containers/Packaging	2.83
Nonpackaging Plastic	3.25
Leaves	0.00
Yardwaste (grass and brush)	1.04
Stumps	0.00
Woodwaste (pallets, etc)	3.74
Foodwaste	8.26
Textiles	0.63
Leather/Rubber	0.00
Tires	0.00
Ceramics, Misc Inorganics	2.13
Miscellaneous Organics	2.91

existing conditions continue. This statement assumes that waste generation levels will remain virtually unchanged; that artificial controls or limits will not be placed on the transport of waste; and that no significant new disposal capacity will be provided in the region during the time period.

On a strictly local basis, the two existing landfills in DuPage County represent a substantial capability to handle DuPage waste quantities if limited in acceptance to this material. According to the Forest Preserve District of DuPage, the two sites had a combined total remaining capacity of 63,308,758 gate yards at the end of July 1990. On November 28, 1990 the Forest Preserve District of DuPage amended the operating contracts at the two sites. The amendments make sweeping changes in the terms of agreement for operation at the two sites. However, for consideration in Plan-1990, the key provision in the amendments is the measure in which waste receipt is addressed.

In the amendments the Forest Preserve District has guaranteed the operators a minimum annual quantity of waste but reserved "the right to limit, and shall have the sole responsibility for limiting disposal of waste [at the sites] to sources within the corporate limits of DuPage County, Illinois and from the following communities: Bartlett, Bensenville, Burr Ridge, Hanover Park, Hinsdale, Naperville, Roselle, Wayne, and Woodridge." The Forest Preserve District may permit the acceptance of waste at the sites from any other source. Clearly, the intent of the provisions is to limit use of the two sites to DuPage communities so long as the contractual minimum amount of waste required in the amendments is produced from this source. What is the effect of this type of control on the disposal of waste in DuPage County?

The effect is evident in the information presented in Table 2-6. Table 2-6 compares the theoretical waste generation quantities for DuPage County to the remaining landfill capacity. The column

"Tons/Year" subtracts landscape waste (at 13 percent of the theoretical total for this waste component) and does not include the category dirt/clay/sludge. The first boxed column shows cumulative cubic yards landfilled without including dirt/clay/sludge. The second boxed column includes a dirt/clay/sludge component factored in at 2 pounds per capita per day throughout the planning period. Both columns successfully add waste quantities on a year-to-year basis. The table assumes that the waste is allocated equally to the two sites during the time period. Although Table 2-6 assumes the imposition of control of waste receipt immediately, the effect of limiting waste receipt at the two sites is one of extending the lives of the two sites compared to the likely fill dates under previous conditions.

However, Table 2-6 also shows that simply limiting waste receipt to DuPage waste alone will not in itself satisfy the solid waste disposal needs for DuPage during the 20 year planning process. Limiting waste receipt to the agreed contractual minimum quantity (3 million cubic yards or 937,500 tons annually) as contained in the amendments would most likely provide more than 20 years of capacity but waste quantity estimates derived for DuPage County show that it generated 3,650,000 cubic yards (1,140,625 tons) in 1990. Therefore, actions to reduce the amount of waste sent by DuPage County to the two landfills must be taken to allow disposal capacity for the 20 year planning period. On the other hand, extreme reductions in the amount of waste sent by DuPage County to the two landfills could potentially place the Forest Preserve District in jeopardy of its "put or pay" agreement guaranteeing a minimum annual quantity of waste. Under this condition the Forest Preserve District will have to consider new amendments to the operating contracts if there is a desire to further extend the lives of the landfills.

Another important consideration exists in the amendments to the operating contracts related to the placement of daily cover at

TABLE 2-6

COMPARISON OF DUPAGE WASTE TO LANDFILL CAPACITY

YEAR	TOTAL TONS PER YEAR	TOTAL YARDS PER YEAR	CUMULATIVE YARDS	+ D/C/S TONS/YEAR	D/C/S YARDS/YEAR	CUMULATIVE YARDS
1990	992,281	2,976,842	2,976,842	285,138	855,414	3,832,256
1991	1,011,489	3,034,468	6,011,309	289,985	869,956	6,881,265
1992	1,031,012	3,093,035	9,104,344	294,832	884,497	9,988,841
1993	1,050,852	3,152,555	12,256,899	299,680	899,039	13,155,938
1994	1,071,014	3,213,042	15,469,942	304,527	913,580	16,383,522
1995	1,091,503	3,274,509	18,744,451	309,374	928,122	19,672,573
1996	1,109,860	3,329,580	22,074,031	313,285	939,856	23,013,887
1997	1,128,503	3,385,508	25,459,539	317,196	951,589	26,411,128
1998	1,147,437	3,442,310	28,901,849	321,108	963,323	29,865,172
1999	1,166,664	3,499,992	32,401,841	325,019	975,056	33,376,897
2000	1,186,191	3,558,572	35,960,413	328,930	986,790	36,947,203
2001	1,202,292	3,606,875	39,567,289	331,494	994,481	40,561,770
2002	1,218,626	3,655,878	43,223,167	334,058	1,002,174	44,225,340
2003	1,235,194	3,705,582	46,928,749	336,622	1,009,865	47,938,614
2004	1,252,001	3,756,004	50,684,753	339,186	1,017,557	51,702,310
2005	1,269,049	3,807,146	54,491,899	341,750	1,025,249	55,517,147
2006	1,289,222	3,867,667	58,359,566	345,305	1,035,914	59,395,480
2007	1,309,701	3,929,104	62,288,670	348,860	1,046,579	63,335,249
2008	1,330,489	3,991,468	66,280,139	352,415	1,057,244	67,337,383

D/C/S means Dirt/Clay/Sludge

the landfills. The use of cover (soil) material at landfills is fully described in Appendix A-4 but for explanation purposes here the reader should be aware that waste at a landfill is covered on a daily basis with "daily cover". The purposes for placing daily cover include limiting odors and vector (pest) control as well as minimizing blowing litter and the infiltration (seepage) of precipitation. State regulations require the placement of:

a. A uniform layer of at least 0.15 meter (six inches) of clean soil material; or

b. Alternative materials or procedures, including the removal of daily cover prior to additional waste placement, provided that the alternative materials or procedures achieve equivalent or superior performance to the requirements of a in the following areas:

   1. Prevention of blowing debris
   2. Minimization of access to the waste by vectors
   3. Minimization of the threat of fires at the open face: and
   4. Minimization of odors.

The amendments to the operating contracts allow the operators to use alternative materials for up to 40 percent of the required daily cover, subject to IEPA permit approval. This could substantially increase the amount of "airspace" for filling with waste rather than soil for daily cover. This is especially true when we considers that although the regulatory standard for daily cover is a minimum of six inches, in practical terms it usually requires an average of 12 or more inches to cover all exposed waste with a minimum of 6 inches. This potential savings in space is not reflected in Table 2-6.

As stated above, simply limiting waste disposal at Mallard Lake and Greene Valley landfills to waste generated by DuPage County will most likely not provide 20 years of capacity. However, actions to reduce, divert and recycle waste could provide sufficient capacity. The effects of these activities will be discussed in Section 3.0. plan2

SECTION 3.0
SOLID WASTE MANAGEMENT SYSTEMS

Sections 3.1 through 3.3 present solid waste management systems available for DuPage County. The sections represent summaries of the detailed appendices for the three phrases of waste management for the County's proposed solid waste management system including Phase I - Waste Reduction And Source Separation Systems; Phase II - Materials Recovery By Waste Processing; and Phase III - Final Waste Processing And Disposal.

3.1 PHASE I - WASTE REDUCTION, RECYCLING AND WASTE DIVERSION

This Section summarizes Appendix A-1 WASTE REDUCTION, RECYCLING AND WASTE DIVERSION. for a more detailed discussion of the contents of this Section, the reader is directed to that appendix.

3.1.1 Waste Reduction

By virtue of its prominent position in the solid waste management hierarchy set forth in Illinois Public Act 84-1319, waste reduction must be regarded as a pivotal component of DuPage County's Solid Waste Management System. Consideration of the per capita waste generation data for the planning area confirms the necessity for a strong emphasis on a waste reduction strategy. "Waste reduction" is an umbrella term which encompasses the closely related concepts of source reduction, waste prevention, and pollution abatement[1]. The concept of waste reduction is generally associated with a wide range of product design, packaging, manufacturing and consumer education policies all of which are

[1] Source Reduction: A Working Definition, Council on Plastics and Packaging in the Environment, December 1989, Page 8.

intended to address relevant waste management issues in a proactive manner. This approach represents a significant departure from conventional waste management strategies which typically focus upon handling waste "at the end of the pipe", after such material has been discarded. By considering the environmental impact of a product **prior** to its manufacture, packaging or purchase, manufacturers and consumers can work cooperatively to reduce the volume and toxicity of the material entering the wastestream.

"Source reduction", according to U.S. Environmental Protection Agency, is "the design and manufacture of products and packaging with minimum toxic content, minimum volume of material, and/or a longer useful life"[2]. This definition sets source reduction apart from other forms of waste reduction by virtue of its focus upon the "front-end" activities of production and packaging of consumer goods. There are essentially two approaches to source reduction activities considered from a governmental perspective; regulatory and non-regulatory.

The underlying premise implicitly embraced by any regulatory approach to source reduction is that proactive steps must be taken by government to alter current market conditions so that there is a significant incentive for private industry to redesign products, and modify manufacturing and packaging processes. Typically a regulatory source reduction program entails mandatory product design specifications, restrictions on manufacturing processes, and/or limits upon the amount of product packaging which can be used. The applicability of such measures for a local government's waste reduction initiative is questionable because most manufacturers market products on a regional or national basis, well beyond the influence of smaller units of government.

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[2]The Solid Waste Dilemma: An Agenda for Action, U.S. Environmental Protection Agency, Office of Solid Waste, September 1988, Page 2.

Consequently, the source reduction aspect of the County's proposed waste reduction program will embrace a non-regulatory approach. A non-regulatory approach to source reduction places its emphasis upon utilizing existing market forces to make waste reduction attractive from an economic perspective. The primary mechanism which the County intends to employ in order to increase local private industry's awareness of the advantages of waste minimization practices is a commercial outreach program. Commercial outreach services generally involve the provision of technical assistance intended to encourage waste reduction through the revision of product design, the procurement post-consumer waste as feedstock, and/or the modification of manufacturing and packaging processes used by private firms. The County should work in conjunction with the State of Illinois to develop and implement other, more comprehensive non-regulatory source reduction programs. These broader initiatives could include tax incentives, low interest loans, and/or grants to help off set the costs incurred by industries attempting to modify their products or manufacturing processes.

While some source reduction measures on the part of manufacturers and distributors may be easily achieved, other more intrinsic changes in product design, manufacture, and packaging may entail substantial costs. The success of a non-regulatory source reduction policy cannot be assured without a concerted effort aimed at promoting the market for waste minimizing products. The general public must utilize the free market system to prompt manufacturers to modify the design and packaging of their products in order to minimize waste. Without the presence of such consumer pressure, the willingness of manufacturers to commit the resources required to redesign products and re-tool factories is questionable.

The second aspect of the County's waste reduction program, waste prevention, will be a vigorous public education program aimed at creating just this type of consumer behavior. "Waste

prevention" is the manner in which people grant preference to those consumer goods which reflect source reduction efforts by manufacturers (e.g. designed for efficiency and durability, minimal packaging and toxicity). By raising the general public's awareness of the need to reduce waste, especially those refuse materials which can pose a threat to the environment when discarded, a program promoting waste prevention may compel the general public to purchase more environmental sound products even when this choice entails additional expense.

Waste prevention and promotion campaigns should not be limited to canvassing individual private citizens. It is important to remember that the procurement activities of private businesses will also have a significant impact upon the market for environmentally sound goods. To this end, the value of commercial outreach programs to disseminate information about procurement and other cost saving, waste minimizing practices should not be underestimated. The purchasing practices of the County and other local governments should also embrace the principals of waste prevention. Many public agencies have adopted comprehensive waste minimization policies which go well beyond simple procurement actions. Waste minimization practices can include the re-use of durable materials, avoidance of disposable products, elimination of activities which generate excess waste, and an emphasis on the efficient use of energy resources.

The third and final aspect of the County's waste reduction program will be a pollution abatement initiative. While the goal of all waste reduction efforts may be the minimization of the total volume of material entering the wastestream, pollution abatement efforts can also diminish the demands which are placed upon solid waste management systems by hazardous or other hard-to-handle waste products. One example of a pollution abatement strategy is the establishment of a deposit requirement for certain durable goods such as used beverage containers, motor oil, car batteries, and

tires. This method provides a clear economic disincentive to those people who might have decided to discard recoverable products rather than make an additional effort to divert them from the municipal wastestream.

While the effectiveness of a deposit system when implemented on a statewide level is well documented, adopting this particular approach to pollution abatement on a local government appears infeasible. To maximize its effectiveness, the County's pollution abatement efforts should be focused upon separating problematic wastes from the conventional wastestream. Once identified, designated materials should be source separated and diverted to privately owned facilities capable of reprocessing or disposing of such refuse in an environmentally sound manner. Some components of the wastestream which should be targeted include household hazardous wastes, lead/acid batteries, motor oil and used tires.

To summarize, the success of any waste reduction strategy is dependent upon the interrelated concepts of source reduction, waste prevention, and pollution abatement. It is important to re-emphasize the close interdependence of source reduction and waste prevention initiatives. Adopting a non-regulatory approach to source reduction entails implicit acceptance of the underlying premise that the free market will reward firms which embrace waste minimization policies. The public sector can (and must) facilitate source reduction by private firms through the provision of technical assistance and the development of markets for environmentally sound products. Public education campaigns, which promote waste prevention, will also stimulate markets for waste minimizing goods and encourage recycling simultaneously. Finally, an integrated waste reduction program must include a well targeted pollution abatement initiative intended to divert hard-to-handle and potentially hazardous wastes from the municipal wastestream.

3.1.2 Recycling

In order to accomplish waste reduction goals, recycling strategies have been developed in Plan-1990 to address the residential, commercial/industrial/institutional, public, construction/ demolition, and wastewater sludge wastes. However, since varied roles exist among the County, municipal and township governments, state and federal governments, not-for-profit organizations and private industry, coordination and cooperation will be critical to the successful implementation of a comprehensive and consistent regional recycling program.

The County has the primary responsibility of planning for the ultimate disposal of waste materials produced within the county and to oversee the implementation and operation of a comprehensive and integrated recycling system. Public Act 85-14 provides the County with the authority to regulate and control the method of disposal of solid waste generated in the county once the County Board adopts the Solid Waste Plan. The following duties of the County will assist in assuring recycling program performance:

- Administration of Chapter 30 (Solid Waste) of the County Ordinance.
- Collection and distribution of funds generated by County activities relative to solid waste.
- Ability to control the method of disposal for waste generated in the county and to set delivery standards to disposal facilities.
- Coordination and development of informational and educational activities.
- Documentation of recycling levels.

Municipal governments have the authority to control the collection of waste generated within their municipal boundaries while townships may license collection services for homes located in unincorporated areas. Responsibilities of municipal and township governments should range from the provision of curbside

collection programs, which are consistent with the County's recycling program in terms of materials collected, the provision of drop-off capabilities to enhance curbside collection programs, and public education activities designed to maximize awareness and to stress the importance of participation in recycling programs.

The State of Illinois, through the Department of Energy and Natural Resources (IDENR), the Illinois Environmental Protection Agency (IEPA), and the United States Government, through several departments, can assist in implementing the County's recycling program. The State and Federal governments may provide the County with program models and regulations in collection, hauling, processing, and marketing of recyclable materials, as well as supply aid and funding for recycling programs.

Not-for-profit organizations should continue to provide recycling opportunities for DuPage citizens. As recycling programs have become more closely affiliated with municipal programs, municipalities may assign or subcontract to a not-for-profit organization certain tasks such as the coordination of municipal MRCs and/or education programs. Independent operations, such as newspaper drop boxes and other collection points, will be encouraged for further wastestream reduction measures and local fund raising programs.

The role of private industry may extend from participation in wastestream reduction and resource recovery programs to involvement in various entrepreneurial activities, such as collection, transportation, marketing, and the use of recycling materials.

3.1.2.1 Residential Sector

The residential sector has been the central focus of recycling initiatives within DuPage County. Ultimately, all single family and multi-family households in DuPage should participate in the

recycling program. In order to maximize and maintain residential participation in the recycling program, it is essential that the recycling system is convenient to use, efficient to operate, and designed with permanence and durability in mind. The chief components of the residential recycling system consist of drop-off facilities, curbside collection services, and Intermediate Processing Facilities (IPFs).

The first component of the recycling system is drop-off facilities. The primary function of drop-off facilities is to serve residents of less densely populated areas without the provision of curbside services or to provide collection capability made unavailable to curbside collection participants.

Drop-off centers can be generalized into three deferent categories as Multi-Material Recycling Centers (MRCs), Specialized Drop-off Centers, and Satellite Drop-off Centers.

MRCs are regional facilities which collect a minimum of three materials from residents and small commercial generators for limited processing and shipment to market or other large processors. Specialized Drop-off Centers are dedicated to the collection of one or two materials for recycling. Satellite Drop-off centers are small centers located at multi-family dwellings which provide for convenient recycling opportunities for residents.

The second component of the recycling system is curbside collection programs. Curbside collection should be funded as a service, just as refuse collection and disposal service is traditionally funded.

The County, as requested by the municipalities, will assist in the design of collection systems and in procedures related to the delivery of materials to the intermediate processing facility. The County's recommendations for design of curbside collection of

recyclables are as follows:

1. Collection of recyclables should take place weekly, on the same day as garbage pickup.

2. Collection should be accomplished with special curbside trucks capable of separating commingled recyclable materials from paper.

3. Each participating household should be provided with at least one large clearly marked, standardized curbside container.

4. Publicity and education is to be a joint responsibility of the County, municipalities, haulers, and other local groups.

5. Collection of at least three materials (glass, newspaper and aluminum) will be required initially, with the addition of plastics, steel cans and other materials strongly supported by the County in order to meet higher waste reduction levels.

6. Anti-scavenging ordinances or licensing of scavengers may be necessary to avoid theft of the valuable materials set out by residents for curbside recycling.

7. In order to give proper credit and to quantify the diversion of materials, routes should be defined by specific geographic areas. The hauler should report program activities to the municipality or township which will assist in identifying areas to direct promotional campaigns designed to increase participation.

8. Regular reports through the media and municipal newsletters updating residents of the success of the program should be encouraged.

9. Incentives for participation are encouraged.

Once processing facilities are available, programs for curbside recycling may expand and become more stable. Through economies of scale, the processing facilities will be capable of supporting the large influx of residential materials collected through curbside programs, while simultaneously developing a competitive edge in the materials markets. The flexibility within the County IPFs will support the collection of the following materials:

Initial Target Materials:

1. Paper

   - Newspaper
   - Kraft Paper (corrugated and brown paper bags)
   - Mixed Paper (magazines and other papers)

2. Commingled Containers

   - Glass
   - Steel and Bi-metal Cans
   - Aluminum
   - Plastics (HDPE and PET)

Possible Future Target Materials:

1. Plastics

   - Polystyrene
   - Polyvinyl Chloride
   - Polypropylene
   - Low Density Polyethylene
   - Other (new plastics and plastic films)

2. Household Batteries

3. Used Motor Oil

Curbside collection within DuPage County should be directed towards commingled collection systems to enhance the ease and convenience of residents. In this system, residents and the haulers will only be responsible for separating paper from non-paper materials. Further separation of materials will occur at the processing facilities. The collection vehicles will not accept "garbage" or non-recyclables and questionable bins will be rejected. In an environment such as DuPage County where multiple units of government and haulers exist, a commingled system is generally more efficient and less costly to operate because the commingled collection process requires less separation, less time, and less complicated equipment than the truck-side sorting process.

In order to ease the transition of the collection of recyclable materials, the County will supply requesting units with

standard containers for curbside collection programs within DuPage County. The containers were selected to accommodate the current truck-side sort systems as well as the future commingled systems that the IPF would afford.

The third component of the recycling system is the Intermediate Processing Facilities (IPFs). The IPFs, acting as the intermediate step between the collectors of recyclable materials and the markets for these materials, will be the core of the recycling system for the County. Materials must be collected in quantity, sorted by type and processed into marketable quantities before they are acceptable to the marketplace. Sorting and processing are the primary functions of the IPFs, as well as expediting collection methods by providing convenient sites to handle commingled recyclables and small clean loads of recyclables.

Under consideration of anticipated processing needs, geographic generation, travel times and collection efficiencies concerning the provision of intermediate processing facilities, the Solid Waste Management Recycling Plan concluded that a definite need exists for the provision of at least two IPFs in the county, preferably a northern and southern facility. The first IPF, positioned in the north-central portion of the county, is currently under construction. The site is located in Carol Stream, on Fullerton Avenue between Gary Avenue and Schmale Road. The project development plan for the second proposed IPF, with suggested placement in the southern portion of the county, is under development. Points of consideration to determine the start of construction for the second IPF shall include the availability of funding for this facility and a demonstration of need based on 85 percent loading of the first facility.

The materials transported to the IPFs will be predominately generated through municipal curbside collection programs. However, the IPFs may be able to process and/or co-market materials

collected at the various drop-off facilities. Although the IPFs are geared primarily toward residentially generated recyclables, a small amount (maximum 15 percent of capacity) of low grade materials may be accepted from small commercial generators.

The intent of the County is to assure availability of the IPFs to the local collection programs and maximize the return of available revenues back to local governments or residents through the haulers. The IPFs should be in a favorable market position compared to other area recycling operations due to the quantity of material that the IPFs will produce on a daily basis and the degree to which the materials will be processed, both features being highly desirable to markets. However, should market conditions erode to the point where a negative cash flow is apparent, the County intends to use other funding mechanisms, such as landfill surcharge funds or other solid waste disposal fees, to bolster funds available for IPF operation in order to avoid the implementation of a tipping fee at the IPFs.

3.1.2.2 Commercial/Industrial/Institutional Sector

In the commercial/institutional/industrial sector, various entrepreneurial possibilities have developed for private business including collection, transportation, marketing, and use of recyclable materials. Additionally, significant materials recovery opportunities exist within this sector. Private firms are strongly urged to increase waste reduction and recycling as a means to reduce the total wastestream.

Although a hands-on governmental role resembling the approach within the residential sector will not be attempted at this time within the commercial/industrial/institutional sector, the County will develop incentives to encourage recycling and other diversionary solid waste activities within this sector. Although participation is voluntary, private firms may conduct recycling

activities to take advantage of economic benefits, to fulfill employee expectations, and to preserve its image as corporate citizen.

The County will provide recommendations and perform in an advisory position to develop recycling systems within the commercial/industrial/institutional sector. The following list summarizes the key components recommended for private business in the context of waste reduction and recycling:

1. Control Waste Sources. Source reduction may be practiced by promoting increased product longevity, reuse, repair and remanufacture; minimizing the amount of material used in the design, production and marketing of items; reducing or eliminating unnecessary packaging of items; and promoting the development of less toxic or non-toxic alternatives.

2. Increase In-House Recycling of Materials. Diversion of recoverable materials, such as office and corrugated paper, glass or aluminum, from the wastestream may be accomplished by utilizing the services of scrap dealers and commercial recyclers.

3. Procure Recycled Post-Consumer Products. Market support for products made of recycled materials may be cultivated by purchasing products containing recycled paper, plastic, or other recoverable resources.

4. Educate Consumers. Communication with consumers may be conducted though public information campaigns and school education programs to inform consumers about waste reduction; in-store shopper awareness campaigns to inform consumers of the availability and advantages of products designed to minimize solid waste; and positive labels which identify recycled or least packaged products.

5. Research and Development. Needs exist within the marketplace for technologically advanced waste reduction equipment and facilities and improved collection and processing methodologies. Investment and creativity are critical to the progress of this quickly developing industry.

A commercial/industrial/institutional Outreach Program has been established at the County to promote recycling at private firms in DuPage. This program provides information on how to

implement in-house recycling programs and attempts to match recyclable waste generators with those private firms that can make use of these materials. Increased communication and interaction between the County and private firms will be pursued to promote and enhance cooperative relationships.

3.1.2.3 Public Sector

Governmental units in the county are encouraged to develop and implement recycling and other preferred solid waste practices within the scope of their activities. Such activities should be designed to reduce the wastestream of governmental facilities, as well as to serve as models for the business community. The following list summarizes the key components recommended for the public sector to pursue in order to promote recycling and waste reduction:

1. Control In-House Waste Sources. The volume of the wastestream may be minimized by promoting and purchasing longer lasting, reusable, remanufacturable, and repairable items, and products with minimal packaging.

2. Increase In-House Recycling of Materials. Diversion of recoverable materials, such as office and corrugated paper, glass or aluminum, from the wastestream may be accomplished by developing systems which utilize the services of scrap dealers and commercial recyclers.

3. Procure Recycled Post-Consumer Products. In order to close the recycling loop, recycled materials need to be purchased and used by governmental agencies. Procurement of products containing high percentages of post-consumer paper, plastic, or other recoverable resources is preferred.

A County designed in-house recycling program has been in place for two years throughout the County's administration buildings. This program collects mixed colored ledger, file stock computer printout paper, aluminum containers and glass containers. During 1990, the program diverted 70.3 tons of paper and approximately 2.5 tons of glass and aluminum.

The DuPage County Purchasing Department and the Department of Environmental Concerns have spearheaded efforts to purchase products made from recycled materials with an emphasis on high post-consumer content in raw materials. Writing and copier papers as well as recycled plastics have been purchased in quantity by the County.

3.1.2.4 Construction/Demolition Waste

Construction/Demolition waste originates from all of the above sectors and accounts for nearly 29 percent of the total wastestream in DuPage. The Construction/Demolition component of the Wastestream consists of wood, concrete, bricks, shingles, asphalt and other miscellaneous materials. Recycling opportunities are available for construction/demolition waste in the private sector at this time, especially for concrete and asphalt. The encouragement and expansion of such activities is encouraged.

For the most part, recovery of construction/demolition debris as practiced in other areas of the country consists of the recovery of aggregate material. In some cases wood products and other miscellaneous items can be recovered.

It is recommended that a minimum reduction of 15 percent in three years and 25 percent within five years should be strived for in this waste component. The active involvement of the Forest Preserve in limiting the materials to be accepted at its landfill sites in the near-term should help facilitate this goal. Methods to achieve the goals for reduction include the following actions listed in ascending order of anticipated cost for implementation:

1. Non-acceptance of uncontaminated soil/clay at the disposal site unless used for cover operations or grading;

2. Limitation of asphaltic aggregate and concrete/brick materials and the encouragement of recycling/reuse;

3. Diversion of wood products and similar products for alternative use; and

4. Separation of mixed aggregate materials by size and classification for re-use.

3.1.2.5 Dirt/Clay/Wastewater Sludge

Section 4.0 of Appendix A-1 provides information estimating that this component of the wastestream arriving at the existing landfills constitutes approximately 2 pounds per capita per day. The category is recorded by the Forest Preserve District and the operators of the landfills. In the category, sludge represents a recyclable/recoverable material. Likewise, dirt and clay may be used for cover material or grading purposes at the landfills or at other sites. Efforts should be made to segregate both materials and divert them to more appropriate disposal mechanisms.

Municipal wastewater sludge can be recycled by methods including land application and composting. It is recommended that steps be taken to prohibit the landfilling of sludge in the county by 1997. This time interval should allow for system implementation and possible construction of alternative facilities. The interval assumes five years for planning and design and two years for implementation.

3.1.3 Landscape Waste

The manner in which DuPage County will manage the landscape waste discarded within its borders has been dictated to a significant degree by Illinois Public Act 85-1430. With the implementation of this important legislation on July 1, 1990, Illinois became the first state in the nation to enact a comprehensive ban on the landfill disposal of landscape waste. The landscape waste component of the wastestream, according to the Illinois Environmental Protection Act (Chapter 111 1/2 of Illinois Revised Statutes), includes: "All accumulations of grass or

shrubbery cuttings, leaves, tree limbs and other materials accumulated as the result of the care of lawns, shrubbery, vines and trees." Illinois Public 85-1430 mandates the source separation of these materials from the rest of the wastestream destined for landfill disposal. This directive has prompted the establishment of diversion and alternative disposal capability for landscape waste by local governments and the private sector in DuPage County.

In order to achieve a clearer impression of the amount of landscape waste which is generated in the planning area on an annual basis, the estimated per household landscape waste generation rates which were set forth in the Illinois Department of Energy and Natural Resources' Management Strategies for Landscape Waste (July 1990) can be applied to DuPage County. Based on IDENR's figures, 145,113 tons (851,448 cubic yards) of landscape waste will be generated in DuPage County during 1990 (12.7 percent of the total wastestream). Comparison of this estimate to waste generation data developed in Appendix A-1 indicates that landscape waste represents approximately 13 percent of the total wastestream for DuPage. Further calculation indicates that landscape waste accounts for approximately 29 percent of the residential component of the total wastestream and approximately 18 percent of the combined residential and commercial/institutional/industrial components of the total wastestream.

The successful implementation of Public Act 85-1430 will involve three interrelated components. First, establishment of a separate collection system for the diverted wastestream will be necessary. Second, alternative disposal capability for the landscape waste generated in the planning area must be provided. Third, the development of an intensive public education campaign aimed at informing homeowners about: 1) the need to separate landscape waste from other household refuse, 2) waste reduction and composting techniques, and 3) alternative collection and disposal systems is required. Since the implementation of the landscape

waste ban in July 1990, all three of these components have been established in the communities located within the planning area. Meeting these criteria on a continuing basis will require a coordinated effort on the part of all units of local government and private sector firms specializing in solid waste management. The Solid Waste Division of DuPage County Department of Environmental Concerns will attempt to assure that these integral components are present in order to facilitate sustained compliance with this important State legislation.

3.1.3.1 Separate Collection

The provision of separate collection of landscape waste has been achieved through the combined efforts of municipalities which have negotiated hauling contracts behalf of their residents and waste collection firms working independently in the remaining areas throughout the County. Separate collection of landscape waste does not represent an undue hardship for waste haulers or homeowners. The characteristics of the targeted wastestream allows haulers to utilized standard waste collection equipment. While some firms may be required to procure additional trucks, the suitability of conventional packer vehicles for the required task will minimize the additional capital expense and risk assumed by private waste haulers.

Because landscape waste is usually accumulated separately, compliance by homeowners simply entails not commingling landscape waste with other household waste and conforming with the material preparation guidelines set forth by their hauler. The additional costs of the separate collection of landscape waste incurred by hauling firms has been passed on to homeowners in one of two ways. In most instances, municipalities have established landscape waste collection contracts which charge for this service on a per unit (per bag or container) basis. This approach compels residents to buy specially designated bags or stickers for use with generic bags

at local retail outlets, the purchase price including the cost of collection and disposal. The alternative approach involves an increase of the collection fees paid by all residents on a monthly or quarterly basis to reflect the added cost of landscape waste collection.

From a municipal perspective, issues related to collection of landscape waste which will have to be addressed each time contractual arrangements for landscape waste collection are made include:

1. Cost/equity of billing system;
2. Ease of participation for homeowners;
4. Efficiency of containers and collection equipment; and
5. Impact upon the processibility of waste.

These aspects of landscape waste collection systems can be complimentary to some degree, but there will also be trade-offs which must be made by local officials. In this regard, the multitude of hauling and billing approaches being employed within the county should be regarded as competing pilot collection programs. The results of these small scale experiments will eventually generate a data base which will delineate the efficiencies and trade-offs entailed by each distinct approach. The collection and dissemination of this information would appear to be a task that the County should assume in order to assure reliable and cost efficient landscape waste collection service. Therefore, the County will endeavor to act as a clearinghouse for information on collection programs. The County's role in assuring the provision of adequate collection services in the incorporated areas will involve providing access to information regarding the success of the various collection approaches to municipal decision-makers. Once this information becomes available, the ability of local officials to make prudent decisions regarding collection procedures will be greatly enhanced.

3.1.3.2 Disposal Facilities

It is crucial that an effort be made to assure that the continued availability of adequate processing capacity exists for source separated landscape waste. Failure to provide homeowners with an option involving collection and remote disposal will inevitably lead to an increase in burning, illegal dumping, and concealment of landscape waste within the remaining portion of the municipal wastestream. The responsibility for developing alternative disposal capability, the second component of the County's landscape waste management system, has been shared DuPage County, the City of Naperville, one major hauling firm, and private landfill operators. Each one of the existing landscape waste management facilities represents a distinct combination of governmental entities and private firms.

The reprocessing technologies utilized by the facilities accepting landscape waste from DuPage County fall into two basic categories: land application and windrow composting. Land application is the spreading of landscape waste on farmland at an acceptable agronomic rate. The primary advantages of land application are that the process is "low tech", inexpensive, and does not require a state permit. Some of the drawbacks associated with land application include questions regarding what constitutes an "agronomic rate", the concern over the impact of residual metals or pesticides on farm land, and the large tracts of farmland required. Windrow composting, on the other hand, involves the placement of organic yard waste in elongated piles (windrows) which are monitored to assure optimum temperature and moisture conditions for rapid aerobic decomposition. The windrows are turned periodically to provide adequate aeration. The primary advantages of this processing technology include its proven track record and that a composting site will have a sustainable processing capacity. The drawbacks to windrow composting include siting and permitting considerations, and the need for specialized equipment.

Only one known landscape waste management facilities which are serving the planning area at this time depends solely upon land application technology. The remaining sites are windrow composting facilities which have utilized varying levels of land application activity to supplement their processing capacity or for research purposes. Because all of these facilities have experienced operational difficulties managing the relatively small amount of landscape waste discarded during the first few months of the diversion effort, there is reason to doubt the long-term adequacy of the existing processing capacity. The inability of the existing sites to manage the volume of landscape waste generated during this first full season of the diversion effort should not necessarily be construed as evidence that additional facilities need to be developed. The actual capacity of the current processing sites will not be realized until sometime in 1991 after they are fully developed, endure an extended shakedown period and refine their operations.

One fact that has become clear during the initial months after the implementation of Illinois Public Act 85-1430 is that the provision of adequate disposal capacity will require the continued collaboration of various entities within both the public and private sectors. The continued involvement of the County in the provision of landscape waste disposal capacity appears relatively certain when one considers the nature of processing operations and the demographics of the planning area. Both windrow composting and land application operations require a significant amount of land. This requirement, as well as the need for specialized machinery and adequate technical expertise, will probably prohibit the establishment of disposal capability by most individual municipalities. Consequently, there will be a need for regional processing sites to accept this portion of the wastestream. While smaller scale sites located throughout the County representing joint efforts on the part of 2 or 3 municipalities would be advantageous, the siting and development of such facilities can be

expected to become increasingly more difficult as economic development activities in the region use available open land. It follows that the establishment of larger scale sites in areas where such processing activity is consistent with land use in the surrounding region will be an option which will have to be considered.

After adoption of a solid waste plan, the County is authorized to regulate the method of final disposal of refuse, including landscape waste. The provision of large scale landscape waste processing/disposal capability may be required by the County. Such a scenario would be the result of a failure on the part of the private sector to provide sufficient processing capacity for an inordinate amount of the diverted landscape waste. Because the provision of such facilities is capital intensive, the need for the County to recoup its investment might entail assurances of the delivery of sufficient volumes. The initiation of flow control over the landscape waste generated in DuPage County would be one method which might be utilized to recover the funds required to establish sufficient processing capacity.

3.1.3.3 Education And Information Programs

The responsibility for the public education programs, the third component of the landscape diversion system, has been shared to some degree by the County, townships, municipalities, and the waste hauling firms operating within the County. The County's educational campaign reflects the hierarchy of landscape waste management alternatives advanced in the Landscape Waste Management Feasibility Report (August 1989). The prescribed alternatives for landscape waste diversion are as follows, in descending order of desirability:

1. Residents should be encouraged to leave grass clippings on their lawn instead of collecting them for off-site disposal;

2. If residents do collect their landscape waste they should be encouraged to use the raw material as a mulch in the garden or around shrubbery;

3. If the yard waste cannot be used in its raw state, homeowners should be encouraged to construct a backyard compost pile; and

4. The last and least desirable option is the separate collection and transportation of landscape waste to regional composting facilities.

The County has actively promoted an I.M.B.Y., or "in my backyard", approach to landscape waste management in order to reduce the demands placed upon alternative collection and disposal systems. This theme has been incorporated into brochures published by the County and offered to municipalities, businesses, and local community groups. Many municipalities have launched public information campaigns which embrace these central themes but have been tailored to meet the specialized needs of their residents. These local initiatives typically included information regarding landscape waste collection services offered by the private waste hauler(s) serving the municipality.

The need to continue public information efforts addressing landscape waste disposal alternatives should be readily apparent. Cooperative efforts on the part of the State, County, municipalities, and local haulers should be utilized to promote landscape waste reduction, composting, and acceptable disposal practices among homeowners. A failure to do so will inevitably lead to an increase in open burning, illegal dumping, and operational problems for collection and disposal operations related to improperly prepared materials.

In summary, the effective implementation of Illinois Public Act 85-1430 on an on-going basis will depend upon continued cooperation among various governmental units, landfill operators, private waste haulers, and homeowners. These groups must assure

that alternative collection and processing systems for landscape waste are in place, and that the public is informed of their options for managing this component of the wastestream. The success of this integrated approach will depend upon coordination, monitoring and system evaluation efforts on the part of the County.

By assuming the lead role in monitoring landscape waste management activities, the County may be able to identify and correct shortfalls in the diversion system in a proactive manner. This central oversight capability will be particularly vital if the current, decentralized system for landscape waste collection persists. By tracking the landscape waste collected in the planning area, the County may be able to anticipate potential shortages of processing capacity. Beyond facilitating simple compliance with the prohibition of landscape waste at the landfills, monitoring and evaluation efforts could be used to improve the overall efficiency of the diversion effort.

3.1.4 Funding

The entire waste reduction, recycling and landscape waste system is dependent on sustainable sources of revenue and an effective system for the utilization of those funds. The development of an integrated solid waste system that maximizes these reduction techniques will require substantial financial commitment from all levels of government and private industry.

3.1.4.1 Capital Costs

The development of the recycling system calls for the construction of several new facilities and the capital improvements on several more. The largest capital expense will be the development of the two Intermediate Processing Facilities. The capital cost for the first IPF is just under 9 million dollars. Construction of new MRCs and improvements on existing centers will

require approximately $300,000 - $750,000 over the next two to four years.

The County's commitment for curbside recycling containers for 1991 is approximately $320,000 during 1991.

3.1.4.2 Operational Costs

The Solid Waste Planning Committee has discussed providing operational assistance to MRCs by offering a credit for each ton collected and shipped. The intent for such a program is to help support the MRCs which are viewed as integral components of the County's recycling system.

In late 1990 the DuPage Solid Waste Planning Committee authorized the initiation of a pilot program for such funding assistance. The pilot program has been proposed for a period of six months with a budget of $62,500. The pilot program will provide information on the actual assistance needs for the MRCs. The need for future funding can then be assessed by the County.

3.1.4.3 Revenues

The current landfill tipping fee surcharge applied to waste landfilled in DuPage County is the primary and most reliable source of funding for solid waste activities, including recycling. The solid waste landfilling surcharge has been very effective in providing funds for the County's solid waste program. However, historic revenue levels can be expected to change as a result of the amendments to the landfill operating contracts as approved by the Forest Preserve on November 28, 1990. For a full discussion of funding, refer to Section 6.3.

Grant money from outside sources, such as the Illinois Department of Energy and Natural Resources Recycling Grants

Program, can offer an occasional capital boost for recycling programs, they cannot be relied upon for on going operations.

Net recovery from the sale of materials from the Intermediate Processing Facilities holds great promise for municipal curbside recycling programs. The County's proposed program calls for all net revenues (minus the costs for operation and host-community benefits) from the facility to be returned to the haulers delivering materials to the IPF and then to the residents served by those haulers. In order to help increase net revenues, the County has determined not to use materials sale revenues to defray the capital costs for the facilities' construction. No net revenues are proposed to be retained by the County.

3.1.5 Findings

The waste reduction, recycling and waste diversion program proposed in the County's comprehensive solid waste management system will allow it to meet and surpass the goals required for waste reduction as outlined in Public Act 85-1198. A description of the waste reduction, recycling and waste diversion program is summarized in Section 5.0 which includes a tabular summary of reduction levels showing that the proposed program will surpass State goals. The proposed system is expected to reduce the total wastestream by 33 percent. The County has prioritized the implementation of the aspect of its solid waste management system by interim approval of its Recycling Plan in order to allow the implementation of activities. This prioritization and concentration on reduction of the total waste quantity requiring additional processing and disposal will continue in the future with the implementation of even more aggressive steps to provide this function.

3.2 PHASE II - MATERIALS RECOVERY BY WASTE PROCESSING

This Section summarizes Appendix A-3 MATERIALS RECOVERY BY WASTE PROCESSING. For a more detailed discussion of the contents of this Section, the reader is directed to that appendix.

3.2.1 Processing Objectives

Phase I of the proposed solid waste management system for the County provides for reducing, recycling and otherwise diverting materials which can be recovered from the total wastestream by source separation efforts or preceding source separation efforts in the case of waste reduction actions. Although the implementation of the system described in Phase I will have a substantial impact on reducing the amount of waste requiring final disposal, further reduction in the wastestream will be possible and can be afforded by the implementation of a post-consumer mixed waste processing system. There are several reasons for this including:

1. Not all individuals will participate in the separation of materials at the source;

2. Even those individuals that participate in source separation programs regularly will not recycle all materials that are recyclable 100 percent of the time;

3. The coordinated and convenient service to multi-family dwellings in the county is not and will not be at the same level as that for single-family dwellings in the near future and the recovery rate from this faction of waste generators can be expected to be lower with significant quantities of recoverable material remaining in this component of the wastestream; and

4. The relative recovery rate from the commercial, industrial and institutional faction of waste generators can fairly be expected to lag in implementation with significant quantities of recoverable materials remaining in this component of the wastestream.

The advantages for the implementation of materials recovery processes which target the additional recovery of materials from

the mixed wastestream are evident when viewed as supportive to Phase I efforts. When discussing materials recovery it is important to focus on the processing objectives or goals for the process to achieve rather than on the specific technology or equipment that will be utilized. Clear advantages exist for the provision of flexibility in the materials recovery system until the long-term final disposal system is well defined. The common objectives that should be sought when considering a materials recovery system include:

1. The recovery of recyclable materials;
2. The removal of undesirable components;
3. Improving the quality of the waste as a feedstock for subsequent processes; and
4. Reducing the volume of material to be transported, processed or disposed.

3.2.2 Materials Recovery Alternatives

The three general categories of post-collection materials recovery alternatives include post-collection dump and pick; mechanically-assisted hand separation; and mechanical separation processes. All of these systems concentrate on sorting waste after it has been collected.

3.2.2.1 Dump And Pick

Dump and pick operations represent the simplest approach to post-collection processing. In this operation mixed solid waste is brought to a receiving area where it is dumped on a tipping floor. The waste is then inspected and materials targeted for recovery are removed. Dump and pick operations are especially common at transfer stations which handle waste generated from the commercial sector. At these facilities it is common to remove corrugated containers and office paper. These materials are often in a clean state when delivered from a commercial collection route.

Contaminated material is bypassed to the disposal facility.

An advantage to dump and pick operations is their minimal cost for construction when incorporated into a transfer facility operation. Their chief disadvantage is that they are not well suited to consistently separate large amounts of material and work best on relatively clean loads.

3.2.2.2 Mechanically-Assisted Hand Separation

The efficiency of dump and pick operations can be improved by the addition of mechanical systems to aid in the separation by hand. These systems commonly employ a series of conveyors which carry the waste past workers at picking stations. The waste that is not picked off of the conveyor is transported to the end of the line where it is sent to the disposal facility. The efficiency of this type of system is determined by the quantity and type of materials targeted for recovery and the number of picking stations provided. Although manual sorting systems can theoretically achieve a very high degree of quality control, the economics of throughput and staffing levels must also be considered. The total number of workers, the configuration of the picking stations, the speed of the conveyor and the depth of material on the conveyor are just a few of the factors which will impact the efficiency of the system and the costs for construction and operation.

An advantage to such systems is their ability to be installed at virtually any type of waste management facility. They also provide a greater degree of efficiency than dump and pick operations thereby allowing for higher throughput.

3.2.2.3 Mechanical Processes

More advanced mechanical processes employ increased levels of automatic materials separation. They may continue to use hand

picking in their design depending on the materials targeted for recovery. Common unit processes include size reduction; classification by density or size; and automated recovery of ferrous and aluminum metals. Processing equipment which provides these functions is described as follows.

1. Size Reduction: A reduction in the size of municipal waste can be achieved through the application of one or more shredding units. The use of shredders in waste processing systems generally falls into one of three categories:

   - Primary shredding to reduce bulk density, to open bags, and to improve the efficiency of subsequent size separation systems;

   - Secondary shredding for size control and improved materials handling; and

   - Tertiary shredding to improve ferrous and aluminum density and marketability.

   There are four types of shredders in common use including flail mill, rotary shear, horizontal hammermill and vertical hammermill. Each differs in the way they cut or break the refuse. Flail mills are used as primary shredding units which use various types of high speed impactors to beat the refuse against a flat surface or second rotor and thereby crush the refuse. Rotary shears are low speed units which slice, tear, or twist material into smaller units. Hammermills use a hammer unit to beat, hammer, cut and shred the refuse by the shearing action of the hammers.

2. Waste Classification: Several methods are available for the mechanical classification of waste.

   - Rotating Screens Or Trommels: A trommel is a cylindrical screen that rotates around an axis. This process separates the wastes through particle size differentiation. Small materials fall through the screen openings while larger materials are conveyed through the trommel. The rotation of the trommel helps mix and tumble the waste so that separation efficiencies are high. Trommels can be used to remove dust, grit and glass particles.

   - Vibrating Screens: Vibrating screens operate in a manner similar to trommels but consist of one or

more screens oriented at the same angle and stacked vertically with different mesh openings. Vibrating screens provide good separation in the smaller particle size ranges and are cheaper than trommels but they have lower throughput capacities. They also have lower removal efficiencies where materials tend to stick together and block screen openings.

- Air Classification: Air classification equipment can be used to separate the wastestream into fractions based on properties of the waste other than size alone. Shredded solid waste is introduced into an air stream and the lightweight materials, predominately composed of paper, plastics and cardboard are carried in the air stream while the heavier materials drop. The light materials are then removed by the use of a cyclone separator or settling chamber. Air classifiers can have high maintenance requirements due to the abrasion of materials. Air classifiers are commonly used in the preparation of fluff refuse-derived fuel.

3. Automated Metals Recovery: There are two processes for the automated separation of metals.

- Magnetic Separation: The magnetic properties of iron and steel make ferrous recovery one of the easiest materials recovery processes. Magnetic separators work by passing shredded waste by a magnet which picks up the ferrous materials and separates them from the rest of the waste. Three basic types of electromagnets are used for this purpose including drum magnets, single magnet belt separators and multiple magnet belt separators.

- Electroseparation: These processes employ electromagnetic properties and use non-ferrous metal conductivity to separate metals for waste. The waste is moved through an electromagnetic field which deflects metals out of the waste. The process has been successfully used for the separation of aluminum and separators used for this purpose are commonly referred to as eddy-current separators. These processes work most effectively on wastestreams which have been preprocessed to a considerable degree in order for the materials to be easily deflected.

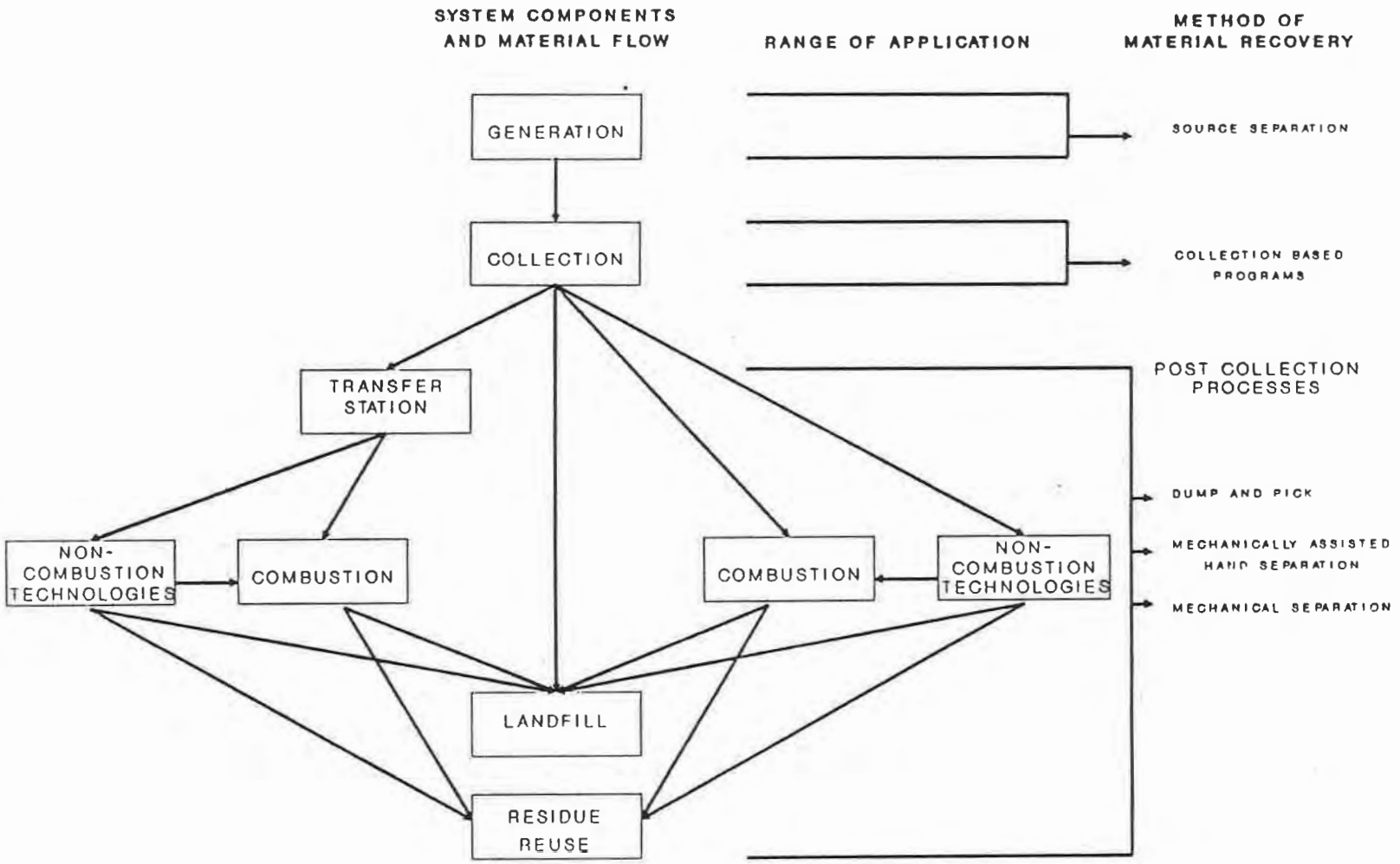
3.2.3 System Applications

The processes discussed in the preceding subsection can be applied in various combinations and in conjunction with different solid waste management processes. The specific configuration of a materials recovery facility will depend on the overall program goals and objectives; the degree of materials separation sought; availability of markets for recovered materials; required material quality; and other components of the solid waste management system. Figure 3-1 depicts the conceptual flow of materials for programs employing materials recovery at the point of generation and collection (Phase I activities in the County's proposed solid waste management system) and after collection. Post-collection materials recovery processes can precede any number of subsequent processing and disposal alternatives (Phase III activities in the County's proposed solid waste management system) including both combustion and non-combustion technologies as well as landfilling.

One of the most common applications of post-collection materials recovery processes is at waste transfer stations. Transfer stations, by design, serve an intermediate processing function for waste. Most transfer stations accept waste, reduce its volume through compaction, and then direct it to a landfill or some other processing facility. Materials recovery systems benefit in this volume reduction function as well as possibly having an economic benefit in the sale of recovered materials.

In addition to being located at transfer stations, material recovery processes are being increasingly applied at combustion facilities. These processes can be applied both before and after combustion. Post-combustion recovery systems generally target ferrous materials. Pre-combustion processes may target any number of materials. Refuse-derived fuel processing facilities are essentially materials recovery facilities. In the same vein, the advantages for post-collection materials recovery processes

FIGURE 3-1
MATERIAL RECOVERY SYSTEM ALTERNATIVES
MATERIAL FLOW AND RANGE OF APPLICATION



discussed above exist for other disposal options. Some, such as composting of municipal solid waste, demand such processes. Even a system whose subsequent step is landfilling can benefit from the provision of post-collection processing.

3.2.4 Environmental And Siting Considerations

All materials recovery facilities represent a system to collect and process what are generally regarded as waste constituents. They all have associated environmental impacts some of which may be negative on a local basis but, on a broader basis, representing a positive impact on the environment.

One of the particular environmental concerns to be considered at a materials recovery facility is the management of residue. Where actions are taken to remove hazardous waste materials from the mixed wastestream, this management of residue will require careful consideration. The planning for such facilities must consider the ramifications of intermediate storage, transportation and final disposal of these residue products.

A mixed municipal waste processing facility can generally be classified as an industrial activity. It generates truck traffic; can potentially be a source of noise, fugitive dust and odors; and can cause visual impacts to the surrounding area. Measures can be taken to reduce these impacts including controlling the length of time which putrescible waste or separated contaminants are allowed to remain in the facility both before and after processing; requiring the application of appropriate dust control measures such as the installation of filters in buildings; and reducing traffic-generated dust by providing paved areas for access. Noise and aesthetic concerns can be addressed through the appropriate design of buildings and site landscaping features.

Despite the control measures which can be taken, it is

practically impossible to avoid all potential impacts to the environment. For this reason, a facility is most appropriately placed in an area classified for industrial or specific solid waste use, or which is otherwise appropriately buffered from nearby incompatible land use. Reviewing surrounding land use as an evaluation criterion provides an indirect mechanism for considering other siting issues such as noise, aesthetics, and other environmental impacts. Other criteria which should be evaluated during site selection include:

1. Land Requirements And Availability. A centralized processing facility for DuPage County as discussed here could be expected to require a parcel of land in the range of 5 to 25 acres depending on the facility's specific requirements and its compatibility with neighboring properties.

2. Transportation And Market Accessibility. The surrounding traffic flow should be considered from both the standpoint of traffic impacts and availability of access.

3. Proximity To Utilities. The availability of required utilities should be evaluated.

4. Site Subsurface Conditions. The conditions of underlying soils, depth of bedrock, and depth of water table should be evaluated in terms of potential impacts on construction.

Materials recovery facilities which receive mixed municipal waste would currently be classified as Regional Pollution Control Facilities in Illinois and subject to the local siting approval process.

3.2.5 Costs

The cost of a materials recovery facility will vary greatly with the type of process involved. Project specific factors such as the specific type and quality of the equipment used; size and type of buildings involved; site purchase and development costs; and ownership and financing mechanisms will all affect the capital cost for the facility. The capital cost of the facility, the

operating cost of the facility and the residue disposal costs together constitute the expenses for a facility. Revenues from the sale of materials may help to offset these costs but will not eliminate them. The final total for costs at the facility constitute the tipping fee charged at the facility.

A survey of selected mixed waste processing facilities in the U.S. indicates capital construction costs varying widely with a range from a low of $5,000 per installed daily ton of processing capacity to a high of nearly $73,000. A realistic estimate for the types of facilities generally proposed for use in DuPage County's solid waste management system could be $30,000 to $50,000 per installed daily ton of processing capacity based on the information culled from existing facilities elsewhere in the country. This does not include costs for land.

Operating costs are impossible to estimate without clearer definition of a specific project but a survey of operating costs at the same selected facilities operating in the U.S. indicates operating fees ranging from a low of $5 to a high of $51.21 per ton although this information is very limited.

3.2.6 Findings

Although the implementation of Phase I of the County's solid waste management system will have a substantial impact on reducing the amount of waste requiring final disposal, further reduction in the wastestream will be possible and can be afforded by the implementation of a post-consumer mixed waste processing or "materials recovery" system. There are several reasons for this including:

1. Not all individuals will participate in the separation of materials at the source;

2. Even those individuals that participate in source separation programs regularly will not recycle all

materials that are recyclable 100 percent of the time;

3. The coordinated and convenient service to multi-family dwellings in the county is not and will not be at the same level as that for single-family dwellings in the near future and the recovery rate from this faction of waste generators can be expected to be lower with significant quantities of recoverable material remaining in this component of the wastestream;

4. The relative recovery rate from the commercial, industrial and institutional faction of waste generators can fairly be expected to lag in implementation with significant quantities of recoverable materials remaining in this component of the wastestream.

The advantages for the implementation of materials recovery processes which target the additional recovery of materials from the mixed wastestream are evident when viewed as supportive to Phase I efforts. Plan-1990 presents information documenting the use of mixed waste processing systems in this setting. The approach is technically viable with projects capable of delivering increased materials recovery even after the implementation of source separation programs.

The implementation of a project providing materials recovery by waste processing is dependent upon the final disposal option(s) selected by the County. However, the provision of materials recovery can proceed in a phased manner in order to provide the processing capability which meets the goals of materials recovery as discussed in Plan-1990. The key consideration is flexibility. The facility must be sufficiently flexible in design to respond to changes in the markets for recovered materials as well as changes in the requirements for processing prior to disposal.

3.3 FINAL WASTE PROCESSING/DISPOSAL OPTIONS

This Section summarizes Appendix A-4 FINAL WASTE PROCESSING/DISPOSAL OPTIONS. For a more detailed discussion of the contents of this Section, the reader is directed to that appendix.

3.3.1 Waste Transfer Options

3.3.1.1 Waste Transfer Objectives

Waste transfer is the process in which collection vehicles unload their waste at a facility which combines the waste into a larger load for more efficient transport. Several smaller vehicles are consolidated into larger vehicles which are better suited for long-distance hauls than are collection vehicles. The larger vehicles then haul the wastes to the disposal site.

There are several benefits for transfer stations. First, transfer stations can decrease disposal costs by implementing recycling (processing) operations at the facility in order to reduce the amount of waste being sent to the disposal site. Second, transfer can reduce the hauling costs to distant disposal sites. Other benefits include:

- Reduction in collection vehicle maintenance;
- Flexibility in use of multiple disposal sites; and
- Improved productivity of collection vehicles.

3.3.1.2 Overview of Systems

TRANSFER TECHNOLOGIES

Several types of transfer technologies are available including stationary compactors; open-top trailers; balers; and other technologies. Similarly, there are several types of transport systems available including truck transport and rail transport as well as intermodal transport (a system where truck bodies are loaded onto or are used as railcars).

Stationary Compactors

In a compactor, the charging box is loaded with loose wastes from above through a hopper or chute. A hydraulic cylinder moves a ram forward to push wastes out of the charging box and into a transfer container or a trailer. The container or trailer is attached by a hook and ratchet assembly to the compactor. As the trailer fills up, compaction takes place by the pressure applied from the ram. When a pre-set hydraulic pressure is reached, the compactor stops. There are four basic compactor arrangements which may be used including:

1. Compactor/roll-off;
2. Compactor/trailer;
3. Compactor/push pit/trailer; and
4. Self-contained trailer units.

Open Top Trailers

The use of trailers is quite common and is used for both trucks and trains. Several floor plan arrangements are available including:

1. Tipping floor transfer stations;
2. Direct dump transfer stations; and
3. Pit type transfer stations.

Balers For Transfer

Balers are machines that use rams to compress waste and hold it until wire ties can be placed to hold the compressed waste together in the compressed bale. Solid waste bales are generally in the 2,000 to 2,500 pound range and typical volumes are 50 cubic feet.

Baling facilities require a receiving floor area where collection vehicles unload. A loader is used to feed waste into the infeed conveyor for the baler. These conveyors are typically steel. The conveyor feeds into the baler.

A forklift or skid loader picks up the bales and loads them into the transport vehicle. For trucks, flatbed trailers are usually used due to the low trailer tare weight and consequent higher payload.

"Other" Transfer Technologies

There are several specialized forms of equipment available for waste transfer which do not fit in any of the above categories. These systems produce a "log" or "cast" of waste material by compressing the waste through tunnels. The waste is then loaded directly into trailers. Because the compression occurs in the tunnel, trailers can be lighter weight thereby increasing payloads.

TRANSPORT OPTIONS

Truck Transport

Currently, the most common method of waste transfer transport in the United States is truck transfer. The reasons for this include:

- Flexibility in siting of transfer stations:
- Flexibility in selection of final disposal sites:
- General availability of over-the-road truck drivers and equipment; and
- Flexibility in scheduling.

Waste transfer has, until recently, been used most often to avoid local waste disposal facility shortages. In areas where the

development of new waste facilities was not developed at a pace to keep up with facility closure, waste haulers found that they had to quickly provide transport to more distant sites. Usually the use of specific distant sites was not on a long-term basis. Therefore, the flexibility in final destination allowed by trucking was desired. As destination sites filled, closed, or otherwise limited the inflow of transfer waste, the transfer operators could easily shift to alternate disposal sites.

Several options are available for truck transport systems. Initially the most common vehicles used for transfer were either box or flat trailers used to haul loose and baled wastes. As transfer operations have become more common, specialized trailers have been developed to handle this specialized cargo. Today's modern transfer trailers have specially fabricated bodies often using lightweight aluminum alloys in order to maximize effective payloads. They also usually employ some type of self-unloading equipment which may be a hydraulic ram system or "walking-floor" system. The use of walking floor systems has substantially increased the effective payloads of self-unloading trailers by alleviating the hydraulic ram weight used by other trucks.

Rail Transport

Although the use of trucks for waste transfer is most common, rail transfer is being discussed more frequently as a viable transport method. One reason for this is the move towards dedicated long-term distant disposal sites. In the case where a transfer operator can lock-in a disposal site with rail access for an extended period of time, the use of rail transport can be very cost-effective, especially in cases of long transport distances. Even for relatively short transport distances, the use of new railcar designs can make rail transfer economical. The following issues must be considered by those considering rail transport for waste transfer.

1. Is the use of rail transport economical compared to motor transport?

2. Are the anticipated costs for rail transport being prepared in a manner for fair comparison with motor transport? As an example, rail transfer costs are often prepared with the assumption that all equipment will be new. Truck transport usually does not make this assumption.

3. Rail transport will tend to drive waste disposal contracts towards longer terms. This is a real advantage for waste-to-energy disposal projects but even landfill disposal sites can show economical advantages for rail transport if long-term contracts are possible.

4. The common misconception that rail transport is cost-effective only for long distance must be avoided. Rail transport can be cost-effective at relatively short distances (25-30 miles) if project conditions are correct.

There are three modes of rail transport available for consideration broadly categorized by the use of standard or slightly modified railcars, specialized railcars and intermodal transport.

3.3.1.3 Environmental And Siting Considerations

Environmental and regulatory issues relating to the siting, design, construction and operation of a waste transfer facility can be complex. Of particular concern are the issues of water pollution, odor, noise, traffic, aesthetics, land use compatibility, and floodplain or wetlands impacts.

ENVIRONMENTAL CONSIDERATIONS

Water Quality

Waste transfer facilities can potentially impact water quality by allowing runoff of liquid which has been in contact with waste to be discharged to surface water. There are three sources for

origination of liquids at the facility: liquids arriving with the waste or snow and ice tracked into the facility by delivery vehicles; water used for washdown of the facility; and precipitation occurring outside of the building but at the site.

The first two sources of liquid are easily captured within the facility by the use of interior plumbing and drains. This plumbing is tributary to a municipal sewer system or an on-site sewage treatment facility. The resultant liquid is, therefore, collected and treated prior to discharge to surface waters.

Liquids originating outside of the building are best kept from becoming contaminated by effective housekeeping. Waste should not be present outside of the building. Precipitation is normally routed through a series of storm drains for discharge. Often, facilities will employ catch basins and other settling appurtenances to control the discharge of particulate matter.

Odor

The potential for odor emission and resulting impacts to surrounding land uses is an important consideration when providing waste transfer facilities. Effective odor control mechanisms must be included in the facility operations in order to prevent the migration of odors beyond the facilities boundaries.

Objectionable odors generally form when municipal solid waste is left for more than one day. Most waste transfer operations are designed to remove all waste from the facility on a daily basis. In other words, all waste delivered during the day is transferred out by the end of the day.

Some large scale facilities are designed not to empty every day. In these facilities the use of an induced inward draft may be used to pass fresh outside air through the entry doors and out

through a usually high vent or series of vents which can serve to disperse odors. A facility may also employ mechanical/chemical odor cleansing equipment.

Use of these methods of odor control can effectively prevent odor migration at waste transfer facilities.

Noise

The primary sources of noise from a waste transfer facility include construction of the facility, daily operation of equipment inside the facility, and facility-generated traffic. In reference to construction noise, it is estimated that a waste transfer facility sized to meet the needs of DuPage County would involve a construction period of 18 to 24 months. Operation of construction equipment is normally limited to daytime hours and required to comply with local ordinances.

The major source of operational noise is use of the equipment inside the facility. Equipment will include mechanized movers such as end-loaders but may also include crane-type assemblies and balers. Other sources of noise such as ventilation fans, conveyors and loud speakers are comparatively insignificant and should not increase overall noise levels above other operational sources.

The truck (or train) traffic generated by a waste transfer facility can increase surrounding traffic noise levels. Any increase in traffic noise would be expected to be limited to daytime working hours.

Traffic

Siting a waste transfer facility would require a detailed analysis of the short and long-term traffic impacts caused by the facility. These impacts will result primarily in an increased

concentration of truck traffic, assuming the transfer facility is located away from the existing disposal site(s). Some traffic will result from the employees of the facility.

SITING CONSIDERATIONS

Aesthetics And Land Use Compatibility

It is essential that the surrounding land use and aesthetic treatment of any proposed waste transfer facility be considered during project development. Aesthetic treatment of the facility can mitigate apparent negative impacts of the facility. Enclosing the operations of the facility and use of an architecturally pleasant building can be used effectively. The use of sight berms, landscaping or fencing can be used to screen the facility from view. Finally, careful consideration of site layout can minimize public views of waste vehicles and tipping areas (doors).

The selection of a proper site for a waste transfer facility should be carefully considered in order to meet the expected goals for the provision of the waste transfer facility. The facility must be located at a site which is both convenient to local haulers delivering waste to the facility as well as being convenient for use for the transport mode selected to transport the waste to the disposal site.

In previous solid waste planning efforts, the size of DuPage County was shown to not necessarily require the provision of two waste disposal facilities for reasons of local transport effectiveness. The county is roughly 18 miles square which is well within the waste industry's normal transport distance range for packer vehicles. Therefore, the placement of just one transfer facility in the county would appear to offer no significant disadvantage from a local waste transport standpoint.

Land Requirements

The amount of land required for a transfer facility will depend on the size of the facility to be constructed; the type of transfer technology to be employed as well as the transport method to be used; and whether or not other processes will be employed at the facility such as materials recovery through waste processing. The most significant constraint imposed on the requirement for the size of the site at this time though is specified in the Illinois Environmental Protection Act at Section 22.14:

> "No person may establish any regional pollution control facility for use as a garbage transfer station, which is located less than 1000 feet from the nearest property zoned primarily for residential uses or within 1000 feet of any dwelling except in counties of at least 3,000,000 inhabitants."

If it is assumed that the minimum size for a building would be on the order of 45,000 square feet, the minimum acreage required to meet this setback requirement, if surrounded by an area of residential nature, would be approximately 112 acres. This estimate represents worst case conditions in the assumption that the facility would be surrounded by residential land but is illustrative when considering the general nature of land use in DuPage County. In order to provide this setback requirement it would be advantageous to use the distances for buffer which may be afforded by other land uses in a given area. Siting a facility next to an existing industrial use zoned area or agricultural use area are examples which would provide obvious advantages because the total land required to achieve the required setbacks would not have to be purchased as part of the project.

A transfer station of sufficient size to meet the County's needs can be expected to occupy anywhere from 5 to 20 acres, depending on the facility's specific development plan and mode of transport.

Transportation Accessibility

In addition to considering the impact that the transfer facility will have on surrounding traffic conditions, consideration must be given to locating the facility close to or on major transportation routes. This is especially important where truck transfer is anticipated because the out-going trucks will be large over-the-road vehicles. If rail transport is to be used, the site must be located in the immediate vicinity of a rail line unless intermodal transport is proposed.

Proximity To Utilities

The utilities required for the operation of a waste transfer facility include telephone, sewer, electric, water and possibly natural gas. Selection of a site where utilities are readily available is preferred because the cost of extending utilities can be substantial.

Site Subsurface Considerations

It can be expected that a waste transfer facility will require the construction of a relatively large building designed for heavy use. Heavy equipment and truck traffic will be utilized at such a facility. These conditions demand that stable soils capable of bearing these loads exist at the site. Depth of groundwater and bedrock should also be examined within the context of potential construction impacts.

3.3.1.4 Costs

CAPITAL COSTS

Costs specific to the construction of a transfer station are influenced by the building's construction, architectural treatment,

technology selection and land costs. In Appendix A-4, the estimated costs to develop and construct a transfer facility in the range of 800 to 1,000 tons per day using open top truck trailer technology is provided. A cost of approximately $7,475,000 is estimated for development/construction costs. Wheel loaders would all approximately $200,000 to the estimated cost.

A transfer station sized at 1,000 tons per day is capable of transferring 286,000 tons per year if it operates 5.5 days per week. The estimated cost per ton then is approximately $1.45 over the 20 year useful life. This does not include the cost for financing the capital costs.

OPERATING COSTS

In Appendix A-4, the costs to operate the example transfer station described above are estimated. On a per ton basis, the cost to operate is estimated at approximately $1.81.

The costs to transport the material is directly dependent on the method of transport to be utilized and the distance to the disposal site.

SUMMARY OF COSTS

The costs for construction and operation of a waste transfer facility sized at 1,000 tons per day are estimated at $3.26 per ton. This cost does not include the cost of financing (interest), transport equipment, or transport charges. The cost is provided as an estimate only for illustration purposes. Transfer capability for DuPage would either require a larger facility or multiple facilities based on DuPage's waste generation.

3.3.2 Combustion Options

3.3.2.1 Overview Of Systems

Since the turn of the century, solid waste combustion has been an integral component of many solid waste systems. Used both publicly and privately, combustion has served several waste management purposes including the elimination of infectious materials, the destruction of hazardous wastes, and the avoidance and reduction of disposal costs. Two of the principal objectives of solid waste combustion are waste volume reduction and energy recovery.

With landfill space diminishing at a rapid rate throughout the nation, combustion is viewed as a viable means by which the volume of solid waste requiring disposal can be reduced. Although combustion alternatives do not eliminate the need for a landfill because the residues of combustion also require disposal, the volume of solid waste that must be disposed of in landfills can be reduced by approximately 90 percent through combustion. In addition to achieving a reduction in the overall volume of waste requiring disposal, combustion offers the potential to recover energy in the form of steam and electricity from the combustion process. The production of energy helps to offset the cost of operating a combustion system and also helps to conserve other fuels that would have to be burned to produce an equivalent amount of energy.

These benefits of solid waste combustion have resulted in the construction of a number of combustion systems in the United States. Energy recovery is an integral component of virtually all new solid waste combustion projects because of the economic and environmental benefits this reuse provides. The 1988-89 Resource Recovery Yearbook, published by Governmental Advisory Associates, Inc., identified 202 combustion with energy recovery (waste-to-

energy [WTE]) projects in 1988 that were in an advanced stage of development, construction, or currently operating. An additional 139 facilities were in the conceptual planning stages. A recent survey conducted by BioCycle magazine (March 1990) identified 154 operating WTE facilities in the United States.

Energy recovery combustion technologies recover useful energy through the combustion of solid waste in specially designed furnaces equipped with boilers. In recent years, WTE systems have been receiving increasing consideration and application as an alternative to continued full reliance on sanitary landfills. As stated previously, more than 100 energy recovery facilities are either operational or under construction in the United States. This increased use of energy recovery combustion systems has resulted in the development of a number of new energy recovery technologies. In addition, older combustion technologies have been continually modified and improved.
Construction of new combustion facilities without energy recovery is not generally considered a feasible option for solid waste management, when considering the costs of implementation.

The two major classifications of WTE systems discussed in Appendix A-4 are mass firing and refuse-derived fuel (RDF) systems. Under the discussion of mass-firing, the concept of mass-firing technology applied to processed waste is discussed.

MASS FIRING

Mass firing consists of feeding and burning MSW in its essentially unprepared or as-received condition with the exception that items too large to pass through the feed system are removed. In a typical mass firing facility, MSW is loaded from a storage pit onto a grate that moves the MSW through a combustor. Agitation of the MSW on the grate is essential to achieving complete combustion in a mass firing facility.

Mass firing systems can be divided into the following two major categories.

1. Modular combustion units (MCUs), which are used primarily for small-scale facilities and are, for the most part, shop-assembled and shipped as modules, for use individually or in multiples, as required to meet the wastestream volume.

2. Field-erected units, which are used primarily for large-scale mass firing operations.

Field-Erected Units

In a plant designed for mass firing, unprepared refuse (as received from collection vehicles with little or no sorting) is processed directly into a combustion furnace. The two general categories of field-erected combustion furnaces are refractory and waterwall units.

Refractory units have a refractory furnace chamber and a separate waterwall boiler. A refractory furnace is lined with a heat-resistant, radiant refractory material that protects the walls of the furnace chamber from the direct heat of the combustion process.

Waterwall units have an integrated refractory-lined waterwall furnace and boiler. The walls of the furnace are lined with tubes that circulate water and absorb the heat of combustion. The waterwall design decreases the need for refractory material because the tubes are in direct contact with the furnace fire and remove combustion heat immediately. This results in a more efficient utilization of combustion energy than with refractory units.

In both types of units, the heat generated from the combustion process is recovered as steam by waterwall radiation boilers. The steam may be sold directly or converted to electricity using a turbine generator and then sold, usually to a large utility or industrial operation.

Also, in both types of units, refuse is burned on an inclined, step-like grate that reciprocates, rocks, or vibrates, agitating the refuse, which results in more complete combustion. Combustion air is introduced beneath the grates (underfire air) and above the refuse bed (overfire air). Underfire air aids combustion and cools the grates, while overfire air promotes turbulent mixing and complete combustion.

The gaseous products of mass firing combustion pass through air pollution control equipment. Ferrous metals and other materials can be recovered from the bottom ash for eventual sale, and the remaining bottom and fly ash from the air pollution control systems can be disposed of in a landfill.

According to the Governmental Advisory Associates publication (1988-1989 Resource Recovery Yearbook), field-erected mass firing units comprise approximately 29 percent of the existing WTE facilities in the United States and have proven to be the most reliable technology for WTE. Field-erected mass firing units account for over 62.8 percent of all facilities in advanced planning stages in the United States.

Problems that have been experienced at some field-erected mass firing facilities include grate failure and superheater corrosion. Grate problem have been largely overcome through improved design and operating practices, and superheater corrosion has been minimized by limiting the upper steam temperature and pressure. Advances in metallurgy have also helped reduce superheater corrosion. It is important to note that at mass firing facilities where grate failure and superheater corrosion have occurred, the problems have been corrected and the facilities have continued to operate. In addition, because mass firing facilities are usually designed with two or more combustion lines, the combustion process does not normally halt if one line is out of service.

Modular Combustion Units

MCUs are a prefabricated variation of mass firing technology. These furnace/boilers are available in a wide range of small-scale sizes that fire as-received solid waste. Individual units range in capacity size from 10 to 200 tons per day (tpd). MCUs differ from conventional mass firing waterwall (field-erected) units in a number of ways, including the following.

- MCUs are a standard design and largely shop-assembled to minimize the amount of costly field erection work required.

- MCUs sometimes use refractory furnaces and waste heat boilers as opposed to waterwall furnaces, which are used in field-erected units.

- Some MCUs must be batch-fed rather than continuously fed.

- Some MCUs operate under starved air conditions, as opposed to excess air conditions. Starved air conditions produce pyrolytic decomposition of refuse in a primary chamber, which causes combustion of products of the pyrolysis process (gases) in a secondary chamber, sometimes with the assistance of auxiliary fuel burners.

- MCUs generally produce steam at temperatures and pressures lower than conventional mass firing units. Only a few MCU facilities generate electricity.

- MCUs sometimes use rams and hearths as opposed to other movable grate systems.

- MCUs may require additional pre-sorting of the refuse to remove large bulky items due to the smaller unit size.

Because MCU manufacturers use different combinations of technological features, the above statements differentiating MCUs from conventional mass firing waterwall technology are conditional. The most common MCUs use one of the following combinations of technologies:

- Excess (controlled) air refractory furnaces and waste heat boilers;
- Excess (controlled) air waterwall boilers; or
- Starved air refractory furnaces and waste heat boilers.

The relatively small size of MCUs limits their application to low volume wastestreams (approximately 500 tpd or less). MCUs have proven, historically, to be a popular technology in many applications, particularly for areas with relatively low populations. MCUs comprise approximately 49 percent of the facilities currently operating throughout the United States. However, the success of MCUs has been mixed.

Problems with waste feed and ash removal systems were common with many early MCU designs. Many of these designs were based on fixed-bed, batch-fed concepts in which refuse was fed into the units at a fixed rate until the chamber became filled with ash. These units often required extensive overhauls (replacement) of the refractory linings on a fairly frequent basis (4 to 7 years). Such overhauls represent a significant expense that must be budgeted and accounted for during comparisons and analysis of MCUs with other technologies.

Because of their low processing capacity compared to mass firing units, MCUs are generally restricted to industrial or institutional applications (e.g., combustion of hospital waste). Most of the larger mass firing projects currently underway in the

United States are using field-erected unit technology; MCUs account for only 16.5 percent of United States combustion units in advanced stages of planning.

Mass-Firing With Pre-Processing

Mass firing mixed MSW combustion systems do not require extensive pre-processing of the waste into a homogenous fuel material like Refuse-Derived Fuel systems. However, removal of recyclable materials from the raw waste prior to combustion usually benefits the operation of a mass firing facility. For example, pre-processing can result in a waste fuel with a higher heat content on a per pound basis and smaller amounts of ash residue. Facility operational concerns, such as aluminum and glass slagging and interference with grate operation, can also be alleviated by conducting material separation prior to combustion. Pre-combustion removal of recyclables from the MSW can be accomplished by either source separation programs prior to arrival of the waste at the WTE facility or by pre-combustion sorting at the WTE facility (refer to Appendix A-3 for a discussion of materials recovery by waste processing). Although some existing combustion facilities have recovered materials by waste processing prior to burning, materials recovery occurs most commonly at mass firing facilities with post-combustion processes that recover aggregate ferrous and nonferrous metals. The recovery of materials prior to combustion in a mass firing system is best achieved through an aggressive source separation program designed to remove household hazardous wastes and recyclable materials prior to introduction to the wastestream. However, pre-combustion materials recovery can be conducted at the mass firing facility and generally consists of low- to medium-technology recovery systems such as bag breaking, screening, and handpicking. High-technology pre-combustion processing is most economically used with refuse-derived fuel (RDF) combustion technologies.

PREPARED (REFUSE-DERIVED) FUEL

The composition of MSW as fired in a mass firing system is heterogenous and varies on a seasonal and even daily basis. The characteristic that distinguishes prepared fuel, or refuse-derived fuel (RDF), combustion units from mass firing units is that the RDF combustion system requires incoming waste to be processed to increase the uniformity of the material fed to the combustor. Accordingly, incoming MSW is usually shredded and screened by size and density and certain recyclable, noncombustible materials are removed.

Processing Methods

The objective of a solid waste processing unit is to produce as homogenous a fuel product as possible and consists of the following processes: 1) screening of nonprocessible materials, 2) extracting marketable by-products, and 3) shredding and sizing the remaining waste. The product of such processing units is called RDF. This fuel can potentially be used as supplemental fuel in existing utility and industrial combustion units or as the primary fuel in dedicated furnace and boiler units that are designed, built, and operated solely to burn RDF The by-products of RDF production may include metals, grit, paper, glass, and plastic, many of which can be marketed as recyclables. The degree of preparation in RDF processing systems is determined by the type of combustion technology in which the fuel will be used and the extent to which materials recovery is practiced. General classifications of RDF processing systems include Dry Processing, Wet Processing, and Densified Fuel Production. The type of processing system used depends on the fuel specifications of the intended RDF combustion unit.

Dry processing units generally involve, at a minimum, various stages of size reduction, separation (screening), and magnetic

separation; in addition, shredding and air classification can be included to improve material or fuel recovery efficiencies. The primary advantages accrued from the dry processing of MSW compared to other processing systems include better ability to recover material components from the wastestream; production of a more homogenous fuel, enabling better control of the combustion process; and more efficient transportability of the fuel product.

Wet RDF processing units hydropulp solid waste after initial pre-processing. This process is closely related to the hydropulping operations used in the pulp and paper industries. Liquid cyclones, which are spinning cylinders used to separate materials, accept slurry from the hydropulper and separate combustibles and noncombustibles. The combustible fraction of the RDF stream is then dewatered and the remaining fiber is burned.

The advantages claimed for hydropulping operations are the reduced potential for explosion during size reduction and production of a cleaner, more homogeneous fuel than that produced by dry processing. However, wet processing lowers the net energy recovery efficiency of the fuel because of the energy required to mechanically remove moisture from the fuel and then drive off the remaining moisture in the combustion process.

In densified RDF production, incoming waste is processed to remove most of the inorganic material using a dry process and reduced to an RDF with a nominal size of less than 1 inch. This product then undergoes a densification process by one of several types of pelletizing, briquetting, or cubing machines. Pelletizing, briquetting, and cubing consists of subjecting the RDF to high pressure and sometimes high temperature, with or without a binding medium, to reform the waste into dense particles. Generally, pellets and cubes are formed by an extrusion process, while briquettes are molded under high pressure.

The advantages of densified or pelletized RDF are easy handling and storing capabilities, which reduce problems with spillage and dust. In addition, densified RDF has a higher bulk density than nondensified fuel, which allows for greater transportation payloads. Also, its size and particle density allow densified, pelletized, and briquetted RDF to be used as a supplemental fuel in conjunction with certain older model unpulverized coal handling combustors. RDF also has a comparably lower sulfur content than coal, making it a desirable fuel to reduce stack emissions of sulfur dioxide in coal-handling units. However, newer coal burning facilities are frequently designed to use pulverized coal and, therefore, cannot generally burn densified RDF.

A disadvantage with densified RDF is its comparatively high cost. The preparation of densified RDF imposes additional energy and maintenance requirements and capital costs for fuel handling, metering, conditioning, and densification equipment.

Most RDF processing units have experienced problems with the various processing steps, including shredding operations, material separation, and storage. Some of the major problems, such as the high rate of wear of shredder components, long-term storage, and explosions associated with shredding and storage have not been completely resolved. These problems affect the full-scale operational reliability of RDF processing units. The high cost of shredder maintenance has now been accepted as a normal operational expense, and the difficulties associated with long-term RDF storage are being overcome by carefully scheduled processing operations that allow RDF facilities to be used as interim surge silos or bins, rather than for long-term storage.

RDF processing units incorporate many interdependent mechanical processes that are susceptible to breakage. Because contractual obligations regarding fuel delivery may have severe

penalties, equipment is generally designed with redundancy and bypass capabilities so that fuel production is not halted or impeded if equipment failure or loss of material markets occur. The redundancy required to achieve a high degree of reliability can substantially increase capital costs.

Combustion Methods

RDF may be fired in a number of different types of combustion units to complete the energy recovery concept. Although many factors must be considered, decisions concerning the type of combustion unit are influenced significantly by whether new, dedicated units, or an existing boiler facility will be used. New, dedicated boilers must be installed if an existing boiler facility is not available or if it is not feasible to modify existing units for supplemental firing of RDF.

The cost of modifying an existing combustion system for supplemental firing of RDF is generally more economical than constructing a new, dedicated unit. Pulverized coal boilers and spreader-stoker boilers designed for coal, bark, wood waste, or other solid types of fuel are best suited for modification to RDF firing. These types of units generally have the required ash handling system and soot blowers to facilitate the firing of RDF. While dedicated units do not realize the cost savings of using existing equipment, they do have the advantage of being designed and operated for specific conditions and fuel specifications.

The most common furnace design used to fire RDF is the spreader-stoker furnace boiler. This design concept has been derived from granulated coal firing systems. In spreader-stoker systems, RDF is introduced to the furnace by pneumatically assisted mechanical spreaders. The RDF then ignites and burns in partial suspension. Unburned material drops onto a traveling stoker where firing is completed before ash residue is discharged. The RDF used

in these systems varies from highly prepared fuels that have undergone air classification and materials recovery to coarse fuels from shredders. The more recent systems constructed and proposed have been designed for coarse fuel, which is in response to problems with the system for classifying MSW and the difficulty experienced in producing materials of marketable quality.

Spreader-stoker boilers have been in successful operation for decades, firing coal and other low grade fuels. However, most of the currently operating RDF units have experienced various design and operational problems.

In full suspension-fired units, a very fine sized fuel is blown into a furnace and is burned by either horizontally or vertically (tangentially) fired burners. The fuel and primary air are introduced in a manner that produces turbulent, cyclonic motion, which is required for complete combustion. Fuel particles that are injected into the furnace dry rapidly and then volatilize, ignite, and burn almost completely in suspension in a relatively short time.

The RDF used in suspension-fired units must be processed to a small particle size (generally allowing 95 percent by weight to pass through a 2-inch square mesh screen) and have had most metals, glass, and other inorganic material removed.

The principal advantages of suspension-fired units are as follow include the fact that arrangement to accommodate burning multiple fuels is possible; lower grate maintenance is required compared to other RDF-fired or mass firing systems; and higher energy recovery efficiency than mass firing is provided due to lower excess air requirements.

Disadvantages of suspension-fired systems include the requirement of highly refined RDF; no operating systems are

currently firing solely RDF; and furnace gases of RDF systems have a high entrainment of particulate matter.

In fluidized bed combustion, the combustion process occurs within a bed of suspended inert material. The inert bed medium, usually graded silica sand, is set in fluid motion within an enclosed space by passing hot air through the bed. Fluidization of the bed medium begins as the pressure drop across the bed becomes equal to the cross sectional weight of the bed, achieving minimum fluidization velocity. As air velocity is increased, the hot bed medium expands, allowing gas to bubble through it in such a way that all particles are in homogenous boiling motion. In this state, dense suspensions of fine solids behave similar to a liquid. Combustion occurs in and above the bed, is self sustaining, and is nearly complete because the RDF and air are well mixed in the fluidized zone. Moisture in RDF burned in this manner is rapidly evaporated, and a relatively constant temperature gradient is maintained throughout the bed by an instantaneous rate of heat transfer. RDF requirements for fluidized bed combustion units vary with different manufacturers. However, the product should ideally be free of metal and glass to avoid fusion of bed particles with combustion ash.

When first implemented, RDF-firing units suffered from extensive operational difficulties such as ash overload due to the higher ash content of the fuel, excessive wear on unit hardware due to unclean RDF, and, as with mass firing units, boiler tube corrosion problems due to the high chlorine content of MSW. However, recently implemented facilities have placed greater emphasis on the specifications of the RDF (resulting in more complete pre-processing) and have installed new, dedicated combustion units, which are specifically designed to fire RDF. These improvements in RDF-firing technology have increased the efficiency of the resource recovery and volume reduction objectives of RDF systems.

3.3.2.2 Environmental And Siting Considerations

Environmental and accompanying regulatory issues related to the siting, design, construction, and operation of a WTE facility are diverse and often complex. Potential areas of concern include air and water pollution; the disposal of process residues; and odor, noise, traffic, aesthetics, land use compatibility, floodplain encroachments, and wetlands impacts. This section identifies and discusses these impacts. Where applicable, the processes and procedures involved with regulatory compliance for construction and operation of a WTE facility are also discussed.

ENVIRONMENTAL

Air Quality And Pollution Control Technologies

Air Quality

Emissions from the combustion of MSW are complex and are dependent on the composition of the wastestream, combustion method and operating characteristics, extent of combustion, and types of air pollution control devices used.

The assessment of potential impacts to the air from operating a WTE facility must necessarily occur within the context of existing environmental law. Current rules and regulations, as related to air pollution from WTE facilities, stem largely from provisions of the 1970 Clean Air Act and subsequent amendments. The Clean Air Act is administered by USEPA and establishes a permitting procedure for new stationary sources of air pollutant emissions that is applicable to WTE facilities.

In Illinois, the air emissions permitting functions of USEPA have been delegated to the Illinois Environmental Protection Agency (IEPA). However, IEPA's permit programs must operate within the

regulatory framework established by USEPA. USEPA and IEPA have promulgated air quality regulations that, together with a permitting process that sets permitting precedents, define air quality standards and impose design constraints and requirements on new or modified WTE facilities. Of these regulations, if a WTE facility were built in DuPage County it would potentially be subject to the following:

- Ambient air quality standards (AAQSs);
- Prevention of significant deterioration (PSD) regulations;
- Nonattainment area regulations;
- New source performance standards (NSPSs); and
- National emissions standards for hazardous air pollutants (NESHAPs).

For a detailed discussion of these regulatory requirements and how they apply to WTE facilities, please refer to Section 11.0 of Appendix A-4. These regulatory requirements are summarized in the following paragraphs.

Sections 108 and 109 of the Clean Air Act address the establishment of, and required revisions to, national ambient air quality standards (NAAQSs). Section 108 of the Act mandated that USEPA identify pollutants that were reasonably expected to endanger public health or welfare and to issue air quality criteria for them. According to the Act, these air quality criteria are to reflect the latest scientific information regarding all identifiable effects a pollutant may have on the public health or welfare. Section 109 of the Act directs USEPA to propose and promulgate regulations that set NAAQSs for pollutants identified under Section 108.

Any major stationary source of air pollution, as defined by Prevention Of Significant Deterioration (PSD) regulations, must

undergo PSD review before a permit can be issued for construction in an attainment or unclassified area. The definition of a major stationary source includes any municipal WTE facility capable of charging more than 250 tpd of refuse and having the potential to emit 100 tons per year or more of any air pollutant regulated under the Clean Air Act. Potential to emit is based on the maximum design capacity of a facility and takes into account pollution control efficiency. The PSD review process requires the following actions for approval:

- An evaluation of alternative control devices and techniques demonstrating that best available control technology (BACT) will be applied to the new source;
- An analysis of existing ambient air quality in the vicinity of the new source;
- A modeling analysis demonstrating that emissions from the new source, in conjunction with other nearby sources, will not cause a violation of AAQSs or PSD increments;
- An assessment of the source's impact on soils, vegetation, and visibility; and
- An analysis of the air quality impacts associated with indirect growth created by the new source.

The application of BACT, one of the principal components of PSD regulations, is addressed in subsection 9.4 of the Illinois Environmental Protection Act. The act defines BACT as "an emission limitation (including a visible emission standard) based on the maximum degree of pollutant reduction, that IEPA, on a case-by-case basis, taking into account energy, environmental and economic impacts, determines is achievable through the application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques."

Siting a major new stationary source in a nonattainment area would require that a permit be obtained in accordance with USEPA's Emission Offset Interpretive Ruling IEPA's nonattainment rules also

require emission offsets. The new source review for a facility locating in a nonattainment area requires design for the lowest achievable emissions rate (LAER).

Both federal and state regulations define LAER as the most stringent rate of emissions based on the following:

- The lowest emission limitation that is contained in the implementation plan of any state of such class or category of stationary source, unless it is demonstrated that such limitation is not achievable;
- The most stringent emission limitation that is achieved in practice or is achievable by such a class or category of stationary source; and
- The applicable NSPS.

The primary difference between LAER and BACT determinations are that BACT regulations allow for consideration of energy, environmental, and economic factors, whereas LAER determinations are based strictly on current technological capabilities.

In addition to the achievement of LAER, the new source review for a facility locating in a nonattainment area requires the following actions.

- The certified compliance with all applicable standards of all existing major sources owned or operated by the applicant in the same state as the proposed source.
- Emissions offsets from existing sources in the area of the proposed source that will provide a positive net air quality benefit in the affected area and result in reasonable progress toward the attainment of applicable NAAQs. However, federal regulations exempt WTE facilities that burn MSW from the emissions offset requirement.

USEPA promulgated proposed regulations on December 20, 1989 that specifically address emissions from MSW combustion facilities. These new regulations, which establish the maximum allowable rates at which pollutants may be emitted into the atmosphere, will be administered by the states under Section 111(d) of the Clean Air

Act. The regulations constitute a major change in the regulatory environment for siting, designing, and operating MSW combustion facilities.

Upon finalization of the regulations, state agencies will be required to adopt and submit plans for compliance by September 1991. USEPA will establish a procedure for reviewing and approving state regulations. Following promulgation of state regulations, existing facilities (with few exceptions), will be required to be in compliance within 3 years.

A major aspect of the regulations involves USEPA's authority to regulate pre-combustion activities and MSW management issues that contribute to emissions from MSW combustion facilities beyond typical point-of-discharge standards.

Under the proposed regulations, all MSW combustion facilities will be required to incorporate materials separation programs prior to combustion. A 25 percent reduction in weight (annual average) will be required for some or all of the following materials: paper and paperboard, ferrous metals (including white goods), nonferrous metals, glass, plastics, household batteries, and yard waste. In addition, MSW combustion facilities would be prohibited from combusting lead-acid vehicle batteries greater than 5 pounds in weight and would be required to implement a program that would remove household batteries from the wastestream. According to the proposed regulations, the weight reductions could be achieved by on-site mechanical or manual separation, a community source reduction or materials separation (recycling) program, or a combination of these. Detailed record keeping and reporting requirements of performance tests and progress of the materials separation program are also proposed under the regulations.

Air Pollution Control Technologies

The range of elements, or air pollutant emissions, subject to regulation and control is becoming increasingly broad. These emissions fall under the following major categories or classes of air pollutants: particulate matter, acid gases, organic materials, nitrogen oxides, and heavy metals.

Air pollution control technologies are often developed and discussed with specific reference to a particular pollutant category. However, the application of a control technology for one pollutant or class of pollutants may have positive or negative effects on the control of several other pollutants. Therefore, the development of an effective air pollution control strategy requires a comprehensive assessment of a broad range of control technologies and their impact on all regulated pollutants.

in Section 11.0 of Appendix A-4, air pollution control technologies are discussed in detail. The following text summarizes that detailed discussion.

The particulate emissions from MSW combustion are composed of fly ash from the burning of waste, reaction products from the control of acid gases, and unreacted dry lime or caustic soda compounds from the scrubbers. Electrostatic precipitators and fabric filter collectors are the most proven control technologies for minimizing particulate emissions from an MSW combustion facility.

Electrostatic Precipitators. In an electrostatic precipitator, the incoming dust-laden flue gas, reaction products, and fly ash are distributed uniformly between rows of discharge electrodes and grounded collecting plates. With an electric charge applied, the particulates are driven to the collecting plates, where they collect.

The particulates are periodically removed by mechanical rapping, which generates a vibration in the electrodes and plates. The particulate material is collected in hoppers beneath the precipitator with minimum re-entrainment of fly ash. Fly ash is periodically discharged from the hoppers through rotary air lock valves, mechanically discharged to a truck or container, and then hauled to a landfill.

Precipitators exhibit the following advantageous characteristics for application at a WTE facility:

- o High efficiency and reliability;
- o Efficient operation within a wide range of temperatures;
- o Low potential for fire and explosion; and
- o Low power demand.

Fabric Collectors (Baghouse). Fabric collection, or filtration, is accomplished by accumulation of particles on a woven, felted fabric surface. Rather than using large, flat collection surfaces that would require very large and more costly collectors, the fabric is formed into cylinders or bags, and numerous bags are installed within a module. Several modules comprise a complete fabric collector. The building that houses the fabric collector is generally referred to as a baghouse.

The particulate-laden gas stream is distributed evenly among the bags within a collector by a common entry chamber that generally also serves as a holding bin for collected particulates. The gas flows up the inside of the fabric bags and through the fabric, depositing the particles on the filtering surface. Clean air is then released to the atmosphere. Accumulated deposits on the dirty side of the bags must be periodically cleaned to decrease resistance to

gas flow through the filter cake, which causes an increased pressure drop across the fabric collector and affects both the cost-effectiveness and operating efficiency of particulate collection.

Most existing WTE facilities use electrostatic precipitators for the control of particulate emissions. However, fabric filters are being used with increasing frequency, due largely to the greater acid gas removal efficiency that they provide. Both technologies can remove 95 to 99-plus percent of the total particulates from the gas stream. However, some additional removal of residual acid gases occurs in the filter cake on the bags of a fabric filter due to the presence of unreacted absorbent. Because the precipitator does not function by requiring the gas to pass through the collected particulate, this residual cleaning is not present in the precipitator.

Removal of acid gas contaminants is achievable by the use of wet or dry acid gas scrubbers.

Wet Scrubbers. A wet scrubber may be an open spray tower, a tower filled with plastic or ceramic packing, or a venturi scrubber that relies on a constriction in emissions ductwork as the point of introduction of the scrubbing medium. In the types of wet scrubbers discussed, the scrubbing solution can be introduced either counter-currently (opposing the direction of gas flow) or concurrently (parallel to the flow).

Wet scrubbers have somewhat higher overall removal efficiencies (80 to 95-plus percent) for acidic gases than dry scrubbers (70 to 90 percent), but the increased maintenance and operating costs of wet scrubbers make the dry scrubbing option more economical.

Dry Scrubbers. Dry scrubbers, or acid gas reactors, do not use as large a quantity of aqueous absorbent solution to capture and neutralize acidic contaminants as wet scrubbers. Consequently, the labor, power, and maintenance requirements associated with a dry system are less than that for a wet system.

The operation of a dry scrubbing system begins, as it does for a wet system, with the preparation of a lime or caustic alkaline solution that is pumped to a rotary or dual-fluid (compressed air solution) spray nozzle for dispersion into the combustion gas stream.

A fine spray of absorbent solution is then introduced into the combustion gas stream, where the gaseous contaminants react chemically with the solution droplets, neutralizing the acidic gases and generating salts. The water in the scrubbing solution is simultaneously evaporated as the reactions occur, cooling the gas stream. The ratio of solution to gas is monitored and maintained so that no liquid remains or falls to the bottom of the spray tower reactor, which differs notably from wet scrubbers. This stage of operations explains the dry designation of dry scrubbing.

Reaction particles and fly ash from the combustor that are too large to remain suspended in the gas stream fall to the hopper bottom of the spray reactor and are removed for disposal. Smaller reaction particles and fine fly ash exit the dry scrubber and enter an adjacent particulate control device, either an electrostatic precipitator or a fabric collector.

MSW combustion processes are ideally designed to convert organic materials to carbon dioxide and water. However, inefficiencies in the combustion process can result in the emission

of substantial quantities of carbon monoxide and various organic compounds. Organic compounds of particular concern include PCDDs and PCDFs. There are two complementary strategies to the control of organic emissions from MSW combustion units. One strategy, commonly referred to as combustion control, involves the minimization of pollutant emissions through optimization of the combustion process. The other strategy involves the post-combustion use of pollution control equipment. Combustion and post-combustion control technologies are not exclusive. In fact, their simultaneous use is desirable for achieving the most effective control of organic emissions.

To achieve the thorough combustion required for minimizing emissions of organic parameters, modern WTE facilities carefully monitor and control the combustion characteristics of time, temperature, and turbulence (mixing). There is general agreement that the efficient thermal destruction of chlorinated aromatic compounds requires temperatures of no less than 870 degrees Celsius (1,600 degrees Fahrenheit), at residence times of greater than 1 second under extremely well-mixed conditions. Most properly designed and operated MSW combustion units can achieve flame temperatures in excess of 1,300 degrees Celsius (2,370 degrees Fahrenheit) with commensurate combustion chamber temperatures of 980 degrees Celsius (1,800 degrees Fahrenheit) (California Air Resources Board. May 24, 1984. Air Pollution Control at Resource Recovery Facilities). In addressing air emission control requirements, USEPA has recently developed "good combustion practices" that are designed to limit both carbon monoxide and organic emissions.

In addition to combustion control, supplementary control of organic emissions can be achieved through post combustion use of pollution control equipment. Studies have shown that organic compounds can adhere to particulate matter in a process called enrichment. Organic compound enrichment of particulates is

dependent on particle size, number of particles, flue gas temperature, and particle composition. In general, it is theorized that organic compounds are volatilized in the combustion process. As temperatures decrease in the exhaust systems, these compounds condense onto particulate matter. Because fine particulates have a greater aggregate surface area than larger particulates, they acquire a larger concentration per unit weight. The post-combustion control of organic emissions is achieved through use of pollution control equipment with high particulate removal efficiencies. Electrostatic precipitators and baghouse filters are both capable of high removal efficiencies for particulates. With the application of good combustion practices and appropriate post-combustion control, a control efficiency for dioxins and furans of greater than 99 percent is possible.

There are a variety of ways to reduce nitrogen oxide emissions at combustion facilities, including flue gas controls and combustion modifications. Flue gas controls, such as selective catalytic reduction devices, appear to offer the greatest possible reduction in nitrogen oxide emissions. In the selective catalytic reduction process, nitrogen oxide is reduced to nitrogen and water vapor by the addition of ammonia in the presence of a catalyst. However, these devices have not yet been demonstrated in MSW combustion facilities.

Selective non-catalytic reduction (SNCR) is another method of flue gas control that has been successfully used to reduce nitrogen oxide emissions. SNCR involves injection of ammonia in the upper furnace to achieve selective reduction of nitrogen oxide to nitric oxide. The ammonia reacts with the nitric oxide to form nitrogen gas. Combustion modifications are presently the most technically feasible and reliable methods for reducing nitrogen oxide emissions at WTE facilities. Combustion modifications include staged combustion, low excess air, and flue gas recirculation.

Staged combustion and low excess air techniques control nitrogen oxide emissions by reducing the quantity of organically bound, volatile fuel nitrogen that is oxidized to nitrogen oxide. Flue gas recirculation techniques generally act to suppress thermal nitrogen oxide formation by reducing temperature in the flame zone. Care must be exercised in application of staged combustion, low excess air, and gas recirculation technologies because they can, if improperly applied, reduce combustion efficiency and increase carbon monoxide and organic emissions.

Particulate matter associated with combustion is enriched with heavy metals in a manner similar to organic compound enrichment. Most of the metallic compounds released are on the surface of fine particulates. Removal of these metals is best achieved through use of equipment that can efficiently remove fine fly ash particles.

Properly designed and operated fabric filter systems currently offer the best method for consistent and efficient removal of fine, and particularly sub-micron, fly ash. Removal efficiencies of fine fly ash using these systems can be in excess of 99 percent. In addition, reduction of the temperature of the flue gas stream to between 200 and 230 degrees Celsius (300 to 445 degrees Fahrenheit) will result in at least an additional 20 to 30 percent reduction in volatile metallic compounds previously not absorbed onto particulates. It is not clear whether emissions of mercury and mercuric compounds will be controlled to a significant degree by fabric filter systems. However, recent data indicate that mercuric compounds are controlled to a limited extent by a dry scrubber and baghouse combination (California Air Resources Board. May 24, 1984. Air Pollution Control at Resource Recovery Facilities).

Water Quality And Pollution Control Technologies

MSW combustion facilities can potentially impact water quality in several ways. If not properly controlled, pollutants can potentially enter groundwater and surface water directly through discharge of contaminated process water or indirectly through air emissions, surface runoff, and ash residue leachate if combustion ash is disposed of in landfills. Water is used for a number of purposes at MSW combustion facilities. Significant quantities of water are required in the combustion process for boiler blow-down, equipment cleaning, tipping floor cleaning, and ash quenching. However, much of the water used in modern WTE facilities is recycled. Only limited quantities are actually discharged. The Lancaster, Pennsylvania, WTE facility, scheduled to begin operations in 1991, reuses all of its wastewater on-site. The Lancaster County facility, as well as several other WTE facilities, use effluent from municipal wastewater treatment plants as makeup water for cooling towers.

Wastewater discharges from any MSW combustion facility must meet all applicable industrial pretreatment standards for discharge into sanitary sewers or will have to be in compliance with a National Pollutant Discharge Elimination System (NPDES) permit for discharge into a natural waterway. Pretreatment of wastewater may be required to meet both current and potentially stricter discharge limitations.

Potential indirect impacts to surface water from air emissions and runoff can be controlled through the application of appropriate air pollution control technology and good grounds and housekeeping practices, which minimize the introduction of potential contaminants to runoff-producing media. Dispersion of pollutants in the air would further limit the potential impact to surface water quality from this source.

Potential impacts to groundwater result from ash disposal in landfills. Tests conducted on ash from MSW combustors have revealed elevated concentrations of heavy metals and other compounds, such as dioxin. In Illinois, ash from the combustion of MSW is currently classified as a special waste. As such, it requires disposal in specially designed landfills with design features for minimizing the potential migration of pollutants into groundwater. The potential for migration of metals from ash disposed of in monofills is currently receiving much critical attention. Recent test results from a study sponsored by USEPA and the Coalition on Resource Recovery and the Environment (CORRE) on leachate from five ash monofills showed metals concentrations in the leachate that "were close to drinking water standards." However, other studies have shown higher metals concentrations in leachate from ash monofills. Discussions of the analytical methods used in characterizing ash leachate from landfills and associated regulatory issues are presented in the following subsection on residue management.

Residue (Ash) Management

Ash residue is cumulatively defined as bottom ash, siftings, and fly ash. These residues are collected in hoppers at the bottoms of the boiler, economizer, air heater, and air pollution control equipment at WTE facilities. This residual material can be described as essentially inert solid matter that remains following the combustion of MSW. Siftings, more commonly referred to as bottom ash, fall through grate openings and accumulate in hoppers below the combustion unit. Bottom ash also discharges from the end of the furnace stoking grate (or rotary kiln, depending on the combustion method used) into a hopper for collection. Fly ash is small particulate matter that remains in suspension with the flue gas that exits the combustor to be collected by air pollution control equipment.

As part of the development of a WTE facility, measures to ensure environmentally sound management of combustion residues would need to be included in the project. The principal concern regarding ash residue relates to the nature and control of leachate from landfills in which residue is disposed. Most of the environmental concern about ash residue focuses on the amounts of heavy metals (e.g., lead, cadmium, and mercury) in the residue and the potential for these constituents to leach and contaminate the environment. These heavy metal constituents exist in the incoming wastestream to a WTE facility. However, through combustion, the volume of the processed wastestream is greatly reduced, thereby increasing the relative concentrations of noncombusted residuals, including heavy metals.

Studies of leachate from ash residue landfills have shown levels of heavy metals in leachate to be relatively low. For example, in a report to Congress, USEPA, following approved sampling and analysis protocol, analyzed leachate from several ash residue disposal facilities and in each case the leachate did not violate any of the allowable limits for USEPA's extraction procedure (EP) toxicity test (USEPA. October 1987. Landfills, Monofills and Co-Disposal Sites).

Despite the results of this and similar research, sound environmental management requires that any leachate generated from residue disposal should be collected and processed. Accordingly, the disposal of combustion ash residue should be restricted to specially designed monofills that would accept only residue. In addition, a monofill should include a clay and a synthetic liner system, a leachate collection and management system, and a groundwater monitoring system. This approach, while being environmentally responsible, also appears to readily meet the likely directions of pending state and federal regulations for combustion ash residue management.

In addition to providing for the proper disposal of combustion residue, the proper management of ash during transportation for disposal is required. For example, in accordance with guidelines recently issued by IEPA, vehicles hauling ash residue must be covered and adequately sealed to prevent spillage of quench water, which drains from the residues. Development of a thorough plan for residue management is an essential aspect of WTE facility permitting with IEPA.

The physical and chemical composition of ash residue from an MSW combustor and accompanying particulate removal system are highly dependent on the type of material being charged through the system, the type of combustion unit used, and the combustion efficiency (i.e., thoroughness of the combustion process) of the unit. Additionally, the use of a gas scrubber introduces lime or calcium into the ash, which affects the composition of the combined total residue. Seasonal, geographic, and socio-economic variations that affect the amount and composition of raw MSW introduced into the system also affect the physical and chemical characteristics of ash residue. Therefore, ash residue composition will not be consistent from facility to facility nor necessarily from season to season within the same facility.

Bottom ash typically consists of ferrous and nonferrous metals, glass, ceramics, minerals, and ash. As with the physical composition of bottom ash, the chemical composition is also dependent on processed waste composition, the type of combustion process, and combustion efficiency. The carbon content, which is related to the extent of combustion, similarly affects the overall composition of the ash.

There is presently considerable interest, research, and concern regarding the concentration of metals that can exist in combustion ash residue and the possible environmental impacts of these materials. Such concerns are generally greater for fly ash,

which tends to exhibit higher levels of certain metals than bottom ash.

The volume of ash residue remaining after combustion is typically 5 to 15 percent of the waste fed to a mass firing WTE facility. By weight, the amount of ash residue from combustion of MSW solid waste is approximately 20 to 40 percent, on a wet basis, of the unprocessed waste weight. Recycling activities (as required by IEPA in its permit requirements for the Robbins Resource Recovery facility) could result in significant reductions in ash generation. If ferrous materials are recovered from the residue, the amount of residue requiring disposal would be further reduced. Ferrous metals account for approximately 5 to 15 percent by weight of total residues produced. This residue includes bottom ash and fly ash, which contain toxic organic compounds and metals. Disposal of ash residue in an environmentally sound manner is a major concern in operating a WTE facility because of the capability of the organic compounds and heavy metals in the ash to migrate from landfills and contaminate groundwater.

Two approaches have historically been taken in evaluating ash quality characteristics. One approach had been directed at developing a realistic characterization of the leachate produced by natural percolation of water through an ashfill. A second, more conservative approach had been to assess ash quality using extraction procedure (EP) toxicity tests and standards. However, on March 29, 1990, USEPA promulgated a regulation (55 CFR 11862) that established a new analytical method, the toxicity characteristics leaching procedure (TCLP), for characterizing leachate.

The EP toxicity procedure evaluates the toxicity of a material under specified aggressive chemical conditions, including the maintenance of an acidic (pH of approximately 5) environment. As will be discussed, the leaching of contaminants from ash, and

particularly heavy metals, is quite sensitive to pH. Although there was some expectation that the TCLP method would be more aggressive than the EP toxicity test in leaching contaminants, testing conducted on ash from the Westchester County, New York, and Marion, Oregon, facilities suggests that the TCLP test is comparable and perhaps slightly less aggressive than the EP toxicity test (New York State Department of Environmental Conservation. 1987; Schinn. 1987). As stated previously, recent test results from a study sponsored by USEPA and CORRE using TCLP on leachate from five ash monofills revealed metals concentrations in leachate that "were close to drinking water standards." However, a significant difference between EP toxicity and TCLP procedures is that the latter includes consideration of many more constituents, including dioxins. Therefore, the disposal of ash residue will need to be scrutinized with respect to the potential threat to human health and the environment posed by the chemical parameters identified using the TCLP procedure.

Illinois law currently allows for the combined disposal of fly ash and bottom ash. However, MSW combustion ash is currently classified as a special waste in Illinois. Therefore, ash residue can only be placed in a special waste landfill permitted to accept ash. Special waste permits disposal are granted on a component-specific basis. By siting a WTE facility and associated residue disposal facility close to each other, the costs of residue hauling can be reduced, and concerns about the environmental impacts of residue transport can be minimized. The minimum criteria for determining suitability of an ash landfill (ashfill) site are geologic suitability, setback distance from public wells, and location to floodplain or ability to be flood-proofed. These criteria are established by federal and state regulations. Additionally, local criteria would need to be developed for the selection process. Sites that meet the minimum state-mandated criteria would then be analyzed and ranked on the basis of satisfying local siting criteria.

The separate disposal of ash in a monofill offers several advantages. Problems that may exist in municipal landfills, such as the generation of explosive gases, are not present in a monofill due to the inert characteristics of ash. In addition, comparison of leachate quality from sanitary landfills and ashfills shows that leachate from mixed solid waste exhibits higher levels of certain pollutants, including heavy metals, than leachate from equal weights of ash only. This is explained largely by the absence, in an ash monofill, of the acids produced through the decomposition of MSW. Also, ash is more alkaline than solid waste due to the presence of lime from the scrubbing process. Heavy metals have lower solubilities within the normal range of alkalinity found in ash and, therefore, undergo less leaching.

As with a state-of-the-art sanitary landfill, an ashfill must be designed to prevent leachate from having an adverse impact on local groundwater quality. However, environmental risks associated with the land disposal of solid waste are substantially reduced through the disposal of ash residues in a monofill or separate cells of a sanitary landfill.

Odor And Control Technologies

The potential for odor emissions and resulting impacts to surrounding land uses is an important issue in the siting and operation of solid waste combustion facilities. The implementation of appropriate odor control techniques in the design and operation of a WTE facility is usually highly effective, in preventing the migration of odors beyond facility boundaries.

Objectionable odors generally form when MSW is left unprocessed for more than one day. Additionally, excessively wet solid waste has the potential to generate odors associated with anaerobic decomposition. Unless the delivered waste is stale or excessively wet, the formation of odors would not be expected

inside a facility because the daily combustion of waste would occur soon after the waste was received and before significant decomposition had begun.

The generation of odors caused by stale waste inside a combustion facility is also reduced by process systems inherent to combustion facilities. Waste handling occurs inside a closed structure, which prevents additional moisture from reaching the waste and air needed for combustion furnaces is drawn from inside the facility through the facility's boilers to create a slight negative pressure. The odors would be destroyed as air passes through the combustion process prior to leaving the emissions stack. Finally, even if not all furnaces were firing and refuse was being stored in the storage pit, ventilation of the facility would be maintained by induced draft fans. Under these conditions, any captured odorous gases would be directed into the stacks and released at an elevation that facilitates dispersion. Because of these processes, odor migration is not normally a problem at modern WTE facilities.

Noise and Control Processes

The siting of WTE facilities requires consideration of potential noise impacts to surrounding areas. The primary sources of noise from a WTE facility include the construction activities for the facility, operation of the facility, and facility-generated traffic.

The primary sources of construction noise would be from operation of diesel engines and pneumatic powered on-site construction equipment. Operation of construction equipment is normally limited to daytime hours and required to comply with local ordinances.

The major sources of operational noise are induced draft

fans, tipping hall activities inside the facility, and mechanical draft cooling towers. Other sources of noise, such as transformers, ventilation fans, material conveyors, loud speakers, and steam reliefs are relatively insignificant and do not normally increase the overall noise level above that produced by the major operational sources.

The truck traffic generated by a WTE facility can increase surrounding traffic noise levels. However, any increase in traffic noise would normally be limited to daytime working hours.

There are no federal noise regulations that apply to the operation of WTE facilities. Therefore, only state regulations and local ordinances would apply. State regulations and local ordinances that would apply include Illinois Pollution Control Board noise regulations and noise standards contained in the performance standards section for local zoning ordinances.

Traffic

Siting a WTE facility requires a detailed analysis of the short and long-term traffic impacts caused by the facility. These impacts will primarily result in an increased concentration of truck traffic. Proper planning and traffic management are integral to ensuring safe traffic flow in the vicinity of a combustion facility.

On a county-wide basis, a new solid waste facility would not be creating new traffic but rather, would represent a diversion of existing traffic. On a local basis, most of the solid waste traffic is traveling to and from Mallard Lake Landfill, near Bloomingdale, and Greene Valley Landfill, near Woodridge. A WTE facility, sized for DuPage County alone, would actually decrease the number of solid waste transportation vehicles presently using the roadways network in DuPage County because less solid waste will

ultimately be coming from communities outside of DuPage County than presently occurs.

SITING CONSIDERATIONS

In addition to the environmental issues discussed above having an impact on the siting of a WTE facility, the considerations of energy markets for the use of the energy produced by the WTE facility and other issues related to siting must also be considered as potential sites are evaluated.

Energy Market Considerations

The sale of energy products is vitally important to the economic viability of any waste-to-energy project. Energy revenues, along with tipping fees comprise the income that enables a facility to retire its capital debt, as well as to meet its operating and maintenance expenses. By maximizing revenues from the sale of energy, a waste-to-energy plant minimizes the remaining costs which must be generated by charges for waste disposal services.

Types of energy that can be sold directly by a waste-to-energy plant include thermal products (i.e., steam, hot water, and chilled water) and electricity. A plant can be designed to produce only thermal products, only electricity, or through cogeneration, a combination of the two. Also, rather than selling energy directly, a resource recovery facility can produce a refuse-derived fuel (RDF) for sale and subsequent combustion alone or with other fuels to produce thermal energy and/or electricity. Detailed investigations of available energy markets must be made to determine the best choice of energy products to be produced at a particular facility.

The key factors to be considered in selecting an energy

market for a waste-to-energy plant are the types of energy to be produced and the particular customers to whom these products should be sold. In evaluating alternative energy markets the overriding objective should be to maximize the economic benefits that accrue from the sale of energy. This objective can generally be met by finding energy markets which:

1. Provide the highest possible revenues from the sale of energy;
2. Offer long-term stability of these market sales; and
3. Minimize incremental transport costs.

Revenues from the sale of energy are maximized by finding a market that will offer the best combination of energy price and volume of sales. Thermal markets, in particular, may have difficulty offering the constant, year-round demand needed to maximize energy revenues. Conversely, electric utilities are required to purchase all electricity produced by facilities which qualify for the benefits of the Public Utilities Regulatory Policies Act (PURPA), but the low prices offered by many utilities, including Commonwealth Edison, adversely affect the economic viability of this option. A "Qualifying Facility" (QF) is a cogeneration facility or a small power production facility which meets the criteria set forth in Subpart B or 18 CFR 292.

The long-term stability of energy markets is influenced by the willingness of energy customers to enter into firm long-term contracts for the purchase of fixed amounts of energy and by the underlying long-term financial stability of the customer firm or institution. Generally, private businesses are hesitant to enter long-term contracts for energy purchases. Even when they do, the long-term existence of most private firms is not as secure as that of governmental entities or electric utilities.

In areas of the country where prices offered by utilities for the purchase of electricity are low, such as Illinois, there is

strong economic incentive to develop a market for steam or hot water, rather than electricity. For example, considering the price of competing fuels, a reasonable assumed price for steam sales would be approximately $6.00 per thousand pounds of steam. If each ton of solid waste is assumed to produce approximately 5,600 pounds of exportable (i.e., not required for in-plant usage) steam, and all of the exportable steam is sold, then each ton of waste will produce approximately $33.60 steam sales revenues. On the other hand, if the steam from incineration is used to generate electricity rather than sold as steam, approximately 550 kwh of exportable electricity can be generated from each ton of solid waste. At Commonwealth Edison's current average purchase of 1.79 cent/kwh, each ton of waste would produce approximately $9.85 of revenue. This is considerably less than the $33.60 per ton estimate of revenues from steam sales. However, as mentioned earlier, estimates of revenues from steam sales must be adjusted to reflect the percentage of exportable steam that is actually sold rather than produced, whereas under current Federal and State law, utilities are required to purchase virtually all electricity generated by waste-to-energy plants.

Generally, transportation costs of collecting and hauling wastes comprise approximately 75-80% of the total cost of solid waste disposal services. Therefore, it is important that the evaluation of potential energy markets consider the impacts of alternative markets on facility siting, and associated impacts to waste collection and hauling costs in communities served by the facility.

Thermal Energy Markets

Thermal energy products of a waste-to-energy facility can include steam, hot water, and chilled water. The selection of energy forms to be sold depends primarily on the energy needs of prospective customers.

Unless thermal sales are made to an existing district heating system, a system of distribution pipes must be constructed to transport steam, hot water, or chilled water from the resource recovery plant to customer facilities. The costs of a distribution network can be expensive, particularly in densely populated urban areas or where major natural or man-made (e.g. a river or highway) obstacles must be traversed. Therefore, the relative proximity of individual customers to the waste-to-energy plant is an important consideration when evaluating thermal energy markets.

Two key determinants of the economic viability of a thermal energy market are its size and stability. Energy loads should be sufficiently large to accept virtually all of the thermal energy that the waste-to-energy plant can produce, as close as possible to 24 hours per day, 365 days per year. Generally, the best thermal markets are large manufacturers who operate around the clock throughout the year, and require large quantities of steam or hot water in their processes. Due to their diurnal and seasonal fluctuations, space heating loads usually do not present an economically attractive energy market. An exception could occur if space heating loads could be coupled with space cooling loads, via absorption chilling, to form a steady overall energy demand.

Section 13.0 of Appendix A-4 summarizes the process which was followed in previous solid waste planning efforts by the County to identify potential thermal markets for WTE facilities.

Electrical Energy Markets

Unlike steam, electricity is an energy form which is used by virtually every resident and business within a community. Thus, on first glance any home or business would appear to be a potential electric customer of a waste-to-energy facility. However, various technical, legal, and economic factors greatly restrict the markets that are actually available for the sale of electricity from a

waste-to-energy plant.

The principal markets available for electric sales include municipal or privately-owned electric utilities; other electricity-consuming facilities owned by the owner of the waste-to-energy facility; and other industries or institutions. Following is a discussion of the principal issues involved in the evaluation of the feasibility of each of these markets for electricity.

1. Electric sales to a utility. Electric sale to a utility is, by far, the predominant choice of most electric-generating waste-to-energy plants built in the U.S. Under the Public Utilities Regulatory Policies Act (PURPA) adopted by Congress in 1974, electric utilities are obligated to purchase electricity offered for sale to them by cogeneration and small power producers, such as waste-to-energy facilities. Under PURPA, utilities are required to purchase such power at a price equal to their "avoided costs" or the costs which the utility is able to avoid by not generating or purchasing the same power from other available sources.

   The strength of an electric utility as an energy market lies in its ability to absorb all of the electricity offered for sale, and in the long-term stability of energy revenues that a utility provides. Typically, a waste-to-energy facility provides only a small portion of the power requirements of a large electric utility. Therefore, the amount of electricity sold by a waste-to-energy plant depends only on the generating capacity of the plant and its availability rather than on the electric needs of the utility itself. Most non-utility businesses are reluctant to enter into long-term agreements for the purchase of energy. Even when they do, the value of such agreements is influenced by the financial stability of the firm. However, utilities, which have a State-prescribed service area and are ensured through the regulatory process at least a minimal level of financial health, provide a level of market stability difficult to match with most other firms, or even most public institutions.

   The greatest disadvantage to selling electricity to an electric utility is the low price that usually accompanies such sales. This is particularly true in states such as Illinois where utilities have substantial excess generating capacity, which depresses the "avoided

cost" price offered to cogenerators and small power producers.

Public Act 85-882 is an attempt by the State of Illinois to encourage public utilities to purchase cogenerated waste-to-energy power at a rate equal to the average per kilowatt-hour paid from time to time by the unit or units of local government owning the facilities, excluding amounts paid for street lighting and pumping service. This effectively increases the value of electricity to higher than the estimated avoided costs. However, when a public utility is required to purchase electricity under this law, it (the utility) is entitled to certain credits and reimbursement of payment of costs, expenses, losses, damages or other amounts incurred by the utility or for which it becomes liable for not acquiring electricity from other sources. The credit(s) are determined by the utility.

Once a qualified facility has satisfied, in full, its capital costs and/or indebtness incurred from developing such a facility, the facility is required to pay back the Public Utility Fund for the utility's participation in the project. Therefore, the individual facilities will subsidize higher electricity payments from the utility to a project and will be liable to reimburse the utility fully for its participation and associated costs in the project. This would have an adverse effect on the economics of proposed facilities forcing service fees charged to communities to be raised to cover the cost(s) of the utility's participation in a project.

2. Uses of electricity at other self-owned facilities. The price paid for electricity by customers of a utility are virtually always substantially higher than the "avoided cost" price paid by utilities. Therefore, electricity has a higher value to the owner of a waste-to-energy plant, either for use at that plant or at other facilities, than for sale to the utility. Waste-to-energy plants with electric generating equipment are typically designed to meet all of their own power requirements with self-generated capacity. Excess power can, in theory, be used to meet electric requirements at other adjacent or remote facilities. For example, public offices, wastewater treatment plants, water pumping stations and other numerous public uses could receive power from a publicly owned waste-to-energy plant. However, such applications would require that power be "wheeled" from the waste-to-energy plant to receiving facilities, using the existing electric transmission systems of the local utility. Electric utilities in Illinois, and in most other locations across the country

as well, have been reluctant to provide wheeling services, particularly at rates that make it an economically attractive system. Thus, although the use of energy from a waste-to-energy plant at other County or municipally owned facilities is conceptually appealing, unless such facilities are adjacent to the waste-to-energy plant, the difficulty of obtaining economical wheeling services greatly reduces the feasibility of such an option.

3. Electric sales to non-utility industries/institutions. Because prices paid for electricity by business and institutions exceed the "avoided cost" prices offered by utilities, the sale of electricity to these establishments appears potentially more promising than sale to an electric utility. However, significant impediments to the sale of electricity to parties other than an electric utility include the following:

Variability of demand. It is extremely difficult to continuously match the electric output from a waste-to-energy plant to the fluctuating instantaneous demand profile of an individual customer. Unlike thermal demands which usually vary slowly, electric power requirements can vary abruptly, as equipment is switched on or off.

Need for back-up and/or supplemental power. Most customers will continue to require connection to the utility for back-up and/or supplemental power. Charges for these services by the utility will decrease the savings which the customer can realize from the purchase of electricity from alternative sources, thereby reducing the price at which electricity can be sold from a waste-to-energy facility. Additionally, some utilities have taken the position that although under PURPA they are required to provide back-up and supplemental power to "qualifying facilities" they are not required to do so, and will not, for customers of the qualifying facilities.

Unavailability of wheeling. As discussed earlier, existing state and federal laws, as presently interpreted by regulatory agencies and the courts, makes the availability of economic wheeling services uncertain at best. Therefore, potential electric markets for a waste-to-energy facility must be adjacent to the facility and not require wheeling by the utility.

Possible regulation as a public utility. Under Article II, Section 3-105 of the Illinois Public Utilities Act, any company which sells electricity (except as otherwise allowed by PURPA) is classified as a public utility and

> subject to regulation as such. Classification as an electric utility would put the owner of a waste-to-energy facility in conflict with the service area franchise of the existing public utility. However, the generation, transmission and sale of electricity by a facility that is owned by a municipality or other political sub-division is not subject to regulation as a public utility.

Section 14.0 of Appendix A-4 describes the process which was used during previous solid waste planning efforts to identify potential electrical energy markets in the county.

Other Siting Considerations

The consideration of a waste-to-energy facility should be carefully considered in order to meet the expected goals for the provision of the facility. In the preceding subsections, the provision of waste-to-energy facilities which include the combustion facility on-site as well as projects which anticipate the shipment of prepared fuel off-site for combustion have been discussed.

For projects which assume the combustion component to occur on-site, the availability and proximity to an energy market must be considered along with all of the other normal site traits which are considered for other waste projects. The availability and proximity of energy markets must be considered in order to provide the added cost benefits associated with waste-to-energy projects. Although a combustion facility can be constructed without the ability to recover energy, the tipping fees expected to be charged at such a facility will be substantially greater than at a comparable facility which recovers energy for sale. Further, "incineration with energy recovery" is one step higher than "incineration without energy recovery" in the State of Illinois' preferred waste management hierarchy.

For projects which assume the combustion of fuel off-site

after the preparation of such a fuel by the processing of waste, the transport system to the location of combustion must be considered. Actually, site considerations under this scenario mimic those discussed both in Appendix A-3 for materials recovery facilities as well as those discussed for transfer facilities in Appendix A-4.

This subsection provides a discussion of general items which should be considered when evaluating sites for the placement of a waste-to-energy facility.

Number Of Facilities

This consideration, although not really a site consideration, is very important when considering waste-to-energy projects because of the large developmental and capital costs such projects represent as well as the continued costs for environmental monitoring such facilities will have to assume for the life of the project. The financial undertaking to finance a waste-to-energy facility will often drive project sponsors to consider only one such facility in a given area. The advisability for placement of multiple facilities in a given planning area must be carefully considered after examining the actual needs for the area and considering the costs for development of multiple projects. Unless very enhanced market conditions exist for the placement of multiple facilities, it can be anticipated that the construction of multiple facilities will be cost-prohibitive.

Land Requirements And Availability

The amount of land required will be dependent on the size of the facility to be constructed; the amount of buffer area desired in order to minimize the visual impacts to the surrounding area; and to some extent on the proximity to and the type of energy market proposed. In previous planning efforts, the County has

proposed sites for the placement of waste-to-energy facilities on the order of 25 acres in size. Additional acreage would provide additional site buffer.

Site availability is a critical consideration for waste-to-energy facilities because they are usually so dependent on energy market locations. An otherwise preferable market for the sale of energy produced by the facility may be impractical if land is not available in the vicinity for the placement of the waste-to-energy facility.

Transportation Accessibility

As with other waste management facilities, the accessibility to major transportation routes must be considered. It is advisable to locate the facility on or near major highways or interchanges. The siting of a facility on a rail line can be advantageous for the potential use of rail transport for the disposal of residue at a distant site if a local disposal site is unavailable.

Proximity To Utilities

The utilities required for a waste-to-energy facility include telephone, sewer, electric, water, and natural gas. Selection of a site where the utilities are readily available is preferred as the cost of extending utilities to a site can be substantial.

Site Subsurface Conditions

Waste-to-energy facilities employ large buildings for the receipt and processing of waste. The equipment in such facilities is large and heavy and requires stable soils for foundations. The facilities almost always (except for modular facilities) use waste pits for the storage of waste prior to combustion. Therefore, groundwater conditions and the depth of bedrock underlying the site

must be considered within the context of construction cost impacts.

Land Use Compatability

When considering potential impacts of siting a WTE facility, it is essential that the compatibility of the facility with surrounding land uses be carefully addressed. This compatibility is best addressed by selecting a site that does not inherently conflict with existing and future land uses and applicable zoning regulations and then designing the facility with thorough attention to the features that primarily determine how an individual facility relates to its surroundings (e.g., consistent land use, environmental suitability, and facility identity).

Land use characteristics that should be addressed when siting a WTE facility irrespective of its design features include zoning, existing and future land use, floodplain impacts, wetlands impacts, unique and sensitive natural areas impacts, and impacts on aesthetics. In general, it is desirable to locate combustion facilities in industrial areas or next to existing solid waste management facilities. Proximity to other types of land uses generally requires increased emphasis on land buffers, visual screening, and architectural treatment.

3.3.2.3 Costs

Construction of a WTE facility would be expected to cause a rise in waste disposal costs above current costs of landfilling in DuPage County. However, the cost difference between a WTE facility and sanitary landfill would decrease over time. Eventually, as existing landfill space is depleted and expensive replacement landfill capacity would need to be developed, the costs of disposal at a WTE facility would be expected to be lower than landfilling. In fact, in some areas of the eastern United States, where remaining landfill space is scarce and long haul distances are

required, the costs of continued disposal of MSW in landfills has already exceeded the cost of waste processing at WTE facilities.

Thorough economic analysis of MSW combustion facilities is essential to properly evaluate their potential contribution as part of an overall MSW management plan. The costs to design, construct, and operate WTE facilities are variable and depend, among other things, on the specific technology and equipment selected, environmental setting, regulatory environment, quantity and quality of the MSW to be processed, cost of land, the market for energy generated by the facility and energy and delivery systems, taxes, degree of redundancy, method of procurement, and financing and ownership options that are pursued. The following sections discuss typical capital and operating costs as well as revenues of MSW combustion facilities.

CAPITAL COSTS

The typical capital costs of a WTE facility include the following:

- Equipment (receiving and storage, combustion and steam generation, power generation, condensing and cooling);
- Building, foundation, and site work;
- Land;
- Planning, financial, engineering, and legal services;
- Spare parts;
- Interest during construction; and
- Contingencies.

The capital cost of a WTE facility is highly dependent on the specific circumstances and requirements associated with the given application. However, a good rule-of-thumb for most applications of mass firing waterwall combustion or combined RDF production and

combustion is that the construction costs (exclusive of land and project development costs) for a new facility can be expected to be approximately $100,000 per tpd of installed capacity. This cost has been relatively constant in recent years. Using a budget figure of $100,000 per tpd, a 1,000 tpd facility would cost $100 million.

In a cross-technology comparison of capital costs, modular mass firing units tend to cost significantly less than field-erected mass firing and RDF combustion facilities. However, offsetting the lower capital cost of the modular units are higher operating costs and shorter expected operating lives. The capital cost of RDF facilities is highly dependent on the degree of processing and redundancy incorporated into the facility; the additional equipment required to process prepared fuel generally pushes the total capital cost of RDF facilities over that of similarly sized mass firing facilities. However, considering their material recovery potential, RDF facilities can sometimes be more competitive on an overall cost-per-ton basis.

OPERATING COSTS AND REVENUES

The costs to operate a WTE facility typically include the following labor; maintenance; materials; power and fuel; water; sewers; management, overhead, and profit; power payment to vendor (i.e., share of energy revenues); residue hauling and disposal; administration by owner; and host community benefits. These costs are in addition to the amortization of the facility's capital costs.

Revenues that will partially offset these costs are generated by the sale of electricity and steam; ferrous materials; and other recovered materials.

Revenues are also generated by charging tipping fees to

haulers that deliver waste to the facility. Net disposal costs for a new WTE facility can generally be expected to fall in the range of $40 to $60 per ton. However, this value is highly dependent on available energy resources and the particulars of project financing.

3.3.3 Landfill Options

As the Review Draft version of Plan-1990 was being prepared the Illinois Pollution Control Board (IPCB) was in the process of completing amendments to the State regulations addressing solid waste disposal practices. On August 17, 1990 the IPCB completed Proceeding R88-7 which made broad and sweeping changes in the regulations for solid waste disposal in Illinois. The Review Draft of Plan-1990 noted that the text did not incorporate possible changes in siting, design and operation of landfills that might be required by R88-7 and that the final version of Plan-1990 would be reviewed for consistency with revised regulations. A consistency review has been performed and the current text considers the effects of R88-7.

The amendments to State landfill regulations apply to all municipal and industrial landfills in Illinois. The regulations use a mix of performance and minimum design standards. Significant new regulations include:

1. Interrelated systems of checks and balances to control transport of contaminants, including a stringent groundwater assessment program;
2. Liners of compacted earth, or compacted earth and geomembrane;
3. Leachate collection systems;
4. State of the art leachate treatment and disposal requirements;
5. Landfill gas monitoring and management;

6. Detailed construction and operating oversight requirements;

7. Post-closure care for as many years as is necessary at each landfill to demonstrate that contamination is no longer a problem;

8. A groundwater monitoring system designed to quickly detect potential problems, and to trigger prompt remedial action where indicated;

9. Built-in provisions to avoid sensitive areas ranging from airports to nature preserves;

10. More intensive permitting and reporting requirements; and

11. Phase out of existing landfills timed to the level of compliance with the new regulations.

The regulations added six new parts to the IPCB's regulations for waste disposal. Part 810 contains the definitions; Part 811 describes the design and performance standards for new landfills; Part 812 prescribes the information necessary in a permit application; Part 813 contains procedures for permitting; Part 814 describes phase-in standards for existing landfills; and Part 815 contains procedural requirements for facilities exempt from permitting requirements. Among some of the new provisions are the following highlights:

Waste Categories: Categories based upon physical and chemical properties of wastes are established. Inert waste will not burn, biodegrade, serve as food for vectors, form a gas, cause an odor, or produce a contaminated leachate. Chemical waste is defined as waste that will form a contaminated leachate by chemical or physical processes. Putrescible waste will form a contaminated leachate by biological, chemical or physical means. Municipal waste is considered putrescible waste by definition and must be placed in a sanitary landfill.

Location Standards: Location standards will restrict the location of landfills to areas where they will not invade the scenic or recreational values of rivers; restrict or reduce the temporary water storage capacity of a 100-year floodplain; jeopardize nature preserves or any endangered wildlife; threaten or destroy irreplaceable historical and archeological sites; invade a wetland; or cause water

pollution. Additional location standards for facilities accepting putrescible and chemical wastes include setback zones from airports, highways, homes, drinking water supplies, and sole-source aquifers.

Surface Water Drainage: Standards are proposed to insure that rainfall runoff that comes into contact with disturbed landfill areas does not pollute surface water.

Postclosure Maintenance Standards: A monitoring period is established for a minimum of 15 years after closure. The monitoring period continues until the waste is stabilized and the operator can assure that the landfill will not cause any pollution.

Determination of Contaminated Leachate: Criteria for testing is outlined to determine whether the leachate expected to be formed by a waste is contaminated.

Foundation and Mass Stability Analysis: The operator is required to analyze the foundation soils beneath a landfill to determine the bearing capacity and susceptibility to landslides.

Liner Systems: Minimum criteria are specified.

Standards for the Leachate Drainage, Collection, Treatment, and Disposal Systems: All landfills must be equipped with a leachate collection system and the operator must operate the system and safely dispose of treated leachate.

Landfill Gas Monitoring and Management: All landfills must be monitored for excess landfill gas migration.

Standards for the Final Cover System: All landfills must be covered with an earth layer three feet thick compacted to the density necessary to achieve a hydraulic conductivity no greater than $1x10^{-7}$ cm/sec. (1.24 inches/yr.) A final protective layer of soil capable of supporting vegetation three feet thick will overlay the compacted earth cover.

Hydrogeologic Site Investigations: A three phase investigation procedure is specified.

Groundwater Protection: The regulations introduce a new method of setting groundwater monitoring standards which ties the site characteristics, design, operation and monitoring into an integrated system.

Groundwater Quality Standards: The groundwater standards are based upon the existing quality of groundwater.

Construction Quality Assurance: The operator will be required to institute a construction quality assurance program for all structures at a landfill, including the liner, cover, leachate collection system, and any berms and dikes. All aspects of construction must be inspected and tested under the supervision of a designated construction quality assurance officer, who prepares an acceptance report.

Financial Assurance for Closure and Postclosure Care: The operator of a landfill is required to give financial assurance for a postclosure care period estimated at thirty years.

Term of Permit: A permit must be renewed every five years.

Authorization to Engage in Experimental Practices: This procedure allows the operator to try new materials and techniques that may require an entirely different set of standards than those specified by regulation.

Acceptance Reports: Before placing a structure into use, the Illinois Environmental Protection Agency (IEPA) reviews the acceptance report submitted by the construction quality assurance officer to ensure that it has been built in accordance with the approved design.

Annual Reports: All operators must submit as a minimum, an annual report to the IEPA.

Existing Facilities: Existing facilities are divided up into three general groups: facilities that may remain open beyond seven years, facilities that will close within seven years of the effective date of these regulations, and facilities which are either unable to demonstrate compliance with the requirements of the first two categories, or are schedules to close within two years of the effective date of these regulations. Facilities in this last category must close within two years of the effective date of these regulations under their existing permits, in accordance with the terms of their existing permit.

Reporting Requirements for Onsite facilities: Part 815 describes the information that must be filed with the IEPA by facilities exempt from permit requirements under Section 21 (d) of the Act. Facilities would be required to file an initial facility report with the IEPA, describing the facility layout and design, annual reports, and quarterly groundwater monitoring reports.

3.3.3.1 Overview of Design And Operating Components

DESIGN COMPONENTS

Because of past practices the public often perceives landfills as "garbage dumps". Today's modern sanitary landfill design departs significantly from the manner in which garbage was disposed in the past. A general description of design components at facilities historically used for garbage disposal is worthwhile in order to illustrate the difference in today's modern design facilities.

Historically, landfills were located on low-cost land, usually in floodplains or wetlands. Therefore, underlying soil provided no barrier to the release of contaminants to surrounding groundwater. Further, the installation of liner systems in the bottom of the landfill was not conducted, further increasing the risk for contaminant release. Likewise, systems for the collection of leachate and methane gas were not installed. Adequate cover material was rarely placed and this resulted in severe erosion with exposed garbage. Groundwater monitoring was usually not provided.

During project design for a modern sanitary landfill the design engineer would develop a landfill design which incorporates the regulatory requirements with any site-specific environmental characteristics requiring special considerations. The design components may exceed or deviate in a positive direction from the regulatory standards, but would not fall below minimum design requirements. In instances where no regulatory standards exist, the design engineer would use professional judgement with respect to available technology.

The design components described here will be discussed in general terms and at standards equal to those required by regulation. However, specific design components would be

determined by each site's environmental characteristics as well as restrictions imposed by the local siting authority during its review. These variables may create more stringent design standards than described herein.

The design requirements discussed here conform to the requirements of Part 811 (Standards For New Solid Waste Landfills) of State regulations for solid waste disposal. The standards required for putresible and chemical waste landfills establish the context for requirements discussed here.

The principal design components affecting the construction of a new landfill include:

1. Design Period;
2. Foundation and Mass Stability Analysis;
3. Foundation Construction;
4. Liner Systems;
5. Leachate Drainage Systems;
6. Leachate Collection Systems;
7. Leachate Treatment and Disposal Systems;
8. Landfill Gas Management Systems;
9. Landfill Gas Processing and Disposal Systems;
10. Groundwater Monitoring Systems; and
11. Surface Water Drainage.

Design Period

The design period of a site is the defined period for which constructed appurtenances of the facilities are expected to be in service. In other words, the design period defines the minimum expected time which the facility must be cared for.

The regulatory design period for putresible and chemical waste disposal units is the estimated operating life plus 30 years unless measures are undertaken to encourage the stabilization of putrescible waste. Allowable regulatory stabilization practices include the acceptance of putrescible waste only in shredded form or the recirculation of leachate either of which can reduce the

regulatory design period to the operating life plus 20 years.

Foundation And Mass Stability Analysis And Foundation Construction

Illinois regulations require that the material below a waste disposal unit shall have sufficient strength to support the weight of the waste disposal unit during all phases of construction and operation. Also, the loads and loading rate shall not cause or contribute to the failure of the liner leachate collection system. In calculating the factors of safety for bearing capacity and slope failure, both long term (in tens or hundreds of years) and short term (over the design period of the facility) conditions should be considered. The potential for earthquake or blast induced liquefaction, and its effect on the stability and integrity of the waste disposal unit shall be considered.

If the existing underlying material provides insufficient strength, then the material is to be removed and replaced with materials which do provide satisfactory stability. During construction all trees, stumps, roots, boulders and debris must be removed. All foundations are to be constructed and graded to provide a smooth, workable surface on which to construct liner systems.

Liner Systems

A liner system serves as the base from which fill areas are developed at the landfill site. All waste disposal units must be equipped with a leachate drainage and collection system and earthen liner system designed as an integrated system. Liner systems must be designed to function for the entire design period.

The minimum allowable thickness for compacted earth liner systems is 1.52 meters (5 feet). The liner system must be compacted to achieve a maximum hydraulic conductivity of $1x10^{-7}$

centimeters per second. Compacted earth liners are to be constructed from materials whose properties are not affected by contact with the constituents of the leachate expected to be produced.

A combination of geomembrane and compacted earth may be used to provide adequate liner requirements. In such a case the compacted earth liner shall be no less than 0.91 meter (3 feet) in thickness and the geomembrane shall be no less than 60 mils in thickness and meet additional regulatory requirements.

Note that the requirements for liner systems apply not only to the bottom of a waste disposal unit but also to the sides of the unit where waste is placed underground. Usually the requirement for liner is not by surrounding soil conditions but where that is not possible slurry trenches or cutoff walls may be constructed to provide leachate containment. If such systems are proposed they must meet certain State regulations.

Leachate Systems

Leachate Drainage Systems

Leachate drainage systems are installed in the base of the waste disposal unit in order to intercept and drain leachate off of the base liner system. Leachate drainage systems must be designed to maintain a maximum head of leachate 0.30 meter (one foot) above the liner system and to operate during the month when the highest average monthly precipitation occurs and, if the liner bottom is located within the saturated groundwater zone, under the condition that the groundwater table is at its seasonal high level.

A drainage layer must overlay the entire liner system and must be no less than 0.30 meter (one foot) thick with a hydraulic conductivity equal to a greater than $1x10^{-3}$ centimeters per second.

The drainage layer must be designed to assure laminar flow of leachate and incorporate measures to prevent clogging or intrusion of fine material. The drainage system must use materials which will be chemically resistant to waste and the leachate produced.

Leachate Collection System

The leachate collection system collects the leachate which has flowed through the leachate drainage system described immediately above. Leachate collection pipes must be designed to allow for open channel flow and of sufficient size to allow cleaning.

Leachate Treatment And Disposal Systems

Leachate that has been collected by the drainage and collection systems described above must be treated before discharge to surface waster. Leachate may also be "recycled" in the landfill to speed the stabilization of the waste. A leachate management system may consist of any combination of storage, treatment, pretreatment and disposal options.

Landfill Gas Management Systems

Landfill gas monitoring devices must be located at the waste disposal unit in sufficient quantity to provide a representative sampling of the composition and building of gases within the unit. Monitoring devices must be placed around the waste disposal unit at locations and elevations capable of detecting migrating gas from the ground surface to the lowest elevation of the liner system or the top elevation of the groundwater, whichever is higher. Also, State regulations require that at least three ambient air monitoring locations must be provided.

A landfill gas management system must be installed if any one

of the following conditions are indicated as a result of the landfill gas monitoring program.

1. A methane concentration greater than 50 percent of the lower explosive limit in air is detected below the ground surface by a monitoring device or is detected by an ambient air monitor located at or beyond the property boundary or 30.5 meters (100 feet) from the edge of the unit, whichever is less, unless the operator can demonstrate that the detected methane concentration is not attributable to the facility;

2. Methane is detected at a concentration greater than 25 percent of the lower explosive limit in air in any building on or near the facility, unless the operator can demonstrate that the detected methane concentration is not attributable to the facility;

3. Malodors caused by the unit are detected beyond the property boundary; or

4. Leachate is recycled.

Landfill gas management systems may include landfill gas venting systems, landfill gas collection systems and landfill gas processing and disposal systems.

Groundwater Monitoring Systems

All potential sources of discharges to groundwater within the waste disposal facility including, but not limited to, all distinct waste disposal units and the leachate management system must be identified and studied through a network of monitoring wells. Monitoring wells designed and constructed as part of the monitoring network must be maintained along with records that include, but are not limited to, exact well location, well size, type of well, the design and construction practice used in its installation and well and screen depths.

A network of monitoring wells must be established at sufficient locations downgradient with respect to groundwater flow and not excluding the downward direction, to detect any discharge

of contaminants from any part of a potential source of discharge. Wells should be located in stratigraphic horizons that could serve as contaminant migration pathways. Monitoring wells are to be placed as close to the potential source of discharge as possible without interfering with waste disposal operations and within half the distance from the edge of the potential source of discharge to the zone of attenuation downgradient, with respect to groundwater flow, from the source. A minimum of at least one well must be established at the edge of the zone of attenuation and must be located downgradient with respect to groundwater flow and not excluding the downward direction, from the waste disposal unit.

Surface Water Drainage

At a waste disposal facility surface water from precipitation will drain from two areas, disturbed and undisturbed areas. Runoff from disturbed areas is of particular concern because it may be contaminated by coming into contact with waste. A summary of regulatory standards for surface waste drainage follows.

Runoff From Disturbed Areas

1. Runoff from disturbed areas resulting from precipitation events less than or equal to the 25-year, 24-hour precipitation event that is discharged to waters of the State shall meet the requirements of State of Illinois Water Pollution Control Regulations.

2. All discharges of runoff from disturbed areas to waters of the State shall be permitted by the IEPA State of Illinois Water Pollution Control Regulations.

3. All treatment facilities shall be equipped with bypass outlets designed to pass the peak flow of runoff from the 100-year, 24-hour precipitation event without damage to the treatment facilities or surrounding structures.

4. All surface water control structures shall be operated until the final cover is placed and erosional stability

is provided by the vegetative or other cover.

5. All discharge structures shall be designed to have flow velocities that will not cause erosion and scouring of the natural or constructed lining, i.e. the bottom and sides, of the receiving stream channel.

Diversion of Runoff From Undistributed Area

1. Runoff from undistributed areas shall be diverted around disturbed areas unless the operator shows that it is impractical based on site-specific conditions.

2. Diversion facilities shall be designed to prevent runoff from the 25-year, 24-hour precipitation event from entering disturbed areas.

3. Runoff from undistributed areas which becomes commingled with runoff from disturbed areas shall be handled as runoff from disturbed areas and treated.

4. All diversion structures shall be designed to have flow velocities that will not cause erosion and scouring of the natural or constructed lining, i.e. the bottom and sides, of the diversion channel and downstream channels.

   All diversion structures shall be operated until the final cover is placed and erosional stability is provided by the vegetative or other cover.

OPERATING PRACTICES

Just as there are differences in design, so too there are differences in operating practices. Historically, daily cover was not placed at garbage dumps. As previously discussed, daily cover provides protection from vectors, minimizes litter and odors, and reduces the amount of water entering the site due to precipitation which would later become leachate. Usually garbage was dumped at the site without being compacted. This lead to increased problems similar to lack of daily cover. Sometimes, uncontrolled burning occurred. Usually this was due to the indiscriminate dumping of a "hot load" but some landfill owners burned garbage to reduce the volume in an area. Usually the garbage smoldered rather than

burned. Groundwater monitoring was almost never conducted. Also, prior to 1976, the date for adoption of the Resource Conservation and Recovery Act, hazardous wastes were often dumped along with other waste materials at the local garbage dump. Who from that time-period can forget the image of the local "bear-pit" or the smoldering garbage pile; both conditions indicating an environmental menace. For the most part, such sites no longer exist because stricter environmental standards have lead to their closure.

The operating practices discussed here describe the practices at modern sanitary landfills. This section encompasses a wide range of landfill operating practices designed to ensure safe conditions on and adjacent to the landfill site. The operating requirements discussed in this Section conform with the requirements of Part 811 (Standards For New Solid Waste Landfills) of State regulations for solid waste disposal. The standards discussed herein are applicable to putrescible and chemical waste landfills.

The principal operational components to be considered at a landfill include:

1. Construction Quality Assurance Programs;
2. Compaction and Placement of Waste;
3. Placement of Cover;
4. Salvaging;
5. Leachate Sampling;
6. Landfill Gas Monitoring;
7. Groundwater Monitoring;
8. Load Checking; and
9. Miscellaneous Operation Controls.

Construction Quality Assurance Programs

State regulations require that installation of designed structures must occur according to a construction quality assurance program. The quality assurance program requires the designation of a Construction Quality Assurance (CQA) officer who shall be a professional engineer and shall supervise and be responsible for all inspections, testing and other activities required to be implemented as part of the CQA program.

The construction quality assurance program must also contain provisions for sampling of construction materials and operations during construction; documentation procedures including daily reports and photographic records; and acceptance reports by the CQA officer of each major construction phase.

Compaction And Placement Of Waste

All waste is to be deposited at the lowest part of the active face and compacted to the highest achievable density necessary to minimize void space and settlement unless precluded by extreme weather conditions. The Illinois Environmental Protection Agency (IEPA) may approve an alternative location for placement of wastes if the site operator demonstrates that it is required under the conditions existing at the site or for reasons of safety.

The working face of the waste disposal unit is to be no larger than is necessary to conduct operations in a safe and efficient manner. Slopes of the working face are to be no steeper than 2 to 1 (horizontal to vertical) unless waste is stable at steeper slopes. Waste must be placed in a phased manner allowing mass stability at all times and so as not to damage any appurtenances (i.e. leachate and gas collection systems) at the site.

Placement of Cover

The use of cover systems at the landfill site is the most effective means of controlling the contents within the landfill.

There are three distinct types of cover operations required at landfills including daily cover, intermediate cover and final cover. Cover installation will produce the following results:

1. Control vectors (pests: rodents, insects and birds) which can transmit and carry diseases;
2. Alleviate odor, litter and air emissions;
3. Lesson the risk of fire;
4. Reduce the infiltration of rainwater; and
5. Enhance site appearance and utilization.

Daily Cover

Daily cover is used in areas which have recently been filled with waste. Regulations require that a uniform layer of at least 0.15 meter (six inches) of clean soil material must be placed on all exposed waste by the end of each day of operation. Experience shows that average depths of 12+ inches must be provided to assure this minimum. Alternative materials or procedures, including the removal of daily cover prior to additional waste placement may be used providing that the alternative materials or procedures achieve equivalent or superior performance to the performance of at least six inches of clean soil in terms of:

1. Prevention of blowing debris;
2. Minimization of access to waste by vectors;
3. Minimization of the threat of fires at the open face; and
4. Minimization of odors.

Intermediate Cover

Intermediate cover is applied to areas which have been filled with waste in the past but will not receive additional waste for an extended period of time. Areas which are not to receive additional waste within 60 days must have a cover equivalent to 0.30 meter (1 foot) of compacted clean soil material. Areas with intermediate cover are to be graded so as to facilitate drainage of runoff and minimize infiltration sees standing water. The grade and thickness of such areas must be maintained until such time when additional waste is filled in the area.

Final Cover

Final cover is applied to those areas of the waste disposal facility which have reached final design elevations for waste filling operations. There are three components to the final cover system including a low permeability layer overlain by a final protection layer with a vegetative cover. State regulations are very specific in the treatment of these components.

Salvaging

Salvaging of reusable materials at the landfill site is allowed by State regulations but must be accomplished in a controlled fashion. Salvaging must not interfere with regulated waste disposal operations or delay the construction of any appurtenances required for the operation of the facility. Salvageable materials may be accumulated on-site but must be managed so as not to create a nuisance, harbor vectors, cause malodors or create an unsightly appearance. Also, they may not be stored on-site for longer than seven days unless the IEPA has issued a permit for such storage.

Leachate Sampling

Representative examples of leachate are to be collected from each waste disposal unit once per quarter during the term of operation. The frequency of monitoring for any individual constituent may be changed to once per year if it is not detected in the leachate. If the constituent is later detected, testing frequency must return to the quarterly schedule.

Leachate is to be tested for the following constituents prior to treatment or pretreatment:

1. Five day biochemical oxygen demand (BOD_5);
2. Chemical oxygen demand;
3. Total Suspended Solids;
4. Total Iron;
5. pH;
6. Any other constituents listed in the operator's National Pollution Discharge Elimination System (NPDES) discharge permit, pursuant to State Water Pollution Control regulations;
7. All of the indicator constituents chosen in accordance with State solid waste regulations and used by the operator for groundwater monitoring.

Landfill Gas Monitoring

All gas monitoring devices, including the ambient air monitors shall be operated to obtain samples on a monthly basis for the entire operating period and for a minimum of five years after closure. After a minimum of five years after closure, monitoring frequency may be reduced to quarterly sampling intervals. The sampling frequency may be reduced to yearly sampling intervals upon the installation and operation of a gas collection system equipped with a mechanical device such as a compressor to withdraw gas. After a minimum of five years or, in the case of landfills, other

than those used exclusively for disposing of wastes generated at the site, a minimum of fifteen years after closure, monitoring shall be discontinued if the following conditions have been met for at least one year:

1. The concentration of methane is less than five percent of the lower explosive limit in air for four consecutive quarters at all monitoring points outside the unit; and

2. Monitoring points within the unit indicate that methane is no longer being produced in quantities that would result in migration from the unit and exceed State standards.

The facility operator must include in the permit, a list of air toxics to be monitored in addition to the following parameters. The IEPA shall determine the monitoring frequency of the listed compounds based upon their emission rates and ambient levels in the atmosphere. All below ground monitoring devices shall be monitored for the following parameters at each sampling interval:

1. Methane;

2. Pressure;

3. Nitrogen;

4. Oxygen;

5. Carbon dioxide; and

6. Any compound on the list of air toxics, adopted by the IPCB pursuant to Section 9.5 of the Environmental Protection Act, which is expected to be produced in the landfill unit.

Ambient air monitors are to be sampled for methane only when the average wind velocity is less than 8 kilometers (five miles) per hour at a minimum of three downwind locations 30.49 meters (100 feet) from the edge of the unit or the property boundary, whichever is closer to the unit. All buildings within a facility shall be monitored for methane by utilizing continuous detection devices located at likely points where methane might enter the building.

Groundwater Monitoring

The groundwater monitoring program must include consistent sampling and analysis procedures to assure that monitoring results can be relied upon to provide data representative of groundwater quality in the zone being monitored. The waste facility operator must utilize procedures and techniques to insure that collected samples are representative of the zone being monitored and that prevent cross contamination of samples from other monitoring wells or from other samples. At least 95 percent of a collected sample must consist of groundwater from the zone being monitored. The operator must establish a quality assurance program that provides quantitative detection limits and the degree of error for analysis of each chemical constituent and must establish a sample preservation and shipment procedure that maintains the reliability of the sample collected for analysis. The operator must institute a chain of custody procedure to prevent tampering and contamination of the collected samples prior to completion of analysis.

At a minimum, the operator must sample the following parameters at all wells at the time of sample collection and immediately before filtering and preserving samples for shipment:

1. The elevation of the water table;
2. The depth of the well below ground;
3. pH;
4. The temperature of the sample; and
5. Specific Conductance.

Load Checking

The waste facility operator must implement a load checking program for detecting and discouraging attempts to dispose of regulated hazardous waste at the facility. The load checking

program must consist of, at a minimum, the following components:

1. Random Inspections. An inspector shall examine at least three random loads of solid waste delivered to the landfill on a random day each week. The drivers randomly selected by the inspector shall be directed to discharge their loads at a separate, designated location at the facility where an inspector will occur.

2. Recording Inspection Results. Information and observations from each random inspection are to be recorded in writing and retained at the facility for at least three years. The recorded information must include, at a minimum, the date and time of the inspection; the names of the hauling firm and the driver of the vehicle; the vehicle license plate number; the source of the waste, as stated by the driver; and observations made by the inspector during the detailed inspection. The written record must be signed by both the inspector and the driver.

3. The facility operator must train designated inspectors, equipment operators, weigh station attendants, spotters at a large facilities, and all other appropriate facility personnel in the identification of potential sources of regulated hazardous wastes. The training program shall emphasize familiarity with containers typically used for regulated hazardous wastes and with labels for regulated hazardous wastes and with labels for regulated hazardous wastes, under RCRA, and for hazardous materials under the Hazardous Materials Transportation Act (49 U.S.C. 1801 et seq.).

If any regulated hazardous wastes are identified by random load checking, or are otherwise discovered to be improperly deposited at the facility, the facility operator shall promptly notify the IEPA, the person responsible for shipping the wastes to the landfill, and the generator of the wastes, if known. Waste loads identical to the regulated hazardous waste identified through the random load checking which have not yet been deposited in the landfill shall not be accepted. The area where the wastes are deposited shall immediately be cordoned off from public access. The solid waste management facility operator shall assure the cleanup, transportation and disposal of the waste at a permitted hazardous waste management facility. The party responsible for

transporting the waste to the solid waste management facility shall be responsible for the costs of such proper cleanup, transportation and disposal.

Subsequent shipments by persons or sources found or suspected to be previously responsible for shipping regulated hazardous waste shall be subject to the following special precautionary measures prior to the solid waste management facility accepting wastes. The operator shall use precautionary measures such as questioning the driver concerning the waste contents prior to discharge and visual inspection during the discharge of the load at the working face or elsewhere.

Miscellaneous Operation Controls

State regulations for the operation of landfills contain several miscellaneous provisions. These are generally described as follows:

1. Equipment. Equipment shall be maintained and available for use at the facility during all hours of operation, so as to achieve and maintain compliance.

2. Utilities. All utilities, including but not limited to heat, lights, power and communications equipment, necessary for safe operation shall be available at the facility at all times.

3. Maintenance. The operator shall maintain and operate all systems and related appurtenances and structures in a manner that facilitates proper operations in compliance with this Part.

4. Open Burning. Open burning is prohibited except in accordance with 35 Ill. Adm. Code 200 through 245.

5. Dust Control. The operator shall implement methods for controlling dust so as to prevent wind dispersal of particulate matter.

6. Noise Control. The facility shall be designed, constructed and maintained to minimize the level of equipment noise audible outside the facility. The

facility shall not cause or contribute to a violation of 35 Ill. Adm. Code 900 through 905 or of Section 24 of the Environmental Protection Act.

7. Vector Control. The operator shall implement measures to control the population of disease and nuisance vectors.

8. Fire Protection. The operator shall institute fire protection measures including, but not limited to, maintaining a supply of water on-site and radio or telephone access to the nearest fire department.

9. Litter Control. The operator shall patrol the facility daily to check for litter accumulation. All litter shall be collected and placed in the fill or in a secure, covered container for later disposal. The facility shall not accept solid waste from vehicles that do not utilize devices such as covers or tarpaulins to control litter, unless the nature of the solid waste load is such that it cannot cause any litter during its transportation to the facility.

10. Mud Tracking. The facility shall implement methods, such as use of wheel washing units, to prevent tracking of mud by hauling vehicles onto public roadways.

11. Boundary Control. Access to the open face area of the waste disposal unit and all other areas within the boundaries of the facility shall be restricted to prevent unauthorized entry at all times. A permanent sign shall be posted at the entrance to the facility stating that disposal of hazardous waste is prohibited and, if the landfill is approved for accepting special wastes, that special wastes must be permitted by the IEPA and accompanied by a manifest and an identification record along with the following information:

    a. Permit number, if the facility is subject to the permit requirements of Section 21 of the Environmental Protection Act;

    b. Hours of operation;

    c. The penalty for unauthorized trespassing and dumping;

    d. The name and telephone number of the appropriate emergency response agencies who shall be available to deal with emergencies and other problems, if different than the operator; and

    e. The name, address and telephone number of the

company operating the facility.

CLOSURE AND POST-CLOSURE CARE

As part of the landfill permit application, a site-specific Closure/Post-Closure Care Plan must be prepared and submitted to the IEPA. The plan must identify the activities that will take place at closure. The plan also indicates the specific procedures that will be conducted during the post-closure monitoring maintenance period. In addition, the applicant must supply an estimate of costs associated with both closure and post-closure activities.

On-site activities performed during the period of closure must follow IEPA closure planning requirements. The site's closure plan must provide a detailed description of the activities that will take place when the facility closes. At the time of closure, the primary considerations pertain to the ongoing protection of the environment, including adjacent properties.

The Post-Closure Care Plan identifies the maintenance and monitoring procedures that will ensure the environmental integrity of the landfill. The environmental control systems must be capable of functioning effectively throughout the post-closure care period and beyond.

3.3.3.2 Environmental And Siting Considerations

Stated simply, the history of sanitary landfill development has been a story of progressively greater and greater regulation. In the early days of open dumps there were almost no controls nor regulations. Today the sanitary landfill is a highly organized, aggressively regulated activity and whatever environmental concerns existed at one time have been substantially eliminated by regulations and standard practices covering siting, design,

operation and closure/post closure care. The following subsections describe potential environmental impacts and the measures used to control and/or mitigate these impacts as well as issues to be considered during site selection.

ENVIRONMENTAL CONSIDERATIONS

Air Quality

In order to ensure that air quality is not affected by site operations, several measures can be implemented to contain and control airborne matter and gases. In an effort to control the migration of road dust from vehicular traffic, site road cleaning should be performed after periods of wet weather. In addition, the construction of major finished site roads would minimize the distance collection vehicles must travel on unpaved access roads.

Efforts should be made to control the tipping of dust-comprised wastes at the working face. For example, no dusts or powders should be accepted on site unless they are wetted to prevent blowing. Water trucks should be available in case of an unsuspected dust delivery.

Gaseous emissions from the products of decomposition are effectively contained by applying daily cover material, minimizing the width of the working face, and prohibiting open burning on-site. Methane gas accumulation can be managed through a gas collection and flaring (or reuse) system.

Surface Water Quality

The two potential methods of impacting surface water quality within the adjacent areas of the landfill site are the discharge of surface water runoff containing putrescible material and/or suspended solids, and airborne dust settlement in surface waters.

To avoid any negative impacts to surface waters adjacent to the landfill sites' boundaries, runoff should be controlled by the following measures:

- Settlement of all surface water runoff to remove suspended solids;
- Seeding of cover stockpiles to avoid erosion; and
- Collection and treatment of any potentially contaminated runoff.

Soil And Groundwater

In order to maintain the standard quality of the soil and groundwater on and adjacent to the landfill site, measures must be implemented which deal directly with leachate migration and contaminated runoff. Leachate migration can negatively impact groundwater and soil quality, while contaminated runoff can negatively impact soil quality and surface water quality.

In order to contain leachate a leachate control system should be provided. The leachate control system enables the site operators to remove excess amounts of leachate for treatment off-site. The constant removal of excess amounts of leachate reduces the possibility of leachate migration from the facility. In addition to the leachate control system, IEPA approved liners (clay or synthetic) should be installed to further restrict leachate migration. Groundwater monitoring is performed to verify the effectiveness of the leachate control systems. In an effort to reduce the creation of additional leachate, the site's final cap should be in place and seeded as soon as possible.

Contaminated runoff should be contained and directed on-site through a drainage control system. After the contaminated runoff is contained, it can then be transported for treatment at an off-site facility or treated on-site. The drainage control system

should be designed to prevent runoff water contact with landfilled material.

Odor

Several actions can be taken to substantially reduce the amount of odors emitted from a landfill site. The application of daily cover to the daily fill areas will eliminate most of the site's odor emissions. The covering of any exposed fill material on the site should be standard practice, whether the material was filled that day or erosion has exposed areas filled previously. Measures can be implemented to avoid methane gas releases. The methane gas, when released, pulls the subsurface decomposition odors to the surface.

Noise

The site design and layout will have a large impact on the level of noise emitted from the site. To reduce noise impacts off-site, substantial land around the facility is desirable in order to provide a buffer area. Generally a minimum buffer of 150 feet is sought during site development. The buffer zone surrounding the site should contain berms designed to reduce noise. The berms should have a vegetative cover which can further reduce noise.

In addition to the site design, a maintenance program can be implemented to reduce excessive noise on all site vehicles and equipment. Regular inspections of all site vehicles and equipment can be performed to reduce each vehicle's noise impact.

Traffic

Siting a sanitary landfill facility will require a detailed analysis of the short and long-term traffic impacts caused by the facility. These impacts will primarily result in an increased

concentration of truck traffic. Proper planning and traffic management are integral to ensuring safe traffic flow in the vicinity of a landfill.

On a county-wide basis, a new sanitary landfill facility will not be creating new traffic but rather, will represent a diversion of existing traffic. Presently, most of the solid waste traffic in DuPage is traveling to and from Mallard Lake Landfill, near Bloomingdale, and Greene Valley Landfill, near Woodridge. A sanitary landfill facility, sized for DuPage County alone, would actually decrease the number of solid waste transportation vehicles presently using the roadways network in DuPage County because less solid waste will ultimately be coming from communities outside of DuPage County than presently occurs.

Aesthetics

Several measures can be implemented to enhance the visual impact of a landfill site. A visual berm can be constructed along the sites perimeter. The berm can have a vegetative cover to avoid unsightly erosion and to further screen landfill operations. Along areas where berming may not be suitable, construction of fencing can be performed. The fencing can be compatible with other site structures and/or natural conditions. In addition to berms and fences the site operator should implement a landscape program. The program should include the planting of trees, shrubs, flowers, etc. as well as the general upkeep of site grounds. Landscape work should be performed on all areas of the landfill site with special emphasis on areas of public access.

SITING CONSIDERATIONS

Land Use Compatibility

When considering potential impacts of siting a sanitary

landfill facility, it is essential that the compatibility of the facility with surrounding land uses be carefully addressed. This compatibility is best addressed by selecting a site that does not inherently conflict with existing and future land uses and applicable zoning regulations and then designing the facility with thorough attention to the features that primarily determine how an individual facility relates to its surroundings (e.g., consistent land use, environmental suitability, and facility identity).

Land use characteristics that should be addressed when siting a sanitary landfill facility irrespective of its design features include zoning, existing and future land use, floodplain impacts, wetlands impacts, unique and sensitive natural areas impacts, and impacts on aesthetics. In general, it is desirable to locate sanitary landfill facilities in industrial areas or next to existing solid waste management facilities. Proximity to other types of land uses generally requires increased emphasis on land buffers, visual screening, and architectural treatment.

Site Selection Considerations

Previous Siting Analyses

Successively more restrictive site screening criteria for landfills were applied in the previous solid waste planning efforts for the DuPage County Landfill/Ashfill Feasibility Study and the DuPage County Solid Waste Management Plan. The most restrictive site selection criteria were developed for the Solid Waste Management Plan and they envisioned site evaluation for the consideration of an ashfill to provide residue disposal for a waste-to-energy facility. The criteria developed at that time are described according to category as follows. Points were assigned according to criteria for each site and then totalled.

1. GEOLOGY - 4 points possible

2. PUBLIC WATER WELLS - 2 points possible

3. FLOOD PLAIN - 1 point possible

4. PROXIMITY TO SCHOOLS - 2 points possible

5. PROXIMITY TO RESIDENCES - 3 points possible

6. BUFFER - 3 points possible

7. TYPE OF ACCESS ROAD - 1 total point possible

8. "OTHER" CONSIDERATIONS - assigned 5 possible bonus points

The possible points for the above criteria are summarized as follows:

	CATEGORY	Maximum Possible Points
1.	Geology*	4
2.	Public Wells*	2
3.	Floodplain	1
4.	Schools	2
5.	Residences	3
6.	Buffer	3
7.	Access	1
8.	"Other" (bonus points)	5
		21

* Category contains minimum State standards which must be met.

Future Site Selection

In late 1990 the Illinois Pollution Control Board (IPCB) enacted regulations substantially modifying previous regulations for solid waste facilities (Proceeding R88-7). These new regulations define considerable requirements for the siting of new facilities. The regulations provide general location standards applicable to all landfills. They also provide additional facility location requirements and procedures for site investigation for sites proposed to receive putrescible and chemical wastes.

State regulations provide for specific location standards to

be applied in the consideration of sites for all types of new landfills. The standards are listed below.

1. The facility shall meet all requirements under the Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq.).

2. The facility shall not restrict the flow of a 100-year flood, result in washout of solid waste from the 100-year flood, or reduce the temporary water storage capacity of the 100-year floodplain, unless measures are undertaken to provide alternative storage capacity, such as lagoons, holding tanks, or provision of drainage around structures at the facility.

3. The facility shall not be located in areas where it may pose a threat of harm or destruction to the features for which an irreplaceable historic, or archaeological site was listed pursuant to the National Historic Preservation Act (16 U.S. C. 470 et. seq.) or the Illinois Historic Preservation Act (Ill. Rev. Stat. 1989, ch. 127, par. 133d1 et seq.) for which a Natural Landmark was designated by the National Park Service or the Illinois State Historic Preservation Officer, or for which a natural area was designated as a Dedicated Illinois Nature Preserve pursuant to the Illinois Natural Areas Preservation Act (Ill. Rev. Stat. 1989, ch. 105 par. 701 et seq.).

4. The facility shall not be located in areas where it may jeopardize the continued existence of any designated endangered species, result in the destruction or adverse modification of the critical habitat listed for such species, or cause or contribute to the taking of any endangered or threatened species of plant, fish or wildlife listed pursuant to the Endangered Species Act 16 U.S. C. 1531 et seq., or the Illinois Endangered Species Protection Act (Ill. Rev. Stat. 1989, ch. 8, par. 331 et seq.).

5. The facility shall not cause a violation of Section 404 of the Clean Water Act (33 U.S.C. 1344).

6. The facility shall not cause a violation of any requirements implementing an area-wide or statewide water quality management plan for nonpoint source pollution that has been approved under Section 208 of the Clean Water Act (33 U.S.C. 1288).

In addition to the standards provided immediately above,

landfills which are expected to receive putrescible and chemical waste must also meet the following standards according to State regulations.

1. No part of a waste disposal unit shall be located within a setback zone established pursuant to Section 14.2 or 14.3 of the Illinois Environmental Protection Act;

2. No part of a waste disposal unit shall be located within the recharge zone or within 366 meters (1200 feet), vertically or horizontally, of a sole-source aquifer designated by the United States Environmental Protection Agency pursuant to Section 1424 (e) of the Safe Drinking Water Act (42 U.S.C. 300f et seq.) unless there is a stratum between the bottom of the waste disposal unit and the top of the aquifer that meets the following minimum requirements:

   a. The stratum has a minimum thickness of 15.2 meters (50 Feet);

   b. The maximum hydraulic conductivity in both the horizontal and vertical directions is no greater than $1x10^{-7}$ centimeters per second, as determined by in situ borehole or equivalent tests;

   c. There is no indication of continuous sand or silt seams, faults, fractures or cracks within the stratum that may provide paths for migration; and

   d. Age dating of extracted water samples from both the aquifer and the stratum indicates that the time of travel for water percolating downward through the relatively impermeable stratum is no faster than 15.2 meters (50 feet) in 100 years.

3. A facility located within 152 meters (500 feet) of the right of way of a township or county road or state or interstate highway shall have its operations screened from a view by a barrier of natural objects, fences, barricades, or plants no less than 2.44 meters (8 feet) in height.

4. No part of a unit shall be located closer than 152 meters (500 feet) from an occupied dwelling, school, or hospital that was occupied on the date when the operator first applied for a permit to develop the unit or the facility containing the unit, unless the owner of such dwelling, school, or hospital provides permission to the operator, in writing, for a closer distance.

5. The facility shall not be located closer than 1525 meters (5000 feet) of any runway used by piston type aircraft or within 3050 meters (10,000 feet) of any runway used by turbojet aircraft unless the Federal Aviation Administration provides the operator with written permission, including technical justification, for a closer distance.

Prior to the submission of any application for permit to the Illinois Environmental Protection Agency, the site owner must conduct a hydrogeologic investigation. The purposes for the hydrogeologic investigation are to provide information to perform a groundwater impact assessment and to provide information to establish a groundwater monitoring system. The study area must consist of the entire area occupied by the facility and any adjacent areas, if necessary. The study consists of three phases described as follows.

1. Minimum Requirements for a Phase I Investigation

   a. The facility owner shall conduct a Phase I Investigation to develop the following information:

      (1 Climatic aspects of the study area;

      (2 The regional and study area geologic setting, including a description of the geomorphology and stratigraphy of the area;

      (3 The regional groundwater regime including water table depths and aquifer characteristics; and

      (4 Information for the purpose of designing a Phase II Hydrogeologic Investigation.

   b. Specific Requirements

      (1 The regional hydrogeologic setting of the waste disposal unit shall be established by using material available from all possible sources, including, but not limited to, the Illinois Scientific Surveys, the Illinois Environmental Protection Agency, other State and Federal organizations, water well drilling logs, and previous investigations.

(2 A minimum of one continuously sampled boring shall be drilled on the site, as close as feasible to the geographic center, to determine if the available regional hydrogeologic setting information is accurate and to characterize the site-specific hydrogeology to the extent specified by this phase of the investigation. The boring shall extend at least 15.2 meters (50 feet) below the bottom of the uppermost aquifer or through the full depth of the confining layer below the uppermost aquifer, or to bedrock, if the bedrock is below the upper most aquifer, whichever elevation is higher. The locations of any additional borings, required under this subsection, may be chosen by the investigator, but shall be sampled continuously.

2. Minimum Requirements for a Phase II Investigation

a. Using the information developed in the Phase I survey, a Phase II study shall be conducted to collect the site-specific information listed below as needed to augment data collected during the Phase I investigation and to prepare for the Phase III investigation:

(1 Structural characteristics and distribution of underlying strata including bedrock;

(2 Chemical and physical properties including, but not limited to, lithology, mineralogy, and hydraulic characteristics of underlying strata including those below the uppermost aquifer;

(3 Soil characteristics, including soil types, distribution, geochemical and geophysical characteristics;

(4 The hydraulic conductivities of the uppermost aquifer and all strata above it;

(5 The vertical extent of the uppermost aquifer;

(6 The direction and rate of groundwater flow.

b. Specific Requirements

(1 One boring shall be located as close as feasible to the topographical high point, and another shall be located as close as feasible

to the topographical low point of the study area.

(2 At least one boring shall be at or near each corner of the site. Where the property is irregularly shaped the borings shall be located near the boundary in a pattern and spacing necessary to obtain data over the entire study area.

(3 Additional borings may be located at intermediate points at locations and spacings necessary to establish the continuity of the stratigraphic units.

(4 Piezometers and groundwater monitoring wells shall be established to determine the direction and flow characteristics of the groundwater in all strata and extending down to the bottom of the uppermost aquifer. Groundwater samples taken from such monitoring wells shall be used to develop preliminary information needed for establishing background concentrations in accordance with State regulations.

(5 Other methods may be utilized to confirm or accumulate additional information. Such methods may be used only an a supplement to, not in lieu of, site-specific boring information. Other methods include, but are not limited to, geophysical well logs, geophysical surveys, aerial photography, age dating, and test pits.

3. Minimum Standards for a Phase III Investigation

a. Using the information developed during the Phase I and Phase II Investigations, the facility owner shall conduct a Phase III Investigation. This investigation shall be conducted to collect or augment the site-specific information needed to carry out the following:

(1 Verification and reconciliation of the information collected in the Phase I and II investigations;

(2 Characterization of potential pathways for contaminant migration;

(3 Correlation of stratigraphic units between borings.

(4 Continuity of petrographic features including, but not limited to, sorting, grain size distribution, cementation and hydraulic conductivity.

(5 Identification of zones of potentially high hydraulic conductivity.

(6 Identification of the confining layer, if present;

(7 Concentrations of chemical constituents present in the groundwater below the waste disposal unit, down to the bottom of the uppermost aquifer, using a broad range of chemical analysis and detection procedures such as, gas, chromatographic and mass spectrometric scanning. However, additional measurements and procedures shall be carried out to establish background concentrations for:

i) Any constituent for which there is a public or food processing water supply standard at 35 Ill. Adm. Code 302 established by the Board and which is expected to appear in the leachate; and

ii) Any other constituent for which there is no Board-established standard, but which is expected to appear in the leachate at concentrations above PQL, as defined in Section 811.319 (a) (4) of State regulations for that constituent.

(8 Characterization of the seasonal and temporal, naturally and artificially induced, variations in groundwater quality and groundwater flow.

(9 Identification of unusual or unpredicted geologic features, including: fault zones, fracture traces, facies changes, solution channels, buried stream deposits, cross cutting structures and other geologic features that may affect the ability of the operator to monitor the groundwater or predict the impact of the disposal facility on groundwater.

b. In addition to the specific requirements applicable

> to Phase I and II investigations, the facility owner shall collect information needed to meet the minimum standards of a Phase III investigation by using methods that may include, but not limited to excavation of test pits, additional borings located at intermediate points between boreholes placed during Phase I and II investigations, placement of piezometers and monitoring wells, and institution of procedures for sampling and analysis.
>
> The facility owner may conduct the hydrogeologic investigation in any number of alternative ways provided that the necessary information is collected in a systematic sequence consisting of at least three phases that is equal to or superior to the investigation procedures described above.

The facility owner must perform a groundwater impact assessment to determine the potential impacts from the seepage of leachate. The amount of seepage that may be released during operations must be estimated considering:

1. The minimum design standards for slope configuration, cover, liner, leachate drainage and collection system; and

2. The actual design standards for the waste disposal unit.

The concentration of constituents in the leachate must be determined from actual leachate samples from the waste or similar waste, or laboratory derived extracts. A contaminant transport model, approved for use by the Illinois Environmental Protection Agency, must be utilized to estimate the concentration of the leachate constituents over time and space.

Hydrogeologic investigations are also used to provide background concentrations for groundwater constituents. These background concentrations are used during regular groundwater monitoring while the facility is operational.

The sites identified in previous planning efforts have not been reviewed within the context of revised State regulations discussed here. Before consideration of new landfill sites in the

future, the site requirements and investigations discussed here would need to be addressed. While there are specific State requirements affecting the selection of new landfill sites as discussed here, the County may consider additional siting considerations.

It is important to note that the regulations discussed in this Section are for new facilities. The Illinois Pollution Control Board has also revised regulations addressing existing, permitted landfills.

3.3.3.3 Costs

Sanitary landfill sites generate costs which can generally be classified as either capital costs (development and equipment costs) or operational costs. The general distinction between capital and operational costs is based on the fact that operational costs are sensitive to the rate of refuse disposal. Capital costs are primarily those expenses which must be committed before the first load of refuse is placed in the facility. Capital and operational costs include:

Capital Costs

1. Land Purchase;
2. Engineering, Permitting, and Monitoring During Construction
3. Initial Site Development; and
4. Equipment Purchase.

Operational Costs

1. Excavation, Daily Cover Application, Compaction of Refuse and General Maintenance During Tipping;
2. Monitoring, Engineering, and Surveying During Operation;
3. Insurance and Surcharges;

4. Leachate Removal and Treatment/Disposal;

5. Gas Collection and Removal;

6. Equipment Operation; and

7. Administration.

The value of land in DuPage County is not tied to its agricultural productivity but to its near term potential for development. As such, the value and selling price of vacant land in the county is a function of its location relative to other developing areas. For example, land in the eastern part of the county is generally more valuable than in the western part of the county. Land fronting on major transportation arteries is usually more valuable than land away from the major transportation network. Land which has commercial development potential is more valuable than land with residential development potential. Land in the western portion of the county immediately adjacent to existing developments is more valuable than land separated by intervening parcels. Dry land is more valuable than floodplain, wetlands or low lands.

Analysis of county waste generation conducted at the time of the Landfill/Ashfill Feasibility Report (1988) indicated that a parcel of at least 200 acres would be required for a new sanitary landfill to serve DuPage County. The cost for a parcel of this size would be directly influenced by its location and surrounding development at the time of purchase.

The total cost to develop, operate and maintain a sanitary landfill facility is dependent upon many variables not the least of which is the specific parcel of land selected. The site geology may be such that extensive undercutting may be required prior to operation, thus adding to the total cost of the site. These are just two examples of situations that can drastically affect the total cost of establishing and operating a sanitary landfill

facility. Landfill facilities also have to adapt to unforeseen changes in landfill regulations and these can represent unforseen costs. These and other variables make it very difficult to estimate future sanitary landfill costs. In Appendix A-4, some cost estimates are given for the different stages of a landfill facility's development.

Operational costs are as difficult to calculate as potential land costs. Therefore, the operation costs are broken down to a "per ton of refuse received" amount. The cost to operate a sanitary landfill in 1990 is estimated to be approximately $12.75 per ton of refuse received.

Funds used to pay for closure and post-closure care should be accumulated during the active life of the landfill facility. A percentage of the tipping fee should be set aside to assure the closure/post-closure care will be met. The amount to be set aside in such a fund would be determined at the time of permitting.

3.3.3.4 Considerations For Continued Use of Existing Sites

DuPage County presently contains two operating sanitary landfills. These two landfills are the Mallard Lake Landfill located in unincorporated Hanover Park and the Greene Valley Landfill located in unincorporated Naperville. Both facilities have Illinois Environmental Protection Agency permits for operation.

In 1990 the Illinois Pollution Control Board revised regulations affecting solid waste facilities in Illinois (Proceeding R88-7). The revised regulations affect both new facilities and existing facilities. The State regulations establish three categories of standards for existing landfills:

1. Standards for existing waste disposal units accepting inert waste only, or accepting chemical and putrescible

wastes that must initiate closure within two years;

2. Standards for existing waste disposal units accepting chemical and putrescible wastes that must initiate closure within seven years; and

3. Standards for existing waste disposal units accepting chemical and putrescible wastes that may remain open for more than seven years.

The category into which a landfill falls is dependent upon the ability to meet the associated requirements for design and operation. No later than March 18, 1991 every existing landfill owner/operator in the State is required to send a notice to the Illinois Environmental Protection Agency describing the facility, estimated date of closure of existing waste disposal units and which of the above categorizations is applicable.

Note that a waste disposal "facility" may be comprised of one or more waste disposal "units". A waste disposal unit means a contiguous area used for solid waste disposal.

All of the standards for design and operation of waste disposal units which were discussed in preceding sections are required for existing waste disposal units except the following:

1. Location standards;

2. Foundation and mass stability analysis;

3. Liner and leachate drainage and collection requirements;

4. The final cover requirements shall not apply to units or parts of units closed, covered and vegetated prior to the effective date of the revised regulations;

5. The hydrogeological site investigations required prior to permitting;

6. The groundwater impact assessment;

7. The groundwater monitoring programs; and

8. The groundwater quality standards.

The following standards apply to existing waste disposal units that have valid IEPA permits:

1. No new units shall be opened and an existing unit may not expand beyond the area included in a permit prior to the effective date of the revised regulations or, in the case of permit exempt facilities, beyond the area needed for landfilling to continue until closure is initiated;

   After the effective date of the revised regulations, the unit may not apply for supplemental wastestream permits to accept new special wastes. However, the unit may continue to accept special waste under permits existing prior to the effective date of the revised regulations and may renew those permits as necessary.

2. Groundwater Standards

   A unit shall not contaminate a source of drinking water at the compliance boundary, defined as any point on the edge of the unit at or below the ground surface. At any point on the compliance boundary, the concentration of constituents shall not exceed the water quality standards specified in 35 Ill. Adm. Code 302.301, 302.303, 302.304, and 302.305. The Illinois Pollution Control Board (IPCB) may provide for a zone of attenuation and adjust the compliance boundary in accordance with Section 28.1 of the Illinois Environmental Protection Act and the procedures of 35 Ill. Adm. Code 106. Subpart G upon petition demonstration by the operator that the alternative compliance boundary will not result in contamination of groundwater which may be needed or used for human consumption. In reviewing such petitions, the IPCB will consider the following factors:

   a. The hydrogeological characteristics of the unit and surrounding land, including any natural attenuation and dilution characteristics of the aquifer;

   b. The volume and physical and chemical characteristics of the leachate;

   c. The quantity, quality, and direction of flow of groundwater underlying the facility;

   d. The proximity and withdrawal rates of groundwater users;

   e. The availability of alternative drinking water supplies;

f. The existing quality of the groundwater, including other sources of contamination and their cumulative impacts on the groundwater;

g. Public health, safety, and welfare effects; and

h. In no case shall the zone of compliance extend beyond the facility property line or beyond the annual high water mark of any navigable surface water.

Overview Of Components At Existing Landfills

The following is a breakdown of the design components used at the Greene Valley and Mallard Lake landfills.

Underlying Geology

The Greene Valley and Mallard Lake Landfills are required by permit through the IEPA to use clay liner systems throughout the development of the site. IEPA permits require that bottom and side seals be constructed of a minimum ten feet of clay/soil with a hydraulic conductivity of no greater than 1×10^{-7} cm/sec. The operators of each site are required to certify that the liners meet or exceed regulatory specifications. In addition, the Greene Valley and Mallard Lake landfills can apply for supplemental permits which would enable the sites to use different synthetic liner systems. The two landfills currently use clay liners only.

Leachate Collection and Treatment

Both the Greene Valley and Mallard Lake landfills possess leachate collection systems. The leachate collection systems conform to specifications outlined in each site's IEPA operating permit. Both sites incorporate both internal and perimeter leachate collection systems. The operators of both sites have certified installation of the leachate collection systems. Further, both operators have shown the viability of the installed

systems by regular withdrawal of leachate by both systems.

At the Greene Valley site leachate is collected on a regular basis and trucked off-site to an IEPA permitted treatment facility. At Mallard Lake leachate has regularly been collected and recirculated at the site. This technique can minimize the amount of leachate to be transported off-site; can accelerate the stabilization of the landfill; and can reduce the contaminants in the leachate over a period of time due to breakdown of constituents in the leachate. In addition, each site has implemented leachate quality monitoring programs to document variances in the components of leachate generated on-site.

Cover Systems

The Greene Valley and Mallard Lake Landfills adhere to permit and regulatory requirements with respect to the application of cover material on site. The two landfills primarily use soil/clay cover material. The Greene Valley site, however, has received an experimental permit from the IEPA which allows the site to use synthetic types of daily cover on a short term basis.

Gas Control and Collection

The Greene Valley and Mallard Lake landfills are both equipped with systems which collect, monitor, and dispose of landfill gas generated on site. Both facilities contain IEPA approved landfill gas collection pipeline systems. The pipeline systems installed at each site allow for the landfill gas to be directed to a singular point for disposal. The Greene Valley and Mallard Lake Landfills dispose of landfill gas by the controlled burning of gas through flare systems. Both facilities have implemented landfill gas monitoring systems as part of the overall landfill gas management system.

Groundwater Monitoring

The Greene Valley and Mallard Lake Landfills operate IEPA approved groundwater monitoring programs. These groundwater monitoring programs meet individual IEPA permit requirements. The number and locations of monitoring wells are determined by IEPA regulations and permit requirements. The frequency of sampling and the procedures of sampling to be followed are also determined by IEPA regulations and permit requirements. As IEPA regulations have been changed or upgraded since the establishment of the Greene Valley and Mallard Lake landfills, the changes in regulation have been incorporated into the current groundwater monitoring programs at the sites.

CONSIDERATIONS FOR CONTINUED USE

The text immediately above has discussed the regulatory requirements for existing, permitted waste disposal facilities in Illinois. A general description of the design of Mallard Lake and Greene Valley landfills has also been provided.

It appears that both sites will meet the regulatory requirements to remain open for more than seven years, one of the categories for existing, permitted waste disposal facilities. However, the actual determination of applicable standards at each facility will be determined by the Illinois Environmental Protection Agency (IEPA).

By their actions and comments, the Forest Preserve District and the operators of the two landfills apparently will file notification with the IEPA that the sites should be classified as eligible to remain open for more than seven years. Plan-1990 assumes that the two sites will be classified in this manner.

It is not the purpose of Plan-1990 to comment on the

political issues regarding the continued use of the two landfills. Rather, Plan-1990 recognizes the asset for future waste disposal which these two sites can provide to the county. This asset can be significantly enhanced by employing waste management methods prior to final disposal which maximize materials recovery and reduction in the volume of waste requiring landfilling. This includes the implementation of waste recycling; reduction and diversion processes; employment of materials recovery by waste processing; additional waste processing to reduce the volume of waste; and, especially, the limitation of waste accepted at the landfills in order to address DuPage County's waste disposal needs. Standards for disposal at the two sites should address these mechanisms to maximize the sites' assets.

The two sites are currently owned by the Forest Preserve District. The future ownership of the sites has been assumed to remain with the Forest Preserve District for Plan-1990. However, during the discussion of Resolutions 90-202 and 90-203, the possibility of transfer of ownership to the County, which has clear authority to own and operate waste disposal sites, was mentioned by at least one Commissioner. From a technical standpoint, the ownership of the sites has no real consequence in the provision of a solid waste management system to the County other than providing direct control over the operation.

Conceivably, it is possible for the County to completely define and provide a waste management system up to the point of final disposal and then direct the flow of remaining material to the designated disposal site(s). In other words, the County could implement any aspect of waste management preceding final disposal discussed in Plan-1990 and then direct the left-over waste to the two existing landfills owned by the Forest Preserve District. This waste could also be directed to other facilities. Therefore, if the County delivers waste to the two existing landfills, the delivery of waste by the County should be according to agreements

which would normally be sought with other (private) final disposal operators. A guarantee of disposal capacity should be provided to the County in return for its guarantee of delivery of waste. Also, issues relative to long-term environmental responsibilities should be addressed. The use of the two landfills (if allowed by the Forest Preserve District) by the County as its final disposal site(s) should be viewed in a manner similar to the use of a landfill owned by any other private developer/owner.

3.3.4 Other Disposal Options

This subsection discusses "other" processing and disposal options available to the County for future consideration and as described in Appendix A-4. The options have been categorized as "other" because of uncertainties of implementation, availability or acceptability. There are two principal divisions in this category.

The first division is "Out-Of-County/Private Projects" which include any projects which will be provided by private interests inside or outside of DuPage County but which will accept DuPage waste. Such projects may employ combustion or landfilling technologies described in previous sections or may employ "other" technologies as discussed below.

The second division is "emergent or specialized technologies" which include waste processing and disposal technologies which may either be in very limited use or, as yet, have not demonstrated commercial viability. A general description of several such processes is provided.

The purpose for this discussion is to note that the County may have other processing/disposal options to it in the future which may not be clearly apparent at the present time. Such options may be located in or outside of the county. Therefore, it is important to remain abreast of opportunities and technologies as

they develop.

3.3.4.1 Out-Of-County/Private Project Options

In previous solid waste planning efforts by the County, the range of waste disposal options that was considered was primarily limited to alternative facilities which would be developed under County sponsorship and located in DuPage County. This limitation was part of the initial planning mandate. However, prior to preparation of the Solid Waste Management Plan the Solid Waste Planning Committee had officially decided to include consideration of potential out-of-county waste disposal options as part of the subsequent planning efforts.

It is not unusual in the development of solid waste management projects to receive proposals from independent project developers. A variety of entrepreneurs are constantly at work trying to put projects together. A key determinant of a project developer's ability to obtain financing is the project's ability to guarantee an adequate supple of waste and associated revenues from tipping fees. A county such as DuPage, with excellent finances and a large supply of waste, is an excellent target for such privately-initiated projects.

Proposals to provide waste disposal services can come from either governmental units or private developers. Other governmental units may seek to import waste to generate revenues and to benefit from the economies of scale that a larger facility can provide. Private developers are, of course, seeking profits, which generally increase with the size of a solid waste facility.

In reviewing proposals for out-of-county or privately developed disposal facilities, it is advisable that each proposal be given consideration although some will require closer analysis than others. However, whatever the seeming merits of any proposal,

it is not advisable to interrupt progress on development or implementation of the County's plan while such analyses are being performed. There are several reasons for not delaying action.

First, continued stoppages to project development efforts without adequate assurances of project provision elsewhere may prevent the County from ensuring continued availability of waste disposal capacity for DuPage County residents. Proposals may be long in sales appeal and short in specifics. However, all analyses, even those for probably non-viable projects, can be time consuming to evaluate.

Second, the County has far less control over a project being developed by another party. Virtually all solid waste projects are difficult to implement. This difficulty is not necessarily lessened because a project is proposed by private developers and/or located elsewhere. The same forces which oppose provision of new solid waste facilities exist both inside and outside of DuPage County. Therefore, it is reasonable to expect that the same action which may stall project implementation in DuPage County may also affect project development outside of the county.

Third, the formulation and evaluation of those in-county alternatives which are available to the County for its direct development, provides a sound basis of information upon which proposals for out-of-county or privately developed projects can be judged. The County would thus be able to evaluate the costs in the independent proposals with the projected costs for disposal within DuPage County.

On the basis of the above considerations, it is advisable to proceed with implementation of a program which will provide for local waste disposal and siting where the maximum possible control in projects development can be provided. If, on the basis of thorough technical, legal, and financial analyses, a proposal for

out-of-county disposal represents a better solution to the problem of solid waste disposal for DuPage County, then the County's Plan should be revised at that time to indicate its endorsement.

The clearest advantage that an out-of-county disposal option would have is that the County itself would not have the difficult task of selecting and acquiring proposed facility sites within DuPage County, and required permits for those sites. Clearly, the siting of any solid waste facility is an extremely challenging task, and the potential benefits of having these efforts successfully provided by others are not to be taken lightly. However, such a project would not remove the County's responsibilities for planning and provision of solid waste management services. For example, Public Act 85-0990 requires most counties, including DuPage County, to prepare and implement solid waste plans. Similarly, interruption of waste disposal service, whether such disposal occurs inside or outside of DuPage County, would create major difficulties for municipal officials. Additionally, DuPage County would probably need to become involved in various aspects of project development for an out-of-county facility, if selected. For example, it is likely that DuPage County would officially be involved in the process of seeking local siting approval, even for sites outside of DuPage County, since DuPage County wastes would be likely represented as key evidence of the need for the proposed facility.

Use of an out-of-county disposal option would still require the siting of one or more transfer stations to consolidate wastes into more economical quantities for transport to the disposal site.

Finally, the long-term environmental and financial liabilities associated with DuPage County's waste would not be reduced by shipment of these wastes to a site outside of DuPage County. Under federal law, the responsibility for waste resides ultimately with the generator of that waste. In practice, the

responsibility rests with the last identifiable entity generating the waste. In the County's case, the County, and therefore, taxpayers would most likely bear ultimate responsibility.

Considering many of the concerns expressed above, a general list of essential requirements that should be met by proposed out-of-county or private disposal options is provided in Appendix A-4 and includes:

1. Assured long-term (i.e., 20+ years) disposal capacity, with availability guaranteed through contractual commitments.

2. Contractual guarantees that, should the option provided not be available in the future, an alternate disposal location will be provided by the proposer.

3. Contractual guarantees related to prices charged for disposal and limitations on future increases.

4. Participation by DuPage County in control over methods of disposal including design, operation, and maintenance in order to minimize long-term environmental risk to the County.

5. Contractual limits on risks to be incurred by DuPage County. Risk categories to be considered and allocated include construction; technological; waste supply; changes in law; short- and long-term environmental; and uncontrolled circumstances.

6. Sufficient financial backing and strength by the proposer to provide the above guarantees without affecting DuPage County current bond ratings.

7. Proven technical reliability and cost-effectiveness of the proposed disposal method.

8. Proposers must demonstrate the availability of a site meeting the above conditions, or the proposer's ability to provide local siting approval comparable to that of DuPage county and its municipalities within the borders of DuPage county.

9. Environmental design requirements should at least equal those for facilities proposed within DuPage County.

10. The total costs for disposal and transport to the

facility should be comparable to those for DuPage County facilities which may be implementable.

11. The option must conform to the requirements of Public Act 85-0990, because the Solid Waste Plan selecting the option must conform with this Act.

3.3.4.2 Other Processing And Disposal Options

The initial planning effort for the Solid Waste Committee was Alternative Refuse Disposal Systems - Resource Recovery Phase 1 (February 1986). One of the purposes of the report was to review various solid waste disposal systems that were alternatives to the current (then and now) disposal method of sanitary landfilling. A shortened list of preferred waste management technologies which were viewed as representing commercially viable alternatives was derived.

Thirty alternative solid waste disposal technologies were reviewed and compared to the existing sub-regional sanitary landfill method of disposal. As a task for the scope of services, a rating matrix was developed. Factors considered in the matrix included:

1. Waste disposal independence;
2. Environmental considerations;
3. Economic considerations;
4. Implementation considerations;
5. Resource recovery considerations; and
6. Risk assessment.

The rating matrix did not assign a relative weighting factor (order of importance) to these factors at the time of report preparation. Instead, a survey of interested parties which had been involved in solid waste issues confronting the county was performed to develop a relative weighting of factors. Collating

the results of that survey resulted in the following relative weighting in descending order of preference.

1. Environmental considerations
2. Risk considerations
3. Resource recovery considerations
4. Economic considerations
5. Flexibility considerations
6. Implementation considerations
7. Disposal independence considerations

These relative weighting scores were applied to the matrix to select the best technology alternatives to receive additional study. Alternatives which represented a perceived betterment from existing conditions (existing sub-regional landfills) and scored accordingly were selected to receive further investigation. Three categories of waste processing/disposal, which did not pass this initial ranking, but are described in this subsection were composting, pyrolysis and bioconversion processes.

COMPOSTING

Composting is a method of solid waste management whereby the organic material is biologically decomposed under controlled conditions to a state in which it can be handled, stored, and/or applied to land without adversely affecting the environment. The key phrases in the definition are "biologically decompose," "controlled conditions," and "organic materials."

Composting processes can be grouped into three classes: 1) aerobic vs. anaerobic, 2) mesophilic vs. thermophilic, and 3) mechanized vs. non-mechanized systems. This third classification is often referred to as mechanical vs. windrow composting.

Composting processes that involve decomposition in the presence of air (oxygen) are designated as aerobic. Anaerobic composting is conducted in the absence of air. Anaerobic composting is similar to anaerobic digestion of sewage sludges. However, in composting the wastes are maintained in a solid state, whereas anaerobic digestion involves conditioning the wastes into a slurry of water and waste.

Aerobic composting has been the process of choice when composting of wastes is employed. Perhaps the overriding reason for this preference is that aerobic processing is not characterized by objectionable odor generation.

A second important reason for the selection of aerobic composting is related to public health and to the eventual use of the finished compost in crop production. Aerobic composting is characterized by the achievement of temperatures within the composting mass that are above the thermal deathpoints of most plant and animal pathogens and parasites that can be present in the wastes. These elevated temperatures also kill weed seeds. Anaerobic composting, on the other hand, is not characterized by a perceptible rise in temperature.

A third reason for the wide adaptation of aerobic composting is that, in general, a stable end-product can be achieved more rapidly than with anaerobic composting. Anaerobic processes require an aerobic stage to stabilize the intermediary products resulting from anaerobic composting. This is due to the fact that many of the organisms that rapidly break down the more resistant compounds in wastes are obligate aerobes.

Modern composting involves mesophilic conditions followed by thermophilic conditions. The heat energy responsible for the attainment of thermophilic conditions is the result of the release of heat by the action of the microorganisms. Mesophilic organisms

are those for which the optimum temperature is within the range of 8 to 50°C (46+ to 122F). Those organisms having an optimum temperature above 45°C (113F) are termed thermophilic.

As heat is produced during the mesophilic stage of composting it is dissipated at a slow enough rate to allow for its accumulation within the mass. As the temperature of the mass rises to the thermophilic range, a shift in the population of the organisms takes place which allows decomposition to proceed until available substrates are exhausted. As the available energy in the composting mass is consumed, the activity of the microbes declines, heat generation decreases, and temperatures fall to near ambient conditions.

The distinction between mechanical and non-mechanical composting is based upon the technology and materials handling aspects of the process. Mechanical composting utilizes an enclosed unit of some type which provides for control of the necessary environmental parameters. Non-mechanized or windrow composting involves stacking the material to be composted in elongated piles (windrows) and allowing the process to proceed therein.

In windrow composting, air is supplied either by mechanically stirring the mass or by forcing air into the mass. The forced-aeration method eliminates the need for stirring. Mechanical systems also employ some type of stirring or forced aeration.

At the time of preparation of Resource Recovery Phase 1 in 1985 very little information was available on the status of municipal solid waste composting projects in the U.S. Currently there is much interest in solid waste composting on a national basis but still little hard data on the long-term operation of such facilities.

The "1990 Project Survey Of Solid Waste Composting In The

U.S." (Biocycle 11/90) indicates 89 projects in various phases of development. The following summary of projects in design, under construction or operational shows the current status of such projects in the U.S.

	Number	Total Tons/Day	Average Tons/Day
1. In Design	10	1,540	154
2. Under Construction	14	3,090	309
3. Operational	10*	839	84
4. Pilot Projects	3	85	28

*One facility described as research facility

The above information is interesting in the fact that it shows that although there is considerable interest in solid waste composting, there is still little hard operational data. Further, facilities which are operational are usually of relatively small size as evidenced by the average daily tonnage for operational facilities (150 tons/day). The largest operational facility in the U.S. at the time of the survey was the Agripost facility located in Dade County Florida with a design capacity of 250-300 tons per day and a future capacity of 800 tons per day. However, this facility is facing major difficulties in marketing its end product because of a lack of State certification due to the uncertainty over the classification of the material.

PYROLYSIS

Pyrolysis is the thermal decomposition or organic matter in the absence of oxygen. It has been applied to many materials for the recovery of hydrogen and carbon products or for the recovery of energy generated from the combustion of these products. The products from a solid waste pyrolysis system are a fuel gas, oil, char/ash or any combination of these. The gas is usually a low to medium heating valve fuel (300 to 600 Btu/ft^3). The oil can have as high as 10,500 Btu/lb. heating value while the char/ash can have

up to 9000 Btu/lb. The system can be designed to maximize the yield of certain of the three products depending on what the objective is. For example, if running a gas turbine or gas engine drive on an electric generator is the main objective, then the production of fuel gas would be maximized.

In the 1970's there were as many as 17 companies or agencies actively investigating this concept. These included companies like Monsanto, Union Carbide and Occidental Research Corporation. Monsanto went so far as to design and construct a 1,000 TPD plant in Baltimore, Maryland, which was completed in 1975. The plant was plagued with problems from the start; one of the most troublesome being the inability to meet air pollution standards. Even after plant modifications were made in 1976, the lack of steady production forced Monsanto to abandon the project. The city operated the plant for a limited period of time at much reduced capacity (400 TPD) before halting production. The plant has since been dismantled.

Most of the other pyrolysis systems developed in the 70's never got past the pilot or demonstration plant stage. Union Carbide did construct a 200 TPD demonstration plant in South Charleston, West Virginia, but never built a commercial plant. The process used their "Purox" system which manufactures and utilizes pure oxygen on-site as part of the plant production system. The process was energy intensive, expensive and was dropped by Union Carbide when a market could not be developed.

Although there has not been any large scale projects for municipal solid waste pyrolysis units, there are two recent activities which deserve mention here.

1. There appears to be renewed interest, at least in a theoretical, it not demonstrated way, for the use of pyrolysis on scrap tires. The homogenous nature of this wastestream and the high Btu content may prove conducive to pyrolytic processing.

2. In late 1989, there was much attention paid to a new system, originating in St. Charles, Missouri, known as the "Swept 10" system by Frontier Industries. Reportedly, the firm had constructed a 10 ton per hour facility in Rock Island, Illinois and was performing operational tests.

BIOCONVERSION

Bioconversion is a term developed to describe the biological conversion of biomass into a useable energy or material. Biomass includes a number of renewable resources of feedstock such as wood, crops, municipal solid waste, agricultural waste, cannery waste, animal manure, packing house waste, sewage sludge and even aquatic plants. The use of sewage sludge, animal waste and certain grain crops as feedstock for conversion has been in progress for quite some time, but systems utilizing solid waste for feedstock are relatively new.

The conversion processes can be described as primary thermochemical, primary biochemical and secondary conversion systems. The first utilizes elevated temperatures to directly convert biomass materials into recoverable energy or intermediate products. Combustion is considered in this class. Primary biochemical processes use microbiological species or their biochemical agents to convert feedstocks to fuel or to intermediate products. Secondary processes are defined as those which convert the intermediate products from a primary process into fuel products.

The direct thermal conversion processes for solid waste disposal have been discussed in previous sections and include combustion methods such as incineration and RDF burning systems that convert the waste material directly into heat. By partial combustion with air, refuse can be converted into fuel gas, oil and/or char/ash. This was discussed under the Pyrolysis section above. Primary biochemical conversion processes utilize biological

methods for producing energy. It has an advantage over thermal conversion processes in that biomass material with a high moisture content can be used as feedstock. High moisture content is a detriment for a combustion system. That is why biochemical conversion systems have been used so successfully for wastes like sewage sludge. This also explains why most of the systems that have been tested for disposal of solid waste usually involve mixing the refuse with a liquid waste such as sewage sludge. Solid waste is too dry (normally) for the digestion or fermentation process to proceed. The disadvantage over thermal conversion is the long time required for completion of the process.

The biochemical process can be divided into three categories:

1. Anaerobic Processes
2. Aerobic Processes
3. Enzyme Processes

Anaerobic fermentation is defined as the biological degradation of organic materials in the absence of oxygen. Aerobic fermentation is just the opposite; degradation of organic materials in the presence of oxygen. Enzymes are specific catalysts which mediate nearly all of the chemical reactions in a biological system. They are added to the biological process for the production of specific products usually the degradation of cellulose into glucose. The glucose product is a highly versatile fermentation feedstock and can be used in production of most fuels and chemicals.

As far as biochemical conversion of refuse in concerned, the anaerobic process is about the only one currently under development. The Federal government has funded a process at Pompano Beach, Florida for several years as an experimental project. Municipal refuse is shredded and classified, mixed with sewage sludge in an anaerobic digester where, after a period of

time, (usually 15-30 days) methane gas is produced from the fermentation process. This project was started up in 1978. The plant is sized to take up to 100 tons/day of processed refuse. The operator of the plant and the Gas Research Institute (a utility supported association) have recently announced their decision to commercialize the technology. The system is called "REFCOM" for refuse converted to methane.

A form of aerobic fermentation has been used for municipal solid waste composting. This was outlined above in the Composting section. The need to introduce oxygen is the reason for windrowing the compost and turning the piles over at regular intervals. This assures a good supply of oxygen for the fermentation process.

Secondary conversion processes are those that convert the gas or liquid products from primary biomass conversion into specific fuels or chemicals. In most cases this is methanol since it is a satisfactory fuel substitute for automobiles, boilers and gas turbines. Higher molecular weight alcohols such as ethanol can also be produced from the products of primary biomass conversion. Secondary conversion can be added to any primary conversion system that converts refuse to a gas or oil product. For example, the Pompano Beach, Florida process could be coupled to a secondary plant to produce methanol from methane. Obviously the capital expenditure and operating cost will increase significantly over that for a primary plant and must be justified economically by the revenues that can be earned from the sale of the final product or the savings that can be made from its use.

Most of the methods of producing synthetic fuel require large quantities of energy in the conversion process. For example, when ethanol is produced from corn, it is necessary to use a considerable amount of heat. Waste-to-energy plants have not been linked to the synthetic fuel industry since it usually is more efficient to utilize the recovered energy directly as steam or

electric power. It may be possible to utilize the steam from a mass burn incinerator or RDF fired power plant as a source of heat energy for this purpose but the synthetic fuel industry has not been very active in this country for economic reasons, i.e., the availability of low cost fossil fuels. While the 1973 oil embargo, and resultant leap in oil prices, did focus some attention on synthetics fuels, the momentum was short lived. Once it became obvious that energy prices were not going to continue the rapid escalation of the mid 70's and were not going to reach a level where synthetic fuels would be cheaper, it no longer appealed to the private capital market. Recent trends in crude oil prices may renew interest in this option but based on past history it can be expected that potential investors will be extremely cautious.

Since only a fraction of the municipal solid waste, on an "as received" basis, is potentially convertible to fuels and/or chemicals by biological means, a number of pretreatment technologies are employed. Physical processes include size reduction and physical separation or inorganic constituents. Size reduction increases surface area available for biological processes, improves mixability for material, increases bulk density and improves material handling aspects of the wastestream. Separation of inorganics reduces volume to be treated, reduces maintenance costs and removes material which could inhibit certain processes. Alkali pretreatment may be utilized before digestion to increase digestibility of lignocellulosic materials. Likewise, temperature and pressure pretreatment helps to break down cellulosic materials. Acid pretreatment is an effective method to hydrolyze the cellulose in lignocellulosic materials into simple sugars leaving the lignin portion largely unaffected.

3.3.5 Findings For Phase III Solid Waste Management Options

The options presented in Section 3.3 have been presented as possible disposal methods after the principal method of disposal in

DuPage County, landfilling at Mallard Lake and Greene Valley landfills, is no longer possible or when such disposal is limited. The implementation of Phases I and II would allow the availability of an extended timeframe (20+ years) to landfill at the sites if disposal volumes were limited to DuPage wastes as allowed by the November 28, 1990 amendments to the landfill operating contracts.

Various processing and disposal options have been examined in this Section with all having attributes which should be considered by the County in the future depending on the conditions at the time. As the County considers the possible implementation of these alternative processing and disposal options in the future, its decisions should be made within the context of State of Illinois' requirements for the management of solid waste including the State's hierarchy for solid waste management in effect at that time.

plan3

SECTION 4.0
EDUCATION AND INFORMATION SYSTEM

4.1 GOALS AND OBJECTIVES

The County realizes the success in effective implementation of solid waste planning initiatives is dependent upon the generalized support and active participation of the public. A comprehensive education and public information program would develop the environmental awareness of the public, as well as stimulate the public to reassess and modify existing waste disposal behaviors and habits which are detrimental to the environment. The following broad-based program goals have been developed to increase and maintain public involvement and understanding of solid waste practices and issues:

1. Inform the public of the need for responsible management of solid waste. Awareness of the looming solid waste disposal crisis should stimulate public concern and responsiveness.

2. Describe the viable methods available for the responsible management of solid waste. The concept of integrated solid waste management should be repeatedly presented to the public.

3. Inform the public of what the County's program does to provide for the responsible management of solid waste. A description of the County's integrated solid waste management programs should be provided to the public, and reinforced regularly.

4. Educate and inform the public of what it can do to provide for responsible management of solid waste. Conscientious decisions about personal solid waste disposal should be encouraged.

5. Assist and support local efforts to inform the public of local programs for solid waste management. The County should build on local programs and coordinate municipal and waste hauler informational efforts concerning solid waste.

6. Provide ongoing positive reinforcement to the public for its responsible management of solid waste. Positive activity should be promoted and the public's involvement should be positively acknowledged.

County government cannot alone assure these goals will be accomplished throughout the county. Goal 5, which recommends assistance and support of local efforts to inform the public of programs, is viewed as central to overall program development. In consideration of program goals and implementation, it is not the intent of the County to reach every citizen with its information program. Rather, the provision of general information should be the direction which the County pursues. The detailed instruction of how citizens should participate in local programs should be the function of the local government. The County should strive to act as an information source while providing support material describing responsible waste management methods.

4.2 SYSTEM ELEMENTS

The solid waste education and public information goals may be achieved through a combination of informational and promotional elements. An on-going balanced system of elements is necessary to accomplish lasting public action. The County's program goals and the associated benefits must be communicated to the general public continuously in order to motivate new county residents and reinforce the awareness of current residents. Proposed system elements include:

1. Public distribution of a newsletter. Updated and in-depth solid waste program information would be conveyed to a large audience at a relatively low expense.

2. Public distribution and/or access to mass appeal information material. A bibliography of printed and audio-visual materials and a county library of informational media produced internally or externally would be made available to local governments and

community awareness groups.

3. Fostering favorable local press relations. Dialogues with press members attending Solid Waste Planning Committee meetings, press releases for concise prepared announcements, and editorial board meetings to establish information conveyance relationships would facilitate this process.

4. Forums with special interest groups. Interaction among municipal and township governments, grass roots organizations, and business and trade groups would allow the County to effectively communicate it's message and solicit group member support for responsible solid waste management.

5. Establish and support a speakers bureau. Standardized presentations and the distribution of support materials at general public meetings and lectures would be available upon request.

6. School curriculum development and educational materials access. Educational programming for grades K through 12 would be encouraged so children may develop early personal solid waste awareness and positive behaviors while also influencing the awareness and behaviors of adults.

7. Promotional events and displays. Initiation and/or participation in public events would raise issue awareness.

8. Publicity campaigns. Contests, awards, or certificates aimed at various groups including schools, residents and businesses promoting particular themes would bolster interest and participation.

9. Regional and national exposure of the County's solid waste management program. Favorable exposure and coverage of innovative programming by the submittal of articles to journals and presentation of papers at conferences would establish credibility, attract and feed local interest, and instill a sense of community pride.

10. Mass media. Public service/public access programming and paid programming for special announcements would be pursued as a means to reinforce awareness.

Many of the categories above require the preparation of support materials. Topic-specific support materials, either

printed or audio-visual, would be essential in providing concise responses to public inquiry, as well as being able to furnish prepared messages for public presentations.

4.3 RECOMMENDATIONS

Three education and information programming levels have been proposed for Plan-1990. The incremental phases range from minimal, through intermediate, to high profile levels. The implementation components of each level are listed below. After each component, the goals which it addresses (from Section 4.2) are listed. Required Actions to implement the recommendation as well as Expected Resource Demands follow. **It is recommended that the following components be implemented considering available resources.**

MINIMAL LEVEL PROGRAM

1. Resume printing of a Solid Waste Newsletter on a regular basis and distribute to individuals on an existing and an expanding contact list at the County. The Solid Waste Division ceased publication of its Solid Waste Newsletter in 1989. Since that time, general information in its activities have been sporadically reported through a County newsletter. (Addresses goals 1,2,3,4,6)

   Required Actions

   a. Establish format and assign responsibility for editing.
   b. Develop a distribution approach.

   Expected Resource Demands

   a. Staff: Minimal to marginal dependent on the level of artistic preparation.
   b. Expense: Minimal but dependent on the distribution approach.

2. Provide mass appeal informational material. An extensive amount of public information materials exist in the public domain for use by interested parties. Every effort should be made to use this material while

realizing that the preparation of some locally specific material will also be needed. (Addresses goals 1,2,3,4,5,6)

Required Actions

a. Catalog, evaluate, and utilize available material.
b. Interview municipal staffs to determine local program support needs.
c. Develop new material to satisfy local needs.
d. Develop a distribution strategy.

Expected Resource Demands

a. Staff: Development work can be extensive.
b. Expense: Variable, dependent on material preparation and distribution.

3. Provide clearinghouse capability for information requests. It can be expected that the County will be solicited for waste management and environmental information not locally relevant. Through a mixture of its supply of locally relevant information, it would become a credible and diverse source of information. (Addresses goals 1,2,4)

Required Action

- Catalog and track availability of information by maintaining a solid waste library.

Expected Resource Demands

a. Staff: Minimal, coordination of individual staff reference files required.
b. Expense: Minimal.

4. Continue regular intergovernmental network meetings but strive for format which encourages local reports and attendance by elected officials. The County currently sponsors regular meetings of an intergovernmental network made up of local government representatives in order to exchange program information. The meetings are usually attended only by government staff. (Addresses goals 3 and 5)

Required Actions

- No additional actions required except format change.

Expected Resource Demands

a. Staff: Minimal.
b. Expense: Minimal.

5. Continue general meetings with public as requested. The Solid Waste Division staff now makes public presentations and attends meetings upon request and as resources allow. Although the audience which is reached is often limited, this activity is still viewed as important for public information purposes. (Addresses goals 1,2,3,4,5,6)

Required Actions

a. Decisions by the Solid Waste Planning Committee have promoted a desire for committee member attendance.
b. Consider standardization of presentations including preparation of topic specific support material (slides and videos).

Expected Resource Demands

a. Staff: Variable dependent upon involvement.
b. Expense: Variable dependent upon level of preparation.

INTERMEDIATE LEVEL PROGRAM

1. Develop and implement information programs for schools. Throughout the county there are various school programs currently in place. A concentrated effort to make developed programs available to teachers would be beneficial. Multiple programs must be developed in order to target various age groups. The motivation of children not only provides a long-term benefit in helping to modify future disposal habits but can also change current disposal practices by children applying "peer pressure" to their parents. (Addresses goals 1,2,3,4,5,6)

Required Action

a. Contracting for curriculum development and presentation.
b. Preparation of support material for various levels of school programs.

Expected Resource Demands

a. Staff: Minimal if program development and

implementation is contracted.
b. Expense: Potentially high dependent upon level of development.

2. Develop and expand working relationships with grass roots and special interest organizations as well as trade groups. These groups can be very helpful in carrying information to their constituents. Trade groups can often provide additional resources including financing to help communicate information. (Addresses goals 5 and 6)

Required Actions

a. Groups need to be listed and evaluated for interests.
b. With limited resources, concentrate on trade groups which can bring leverage capability to program.

Expected Resource Demands

a. Staff: High due to time requirements.
b. Expense: Minimal.

3. Investigate and utilize resources available through public service/community access media outlets. Many communities now have various community access methods available including newspaper, radio, and, especially, cable television. Although the level of preparation and "technical look" may be limited, these channels of communication can be very effective. (Addresses goals 1,2,3,4,5,6)

Required Actions

a. Establish working relationship and interest with one or two motivated and interested community access stations.

Expected Resource Demands

a. Staff: High during initial development.
b. Expense: Variable, but less than paid programming.

HIGH PROFILE PROGRAM

1. Initiate promotional activities. Promotional activities can be used to encourage new participants in responsible

waste management. Further, such activities can be particularly effective in encouraging commercial participants. Promotional activities may be complicated or as simple as the issuance of certificates. The first priority should be in the commercial segment in order to support the commercial outreach program if resources are limited. (Addresses goals 4,5,6)

Required Actions

a. Formulate approach by evaluating target groups, message and expected effectiveness. This may require contracting with professional firm.

Expected Resource Demands

a. Staff: Minimal to high dependent upon involvement.
b. Expense: Potentially high but may be defrayed by business/trade organizations.

2. Solicit regional and national coverage by preparation of articles for journals and presentations of papers at conferences. This component can help establish regional and national interest in the County's programs. (Indirectly addresses goals 1,2,3,4)

Required Actions

- Prepare articles and papers.

Expected Resource Demands

a. Staff: High.
b. Expense: Minimal to marginal dependent upon conference attendance costs.

3. Develop mass media programs. This component is most appropriately used to reinforce environmental awareness. Because of the costs involved, the use of this component must be carefully considered. (Addresses goals 1,2,3,4,5,6)

Required Actions

- Contract with professional firm to develop marketing campaign which builds upon the preceding actions.

Expected Resource Demand

a. Staff: High initially.
b. Expense: High to extreme.

The County is currently performing activities in the minimal level program. As the County's program activities expand and resources develop, expansion of the education and information program to intermediate and high profile levels should be considered.

plan4

SECTION 5.0
DEFINITION OF PROPOSED SOLID WASTE MANAGEMENT SYSTEM

Figure 5-1 depicts the conceptual flow diagram for the County's proposed solid waste management system. It graphically presents the approach for waste management as discussed in Plan-1990. For illustration purposes, the figure uses waste generation data for the year 1995. The purpose for the figure is to show the relative effects on the wastestream as it proceeds through the proposed system. The example assumes for purpose of illustration that the systems discussed in Plan-1990 for Phases I and II are fully implemented.

Figure 5-1 and the text here summarizes the system extensively described in the appendices. The reader is encouraged to review the appendices for additional information.

PHASE I

The first action shown under Phase I activities is "Waste Reduction Efforts." This action is not truly a waste management activity. It does not represent a technology or process to deal with waste. Rather, it represents efforts to prevent the creation of waste. There are three components encompassed in the term waste reduction. They are "source reduction", "waste prevention" and "pollution abatement." The first two components precede the actual production of waste. The third is an attempt to differentiate problematic materials and also prevent their production and use. As discussed in Appendix A-2, there are limited efforts that local governments can do to actually bring about changes in these components. Information campaigns aimed at these three components may help to minimize the effects in each but the measure of success is nearly impossible to gauge.

The total waste generation of the county (3,518 tons/day)

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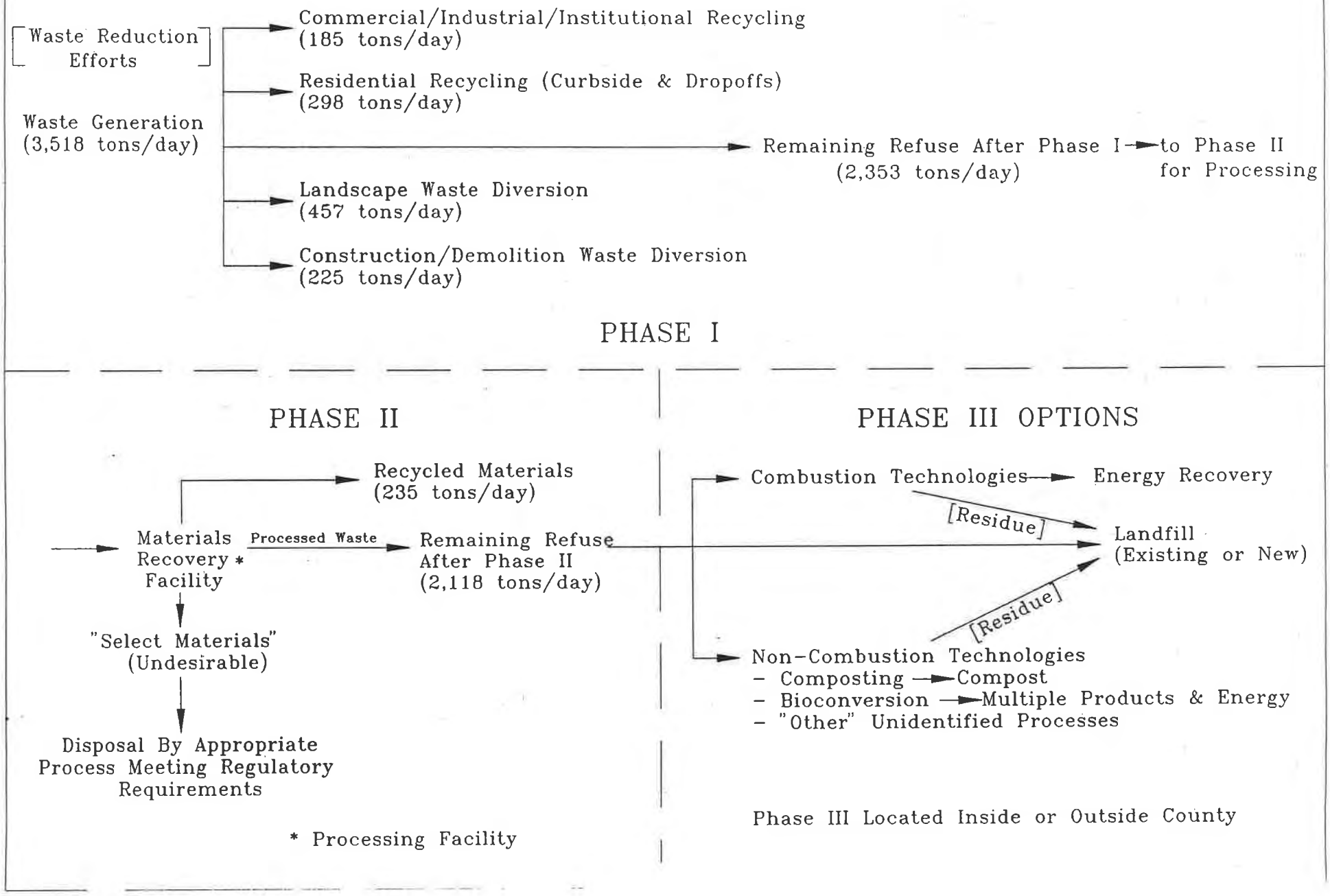
FIGURE 5-1 C001480

CONCEPTUAL FLOW DIAGRAM FOR COUNTY'S PROPOSED SOLID WASTE MANAGEMENT SYSTEM -1995-



would initially be sorted into several individual streams by source separation activities. These streams include residentially source-separated recyclables; commercial, industrial and institutional source-separated recyclables; source-separated landscape waste diversion; and source-separated construction/demolition waste diversion and recycling.

Residential recycling would be a function of curbside collection and drop-off programs. Commercial, industrial and institutional recycling would be a function of private collection programs to serve these entities. Landscape waste diversion would be a function of encouraging residents not to dispose of this material (leave it on the yard) as well as separate collection programs delivering the collected landscape waste to land application or composting sites. The recycling or diversion of construction/demolition waste would be a function of finding alternative uses for this material including reuse of materials and recovery of materials for alternative uses. Note that the total waste generation quantity assumes that "dirt, clay and sludge" (a category of waste now accepted at the two existing landfills) would not be included in the waste proceeding through the solid waste management system.

It is estimated that these activities, when <u>fully</u> implemented, would reduce the total waste quantity by 33 percent or, in this example, 1,165 tons/day leaving approximately 2,353 tons/day to proceed to subsequent phases. The following table summarizes the waste reduction effects of Phase I activities.

	REDUCTION QUANTITIES	
	Tons/Day	% of Waste
Residential Recycling	298	8.5
Commercial/Industrial/ Institutional Recycling	185	5.3
Landscape Waste Diversion	457	13.0
Construction/Demolition Waste Diversion	225	6.4
	1,165	33.2

PHASE II

The 2,353 tons/day remaining after the source separation activities in Phase I would be routed to a materials recovery facility which will process the mixed wastestream to remove and recover additional materials. The purposes for the facility are both to remove certain materials which are not conducive to or desired in Phase III processes or disposal facilities (undesirable materials) as well as to recover (recycle) materials in the waste which were not source-separated in Phase I.

Recycled materials are expected to represent 10 percent of the incoming waste quantity although the percentage may increase if source-separation programs are ineffective. Materials removed because of their undesirable nature for Phase III are not assigned a reduction factor at this step due to the uncertainty over what these materials may actually be. For example, an undesirable material may be excess water but the level of removal cannot be estimated until the final processing/disposal step is defined. Similarly, it may be desirable to separate select waste materials viewed to be hazardous or otherwise undesirable at the general municipal waste disposal site and send them to an alternate disposal facility more appropriate for this type of material.

After the removal of materials in Phase II mixed waste processing there will be a remaining fraction of "processed" waste which can proceed to Phase III processing and disposal options. The remaining processed waste can exist in several states dependent upon the processing or disposal options to be used in Phase III. For example, Phase II processing may produce a fuel for combustion technologies (refuse-derived-fuel) if such technologies are selected for use in Phase III. The processed waste may be minimally changed (i.e. baled or even shredded) if the waste is to be landfilled. If the waste is to be sent to a non-combustion facility employing biological actions (i.e. composting) additional

processing may be required to prepare it as a feedstock. In summary, the level of processing employed after the desired recovery of materials for recycling at the processing facility is a function of the subsequent processing and disposal options employed in Phase III. Note that the materials recovery facility may serve a dual role as a transfer facility depending on the location of subsequent processing and disposal facilities.

After Phase II mixed waste processing there would be approximately 2,118 tons per day of processed waste remaining for further processing and disposal in Phase III. At this point in the system, the initial total wastestream requiring disposal will have reduced by approximately 40 percent.

PHASE III

The 2,118 tons per day of processed waste remaining after the materials recovery by mixed waste processing could either be further processed or sent to final disposal in a landfill. Phase III activities might include either combustion or non-combustion technologies that can be used to recover energy in the remaining waste prior to disposal or, perhaps, other useable products (i.e. compost). Also, although not indicated in the figure some "residue" items might be reusable. For instance, combustion ash might be useable as an aggregate building material. Phase III might include a combination of all of the available options and use either existing facilities or new facilities. Facilities may be located inside or outside of the county.

plan5

SECTION 6.0

IMPLEMENTATION ISSUES

6.1 PROCESS FOR PLAN REVIEW AND APPROVAL

The following steps describe the review and approval process for Plan-1990. Steps marked with an asterisk are required under Public Act 85-0990. For additional information on the public comment process, please refer to the DuPage County Solid Waste Management Plan-1990 Public Comment And Response Document.

1. Following receipt of the review draft plan, as prepared by staff, the Solid Waste Planning Committee issues the review draft plan for public review and comment.

   Plan-1990 was issued for public comment on October 1, 1990.

2. The review draft plan is available for public comment for a period of not less than 90 days*. The review draft plan shall be submitted for review and comment to the Illinois Environmental Protection Agency (IEPA); all DuPage municipalities; all area-wide planning agencies; and the County Health Department during this 90 day period.

   Public comment was opened on October 1, 1990 and closed December 31, 1990. Notice of opening the public comment period was published in the Daily Journal, Wheaton, Illinois on October 1, 1990. The review draft was provided to the Illinois Environmental Protection Agency; the Illinois Department of Energy and Natural Resources; the Northeastern Illinois Planning Commission; all DuPage municipalities; all DuPage townships; the DuPage Health Department; all County Board members; all municipal libraries; members of the Citizens' Advisory Committee; and to other interested parties. Plan-1990 was also available at County offices for review.

3. During the 90 day public comment period, a formal public hearing* on the review draft plan (and any proposed revisions) shall be conducted. The public hearing shall be scheduled on or around day 60 of the public comment period.

   A public hearing for Plan-1990 was conducted on December 12, 1990 at 7:30 p.m. in the auditorium at the County

Complex in Wheaton, Illinois. Notices for the public hearing were published in the Daily Journal, Wheaton, Illinois on November 21, November 28 and December 12, 1990.

4. The review draft plan is reviewed consecutively by the Solid Waste Planning Committee, the Citizens' Advisory Committee, the County Board and other parties identified above, including the general public, during the statutory public comment period.

   All of the identified parties were afforded the opportunity for review and comment on Plan-1990.

5. Following the public comment period and the public hearing, a final draft plan will be prepared containing any revisions deemed necessary as a result of public comment and Solid Waste Planning Committee deliberations. A document containing written responses to comments made during the public comment period shall also be prepared*.

   The review draft of Plan-1990 has been revised for the February, 1991 version. A separate document entitled DuPage Solid Waste Management Plan-1990 Public Comment And Response, February 1991 has been prepared.

6. The documents described in 5. will be approved by the Solid Waste Planning Committee and forwarded to the County Board for its consideration and adoption. The County Board is required to adopt a solid waste plan by March 1, 1991*. If the County Board determines that it cannot adopt the solid waste plan as forwarded to it by the Solid Waste Planning Committee, it must return the solid waste plan to the Solid Waste Planning Committee for its review and consideration for changes.

7. Within 10 days of adoption by the County Board, the solid waste plan is to be sent to the IEPA for its review*. The IEPA is afforded 90 days to review the solid waste plan*. If returned by the IEPA, the County (and Committee) shall consider the recommendations, make appropriate revisions and adopt (the revised) solid waste plan by September 1, 1991*.

Public Act 85-0990 further requires that the solid waste plan be implemented within one year of adoption and that the solid waste plan be updated at 5 year intervals.

6.2 SOLID WASTE PLAN IMPLEMENTATION AND ADMINISTRATION

The DuPage County Board is the implementing governmental authority for the County's solid waste management plan. The Waste Planning/Reduction Committee is authorized to prepare and implement the solid waste plan for the County. In this form the joint county/municipal committee serves as a standing committee of the County Board and directs action relative to the solid waste plan through the County Board. This process assures municipal input and participation during planning and implementation. For a discussion of the authorities granted to the County Board for implementation, refer to Section 1.3. Note that any amendments to the plan during implementation or at the required 5 year update must be reviewed and approved by the Waste Planning/Reduction Committee.

6.3 FUNDING

The principal method for the provision of funds to support the actions of the Waste Planning/Reduction Committee derive from the surcharge applied to landfilling waste in the county. Funds for the operation of the County's landscape waste composting site are provided by tipping fees at that facility. The landfilling surcharge is applied according to State limits for the use of solid waste planning and implementation activities. The County receives $0.45 per cubic yard landfilled. Historically, this funding source has provided the County approximately 3 million dollars per year for solid waste planning and implementation since it was first applied in mid-1988.

Although the tipping fee surcharge has been the most reliable source of revenue for the County's solid waste efforts and will remain so as long as the two landfills remain open, funds from this source must be carefully directed as they are currently the only source of revenue for the Committee's activities. Also, the November 28, 1990 amendments to the landfill operating contracts

will impact the program funding level due to a change in the way waste receipt is recorded. Currently, waste is measured on a cubic yard basis at the two landfills but in 1992 the waste will be recorded on a tonnage basis.

The County, in 1992, would be allowed by State law to charge $0.60 per cubic yard. However, the State law allowing the local surcharge uses an effective conversion rate of 2.11 cubic yards to a ton of waste in its calculation of surcharge rates and allows a local surcharge of only $1.27 per ton. The actual conversion rate for cubic yards of waste to tons is closer to 3 cubic yards per ton.

The State purposefully decided to allow a cost preference to those operators who installed scales at their landfills in order to collect what the State believed to be more accurate data on waste disposal. However, the net local effect of this action is a sharp reduction in funding available for local programs. To illustrate this distinction consider the following:

Waste Measured by:	DuPage Landfill Quantity (1992)	Allowable Surcharge	Resulting Annual Revenues
- Cubic Yard	3,000,000	$0.60	$1,800,000
- Ton	937,500	$1.27	$1,190,625

It should be noted that although the above analysis might indicate that a reduction in waste disposal costs for residents might occur under this scenario, this is unlikely to happen. To some extent the difference is attributable to a mathematical exercise in conversion rates. Although there is a real reduction in money actually required to be set aside by the landfill operator, it is unlikely that this will translate to any noticeable savings by a homeowner because each household generates only about 2 tons of waste per year (3.5 lbs/capita/day x 365 days x capita/household ÷ 2000 lbs/ton). The net annual reduction per household would equal approximately one dollar per year ([2 tons/household/year x 3 cubic yards/ton x $.60 cubic] - [2

tons/household x $1.27/ton]). It is unlikely that this small reduction in fees will be passed along to the homeowner.

The County must consider revenue mechanisms which provide for long-term program support. The State limited surcharge amount should be supplemented at least to the level allowed if charges were applied on a cubic yard basis. This would be equivalent to a surcharge of $1.27 per ton plus a separate local solid waste fee in an amount of at least $0.53 per ton for a combined charge of $1.80 per ton.

The County may consider the use of bonds or other lending mechanisms in order to provide for large capital costs where necessary while minimizing the annual payment for such a facility. Use of this method of financing will require future discussion.

If the method of final disposal or intermediate processing changes in the county, thereby affecting the availability or sufficiency of this funding source, then an alternative funding source(s) must be sought. Realistically, if DuPage waste is no longer landfilled at the landfills in the county or if other alternatives are provided in addition to the landfills, it is likely that the County will have implemented alternative disposal processes and will have implemented a system to recover expenses for its alternative disposal mechanism by applying a charge for the management and disposal of waste.

The County can also consider grant funding from available sources in the future to help affect costs. The County has already received a grant from the Illinois Department of Energy and Natural Resources for equipment at the County's landscape waste management operation.

6.4 AMENDMENTS TO PLAN

As stated above, State law requires that solid waste plans be updated at least once every five years. However, it is likely that amendments to the plan may be made more often than that depending on local conditions. Whereas the five year update would most certainly be viewed as a major update by examining new population projections, assessing current waste disposal processes, and assessing current and future disposal needs, it may be appropriate for modifications of a plan prior to the required five year update. These modifications may be necessary to more effectively detail implementation steps. The DuPage approach to Plan-1990 is a good example of where this may be required considering the following.

Although the description of Phase I activities is relatively well defined in Plan-1990, the specificities for Phase II and Phase III activities (other than use of existing landfills) are not well defined. Therefore, prior to steps taken towards implementation of Phases II and III, the County's solid waste plan would require amendments. For example, prior to proceeding with a materials recovery facility as described for Phase II, an amendment to the plan detailing the site analysis, environmental and cost impacts and all of the other general planning issues required by State law would have to be approved. The approval process would conform to the plan approval process described above in Section 6.1.

Some activities for implementation will not require formal amendment to the plan so long as they conform with the intent and described framework of the plan. For example, annual funding levels for County assistance programs for recycling as discussed in Plan-1990 would not be expected to require formal plan amendment.

The decision of whether or not an action will require formal plan amendment following the process described in Section 6.1 will be made by the Waste Planning/Reduction Committee. Equal

membership of County and municipal officials will assure that the relative effects of amendments on each type of governmental unit are fairly considered.

6.5 WASTE FLOW CONTROL AS AN IMPLEMENTATION ISSUE

Throughout the period of preparation and public comment on Plan-1990 the issue of waste flow control has been raised repeatedly by municipal officials. Some commenting parties have apparently interpreted Plan-1990 to say that recycled materials must be sent to the County's Intermediate Processing Facilities. Plan-1990 does not say that. It does not propose the general implementation of flow control on recycled materials. It also does not require County approval of the specifics of the municipality's program.

Plan-1990 does propose that the County should consider a process whereby those communities that do not provide for what are determined to be minimum levels of service (number of materials) for the collection of recycled materials should either be excluded from using County-designated disposal facilitates or charged an increased rate for recycling actions that might be employed at a materials recovery facility. This is stated to serve as an inducement to implement collection programs throughout the county which collect materials for which there is a ready alternative to disposal provided by the Intermediate Processing Facilities. Plan-1990 further states that municipalities should strive to provide collection services which maximize convenience to the residents while considering collection issues for haulers, both kept in mind during the design of the County's Intermediate Processing Facilities.

"Flow Control" is discussed in relative terms throughout Plan-1990 as a means of providing the ability to collect waste generation/disposal data; as a way to restrict the delivery of

waste to that generated in DuPage; and as a way to guarantee the delivery of waste in sufficient quantity to financially support disposal facilities.

Plan-1990 uses the best and most current information available in the estimation of waste generation within DuPage County but recognizes that the available information is limited, especially for certain components of the wastestream (refer to Appendix A-1). Plan-1990 proposes that the implementation of a system to direct the flow of waste generated within DuPage would allow the County to start collecting actual waste generation and disposal data. This would allow for more precise calculation of data related to solid waste facility sizing and estimation of needs.

Plan-1990 assumes that new facilities for the management of solid waste provided by the County should be restricted to use by residents of DuPage. Plan-1990 also discusses the possibility of restricting waste at the two existing landfills. In order to effectively implement a policy of restriction, a method would have to be provided to at least track waste origination and disposal patterns. This need could be satisfied by the implementation of flow control authorities.

Finally, the guarantee of delivery of waste in sufficient quantity to recoup costs is fundamental to solid waste disposal facility contracting and financing. It is interesting to note that even the amendments to the landfill operating contracts contain "put or pay" provisions where the Forest Preserve essentially guarantees the delivery of a minimum amount of waste to the facilities. If the County desires to bid for alternative waste management operations in the future, one of the first requirements to attract bidders will be the County's ability to guarantee the delivery of waste contractually to the successful bidder and project developer. Therefore, if the County is to assume the responsibility for assuring waste disposal capability it must have

the ability to guarantee the delivery of waste to the designated facility(ies).

Two methods are evident to allow for the guarantee of delivery of waste. One method would be to negotiate intergovernmental agreements with each of the participating municipalities while the other method would be for the imposition of a controlling mandate at the County level. Both of these methods were discussed in detail in 1986 and 1987 by the Solid Waste Planning Committee. Legislation sponsored in 1987 by both the County and the DuPage Mayors and Managers Conference allows for the formal representation of representatives of the DuPage Mayors and Managers Conference on the Solid Waste Planning Committee and authorizes the imposition of "flow control" at the County level. The County is authorized to define the appropriate method of waste disposal for all waste generated within the boundaries of DuPage County.

Elimination of the references to flow control misrepresents available County authorities and, if such authority were abdicated, could place the County in a position of not being able to effectively negotiate for the provision of waste processing and disposal services. However, it must be stressed that the imposition of flow control would require additional formal action by the County Board. Such action would require endorsement of the Waste Planning/Reduction Committee, comprised of equal membership representing the county and municipal officials.

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SECTION 7.0
PLAN OF ACTION

7.1 RECOMMENDATIONS FOR MAJOR ELEMENTS

This Section provides the detailed recommendations for action as provided in Plan-1990. Except for the recommendations listed under 7.1.4 (Administrative), all of the recommendations provided below are copied directly from the detailed Appendices which support Plan-1990. Note that recommendations for the education and information system are provided in the preceding Section 4.0 and are not repeated here. Although a summary of the reasons for statement of these recommendations is provided below, for additional information on why a specific recommendation is made, the reader is strongly encouraged to refer to the subject Appendix.

7.1.1 Phase I - Waste Reduction, Recycling And Waste Diversion

WASTE REDUCTION

The burden placed upon a community's waste management infrastructure can be eased to a significant degree through the initiation of an aggressive waste reduction program. A waste reduction plan consists of three interrelated elements: 1) source reduction, 2) waste prevention, and 3) pollution abatement. The objective of the waste reduction component of the County's waste management system should be to facilitate the development and initiation of public and private sector programs which promote these three important activities. The following recommendations are proposed as a means of promoting waste reduction within DuPage County:

1. The County should encourage local industry to streamline the product design, manufacturing, and packaging processes they utilize by offering general information and technical assistance regarding source reduction practices. The County's role in this regard should be

that of facilitator, matching sources of information and/or service providers with companies interested in waste minimization. Advancement of voluntary source reduction policies in the private sector can be achieved through commercial outreach programs which target larger firms throughout the planning area. Local firms should be made aware of any programs sponsored by the State of Illinois intended to encourage the development and/or implementation of source reduction practices.

Beyond serving as an information clearinghouse and a referral service, the County's outreach program may eventually be tailored to address the needs or concerns an entire class of specialized commercial ventures involved in common field. Coordination of these targeted source reduction workshops focusing upon a narrow group of businesses could be accomplished through local trade conferences or chambers of commerce.

2. The County must promote waste prevention. Waste prevention practices entail giving preference to those products which are recognized as durable, non-toxic, and have minimal packaging. Waste prevention is distinctive from source reduction in that it is an activity which both private industry and the general public can partake. Individual citizens and purchasing officers from the private sector can, when well-informed, make a conscious effort to purchase environmentally sound products even if additional expense is involved. **By avoiding merchandise which is over-packaged, contains harmful ingredients, or is designed for a single use and touted as being "disposable", consumers practicing waste prevention can help minimize the volume and toxicity of the wastestream.** Moreover, by stimulating the demand for "environmentally friendly" goods, a waste prevention campaign becomes a logical extension of the County's effort to convince private industry that source reduction efforts will enhance product marketability.

A segment promoting waste prevention practices among private firms should be incorporated into commercial outreach programs which were previously discussed. To increase the general public's awareness of waste prevention, the County should initiate educational campaigns in cooperation with the State, municipalities, and local community groups. The impact of public education programs which encourage individuals to take environmental concerns into account when they shop may go well beyond simple waste prevention. In addition to encouraging people to shy away from over-packaged, potentially toxic, or single-use "disposable" products, waste prevention campaigns can persuade consumers to seek

out and buy goods which are packaged in recyclable containers and/or have recycled material content. Not only does this reduce the amount of non-recyclable packaging entering the wastestream, it increases participation rates for local recycling programs and strengthens the markets for the recovered materials.

3. As part of the County's waste reduction program, pollution abatement should be aimed at minimizing the negative impact of potentially hazardous refuse on the environment. Pollution abatement strategies focus upon diverting potentially dangerous materials away from conventional waste management systems which are ill-equipped to handle such waste. Regardless of the intensity and scope of waste prevention efforts, there will always be a certain quantity of "hard-to-handle" waste material generated within DuPage County. Once separated from the more benign portion of the wastestream, undesirable wastes can be reprocessed, recycled, or disposed of via specialized waste management systems.

The County should attempt to increase the general public's awareness of the need to divert these wastes from the municipal wastestream. In some cases, this task will entail promoting compliance with State statutes which prohibit the disposal of certain hard-to-handle wastes via the municipal wastestream (e.g. lead/acid batteries, used tires - after 1995). Diversion efforts for other materials will have to accompany the identification or development of alternative processing/disposal capability. Provision of acceptable means of managing these wastes may require cooperative ventures involving the municipalities, state agencies, and private firms. By virtue of its regional jurisdiction and legal authority over solid waste disposal methods, the County will be obliged to play a lead role in the development and coordination of such pollution abatement initiatives.

4. The County should make an effort to reduce the total amount of waste it generates and should minimize the use of highly toxic or disposable products whenever possible. While informing private firms and the general public about waste reduction techniques is obviously worthwhile, propagation of source reduction, waste prevention, and pollution abatement activities will not be optimized if the County fails to demonstrate its commitment to these concepts by "leading by example". This effort might begin with a intensive "in-house" audit of current procurement and disposal practices in order to identify those areas where there can be substantial improvement.

The result of this inquiry should be the formulation of a comprehensive waste reduction policy for the County. While the County's decentralized organizational structure may be a barrier to development and implementation of such a policy, a sustained commitment on the part of departmental leadership can help assure internal consistency between the County's stated waste reduction policy and its day-to-day operations.

RECYCLING

DuPage County will implement a recycling system necessary to achieve the recycling rates that, at a minimum, meet the requirements of P.A. 85-1198. Achieving the minimum 25 percent recycling rate or greater will require considerable staff and funding resources, intergovernmental coordination, the active participation of private industry, and a change in the public's waste disposal habits. Resources are limited and must be allocated where they will create the greatest benefit. An effective and cohesive policy can be established through open communication and cooperation among all levels of government, as well as private enterprise. Modifying the disposal habits of DuPage County's citizens may be accomplished over time through public awareness and education activities. The recycling program is geared towards a reasonable rate of progress keeping in mind that the entire infrastructure to collect, process, and market the recyclables must be developed simultaneously.

The following recommendations summarize the key elements of the DuPage County recycling program concerning residential, commercial/institutional/industrial, public (governmental), construction/demolition, and wastewater sludge wastes. Because the elements are interdependent, each must be considered equally important to the overall success of the program.

Residential

The residential sector has been the central focus of recycling

initiatives within DuPage County. Ultimately, participation among all DuPage households, including single family and multi-family dwellings, should be pursued. Convenient and permanent mechanisms will be essential in instilling and reinforcing recycling behaviors among DuPage residents. An number of adequate drop-off facilities, curbside collection programs, and intermediate processing facilities should be provided to meet residential recycling needs. Furthermore, material collection, processing, and marketing activities should be executed in a fashion which shall support effective recycling operations and ensure the reduction of disposable waste. The following recommendations have been developed to address residential recycling:

5. Facilitate the development of as many as 3 additional multi-material recycling centers (MRCs) before 1992. Dropoff facilities within the county are proposed to serve less densely populated areas in which curbside collection is deemed economically unfavorable and to provide collection capability made unavailable to curbside collection participants. In order to adequately blanket the county with three-mile radius dropoff facility capabilities, it is recommended that regions to host such facilities should include Naperville, Wayne and Winfield townships. The County should assist in MRC planning and development for new facilities, and assist in the continuance of existing facilities.

6. Incorporate standards for equipment, operation, and construction of multi-material recycling centers as described herein and oversee the administration of such standards. Standardization should be extended throughout the various existing and proposed facilities to ensure visitor and worker convenience and safety, operational efficiency, and structural durability. Compliance with recommended standards will be required of MRCs for eligibility of funding assistance by the County.

7. Pursue the implementation of curbside collection services to additional households within DuPage County. Curbside collection has been found to be the most desirable recycling method for densely populated, single family residential areas because of the high participation levels associated with this convenient service. Curbside collection services should be expanded to maximize the coverage of single family households. The County should encourage this action by units of local government which

have the primary responsibility to provide for such service.

8. Encourage dropoff facilities and curbside collection services to accept and market the maximum range of recyclable materials. In order to capture the highest possible levels of recyclable materials from the residential wastestream, the recovery of all materials normally expected to have secondary market value is encouraged when processing and marketing opportunities of such materials exist. In order to support the collection of new and varied materials, the range of materials accepted at the IPF will expand as material markets become available and regulatory controls allow for the collection and processing of the desired new materials. However, it is also realized that at certain times stressed market conditions may exist for certain recycled materials. The County should make efforts to bridge these stressed market conditions to the greatest extent possible rather than temporarily drop certain materials from the program.

9. Encourage the implementation of curbside collection programs which are designed for the convenience of the resident. The County has attempted to develop a regional system which provides maximum convenience for recycling to all involved parties including haulers, homeowners, and the government. The purpose for this is to encourage maximum participation. The use of a commingled collection system where the only separation required by the homeowner is paper from non-paper (but combined in one container for collection) removes the burden of sorting materials by the homeowner. Similarly, the IPFs are designed to effectively process materials delivered in this manner.

   As the system is implemented, practices which may currently be required to ease the demands placed upon collection crews using truck-side sort programs, but requiring increased efforts by the homeowner, should be eliminated. For example, several communities now require residents to place paper at the bottom of the curbside container and discourage the use of kraft paper bags to contain the paper. This practice will be unnecessary in the County's system.

10. The use of County-designated disposal facilities should be prohibited or otherwise discouraged to communities not providing for the collection of the recyclable materials accepted by the IPF. The County views the materials which are to be accepted at the IPFs as the baseline minimum for materials which should be recycled locally.

The list of materials accepted at the IPFs should set the minimum standard for local collection programs. After processing capability is uniformly available throughout the county by the provision of at least two IPFs and allowing the phase-in of collection of additional materials via local collection contracts, communities which do not provide for this minimum standard for recycling should be denied access to County-designated disposal facilities. Alternatively, the County could assess a surcharge to provide for additional processing costs to capture materials at proposed materials recovery facilities for mixed municipal solid waste (refer to Appendix A-3) from these communities.

11. Begin construction of IPF 2 when IPF 1 is shown to be at 85 percent capacity and when funding is available. Additional processing capabilities will be necessary to handle the higher levels of recyclable material quantities generated from expanded curbside programs as well as satellite facilities. The second IPF will support the collection of additional recyclable materials diverted from the single-family and multi-family residential wastestream. The required time to construct the second IPF should be considered in the course of discussions of apparent loadings of the first IPF.

12. Facilitate the development of satellite dropoff facilities (SDFs) to address the needs of multi-family housing complexes. SDFs are an important component of the recycling system because the increased convenience of recycling within multi-family housing units should boost the overall participation level of residential recycling. Once the IPFs are available to process additional quantities of recyclable materials, the County should assist building managers and haulers of multi-family housing complexes in the development and coordination of SDFs.

13. Document the recycling levels of the residential wastestream. Documentation of recycling levels is helpful in evaluating and monitoring the progress of recycling activities. Local governments and independent recycling operators are encouraged to report residential waste generation and recycling volumes to facilitate regional planning. Documentation of recycling volumes will be required for eligibility of County-assisted solid waste funding projects.

14. Develop a county-wide public awareness and information program utilizing outlets for such dispersal of information. On-going public information campaigns and educational programming should be conducted to promote

and reinforce recycling and other preferred solid waste behaviors. Refer to Section 4.0 of the main Plan-1990 document for specific recommendations concerning public awareness activities.

15. Pursue additional funding resources. In addition to the landfill tipping fee surcharge, other funding opportunities shall be pursued to implement the proposed recycling objectives. Efforts shall be made to acquire grants or financial assistance made available through various governmental agencies, such as Illinois Department of Energy and Natural Resources (IDENR) and Illinois Environmental Protection Agency (IEPA), and private institutions. The County should implement a "solid waste system fee" collected at the point of processing/disposal to support all the categories of its solid waste management system.

Commercial/Industrial/Institutional

The commercial/institutional/industrial sector has a significant role in meeting the recycling and waste reduction needs within DuPage County. Various entrepreneurial possibilities and in-house resource recovery opportunities are present for private firms within the county. Although an active, hands-on County role may be unnecessary to secure private participation at this time, cooperative relationships and a atmosphere of voluntary participation should be fostered through increased communication and interaction between the County and private business. Recommendations for recycling within the commercial/institutional/industrial sector include the following:

16. Strongly encourage private business to actively pursue recycling and waste reduction practices, as well as to procure secondary materials. Although participation is voluntary at this time, private firms may conduct recycling activities to take advantage of economic benefits, to fulfill employee expectations, and to preserve its image as a corporate citizen. Awards of recognition to leading firms with exemplary programs and other incentives should be developed to encourage and reinforce positive recycling and waste reduction practices within the private sector. These programs can then be used as examples for similar businesses.

17. Expand the commercial/institutional/industrial outreach program. The outreach program has been designed to provide information on how to implement in-house recycling programs and to act as a matchmaker of recyclable waste generators and private firms that use these materials. Resources should be made available to respond to the rising demand from private business for consultation and coordination of preferred solid waste management programs.

18. Document the recycling levels from the commercial/institutional/industrial wastestream. Reporting activities shall be requested to facilitate regional planning and to monitor the progress of county-wide recycling activities. Documentation requests shall be concentrated among the larger waste producers. Data will be solicited through voluntary surveys among the constituents of recycling vendors, trade associations and chambers of commerce. The County may consider a licensing system for providers of recycling services in this sector to allow for the County to solicit information on levels of service.

19. Encourage the siting and development of the industries that use secondary materials in the DuPage County area. As extensive efforts are being made to recover and process recyclable materials, the same care should be devoted to supporting the development of markets which remanufacture such materials. In order to promote a stable marketplace for recoverable resources, the County should initiate efforts to develop markets for recyclables and to remove barriers to the utilization of recycled products.

Public Sector

The public sector will play an important role in expansion of the recycling system within the county. Governments should serve as role models for the entire community by demonstrating the design and implementation of recycling programs. The public sector should also make efforts to "close the loop" for recycling through the support of secondary materials markets. The following recommendations regarding recycling are proposed for the public sector:

20. Develop guidelines for the County's procurement of recycled products. The County Board shall establish and

adopt purchasing guidelines which cover paper products, plastic containers, and plastic building materials procured for usage by County offices. Content standards of selected paper and plastic products, including minimum percentages of recycled materials and post-consumer recovered materials, as well as budgetary and non-competitive considerations, should be incorporated within the guidelines. The use of such procurement standards by all local units of government should be encouraged by the County.

21. The County should itself practice and assist other local governments in the design and implementation of in-house recycling, waste reduction, and procurement programs. Staff consultation and informational resources from the Solid Waste Division should be made available to local governmental units. Also, intergovernmental forum topics should be devoted to the development of desired programs within local and county governments.

22. Document the recycling levels from the public sector's wastestream. Documentation of recycling levels is helpful in evaluating and monitoring the progress of recycling activities. Local governments and independent recycling operators are encouraged to report waste generation and recycling volumes within the public sector to facilitate regional planning.

Construction/Demolition Waste

This component of the wastestream originates from all of the above sectors: residential, commercial/institutional/industrial, and public sectors. In larger quantities, though, it often arrives at the disposal site in segregated loads. The reduction in this component of the wastestream will be critical in the County's ability to meet its recycling goals. The following recommendations regarding recycling are proposed for this component of the wastestream:

23. Goals for the reduction in this component of the wastestream should be parallel with other County recycling goals. The County should encourage steps leading towards a minimum reduction in this waste component of 15 percent in three years and 25 percent within five years. **This action will require the active involvement of the Forest Preserve District in limiting the materials to be accepted at its landfill sites.**

24. The implementation of programs to achieve the goals stated in recommendation 1 should proceed in a phased manner. The following methods to reduce or recover materials should be considered. They are listed in ascending order of anticipated costs for implementation.

    a. Non-acceptance of uncontaminated soil/clay at disposal sites unless used for cover operations or grading.

    b. Limitation of asphaltic aggregate and concrete/brick and encouragement of recycling/re-use.

    c. Limitation and diversion of wood products and similar products for alternative use.

    d. Separation of mixed aggregate materials by size and classification for re-use.

25. Provision of equipment and facilities for construction/demolition waste recycling should be sought first from private developers. The implementation of any of the methods discussed in recommendations would logically first be incorporated at the present disposal sites. Other entrepreneurial interests may exist to provide facilities for this action throughout the county.

Municipal Wastewater Sludge

26. The Forest Preserve District should take steps to prohibit the landfilling of sludge in the county by 1997. Municipal wastewater sludge has not been specifically addressed in Plan-1990. However, as indicated in Section 4.0 of Appendix A-1, sludge, along with dirt and clay, represents a significant amount of waste currently disposed of at landfills in DuPage County. This material can be recycled by methods including land application and composting. This allows for two years of system development and five years for implementation and possible construction of alternative facilities.

LANDSCAPE WASTE

Through the enactment of Public Act 85-1430, the Illinois General Assembly has mandated the diversion of landscape waste from landfills throughout the State. While this important legislation will help extend the life span of existing landfills, the successful diversion of source separated landscape waste requires

the development of reliable alternative collection and processing capability for this component of the wastestream. As the principal solid planning agent for the area, the County must assume the responsibility for assuring that the infrastructure necessary for sustained compliance with Illinois Public Act 85-1430 is established and maintained. To achieve this goal, the following recommendations which address the provision of an integrated landscape waste management system for the planning area are proposed:

27. The County should work in cooperation with the State and the municipalities to intensify public education campaigns which promote landscape waste reduction and backyard composting. An effort should be made to encourage individual homeowners to manage more of the landscape waste they generate in their own backyards. By practicing landscape waste reduction techniques and composting, residents will not only save time and money, they will also help to relieve the burden placed upon the area's landscape waste diversion system. Intergovernmental cooperation should be utilized in order to mobilize the resources necessary to develop general program themes and publications which can be used as part of distinctive municipal programs tailored to meet the specific needs of each community.

    One prime example of landscape waste reduction which should be strongly emphasized is the desirability of not collecting grass clippings for off-site disposal. The odor generation problems associated with the processing of grass clippings which were experienced at local composting and land application facilities during the months following initiation of the landscape waste ban is indicative of the inherent problems which are encountered when this material is source separated and collected for processing. All of the educational programs implemented within the County should address the advantages of leaving grass clippings on the lawn as a means of landscape waste reduction.

28. Efforts should be made to promote uniformity among the various landscape waste collection programs operating within the planning area. As the merits and weaknesses of the various approaches to collecting landscape waste become more apparent, the County should endorse those collection procedures which have been shown to provide the most efficient and effective service for local residents. The ultimate goal of this strategy should be

the establishment of baseline uniformity among the landscape waste collection systems operating within the planning area. By introducing some degree of consistency regarding collection methods and material preparation requirements, the difficulties that variations in these factors can pose for regional disposal facilities can be alleviated. The creation of relatively homogeneous landscape wastestream will simplify operations at regional composting and land application sites.

One case in point is the use of biodegradable bags for landscape waste collection. The concerns of composting and land application facility operators regarding the problems associated with plastic biodegradable bags served as the impetus for haulers to require homeowners to use paper bags for landscape waste collection throughout the County. While the paper bags are more acceptable than the plastic bags, there is conclusive evidence that landscape waste diversion systems which do not utilize single-use, biodegradable bags of any type tend to be more efficient. In order to avoid the problems and additional costs associated with this practice, the County should take appropriate steps to discourage the use of biodegradable bags for collection of landscape waste. Instead of utilizing the single-use paper bags, municipalities and waste haulers should move towards the use of durable rigid plastic containers as appropriate.

29. The County should monitor the adequacy of available landscape waste disposal capacity and (if required) continue to provide a processing facility for the diverted wastestream. The long-term capability of existing land application and composting facilities to accommodate the landscape discarded in DuPage County remains relatively untested at the time of preparation of Plan-1990. A lack of reliable information regarding landscape waste generation and per household set-out rates for the planning area makes it impossible to gauge the adequacy of available processing capacity.

What has become clear since the implementation of t h e landscape waste ban is that a vast majority of the municipalities have not developed an independent capability to reprocess landscape waste collected within their corporate boundaries. It is anticipated that the municipalities will continue to depend upon regional composting and land application sites for disposal of landscape waste. Moreover, it appears that the development and operation of a sufficient number of facilities will require cooperative efforts on the part of the public and private sector. Consequently, the

County should continue to monitor the availability of landscape waste disposal capacity and must act, both directly and in cooperation with the private sector, to assure the presence of adequate landscape waste processing facilities for DuPage County.

30. To assure maximum compliance with Illinois Public Act 85-1430, the County should continuously monitor and evaluate the efficacy the diversion system. The State of Illinois is the first in the nation to mandate the comprehensive diversion of landscape waste from landfills. The innovative nature of this policy lends itself to implementation difficulties. During the first year to 18 months of the diversion effort, all aspects of the landscape waste diversion effort - public education, collection, disposal - will endure an extended shakedown period. Problems ranging from clarifying the definition of landscape waste to development of end markets for compost will be addressed, often in an ad-hoc manner.

Even after the majority of the initial "bugs" have been worked out, the value of monitoring and evaluating the County's landscape waste diversion system should not be discounted. By maintaining an overview of the multitude of municipal collection systems and the processing facilities which they depend upon, the County may help local officials anticipate and avoid disruptions in service. To this end, the County should act both as clearinghouse for information and as a facilitator of candid intergovernmental communication regarding landscape waste collection and disposal alternatives. The County should also utilize its data gathering capability to obtain more accurate information regarding landscape waste generation rates for the planning area. The availability of this data will be crucial for the determination of the long-term landscape waste disposal capacity needs of DuPage County.

7.1.2 Phase II - Materials Recovery By Waste Processing

This phase of the County's proposed solid waste management system includes the application of various materials recovery options after source-separation efforts. Although the implementation of Phase I will have a substantial impact on reducing the overall waste quantity to be disposed, further reduction in the wastestream is possible by the use of post-consumer mixed waste processing. **It is recommended that the County**

pursue implementation of a system which provides for materials recovery from the mixed wastestream by the use of waste processing technology. Specific recommendations for action include the following:

31. A siting study should be conducted to determine possible sites and select a site or sites. The siting study should consider the site criteria described in Section 5.0 of Appendix A-3 along with more specific criteria which may be developed at the time. The evaluation of sites should consider the availability of local waste disposal sites including the two existing landfills.

32. The desired performance criteria for the processing facility should be determined. In order to fairly evaluate vendor capabilities, the desired processing capabilities of the system should be defined. The principal goal for the facilities should be the recovery of recyclable materials. The capability to remove materials in order to reduce the apparent toxicity of the processed waste should also be evaluated. Additionally, the delivery standards for the disposal facility should be incorporated into the performance criteria to the greatest extent possible. **A minimum goal of an additional reduction in the wastestream of 10 percent should be sought as a result of mixed waste processing. Future flexibility in the design of the system should be sought in order to be responsive to shifting materials market conditions and changes in final disposal facilities.**

33. A survey of commercially viable technologies and vendors proposed to meet the performance criteria should be performed. An effective way to perform this evaluation is to issue a request for letters of interest from firms interested in providing such facilities to the County and through a series of interviews determining the relative capabilities of interested firms. This process can be used to develop a shortlist of vendors which the County views as capable to perform the desired services and qualified to submit bids for a project.

34. The County should consider implementing a system to direct the flow of waste to the designated materials recovery facility(ies) (Refer to discussion of Flow Control in Section 6.5). The implementation of materials recovery by mixed waste processing can be expected to represent a higher system cost than comparative disposal options which may be locally available and which do not employ materials recovery by mixed waste processing. For

example, it is likely that in the short-term it would be cheaper for waste haulers to dispose of waste at surrounding landfills where waste processing is not required.

In order for a project developer to avoid building a facility which is not used because of this higher standard of treatment imposed by the County and, consequently, cost, it can be expected that any bidder for the provision of such a facility would require the County to guarantee either a minimum delivered waste quantity or payment in lieu of waste delivery. Such requirements are referred to by the waste industry as "put or pay" guarantees and provide the financial guarantee to the facility developers that they will recoup their costs. A common way that government provides this guarantee to private industry is through the imposition of waste flow control provisions which mandate the flow of waste generated within the governmental jurisdiction to designated facilities.

35. The County should bid the provision of the defined materials recovery facility(ies) on a full service basis. Using this procurement approach the County can select a project developer which can design, build and operate the facility for a set cost (or series of costs). Under this method of selection, the project developer assumes responsibility for the design, construction and operation of the facility.

Recommendations made above regarding the bidding for the provision of facilities may not be required if the facilities are provided by the current landfill operators as a result of negotiations for the extension of operating contracts by the Forest Preserve District. This possible action will require further discussion as the continuing role of the two existing landfills in the County's long-term solid waste management system is defined.

7.1.3 Phase III - Final Waste Processing And Disposal

This phase of the County's proposed solid waste management system includes final processing and disposal components. There are four broad categories for waste management options after Phases I and II including waste transfer; combustion (waste-to-energy); landfilling; and "other" processing and disposal options including

out-of-county disposal. Some of these options are actually further processing methods for waste but are included as Phase III options because of their usual classification in the category of disposal. These options have been described in order to aid in future discussions on final processing and disposal methods. Any of the alternatives may be implemented in conjunction with use of the existing landfills. As the County selects new final processing and disposal options in the future, it will have to consider applicable regulations and State Statutes for such facilities, including the State's hierarchy of solid waste management, as well as the following recommendations.

WASTE TRANSFER

If it is determined that waste transfer is to be implemented, the following recommendations should be considered:

36. The availability of in-county disposal capability should be determined. If in-county disposal will be available for an extended period of time, the provision of transfer capability may be unnecessary. However, even if in-county disposal capability will be available for an extended period of time, the practicality and desirability of providing transfer capability in the county should be evaluated as a mechanism to improve waste transport efficiencies and to minimize local traffic impacts.

37. If waste disposal outside of the county is to be sought, the delivery requirements at the location for disposal should be determined. Although it is conceivable to site and construct a transfer facility which will allow for the transfer of waste to various disposal sites, it is preferable to know the delivery requirements of the specific site prior to construction of the transfer station(s).

38. If it is determined that transfer capability should be provided, a transfer station siting analysis should be performed. The analysis would include, at a minimum, the determination of waste generation profiles in the county and provide a site screening process to identify possible sites for the placement of one or multiple transfer station(s). Criteria to be used in the evaluation of

site(s) would include those discussed in Section 5.0 of Appendix A-4 as well as any more specific siting criteria developed prior to the start of the analysis.

39. Following the selection of a site or sites identified during the siting analysis, the implementation process generally described in Section 6.0 of Appendix A-4 should be implemented. The local siting approval and construction process will require 4 to 4.5 years to implement and this consideration should be factored in to relative waste management system time lines.

WASTE-TO-ENERGY

If it is determined that waste-to-energy is to be implemented, the following recommendations should be considered:

40. An intent to develop a project must be formally expressed. It has been shown that positive conditions exist for the development of a waste-to-energy project for DuPage County. However, such projects are not easily developed when considering the number of issues which must be addressed. There must be a level of commitment by local decision-makers to aggressively pursue the development of a project. This is true for both implementation by the local unit of government or private business interests which hope to serve the unit of government. Therefore, the first step in an implementation process is for the implementing bodies for the DuPage Solid Waste Management Plan, the Waste Planning/Reduction Committee and the County Board, to endorse project development. Further, the scope of the project and its place in the comprehensive solid waste management system must be defined.

41. The availability of energy markets should be addressed in conjunction with the decision of intent to develop a project. Energy market availability can change over time. Therefore, there is a clear need to assess the availability of energy markets at the time of the decision to develop a project.

42. A site (or sites) should be identified for the project. Site selection, as for any waste disposal facility, can represent one of the most contentious issues with which to deal. The issue does not usually become easier with time because of the increased pressure placed upon available land for other development purposes. This is especially true in DuPage County.

Site consideration and selection for waste-to-energy facilities is dependent upon energy markets but, careful consideration of energy markets can possibly lead to the identification of multiple sites. It is advantageous to project development to identify the site (or sites) as soon as possible.

The above recommendations are fundamental to the implementation of a project. Following these actions the implementation process described in Section 17.0 of Appendix A-4 can be implemented. Although not addressed in Section 17.0, the simultaneous provision of a disposal mechanism for residue from the waste-to-energy facility must also be included in project development. This may consist of a landfill in the county or a landfill located outside of the county.

LANDFILLING

The following recommendations should be considered relative to the provision of landfill capability for DuPage:

43. The availability of the two existing landfill sites must be ascertained. In Appendix A-1 it was stated that the two existing landfills, Mallard Lake and Greene Valley, have approximately 63,309 cubic (gate) yards of disposal capacity remaining at the end of July 1990. The manner in which this capacity will be utilized is central to the determination of the county's future solid waste management system. Plan-1990 has assumed that the two landfills will be filled to permitted capacity based on the intent expressed in the 1990 amendments to the operating contracts for the two sites.

    The actions described for Phases II and III of the proposed solid waste management system will allow for an extended period of time for the operation of the landfill sites. However, at some future date the existing landfills will be filled to permitted capacity. Steps to provide for new landfill capacity will be required well in advance of the time when the existing sites will be filled.

44. If so decided, an intent to develop the project must be formally expressed. If it is determined necessary to develop a new landfill facility(ies) by the County, there must be a level of commitment expressed by local

decision-makers to aggressively pursue the development of the project. This is true for both the implementation by the local unit of government or private interests which hope to serve the unit of government. Therefore, the first step in an implementation process is for the implementing body for the DuPage Solid Waste Management Plan, the Waste Planning/Reduction Committee and the DuPage County Board, to endorse project development.

45. A site (or sites) should be identified for the project. The sites previously identified as potentially useable for landfill sites may not be available in the future. Therefore, a review of potential sites would have to be conducted at the time of discussions to proceed with project implementation.

The above recommendations are fundamental to the implementation of a landfill project. Following these actions, the implementation process described in Section 26.0 of Appendix A-4 can be implemented.

OTHER WASTE PROCESSING/DISPOSAL OPTIONS

Sections 30 and 31 of Appendix A-4 examine possible options for future solid waste disposal including out-of-county and private project alternatives and energy technology alternatives. These options may provide disposal opportunities in the future for DuPage County. However, the current level of development and status of technological and commercial viability are difficult to assess at this time. Therefore, no definite conclusion can be derived at this time for the future use of these options.

46. It is recommended that the County not preclude the possibility, until necessary, of using out-of-county disposal facilities, new private project facilities, or emerging technologies, if such facilities can meet the required assurances for environmental protection, financial commitments and long-term dedicated capacity. Prudent planning requires the County to assume that it must develop adequate long-term means to address the waste disposal needs of DuPage County residents. Although it may be possible to identify a facility outside of DuPage County or employing emerging technologies which would accept part or all of the county's wastes under acceptable terms, no facility with

adequate assurances has been identified to date, and it would not be responsible to act on the assumption that such a project will arise in the immediate future. If, indeed, such a project is identified and determined to be acceptable prior to implementation of the proposed waste-to-energy facility, the Plan can be modified at that time to reflect usage of such out-of-county disposal capacity.

47. The County, in order to assess possibilities, should encourage private project developers to approach it in an unsolicited manner to present potential projects.

7.1.4 Administrative

The following recommendations deal more with administrative requirements rather than specific facilities. They are actions to support overall program implementation.

48. The County should consider providing a mechanism to direct flow of waste to the various identified waste management processes proposed in its solid waste management system (Refer to Section 6.5 for a discussion of flow control). At several locations throughout the appendices to Plan-1990 the advantages to providing a method to direct waste to a designated facility for waste management have been mentioned. In the simplest terms, such a system allows the County to insure that a certain waste type ends up at the appropriate spot for handling in its solid waste management system. However the advantages provided by a method to direct flow for determination of the waste management needs, success of the waste management system, and accountability for the necessity of systems should be obvious. Finally, as the County begins to implement waste management systems which may locally be more expensive than options available to haulers which may not offer the same degree of environmental responsibility, the County may want to prevent the "escape" of waste to these cheaper, but possibly less environmentally-sound, facilities. Public Act 85-14 provides the County with the authority to define the method of disposal for waste generated within the County. The authority is granted only after approval of a solid waste plan and would require the passage of an Ordinance by the County Board to enact.

49. The County will need to insure adequate funding for its aspects of the solid waste management system. In Plan-1990 there are functions which are assigned to the County, functions which may be assigned to the County in the future, and functions which are assumed to be addressed by private industry interests (possibly with

County sponsorship). The existing funding mechanisms for the County's solid waste activities are the surcharge imposed on landfilling and charges applied at the County's landscape waste compost site for the disposal of this type of material. The County will have to continue to examine its available funding sources in order to assure sufficient funds for the support of its programs.

50. The County should solicit letters of intent from border communities about their intended waste disposal. DuPage communities that are partially (33 percent population) within DuPage have been provided the option to participate in the County's program with no formal expression of intent for service. The County should in the near future attempt to better define the final service area for facilities by surveying the border communities for expression of intent.

51. The County must consider the implementation of additional Phase III facilities in the context of apparent availability of the two existing landfills. At the time the review draft of Plan-1990 was prepared the availability of the Mallard Lake and Greene Valley landfills was uncertain. Contract amendments approved by the Forest Preserve District on November 28, 1990 substantially clarified the future availability of the landfills.

Plan-1990 indicates that actions proposed under Phase I of the County's waste management program will apparently allow the two landfills to meet the twenty year planning period needs for the county. Phase II activities could further extend the availability.

Although Plan-1990 relies on the two landfills as the primary final waste disposal mechanism, there may be advantages to implementation of other options discussed for Phase III. The County should consider the relative advantages and disadvantages for proceeding with development of these options and consider the appropriate time(s) for implementation as soon as possible.

52. The County should consider a mechanism of providing mitigative measures for waste management facilities. During the public comment process on Plan-1990 the issue of host community benefits for the areas surrounding waste facilities was raised. The Waste Planning/Reduction Committee has agreed to evaluate and consider mitigation efforts for negative impacts associated with waste management facilities. The mitigation efforts will be considered for the "affected area" whose limits will also be considered by the

Committee during its discussion of the facility. Mitigation efforts for the two existing landfills are recognized as falling under the authority of the Forest Preserve District with no direct input by the Waste Planning/Reduction Committee.

7.2 IMPLEMENTATION TIMEFRAMES AND CONSIDERATIONS

Phase I activities of the County's proposed solid waste management system are already being implemented. Additional actions for implementation have been described in the above recommendations. The key dates to consider for implementation of the total recycling program are that the program must be capable of providing levels of at least 15 percent and 25 percent reduction in the total wastestream by the years 1994 and 1996, respectively, according to Public Act 85-0990. The current and proposed schedule for program implementation should assure compliance with this statutory requirement.

The anticipated timeframe to provide a materials recovery facility as proposed under Phase II of the proposed waste management system would be expected to take 2.5 to 3 years after a decision is made to enter detailed design. Preceding this decision would be several steps including site selection and procurement, as well as the possible requirement of local siting SB-172 review. These two activities alone could be expected to add approximately 1 year to implementation. This anticipated minimum timeframe of 3.5 to 4 years is within the recommended timeframe for implementation of the County total waste minimization efforts defined by Phases I and II. However, if the materials recovery facility is designed as a transfer facility to transfer waste out of the county to a (yet unidentified) disposal site, the time line will likely exceed the current contract timeframe for the principal method of disposal of DuPage waste which is landfilling at Mallard Lake and Greene Valley. This statement is not made for the purpose of recommending that Mallard Lake and Greene Valley remain open beyond current contract periods, but rather to show that the

provision of alternative disposal facilities could potentially result in a shortfall in local disposal capability.

For the provision of new final waste processing/disposal (Phase III) facilities the potential shortfall may be more acute. For instance, it is estimated that the implementation timeframe for a waste-to-energy facility would be at least 4.7 years after a formal expression of intent to develop a project. For a landfill, the expected timeframe would be nearly 5 years after expression of intent to develop a project.

These timeframes must be considered as necessary lead times from the point at which disposal capability will be unavailable or limited in order to avoid shortfalls in local disposal capability.

plan7

APPENDIX 8-B

DUPAGE COUNTY SWMP
VOLUME 2

Electronic Filing: Received, Clerk's Office 04/19/2023 C001518

February, 1991

DuPage County

Solid Waste Management Plan

Volume 2 of 4

Appendices A-1, A-2, & A-3

Prepared For:
DuPage County Solid Waste
Planning Committee

Prepared By:

Department of Environmental Concerns
Division of Solid Waste

DuPAGE
COUNTY
RECYCLING
PROGRAM

DUPAGE COUNTY SOLID WASTE MANAGEMENT PLAN

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SECTION 1.0
INTRODUCTION

1.1 PURPOSE

The information included in this Appendix establishes a basis for development of a long term solid waste management plan for DuPage County. The Appendix is structured to meet needs assessment requirements set forth by the Illinois Environmental Protection Agency (IEPA) as activities under a solid waste planning grant.

The purpose of this Needs Assessment is to collect and collate as much information as possible concerning the amount of waste generated in the planning area; the methods by which that waste is disposed; the remaining capacity at disposal sites used by entities in the planning area; and the movement of waste into and out of the planning area.

The amount of waste generated during the planning period which cannot be disposed of by existing capabilities is defined as a "waste disposal need" during the planning period. Plan-1990 addresses waste generated in DuPage (and its border communities) and assesses the disposal need for DuPage. Waste which is currently exported out of the county for disposal in surrounding counties is considered as DuPage waste subject to this assessment of needs. Alternatives are then evaluated in the solid waste planning process to provide for the waste disposal need as well as a program for waste reduction, recycling and diversion. A variety of alternatives may be evaluated for solid waste management during the solid waste planning process. However, the State of Illinois has established a hierarchy for future waste disposal in the State. While realizing that landfilling of waste will still be required, the State of Illinois, in Public Act 84-963, established a hierarchy designed to minimize landfilling in the future. The hierarchy, listed in descending order of preference, includes:

1. Waste reduction at the source;
2. Waste reduction by recycling and reuse;
3. Combustion with energy recovery;
4. Combustion for volume reduction only; and
5. Landfilling.

1.2 CONTENTS

This Appendix is divided into five sections. The first section includes an introduction describing the purpose and contents of the report.

Section 2.0 describes DuPage County and the planning area. The second section also provides population and employment projections for the planning area. A general description of DuPage County demographics may be found in Appendix C-1, the DuPage County Solid Waste Management Summary Feasibility Report, and is not repeated herein.

Section 3.0 provides information describing current solid waste management systems in the planning area. The section describes waste collection, transportation and disposal practices as well as current recycling activities.

Section 4.0 provides projections for waste generation in the planning area. A description of waste characteristics is also provided.

Finally, Section 5.0 examines current and future waste generation factors coupled with existing and planned capabilities in order to provide an assessment of existing disposal capabilities and future needs.

1.3 Conversion Rates

Throughout this Appendix waste quantities are discussed in

"tons" and "yards" or "cubic yards". The glossary contains definitions for conversion rates.

appa1-1

SECTION 2.0
DUPAGE COUNTY AND THE PLANNING AREA

2.1 BACKGROUND

Located in northeastern Illinois, DuPage County is bordered by Cook County to the east and north, Kane County to the west, and Will County to the south. Figure 2-1 illustrates the location of DuPage County within the State of Illinois. DuPage County's boundaries encompass 332 square miles. The county is divided into nine townships and includes 35 incorporated cities or villages, 23 of which lie wholly within the county. A map of the county identifying the location of individual municipalities is presented as Figure 2-2.

Twenty miles west of Chicago, DuPage County's proximity to the highly urbanized areas of the greater Chicago metropolitan area has historically had a significant impact upon its solid waste management system. DuPage County itself has become more metropolitan over the past 15 years. The major catalyst fueling this change has been the impressive amount of economic development occurring within the planning area. DuPage County has enjoyed an expansion in a variety of commercial sector activities ranging from manufacturing to retail services. Several large corporations have located their home offices and/or research centers within the area. The economic prosperity experienced within the DuPage County over the past ten years has had a clear impact upon its demographic characteristics as well as important implications for this planning effort.

The impressive growth rates experienced in DuPage County since the early 1980's have established it as one of the fastest growing counties in the Midwest. According to projections made by the Northeastern Illinois Planning Commission (NIPC), this expansion is expected to continue over the next twenty years. This rapid

FIGURE 2-1

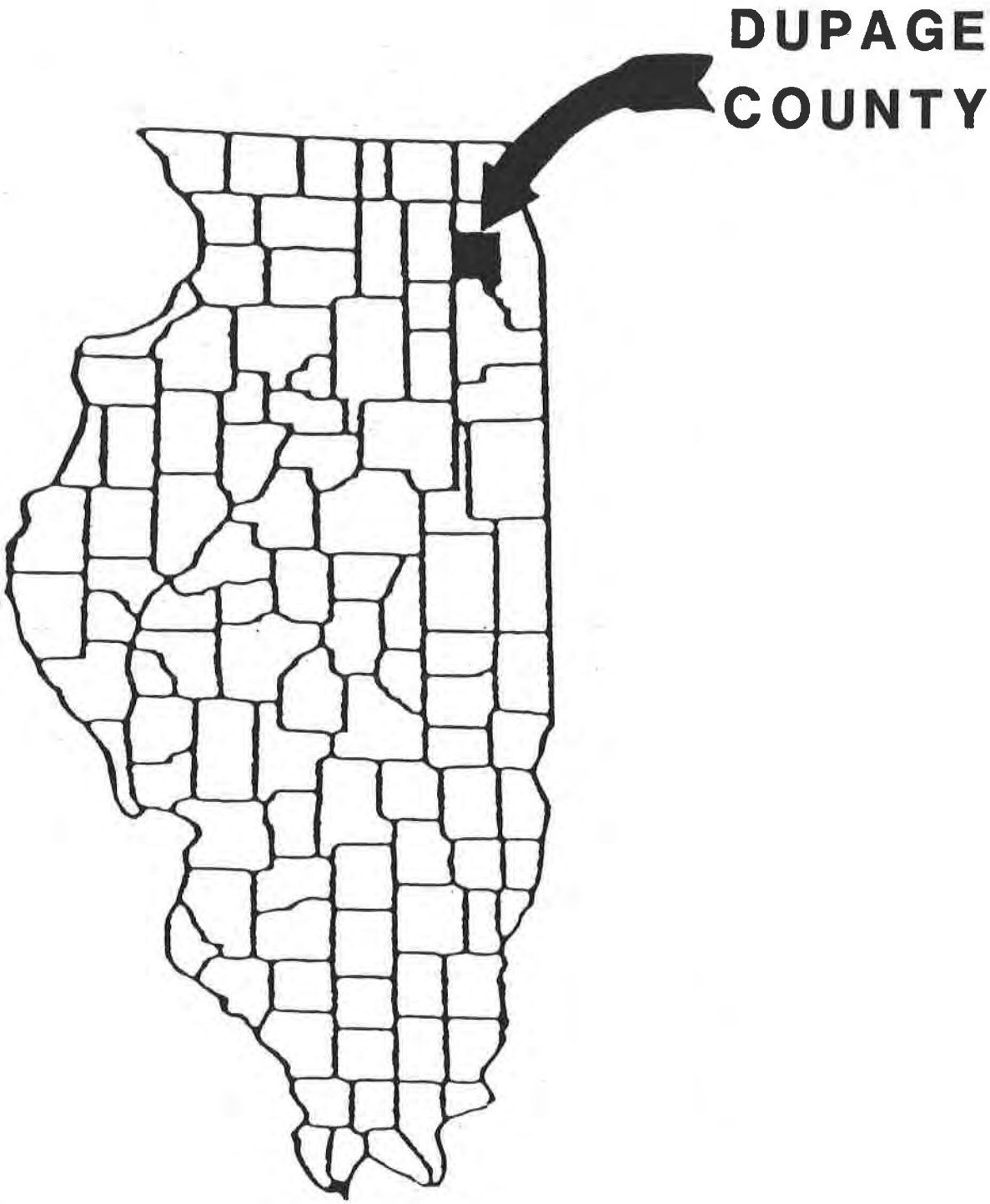
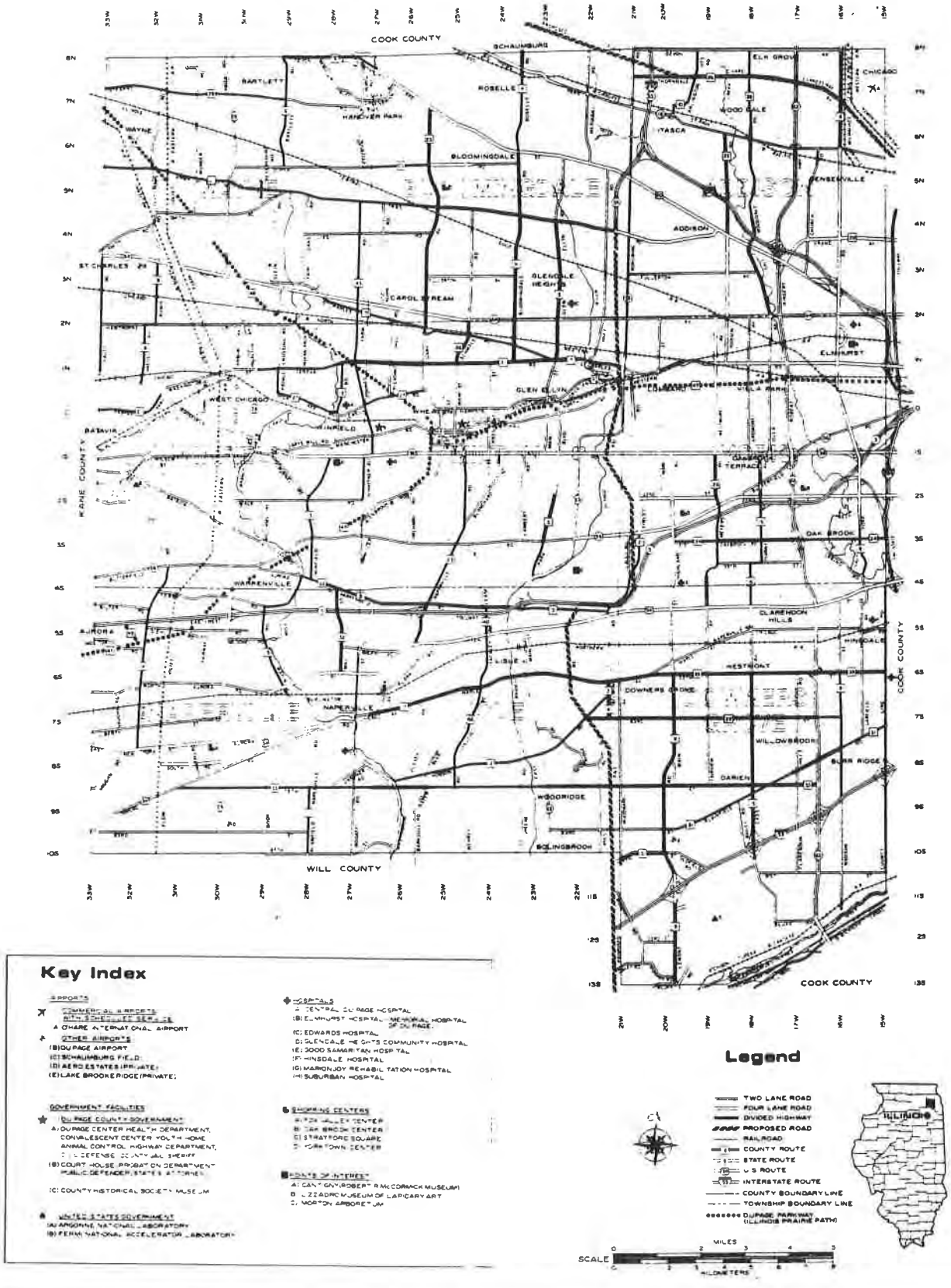


FIGURE 2-2

DuPage County



fluctuation in the demographic characteristics of the planning area will necessitate the continuous monitoring of population and employment trends. This activity would be especially important prior to the construction of any large scale disposal facilities.

2.2 Population Projections

According to the U.S. Census Bureau, approximately 658,876 people resided in DuPage County in 1980. Recent projections indicate that the population will have climbed to 813,806 by 1990, an increase of over 23% in just ten years. By the year 2000 the population is expected to increase another 6% to approximately 922,631 people. Table 2-1 illustrates the population trend for the planning area based upon projections developed by the DuPage County Planning Department. While this analysis seems to show a gradual leveling of the population increases experienced during the 1980's, the number of individuals establishing residency in DuPage County will steadily increase well into the next century.

TABLE 2-1

DUPAGE COUNTY
POPULATION PROJECTIONS

YEAR	POPULATION	CHANGE
1980	658,858	-
1985	713,540	+ 8.3 %
1990	781,200	+ 9.5 %
1995	847,600	+ 8.5 %
2000	901,178	+ 6.3 %
2005	936,300	+ 3.9 %
2010	985,000	+ 5.2 %

SOURCE: DuPage County Planning Department

The primary force behind the sustained increase in the population of DuPage County is the heathy local economy. Considered to be one of the most affluent counties within the United States, the per capita income for DuPage County residents was estimated at $16,924 in 1987. The economic prosperity experienced within the area has important implications for this planning effort. For example, the relative affluence found within the county will translate into a higher than average per capita waste generation rate.

A significant increase in the total assessed valuations for the county has accompanied this steady economic growth. During the 1980's, the total assessed valuations for DuPage County more than doubled - exceeding $12 billion by 1989. Table 2-2 offers a more detailed representation of the change in the total assessed valuations for the planning area from 1980 to 1989.

TABLE 2-2

DUPAGE COUNTY
TOTAL ASSESSED VALUATIONS

YEAR	TOTAL ASSESSMENT (Millions)	CHANGE
1980	$ 5,572	-
1981	$ 6,324	+ 13.5 %
1982	$ 6,712	+ 6.1 %
1983	$ 6,872	+ 2.4 %
1984	$ 7,085	+ 3.1 %
1985	$ 7,458	+ 5.3 %
1986	$ 8,116	+ 8.8 %
1987	$ 9,486	+ 16.9 %
1988	$ 10,641	+ 12.2 %
1989	$ 12,099	+ 13.7 %

SOURCE: DuPage County Clerk's Office

A portion of this increase can be attributed to the construction of residential dwellings intended to house the influx of individuals finding employment within the county. By 1985 a total of 169,040 single family households and 83,010 multiple family households had been established in DuPage County (67% and 33% of the total, respectively). Projections made by the Planning Department indicate that we can expect the total number of households to increase by about 33% by the year 2000. The growth in the number of multiple family dwellings during this period is expected to narrow the gap between single family and multiple family households. By 2000 it has been estimated that there will be 202,210 single family units (39.6%) and 334,640 multiple family units (60.4%). Table 3-3 illustrates in full the predications made by the Planning Department with regards to housing trends, breaking down the total number of households into multiple or single family units when said data was available.

TABLE 2-3

DUPAGE COUNTY
PROJECTED NUMBER OF RESIDENCES

YEAR	SINGLE FAMILY	MULTIPLE FAMILY	TOTAL	CHANGE
1980	153,843	80,845	234,688	-
1985	169,040	83,010	252,050	+ 7.4 %
1990	n/a	n/a	288,533	+ 14.5 %
1995	n/a	n/a	315,882	+ 9.5 %
2000	202,210	132,430	334,640	+ 5.9 %
2005	n/a	n/a	343,880	+ 2.8 %
2010	213,900	154,500	368,400	+ 7.1 %

SOURCE: DuPage County Planning Department

2.3 Employment Projections

One of the manifestations of the planning area's economic strength is the steadily increasing number of people finding jobs within DuPage County. Employment projections issued by the Planning Department for a thirty year period from 1980 to 2010 are featured in Table 2-4. These calculations reveal that in 1985 approximately 376,630 people were employed by firms located within the county. Projections show this figure increasing to 415,857 (up 10.4%) by 1990. The rapid expansion of the job market within DuPage County is expected to continue throughout the 1990's. By the year 2000, the estimated number in the work force will have reached about 521,600 - a dramatic 28% increase in just 15 years. Employment statistics are extremely valuable as a means of gauging commercial waste stream generation rates.

TABLE 2-4

DUPAGE COUNTY
EMPLOYMENT PROJECTIONS

YEAR	EMPLOYMENT	CHANGE
1985	376,630	-
1990	415,857	+ 10.4 %
1995	460,112	+ 10.6 %
2000	521,600	+ 13.4 %
2005	591,306	+ 13.4 %
2010	688,420	+ 16.4 %

SOURCE: DuPage County Planning Department

appa1-3/2

SECTION 3.0
EXISTING WASTE MANAGEMENT SYSTEM

3.1 COLLECTION PRACTICES

3.1.1 Northeast Illinois

The Northeastern Illinois Planning Commission (NIPC) published its first report on regional solid waste in 1963. At that time, 10 incinerators and 72 land disposal sites were operating within northeastern Illinois. NIPC reported that only approximately one third of the disposal sites were sanitary landfills, whereas, unsightly open dumps and swine feeding were commonly practiced.

NIPC presented its "Regional Solid Waste Management Plan" in 1976 to recommend a strategy for approaching areawide solid waste management problems. At that time, 30 land disposal sites and 4 incinerators were operating within the region. The primary reason cited for the decrease in the availability of waste disposal facilities was the stricter Illinois Environmental Protection Agency (IEPA) regulations on both land disposal facilities and sources of air pollution. Although the NIPC report in 1976 determined that the region was not facing a crisis situation, it recommended that advanced steps should be taken to plan for future needs. The problems and issues in providing such planning are outlined within the DuPage County Solid Waste Management Summary Feasibility Report.

NIPC presented a revised "Solid Waste Management Plan for Northeastern Illinois" in 1986. The preface commented that the solid waste management system in northeastern Illinois was in a state of transition. Although the plan indicated that the dominant method of disposal had continued to be landfilling, NIPC recognized the possibility of dramatic changes in disposal systems if policies being formulated and adopted by local governments were

implemented. The report estimated that if a broader range of disposal strategies, including waste to energy, recycling and composting, was carried out, the portion of the waste stream which is landfilled could potentially be reduced from 94 percent to 50 percent or less by the year 2000.

In October 1990, the IEPA prepared its fourth annual report on "Available Disposal Capacity for Solid Waste in Illinois." This report indicates that northeastern Illinois, or Region 2, currently has 25 active solid waste landfills and 1 waste-to-energy facility. These facilities are listed in Table 3-1 and their locations are shown in Figure 3-1. The region's landfills reported a total available capacity of 167,707,092 cubic yards as of April 1, 1990. Table 3-2 provides a summary of disposal practices by county. Available data on landfill capacity and disposal volumes was used by the IEPA to estimate the life expectancy of the existing solid waste capacity in northeastern Illinois. The IEPA report contends that at current disposal rates, the region's capacity is likely to be exhausted between 1995 and 1997. This estimate does not include possible waste reduction impacts through waste diversion and recycling activities expected to occur in the next several years. Although some disagreement exists in the interpretations in the IEPA report, the conclusion that a near-term shortage for solid waste disposal capacity exists is valid.

Provision of additional disposal capacity within northeastern Illinois has been considerably limited in recent years. The most often cited factor affecting the provision of new or expanded waste disposal facilities in Illinois is Public Act 82-682, "An Act Related To The Location of Sanitary Landfills and Hazardous Waste Disposal Sites" (SB-172).

TABLE 3-1
SOLID WASTE DISPOSAL CAPACITY IN NORTHEASTERN ILLINOIS
AS OF 10/90

Facility (reported)	Remaining Capacity (cu. yd.)	Waste Disposed (cu. yd.)	Years Remaining (reported)
COOK			
American Grading Co.	596,957	141,360	4
Chicago Heights Refuse	0	0	0
Chicago Northwest Incinerator		1,322,893	
CID #2 (WMI)	11,179,746	1,728,648	6
Fitz-Mar Landfill	0	120, 569	0
Lake Landfill (WMI)	9,656,286	3,366,508	2
Land & Lakes #3	2,438,728	662,203	4
Land & Lakes #2	946,061	1,009,516	1
Land & Lakes (Dolton)	1,503,590	179,825	3
Paxton Landfill #2	0	891,159	0
Sexton (Lansing)	0	394,874	0
Sexton #2	6,918,975	2,981,025	3
Winnetka Municipal	436,208	43,896	10
DUPAGE			
Greene Valley (WMI)	36,566,505	2,612,508	14
Mallard Lake	29,668,692	4,248,854	7

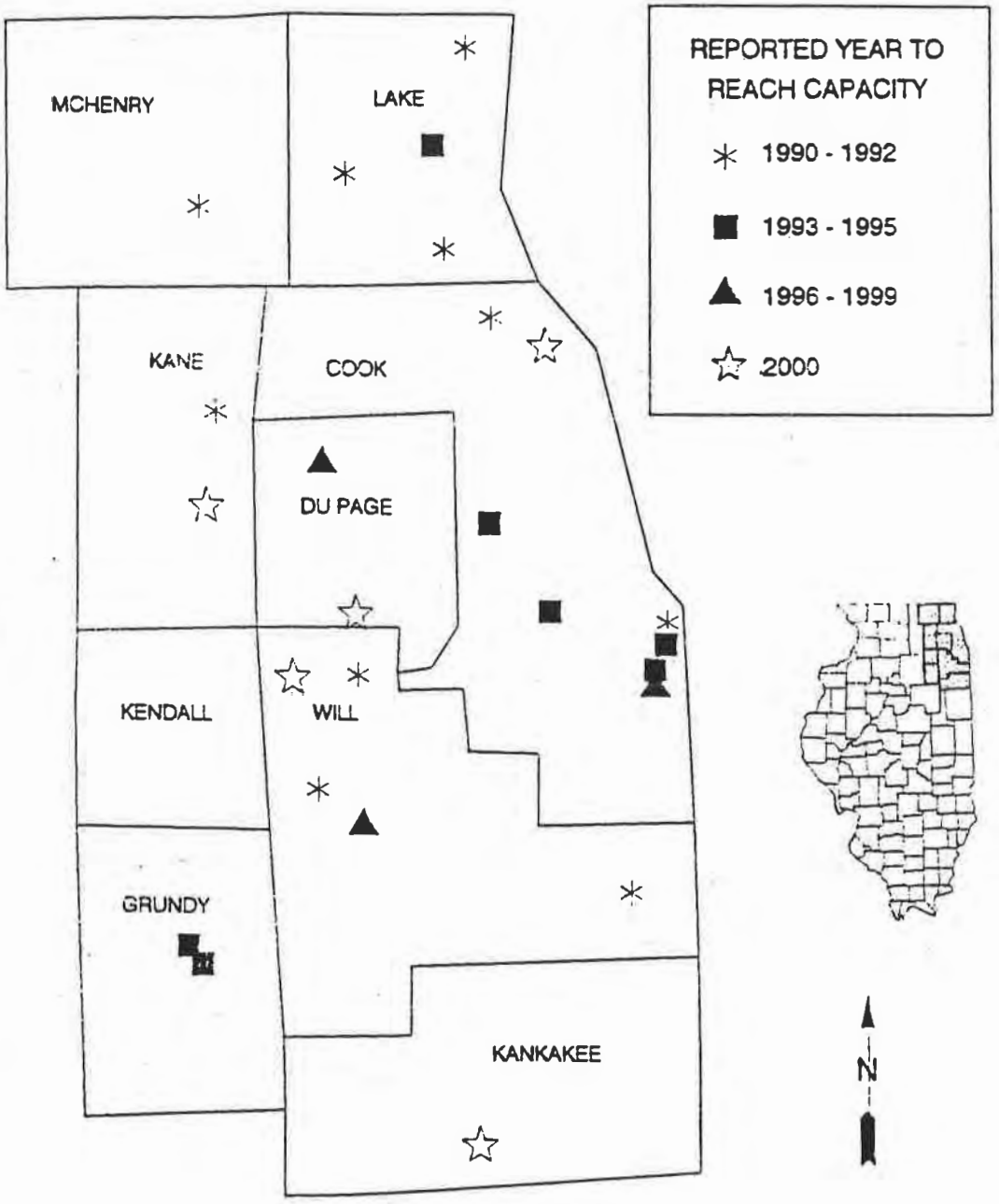
TABLE 3-1 (Cont.)

Facility (reported)	Remaining Capacity (cu. yd.)	Waste Disposed (cu. yd.)	Years Remaining (reported)
KANE			
Settler's Hill (WMI)	21,338,258	1,900,151	11
Woodland Landfill (WMI)	12,376,325	820,442	15
LAKE			
Land & Lakes (Wheeling)	737,654	367,034	2
ARF Landfill Corp.	1,075,289	711,269	2
BFI #2	1,429, 051	1,358,354	1
Lake Bluff Muni. #2	1,080	0	3
Lake County Grading Co.	663,107	136,894	5
Zion Municipal #2	0	2,654	0
MCHENRY			
McHenry Co. Sanitary Landfill	92,953	57,346	2
WILL			
Wheatland Prairie	10,432,199	375,403	28
CDT Landfill Corp.	606,680	953,252	1
Land & Lakes (Lemont)	592,160	521,444	1
Beecher Development	5,789,058	1,210,942	2
ESL, Inc.	890,500	120,483	7

Source: IEPA, Available Disposal Capacity for Solid Waste in Illinois, October, 1990

FIGURE 3-1

REGION 2 - 1990 ACTIVE NON-HAZARDOUS LANDFILLS SUBJECT TO STATE FEE



SOURCE: IEPA, AVAILABLE DISPOSAL CAPACITY FOR SOLID WASTE IN ILLINOIS, OCTOBER, 1990

TABLE 3-2
SOLID WASTE DISPOSAL AND CAPACITY BY COUNTY
1990

COUNTY	TOTAL WASTE GENERATED (cu yds)	TOTAL WASTE DISPOSED (cu yds)	TOTAL REMAINING CAPACITY (cu yds)
COOK	22,145,615	12,842,476	33,676,551
DUPAGE	2,551,840	6,861,362	66,235,197
KANE	1,291,097	2,720,593	33,714,583
LAKE	2,509,850	2,576,205	3,905,101
MCHENRY	688,344	57,346	92,953
WILL	859,783	3,181,524	18,310,597
TOTAL	30,046,529	28,239,506	155,934,982

Source: IEPA, Available Disposal Capacity for Solid Waste in Illinois, October, 1990

The SB-172 process applies to Regional Pollution Control Facilities (RPCFs). State Statutes define a RPCF as any waste storage site, sanitary landfill, waste disposal site, waste transfer station, waste treatment facility or waste-to-energy facility that accepts waste from or that serves an area that exceeds or extends over the boundaries of any local general purpose unit of government. Excluded from the definition of Regional Pollution Control Facility are:

1. sites located within the boundary of a local general purpose unit of government and intended to serve only that entity;

2. waste storage sites regulated under 40 CFR, Part 761.42;

3. sites used by any person for waste storage, treatment, disposal, transfer, or incineration operation for wastes generated by such person's own activities, when such wastes are stored, treated, disposed of, transferred or incinerated within the site owned, controlled or operated by such person, or when such wastes are transported within or between sites owned, controlled or operated by such person;

4. sites at which the State is performing is performing removal or remedial action pursuant to Section 22.2 (of the Act); or

5. sites used by any person to specifically conduct a landscape waste composting operation; abandoned quarries used solely for the disposal of concrete, earth materials, gravel or road construction debris conducted by a unit of government or underground construction activities conducted by a public utility company; or regional facilities as defined in the Central Midwest Interstate Low-Level Radioactive Waste Compact.

A proposer of a RPCF must not only seek a permit from the IEPA but must also first file a site approval request with the local government (siting authority) in which the facility is to be located. The requirements of SB-172 set out specific and detailed procedural requirements which may be summarized as follows:

1. IEPA will not issue a permit for the new site until the permit applicant can show that the location of the facility has been approved by a county or municipal government;

2. The applicant must comply with certain notice requirements and must present a proposal which meets the site criteria of the law;

3. The public is afforded notice of the proposal and an opportunity to comment on it; and

4. The local officials are assigned the responsibility of examining the application and public comments and must make a determination as to whether the site meets the requirements of the law.

The provisions of SB-172 require the local siting authority to consider the application only within the context of criteria listed below. The SB-172 process as such supersedes local zoning requirements. Criteria to be considered include:

1. The facility is necessary to accommodate the waste needs of the area it is intended to serve;

2. The facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected;

3. The facility is located so as to minimize incompatibility with the character of the surrounding area and to minimize the effect on the value of the surrounding property;

4. The facility is located outside the boundary of the 100 year flood plain or the site is flood-proofed;

5. The plan of operations for the facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents;

6. The traffic patterns to or from the facility are so designed as to minimize the impact on existing traffic flows;

7. If the facility will be treating, storing or disposing of hazardous waste, an emergency response plan exists for the facility which includes notification, containment and evacuation procedures to be used in case of an accidental release; and

8. If the facility is to be located in a county where the county board has adopted a solid waste management plan, the facility is consistent with that plan; and

9. If the facility will be located within a regulated [groundwater] recharge area, any applicable requirements specified by the Board for such areas have been met.

In DuPage County, the local process for siting review is set out in Chapter 25 of the DuPage County Code. The status of development of such procedures at the municipal level is unknown.

The apparent effect of SB-172 is that it has substantially altered the siting of new waste disposal facilities. With increased local control over facility approval, developers are being held to an extremely high standard. Further, the process incorporates a lengthy and often expensive appeal process culminating in potential final decision-making by the Illinois Supreme Court. At the very least, SB-172 has substantially complicated the provision of new waste facilities and is playing a major role in the developing solid waste disposal crisis.

3.1.2 DuPage County

Solid waste generated within DuPage County is collected by private scavenger services through one of several arrangements including private collection, contract collection, or franchise collection.

Private collection represents the least involvement of local governments. Private haulers compete for customers on an individual basis. The customers pay the collection firm directly and rates are regulated by the open market. The municipal government may require that a license be obtained by the scavenger service. It may also establish by ordinance or resolution, a ceiling on rates for collection and minimum service requirements. This arrangement is practiced in 1 (2.7%) of the 37 DuPage communities.

Contract collection involves local government contracting with a private firm(s) to collect residential wastes. The firm(s) is paid directly by the local government according to the rate negotiated in the contract. Residents may pay for this service through a user fee to the municipality; taxes; or a combination of both of these methods. This arrangement is practiced in 13 (35.1%) of the 37 DuPage communities.

A franchise collection arrangement is very similar to a contract arrangement. In this system, a private firm(s) is contracted to collect wastes within the community. However, the firm(s) is responsible for billing the residents. This arrangement is practiced in 23 (62.2%) of 37 DuPage communities.

In June 1990, a waste collection survey (copy at end of this section) was conducted among the 37 communities within DuPage County. Table 3-3 (at the end of this section) summarizes the arrangements that are being used for residential refuse, recycling, and yard waste collection (revisions were made in January 1991). Additional comments for each community are provided in Table 3-4 (at the end of this section). Waste collection in the unincorporated areas of the county is generally unregulated. The exception is Downer's Grove Township where collection firms are licensed by the township. Collection services are either privately arranged or, in some cases, residents may haul their own refuse to a sanitary landfill. In most cases, private arrangements are also made for commercial and industrial waste collection.

Over 22 different scavenger firms collect residential wastes within DuPage County. A comprehensive list of residential, commercial, and/or industrial scavenger firms operating within DuPage County may be found in Table 3-5 (at the end of this section).

Waste Collection Survey
June 1990

Name of Municipality: _____

Your Name and Title: _____

Please name the Individual(s) or Committee(s) responsible for Solid Waste Planning, Recycling, and/or Landscape Waste programs:

_____

_____

_____

Please provide population statistics of your municipality:

_____numerical total of citizens within your municipality

_____% single family homes

_____% multi-family homes (define multi-family: _____)

The following questions request information concerning waste haulers and collection contracts. Since several municipalities contract with different haulers for different functions, collection information will be requested for each of the following areas: refuse, recycling, and landscape waste.

REFUSE

1. Please indicate your refuse collection approach:

   _____ CONTRACT--municipality has contract with hauler(s) whereby municipality is billed for entire service area by hauler(s) and billing is done by the municipality
   _____ FRANCHISE--municipality licenses or otherwise regulates hauler(s), but billing is done by the hauler(s).
   _____ PRIVATE--applies only to those municipalities that do not regulate collection.

2. Name of refuse hauler(s): _____

   Expiration date of the existing contract: _____

   Contact person from the firm: _____

3. Please indicate the current monthly refuse collection rates (per residence) for each of the following: (If applicable, please note any price differentials for curbside or backdoor services.)

   single family residential_____

   multi-family/apartments (if available)_____

   commercial/industrial (if available)_____

4. Were administrative and billing costs included in the quoted monthly refuse rates (if, for example, the billing is performed by the municipality)? _____yes _____no

   If not, please explain._____

5. Does the municipality subsidize refuse collection costs? ____yes ____no If yes, please explain._____

   _____

6. Are senior citizen (or other) discounts available?_____

   _____

7. Are bulk items allowed? _____yes _____no

   If so, please indicate the collection rates and limitations.

   _____

8. Are there any particular collection restrictions (i.e., bags only--no cans)?

   _____

9. What is the frequency of refuse collection?_____

10. Is reporting of the amount of refuse collected required by the contract? _____yes _____no

    If so, what was the amount of waste collection for the last full year? Please indicate the span of time this figure covers.

    _____

RECYCLING

11. Does your municipality have a drop-off recycling center?

    _____yes _____no (If yes, please answer questions 12-14)

12. Who supervises the facility?_____

13. What materials does the drop-off facility accept?

_____newspaper _____aluminum _____glass ____HDPE plastic

_____motor oil _____others

14. Is the drop-off facility compensated for its services in any way other than revenues generated from the sale of materials (such as a diversion credit or subsidy from the community)?
_____yes _____no If yes, please explain.

_____

_____

15. Does your municipality have a curbside recycling program?

____yes ____no (if yes, please answer questions 16-22)

16. Name of curbside recycling hauler(s):_____

Expiration date of the current contract:_____

17. Please indicate the current monthly curbside recycling collection charge per residence:

_____

18. How are residents billed?_____

_____

19. What materials are included in the curbside pick up?

_____newspaper _____aluminum _____glass _____HDPE plastic

_____others

20. Who provides the curbside collection containers? (No response indicates no containers.)

____resident ____municipality ____county _____other

21. What type of containers are supplied to residents?

shape:_____ capacity:_____

22. What is the frequency of curbside collection?_____

Are recyclables and refuse collected on the same day?_____

23. What is the total weight of material recycled throughout your municipality in the last full year? Please indicate the span of time this figure covers._____

24. Briefly describe your municipality's educational activities concerning recycling. Please enclose any materials regarding recycling that you are currently circulating.

_____

_____

_____

25. **Please identify any organizations that are significantly involved with the recycling effort in your municipality.**

Organization	Contact Person	Phone Number

LANDSCAPE WASTE

26. Name of landscape waste hauler(s):_____

Expiration date of the existing contract:_____

27. Please indicate the method in which residents are charged and the costs for the collection of their landscape waste.

_____

_____

_____

28. Please indicate the types of landscape waste which are acceptable for collection (i.e, leaves and brush only). Also, please describe any qualifications or restrictions concerning the collection of landscape waste (i.e., size requirements).

_____

_____

_____

29. What type of containers can be used? Are there any bundling requirements? Also, if specially designed stickers/tags or bags are used, where are they available?

_____

_____

30. What will be the collection season for landscape waste (for example: April-November)?

_____

31. Briefly describe your municipality's educational activities concerning landscape waste. Please enclose any current landscape waste literature which you are circulating.

_____

_____

_____

32. Please indicate, if available, the total weight of landscape waste collected in the last full year? Please include the span of time this figure covers.

_____

PLEASE RETURN THIS FORM BY JUNE 20, 1990.

TABLE 3-3

DUPAGE MUNICIPAL RESIDENTIAL WASTE COLLECTION OVERVIEW
JUNE 1990 (REVISED JANUARY 1991)

Community	Collection Approach	Licensee/Contractor	Refuse Mo. Cost	Recycling Mo. Cost	Yard Waste Cost
Addison (A,B,SD,HD)	C	BFI	9.50	NA	1.90/month or 22.80/year
Aurora (A,B,TB)	C	BFI	7.51	NA	1.00/bag or tag
Bartlett (A,B)	F	Able Disposal	10.75	1.45	
		Arc Disposal	10.05	1.45	
		BFI	11.00	1.45	1.20/bag or tag
		Elgin-Wayne	11.00	1.45	
		Monarch Disposal	9.55	1.45	
Batavia (A,B,TB)	C	TCS Services	7.00	NA	0.00
Bensenville (A,B)	C	BFI	8.09	NA	3.41/month
Bloomingdale (A,B)	F	BFI	10.59	1.38	1.00/bag or tag
Bolingbrook (A,B)	C	A&A Crown Disposal	6.00	2.00	1.05/bag or tag
Burr Ridge (A,B)	P	A&W Disposal	9.25	0.00	1.00/bag or tag
		Crown/Burr Ridge	9.55	1.75	
		Clearing Disposal	10.00	1.75	
Carol Stream (A,B)	F	Elgin Wayne Disposal	8.02	NA	1.32/bag or tag
Clarendon Hills (A,B,SD)	F	Rot's Disposal	10.50 (CS) 16.65 (BD)	included in refuse cost	1.30/bag or tag
Darien (B)	F	Rot's Disposal	1.30/bag	0.00	1.30/bag or tag
Downers Grove (B)	F	Rot's Disposal	1.25/bag	0.00	1.25/bag or tag
Elk Grove (A,B)	F	Garden City	10.10	1.60	.50/bag or tag, no charge for leaves and large bundled brush
Elmhurst (A,B,TB)	C	BFI-Vander Molen	8.68	NA	1.25/bag or tag
Glen Ellyn (A,B,SD)	C	Laidlaw Disposal	9.10 (CS) 13.95 (BD)	NA	.50/bag or tag
Glendale Heights (A,B,SD)	F	BFI	9.10	2.40	1.00/bag or tag
Hanover Park (A,B,SD)	F	Laidlaw Disposal	9.74	1.76	1.00/bag or tag
Hinsdale (A,B,SD,TB)	C	Rot's Disposal	18.35	2.10	included in refuse cost
Itasca (A,B,TB)	C	BFI	8.25	1.00	1.10/bag or tag, free bi-monthly brush pick-up and chipping service
Lisle (B)	F	Rot's Disposal	1.30/bag	0.00	1.30/bag or tag

TABLE 3-3 CONT.

DUPAGE MUNICIPAL RESIDENTIAL WASTE COLLECTION OVERVIEW
JUNE 1990 (REVISED JANUARY 1991)

Community	Collection Approach	Licensee/Contractor	Refuse Mo. Cost	Recycling Mo. Cost	Landscape Cost
Lombard (A,B,SD)	F	Lombard Disposal Suburban Disposal	7.90	1.85	1.50/bag or tag
Naperville (A,B)	F	Fox Valley Disposal N.A.R.C.	10.79	 3.50	included in refuse cost
Oak Brook (A,B,TB)	F	Clearing Disposal, Oak Brook Disposal, Rot's Disposal	9.00 (CS,1x) 10.90 (CS,2x) 12.90 (BD,1x) 17.90 (BD,2x)	2.25	1.28/bag or tag, 12.33/cu.yd. unbundled waste, 117.32 total rental
Oak Brook Terrace (A,B)	F	Clearing Disposal	7.80	1.55	1.28/bag or tag
Roselle (A,B,SD)	F	BFI	7.70 (HOA) 8.60 (SF)	2.35	1.00/bag or tag
Schaumburg (A,B)	F,P	Laidlaw Disposal	10.39	included in refuse cost	included in refuse cost
St. Charles (A,B,TB)	F	Fox Valley Disposal	1.01/bag	0.00	1.01/bag or tag
Villa Park (A,B,TB)	C	Villa Park Disposal	8.92	NA	1.45/bag or tag
Warrenville (A,B)	C	Fox Valley Disposal	7.90	0.00-PP	1.10/bag or tag
Wayne (A,B)	F	Able Disposal Acorn Disposal Monarch Disposal	11.00 11.50 11.25	1.50	1.30/bag or tag 1.00/bag or tag, or 5.00/month 1.50/bag or tag
West Chicago (A,B,SD)	F	Laidlaw Disposal	7.55	2.04	1.40/bag or tag
Westmont (A,B,SD,TB)	C	Westmont Disposal	3.40	0.00	1.40/bag or tag
Wheaton (B)	F	Fox Valley Disposal	.94/bag	0.00	.97/bag or tag
Willowbrook (A,B)	F	A&W Disposal Clearing Disposal Crown Disposal Rot's Disposal	9.00 (CS,1x) 14.00 (CS,2x) 14.00 (BD,1x)	 1.70	1.35/bag or tag
Winfield (A,B)	F	Winfield Disposal	1.00/bag	0.00	1.00/bag or tag
Wood Dale (A,B,SD)	C	BFI	13.67	NA	included in refuse cost
Woodridge (A,B)	F	Rot's Disposal	7.72	1.80	1.30/bag or tag

Table Notes

1. **COMMUNITY** - Thirty seven municipalities within DuPage County participated in this survey; townships were not included.

   A: administrative and billing costs are included in the refuse, recycling, and land waste collection fees

   B: bulk item pick-ups are provided by the hauler to residents

   HD: a discount is available to handicapped citizens

   SD: a discount is available to senior citizens

   TB: refuse, recycling, or yard waste collection fees are tax-based in some form

2. **COLLECTION APPROACH**

   C: Contract - municipality has contract with hauler(s) whereby municipality is billed for the entire service area by hauler(s) and billing is done by the municipality

   F: Franchise - municipality licenses or otherwise regulates hauler(s), but billing is done by the hauler(s)

   P: Private - applies only to those municipalities that do not regulate collection

3. **REFUSE MONTHLY COST** - Residents are primarily charged on a monthly basis; however, some residents are charged per bag. Assume collection is single-family curbside once per week unless otherwise indicated.

   CS: curbside
   BD: backdoor
   SF: single family
   MF: multi-family
   HOA: Home Owners Association
   1x: once per week
   2x: twice per week

4. **RECYCLING MONTHLY COST**

   NA: a curbside recycling program does not currently exist

   0.00: a curbside recycling program does exist without a fee to residents

5. **YARD WASTE COST** - Residents are charged either monthly or on a per bag system.

   Bag or Tag: Residents purchase special compostable bags and/or tags to contain and identify yard waste for collection services.

TABLE 3-4

COMMUNITY COMMENTS FOR COLLECTION
(JUNE 1990)

1. **Addison**

   - a 50 percent handicap and senior citizen discount on refuse collection fees is available
   - community adds 10 percent to refuse fee for billing and administration
   - the yard waste collection season is from March to November

2. **Aurora**

   - the entire refuse cost is subsidized through the general fund

3. **Bartlett**

   - curbside recycling fee is included in the monthly refuse bill

4. **Batavia**

   - the village may subsidize refuse fees when excess costs occur

5. **Bensenville**

   - the yard waste collection season is from April to November

6. **Bloomingdale**

   - the curbside recycling fee is included in the monthly refuse bill

7. **Bolingbrook**

   - the village subsidizes the curbside recycling service cost

8. **Burr Ridge**

   - Village does not regulate collection in any manner
   - the curbside recycling fee is included in the monthly refuse bill

9. **Carol Stream**

   - the yard waste collection season is from April to November

10. **Clarendon Hills**

    - the monthly refuse charge is 10.50 month for 2 bags per week, each additional bag is 1.30.
    - a .50/month senior citizen discount on refuse collection fees is available
    - the curbside recycling fee is included in the monthly refuse bill

11. **Darien**

    - collection of refuse and yard waste is charged on a per bag system
    - curbside recycling is operating without a fee to residents

12. **Downers Grove**

    - collection of refuse and yard waste is charged on a per bag system
    - curbside recycling is operating without a fee to residents

13. **Elk Grove**

    - the curbside recycling fee is included in the monthly refuse bill

14. **Elmhurst**

    - the village subsidizes 2.17 of the 8.68 refuse cost

15. **Glen Ellyn**

    - community adds 8 percent to refuse fee for billing and administration
    - a 10 percent senior citizen discount on refuse collection fees is available

TABLE 3-4 CONT.

16. **Glendale Heights**

- a .50/month senior citizen discount on refuse collection fees is available

17. **Hanover Park**

- a 50 percent senior citizen discount on refuse collection fees is available

18. **Hinsdale**

- the village subsidizes 2.35 of the 18.35 refuse cost
- the curbside recycling fee is on the water bill
- a 50 percent senior citizen discount on refuse collection fees is available

19. **Itasca**

- the village subsidizes 3.25 of the 8.25 refuse cost
- the village subsidizes bi-monthly chipping services

20. **Lisle**

- collection of refuse and yard waste is charged on a per bag system
- curbside recycling is operating without a fee to residents

21. **Lombard**

- a 10 percent senior citizen discount on refuse collection fees is available

22. **Naperville**

- residents are not charged collection fees directly, the refuse and the curbside recycling collection costs are drawn from the general revenue fund.

23. **Oak Brook**

- the village subsidizes 9.00/month per residence for refuse collection; the resident pays for upgraded service levels
- the curbside recycling fee is on the water bill

24. **Oak Brook Terrace**

- the curbside recycling fee is included in the refuse collection bill

25. **Roselle**

- a .85/month senior citizen discount for refuse collection fees is available
- the curbside recycling fee is included in the refuse collection bill

26. **Schaumburg**

- the yard waste collection season is from April to November

27. **St. Charles**

- refuse and yard waste collection costs are charged on a per bag system
- curbside recycling is operating without a fee to residents
- bi-monthly brush pick up and fall leave pick up is subsidized through the general fund

28. **Villa Park**

- the village subsidizes 3.92 of the 8.92 refuse cost

29. **Warrenville**

- curbside recycling is operating without a fee to residents

30. **Wayne**

- the curbside recycling fee is included in the refuse collection bill

TABLE 3-4 CONT.

31. **West Chicago**

- a 1.71 senior citizen discount on the quarterly refuse collection fee is available
- the curbside recycling fee is included in the refuse collection bill

32. **Westmont**

- Residents are billed 10.20 per quarter for refuse collection; the village subsidizes remaining costs

33. **Wheaton**

- refuse and yard waste collection costs are charged on a per bag system
- curbside recycling is operating without a fee to residents

34. **Willowbrook**

- the curbside recycling fee is included in the refuse collection bill

35. **Winfield**

- refuse and yard waste collection costs are charged on a per bag system
- curbside recycling is operating without a fee to residents

36. **Wood Dale**

- a 1.00 senior citizen discount on the bi-monthly refuse collection fee is available
- the yard waste collection fee is included on residents' monthly utility bill
- the yard waste collection season is from July to November and March to April

37. **Woodridge**

- the curbside recycling fee is included quarterly in the refuse collection bill

TABLE 3-5

DUPAGE AREA HAULERS

ARC Disposal Co. Inc.
2101 S. Busse
Mt. Prospect, IL 60056

A & W Disposal
325 Washington Avenue
LaGrange, IL 60525
354-2444

Able/West Chicago Disposal
P.O. Box 240
West Chicago, IL 60185
231-9191

Advance Disposal Service
790 Euclid
Elmhurst, IL 60126
834-8392

Anchor Scavenger Service
16 W 719 Hillside Lane
Hinsdale, IL 60521
323-0307

Ar-Way Disposal
P.O. Box 611
Winfield, IL 60190
682-0401

BFI - Glen Ellyn
1 N. 282 Park
Glen Ellyn, IL 60137
469-1036

BFI - Schaumburg
1827 Walden Office Square
Suite 107
Schaumburg, IL 60173
397-7760

BFI - Van Der Molen
P.O. Box 1537
Aurora, IL 60507-1537
892-9294

BFI - Van Der Molen
5050 Lake
Melrose Park, IL 60160
345-7070

B & S Hauling
1108 N. Oakley Drive
Westmont, IL 60632
325-5296

Beirne's Hauling
413 Westmore Avenue
Villa Park, IL 60181
279-5187

Burke's Hauling and Refuse Company
516 N. Main
Glen Ellyn, IL 60137
469-5800

Charles Lenz & Co.
1615 S. 55th Avenue
Cicero, IL 60650
242-2022

Clearing Disposal - WMI
3800 S. Laramie Avenue
Cicero, IL 60650
656-5350

Crown/Burr Ridge Disposal
8475 53rd
McCook, IL 60525
485-9000

Dave's Hauling Service
1005 F. W. North Avenue
Villa Park, Il 60181
629-1440

DuPage Disposal
P.O. Box 3
Villa Park, IL 60181
834-5054

Elgin Wayne - WMI
7 N. 904 S. RT. 25
Elgin, IL 60120
742-8492

Elmhurst Disposal
P.O. Box 275
Elmhurst, IL 60126
834-6732

Federal Disposal Service Inc.
Villa Park ,IL
629-0020

Flood Brothers Disposal Systems
4827 W. Harrison
Chicago, IL 60644
626-5800

Fox Valley - WMI
780 N. Kirk Road
Batavia, IL 60510
879-9190

Garden City Disposal - WMI
11990 Franklin Avenue
Franklin Park, IL 60131
595-4800

Groot Automatic Disposal Co. Inc.
1759 N. Elmhurst Road
Elk Grove Village, IL 60007

Jim Hackett
24 S. Oak Street
Hinsdale, IL 60521

Hillside Disposal Service Inc.
4152 May
Hillside, IL 60162
544-2020

TABLE 3-5 CONT.

DUPAGE AREA HAULERS

Kleen Way Disposal
Box 385
Hinsdale, IL 60521
323-7924

Laidlaw Waste Systems
3651 Blackhawk Drive
Rolling Meadows, IL 60008
439-6686

Lombard Disposal
1416 S. Meyers Road
Lombard, IL 60148
627-1108

Miedema Disposal Service
3 N. 506 N. Lombard Road
Addison, IL 60101
543-7745

Monarch Disposal/Amer-Way
7 N. 512 Dunham Road
Elgin, IL 60121
377-5870

Molenhouse Disposal
24 W. 178 St. Charles Road
Wheaton, IL 60187
653-4166

Oak Brook Disposal
P.O. Box 1015
Oak Brook, IL 60521
654-4166

Rex Disposal Inc.
1140 N. Ellis
Bensenville, IL 60106

Rot's Disposal - BFI
266 63rd
Downers Grove, IL 60515
964-3232

Roy Strom Inc.
1201 Greenwood
Maywood, Il 60153
344-5000

Sani-Way Disposal Service
232 W. Butterfield Road
Elmhurst, IL 60126
279-0242

Service Company
47 W. Irving PArk
Roselle, IL 60172
351-3838

Speedway Disposal Company
Box 461
Geneva, IL 60134
232-4377

Suburban Disposal
P.O. Box 635
Lombard, IL 60148
629-0829

Pete Tameling Inc.
8 S. 365 South Madison
Hinsdale, IL 60521
325-1805

Terrace Disposal Service
105 May
Elmhurst, IL 60126
279-1527

Tri-County Scavenger
1805 Ashley Road
Morris, IL 60560
892-9092

VanRyn Scavenger Service Inc.
4319 Butterfield Road
Bellwood, IL 60104
544-1217

Villa Park Refuse Disposal
612 Western Avenue
Lombard, Il 60148
627-4985

Waste Management - Midwest Region
P.O. Box 7070
Westchester, IL 60154
409-0700

Westowns Disposal
30 W. 218 Butterfield
Warrenville, IL 60555
668-7093

Winfield Disposal
3 S. 104 Winfield Road
Winfield, IL 60190
665-8288

Zimmerman Trucking Inc.
3 N. 361 Powis Road
West Chicago, IL
584-4565

3.2 DISPOSAL SITES

3.2.1 Landfills

The principal method of solid waste disposal in the county is sanitary landfilling. The IEPA permitted landfills within DuPage County which provide for municipal solid waste disposal are located at Mallard Lake and Greene Valley Forest Preserves. Both of these landfills are owned by the Forest Preserve District of DuPage County and operated by private firms. The purpose set forth for landfilling activities on Forest Preserve District land is the development of recreational facilities. The above-ground fills are proposed to provide topographic relief hills for recreational purposes.

Mallard Lake is operated by E & E Hauling, which is a subsidiary of Browning-Ferris Industries. The facility is located at the 927-acre Mallard Lake Forest Preserve in the northwestern section of the county, west of Gary Avenue on Schick Road. The service area for this facility includes approximately half of DuPage County and a portion of northwestern Cook County. The IEPA's Available Disposal Capacity for Solid Waste in Illinois (October 1990) reports that 4,248,854 cubic yards of waste were disposed in the year ending April 1, 1990. Remaining capacity of the facility was estimated to be 29,668,692 cubic yards. The estimated life remaining at the site as reported by the operator is 7 years. This estimate by the operator assumes that waste delivery conditions will not change in the future. The estimate does not assume that as surrounding sites close, Mallard Lake may receive increasing quantities of waste until 1992 when a revised operating agreement with the Forest Preserve District will allow limiting the reciept of waste.

Greene Valley is operated by Waste Management of Illinois. This facility is located in the south central section of the county

in the Greene Valley Forest Preserve. The preserve is west of Illinois Route 53 and borders both sides of 75th Street (east of Naperville and west of Woodridge). The landfill is located south of 75th Street. The service area for this facility includes the southern half of DuPage County and some western Cook County communities. The IEPA's Available Disposal Capacity for Solid Waste in Illinois (October 1990) reports that 2,612,508 cubic yards of waste were disposed during the reporting period. Remaining capacity of the facility was estimated to be 36,566,505 cubic yards. The estimated life remaining at the site as reported by the operator is 14 years. The same considerations expressed above for Mallard Lake apply to this estimate for Greene Valley.

Two other facilities located in the county provide for restricted waste disposal needs.

1. Argonne National Laboratory has a sanitary landfill on-site which serves the site exclusively. Waste material disposed at the site includes general office refuse, cafeteria waste, construction ruble, and pollution control waste. Annual disposal volume equals approximately 35,000 cubic yards.

2. Elmhurst-Chicago Stone is a surface quarry no longer in use, although sub-surface mining continues to operate. The site is under development and will accept only construction and demolition rubble with no metal or putrescible material. The annual disposal volume is estimated at 240,000 cubic yards.

Several landfills located outside of the county receive wastes generated in DuPage County.

1. The Hillside Landfill is located in an abandoned quarry at Manheim Road and Eisenhower Expressway in Hillside. It is owned by Congress Development Corporation, a joint venture by John Sexton Land and Gravel Company and Browning Ferris Industries and is operated by Sexton. The site primarily serves western Cook County and the eastern portion of DuPage County. Expected completion of the landfill is 1993.

2. The Land and Lakes Company operates the site situated

west of Lemont and northeast of Romeoville in Will County. The site primarily serves southwestern Cook County and northern Will County. The estimated remaining life of this facility has been reported to be one year.

3. The Settler's Hills landfill is the recently opened expansion of the now closed Geneva/Midway landfill on Fabyan Parkway at the southwest edge of Geneva. The site is owned by Kane County and is partially within municipal boundaries of Geneva and partially in an unincorporated area. The landfill has been developed and is operated by Midway Disposal, Inc. which is a subsidiary of Waste Management. Its service area primarily is within the Fox Valley and includes the central-western section of DuPage County and the central-eastern section of Kane County. The estimated remaining life of this facility has been reported to be 11 years.

3.2.2 Combustion

In preparation of the DuPage County Solid Waste Waste-To-Energy Study (1987) the County reviewed the IEPA Boiler Report produced by the Division of Air Pollution Control which listed the incineration facilities with permits within the county. The incineration facilities included 17 commercial sites, 17 schools, 7 hospitals, and 3 animal hospitals. The "Inventory of Waste-To-Energy Facilities in Illinois", prepared by the Illinois Department of Energy and Natural Resources, indicates that two of these facilities have utilized their incinerator for energy recovery. They are Hinsdale Hospital and Good Samaritan Hospital. Both reportedly use generated steam for hospital use. Installed capacity is 43.2 tons per day with average processed tonnage equalling 6.4 tons per day. The categorized volumes of waste incinerated for volume reduction may be summarized as follows.

- Schools	355 tons/year
- Commercial/Industrial	1,536+ tons/year
- Hospitals	1,796+ tons/year
- Animal Hospitals/Crematoria	275+ tons/year
Total	3,962+ tons/year
	or approximately 11 tons/day

3.3 IMPORT AND EXPORT OF WASTE

It is widely recognized that DuPage County is a net importer of waste for disposal. In Available Disposal Capacity For Solid Waste In Illinois (October 1990), the Illinois Environmental Protection Agency (IEPA) evaluated the import and export of waste in the Chicago Metropolitan Region which includes Cook; DuPage; Grundy; Kane; Kankakee; Kendall; Lake; McHenry; and Will counties. According to IEPA, waste importing counties include Grundy (89.3%); Will (73.3%); DuPage (62.9%); Kane (55.1%); and Lake (6.6%). Waste exporting counties include Kendall (100.0%); McHenry (88.9%); Cook (41.0%); and Kankakee (19.3%). The sources for the generation of the imported waste were not provided.

It is important to note that those counties which are net importers of waste did not necessarily set out to be importers. Solid waste, for the most part, moves throughout the region with the decision for disposal location to be determined by the hauler. Some controls do exist in the region (i.e. Chicago waste directed to the City's waste-to-energy facility and limits placed on daily volumes at some landfills) but in the most simplistic viewpoint, without control mechanisms solid waste moves to the point of disposal which represents the least cost to the hauler. Many factors enter into the cost equation which a hauler must consider in this decision but transport costs and tipping fees at the disposal facility probably lead in their importance. The point is, absent the imposition of some controlling factors, local governments cannot limit the movement of waste into their locality.

In the case of DuPage County, the two landfills have been developed according to a construction approach which encourages their operation as regional facilities. The two operator's have been contractually obligated to construct recreational facilities providing topographic relief at the two sites by the method of sanitary landfilling and to do so within a contracted period of

time. The contacts have also precluded the imposition of tipping fees at the landfills which are higher than fees at other area sites. Both operators also operate major hauling operations in the region and have a desire to dispose of their collected waste. None of these observations reflect any negative comment on previous conditions but they, along with the availability of large amounts of generated waste produced on a regional basis, encouraged the use of the facilities by generators of waste located outside of DuPage County and this is indeed what has happened.

In 1989 the Forest Preserve District's Office of Government Services conducted a survey of the incoming waste at the two landfills. In its "Survey Of Origin Of Waste" the Government Services Department concluded that at the Greene Valley site 62.06% of the disposed waste originates outside of the county. According to the same report, at the Mallard Lake site 65.16% of the disposed waste originates outside of the county. These values differ slightly from the IEPA values cited above.

On November 28, 1990 the Forest Preserve District approved amendments to the operation contracts for Mallard LAke and Greene Valley which could have a substantial impact on the amount of waste recieved at the two sites. Begininning July, 1992 the Forest Preserve may limit the amount of waste recieved at the two sites and by that action give preference (to the point of exclusivity) to waste generated within DuPage County. The overall effects of these contract amendments on waste disposal capacity are discussed further in Section 5.0 of this Appendix.

Of the surrounding area landfills that may receive exported DuPage Waste, information is only available for the facilities located in Kane County. Table 3-6 summarizes information available from Kane County which was collected from surveys of the incoming waste at the two landfills located there. Table 3-7 presents a summary of the same information in terms of percent.

TABLE 3-6
AVERAGE DAILY GATE VOLUMES BY COUNTY
(Cubic Yards)

	Settlers Hill		Woodland		Total	
County	1989	1990	1989	1990	1989	1990
KANE	3507	2992	1426	1230	4933	4222
DUPAGE	2363	1840	303	212	2666	2052
OTHER	447	387	885	1532	1332	1919
	6317	5219	2614	2974	8931	8193

TABLE 3-7
PERCENT OF DAILY GATE VOLUMES BY COUNTY

	Settlers Hill		Woodland		Total	
County	1989	1990	1989	1990	1989	1990
KANE	55.5	57.3	54.6	41.4	55.2	51.5
DUPAGE	47.4	35.3	11.6	7.1	29.9	25.0
OTHER	7.1	7.4	33.8	51.5	14.9	23.5

Source For Tables 3-6 & 3-7: Memorandum To County Development Committee from Gary Mielke, Solid Waste Planner, September 18, 1990.

Plan-1990 assumes that any new facilities will be sized only for the acceptance of waste generated by DuPage communities with one exception. Several communities in the county actually have portions of their territories located outside of the county's boundaries and have been termed as "border communities" in the solid waste planning effort.

During the course of discussions of the effects on solid waste planning by either inclusion or exclusion of these communities, it was determined by the Solid Waste Planning Committee that the relative impact on the total wastestream would be minimal and that the fragmentation of municipal service should be avoided if possible. The Solid Waste Planning Committee recommended that communities which either currently have or will more than 33 percent of their population within DuPage County should be provided the opportunity to participate in the DuPage solid waste management system. These communities include Aurora; Bartlett; Bensenville; Burr Ridge; Hanover Park; Hinsdale; Naperville; Roselle; and Wayne. The Solid Waste Planning Committee determined that the County

should accept waste from areas outside of DuPage County under the jurisdiction of DuPage municipalities (border communities) as long as those communities have committed to be included in the County's solid waste effort. This opinion was endorsed by the County Board in its approval of Resolution SW-002-90.

3.4 RECYCLING AND COMPOSTING IN DUPAGE COUNTY

This Section provides a basic summary of waste reduction, recycling and waste diversion activities in the county. More detailed information is provided in Appendix A-2 and the reader is encouraged to refer to that appendix.

3.4.1 Residential Recycling

Since 1970 and more so since 1985, recycling opportunities of great variety have been established in DuPage. Most opportunities have expanded as time, money and markets have allowed. Recycling programs that are geared towards residentially generated solid waste can be defined as curbside recycling programs, dropoff programs, and buyback centers and are described in the following sections.

3.4.1.1 Curbside Recycling Programs

These programs are characterized by regular (usually weekly) collections, and designed to parallel service for curbside collection of refuse. Recyclable materials are collected using separate vehicles from refuse collection and usually a standardized container for the resident. Most of these programs are contracted by municipalities to private haulers as part of municipal services offered to residents. As of January 1991 twenty-eight of the county's thirty-seven municipalities and two of the county's nine townships have arranged for some sort of curbside recycling program for single family homes. Most programs begin by collecting

newspapers, glass and aluminum. The expansion of materials collected is generally in response to the development of markets, processing capabilities and willingness of the public.

After collection at the curb, the materials are transported to a processing operation where they are sorted, processed and readied for market. Current programs are limited due to the lack of processing capability in northeastern Illinois, as well as overburdened markets for recyclable materials. "Processing" for the most part is currently being done at the side of the truck during collection by separation of the materials by the truck driver. Materials from collection vehicles are then transferred to larger trucks at the hauler's truck yard for transport to market.

3.4.1.2 Drop off Programs

Dropoff programs require residents to transport their recyclable materials to central locations for collection, sorting and shipment to market. There are three types of drop off programs currently in use in the county.

1. Multi-Material Recycling Centers (MRC) - These are defined as permanent centers with regular hours that accept a minimum of three materials. MRCs are regional facilities with an approximate 3 mile radius service area. Most of these facilities were implemented by volunteer groups although a few are now being operated by municipalities. Of the twenty-four drop-off facilities in the county, fifteen are considered to be Multi-Material Recycling Centers. With the advent of curbside recycling programs, the significance of MRCs has not declined. In fact, they have increased in the number of materials handled as well as expanded into multi-family and small business services.

2. Specialized Drop off Centers - Seven of the county's twenty-six drop off centers accept one or two materials for recycling purposes and do not offer the full range of services found at an MRC. Most of these dedicated locations are geared toward specialized materials such as aluminum, newspaper, polystyrene foam or motor oil.

3. Satellite Drop off Centers - Multi-family dwellings cannot be served by standard curbside recycling programs but need to have convenient recycling opportunities available in order to maximize participation and wastestream diversion. Satellite drop off centers consist of a few small bins or igloo shaped containers that are placed in the parking lots or basements of apartment and condominium complexes or other convenient locations for residents not served by curbside programs. Currently, several satellite facilities have been developed for multi-family dwellings in Lisle, Naperville, and Woodridge.

A combination of these dropoff programs make recycling opportunities available to all DuPage residents and fill gaps in the system that exist either due to the unavailability of curbside recycling programs or to address materials that are not accepted through the curbside programs.

3.4.1.3 Buy Back Centers

There are thirteen locations in Dupage County that buy materials from the public for recycling purposes. Over fifteen different materials are handled through these centers, ranging from glass containers to laser printer toner cartridges. Some permanent locations buy a wide variety of materials from the public, such as St. Charles Scrap. Others, such as the many Reynolds Aluminum trailers, buy only one or two materials from the public.

Buy back centers help attract people into recycling who otherwise might not be interested in keeping recyclable materials from the trash. In addition to providing cash to the public, the buy back centers also provide local markets for certain materials collected from some drop off programs.

3.4.2 Commercial, Industrial and Institutional Recycling

The commercial wastestream of DuPage County has long been the source of raw materials for the production of new goods, both

locally and at more distant markets. Businesses have implemented recycling programs as economical methods to dispose of waste and surplus materials and to recapture some of the cost of initial purchase of materials.

Scrap metal and paper dealers have long provided collection service for generators of large quantities of sellable materials. Over the last several years, recycling opportunities for smaller quantity generators have developed, particularly for high grade office papers. A number of new companies are now offering comprehensive recycling collection, marketing and promotional programs for offices, factories and institutions throughout the area.

The recent push towards commercial, industrial and institutional recycling programs has been driven in part by the rise of residential curbside programs. Employees who have learned to recycle at home are now expecting the same sort of source separation programs in the work place. Where recycling programs were rare in offices in the past, comprehensive programs for the collection of paper and other materials as well as a drive to purchase recycled goods are now becoming commonplace in DuPage County.

The County's Solid Waste Division has been instrumental in providing information about vendors, marketing and design of collection programs to businesses interested in beginning or expanding existing recycling programs. Although this informal information program has been highly successful, although an expanded promotional campaign for recycling in this portion of the wastestream could further the reduction of solid waste in DuPage County.

3.4.3 Composting and Landscape Waste

Even before the ban of landscape waste from Illinois landfills became effective on July 1, 1990, there were two operational large scale composting projects in the DuPage County area. The City of Naperville and Land and Lakes Company at their landfill near Romeoville, were both operating composting projects more than one year before the state mandated deadline.

Shortly before the deadline, three additional facilities opened to serve the DuPage County area. Waste Management Inc. opened a land application site at the Settler's Hill Landfill near Geneva and BFI began land application/composting at a farm near Oswego in Kendall County. DuPage County opened a composting facility in the county on June 1, 1990 on 120 acres of DuPage Airport land in the western edge of the county.

Landscape waste is generally collected weekly from residents by municipal crews or contracted haulers and transported to a composting or land applications facility. Most municipalities and haulers charge residents for each bag collected, thus giving the resident a financial incentive to deal with landscape waste disposal at the point of generation by using backyard compost, "lawn recycling" and on-site chipping of brush. Rates for collection vary greatly due to varying contracts and municipal subsidies. All thirty-seven municipalities have implemented some type of collection program since just before the state ban on July 1, 1990.

DuPage County and DuPage municipalities have encouraged the public to deal with landscape waste at the point of generation in order to avoid the cost and effort of central collection programs. Literature from the County, as well as the State of Illinois and municipalities has been widely distributed to residents and businesses to encourage backyard composting and "lawn recycling".

The "Y. Baggit" campaign by the County has been especially successful with over 480,000 copies of the "Recycle Your Lawn With Y. Baggit" and over 220,000 copies of "Backyard Composting With Y. Baggit" distributed to DuPage residents since July 1989.

3.4.4 Overview And Summary

Appendix A-2 provides data on the level of recycling and waste diversion in the county at the present time. In Table 3-7, the effects of composting, curbside recycling and multi-material recycling centers in DuPage County on the residential and total wastestream are summarized.

TABLE 3-8
PERCENT OF WASTE DIVERSION IN 1990

DIVERSION METHOD	% OF RESIDENTIAL WASTESTREAM	% OF TOTAL WASTESTREAM
- Composting	29.0	13.0
- Curbside Recycling	7.0	3.1
- MRC Drop Off Recycling	1.1	.7
Total	37.1	16.8

By far, the largest waste diversion impact has been provided by the advent of the ban on landfilling of landscape waste which went into effect on July 1, 1990. Unfortunately, at this time, a County reporting mechanism does not exist to evaluate the wastestream and diversion impacts of the commercial/industrial/institutional, public, and construction/demolition sectors. In the future, the collection and documentation of such data will be critical in determining if the state mandated recycling levels are met.

SECTION 4.0
WASTE GENERATION

4.1 PREVIOUS WASTE GENERATION QUANTITIES

The primary types or categories of solid waste currently being considered in this planning effort include "residential", "commercial/industrial/institutional" and "construction/demolition" wastes. Combined, these categories of waste constitute the "total municipal wastestream" which is the subject of this Appendix. Disposal facilities for sewage sludge are not specifically addressed.

Waste generation estimates are provided for the years 1990, 1995, 2000, 2005 and 2010. Because of the privatized collection and disposal practices discussed previously, records indicating an exact determination of waste generated in the county are not available. Analysis of waste generation rates is complicated by questions of reliability of limited local data, the use of national statistics to supplement local data, and the uncertainty over the actual sources of waste material. For this Appendix, the preparers have attempted to collect as much local data as possible, using it along with other reference data to produce composite waste generation estimates.

The DuPage County Solid Waste Waste-To-Energy Study provided a development of waste generation estimates based primarily upon an analysis of national information from areas comparable to DuPage County in terms of socio-economic and demographic trends. This analysis resulted in the following waste generation estimates:

-	Residential	2.1 lbs/capita/day
-	Commercial	1.7 lbs/capita/day
-	Industrial	1.0 lbs/capita/day
-	Construction/Demolition	.7 lbs/capita/day
		5.5 lbs/capita/day

The same study also estimated that the seasonal variability of waste ranged from 75 to 120 percent of the average. It was also estimated that waste generation would increase about 0.34 percent per year during the planning period.

4.2 CURRENT WASTE GENERATION ESTIMATE APPROACH

For this Appendix, the preparers have collected local municipal collection data where available and used this data to the greatest extent possible. This data, limited as it is, was not available at the time of preparation of the generation data presented immediately above. Similarly, the availability of a new modelling program provided by the Illinois Department of Energy and Natural Resources (IDENR) has helped in the development of revised waste generation estimates and waste characterization. The program, "WASTE PLAN - The Integrated Solid Waste Management Planning Tool" was prepared for IDENR by Tellus Institute, Boston, Massachusetts and is recommended for use by Illinois governments involved in solid waste planning. WASTE PLAN provides for the sophisticated modelling of local solid waste management options based on detailed reference data collected on a national basis. Specific local information is input to the model to provide a local model. Finally, recent waste surveys performed by the DuPage Forest Preserve District at the two landfill sites in the county have provided new information about the amount of construction and demolition waste received at the two sites. All of this newly available data has been used for waste generation estimates developed for Plan-1990.

4.3 GENERATION RATES

Sections 4.3.1 through 4.3.3 derive the per capita waste generation quantities for the three principal wastestream components: residential; commercial/industrial/institutional; and construction/demolition. Section 4.3.4 summarizes and totals the

waste generation data for the three individual components.

4.3.1 Residential

In order to estimate residential waste generation, a survey of DuPage municipalities was conducted to determine local waste generation rates. As shown in Table 4-1, the municipal information was limited. It is worth noting that, for the most part, local governments do not have specific information regarding collection and disposal of waste. Surprising is the realization that some municipalities which contract directly for residential waste collection do not even require the reporting by their contractors of collected waste material quantities.

TABLE 4-1
RESIDENTIAL WASTE GENERATION

Municipality	Year	Pounds/Capita/Day
-Addison	1989	4.07
-Bolingbrook	1988	2.98
-Elmhurst	1987	3.51
-Glen Ellyn	1989	4.16
-Villa Park	1988	3.95
-Warrenville	1989	4.34
-Naperville	1989	3.11

The DuPage Forest Preserve District conducted its previously referenced survey of incoming waste at the two landfills during July 1989. The District estimated that the DuPage residential waste generation rate was 2.21 pounds per capita per day (lbs/capita/day). Although this estimate is drawn from the combined residential wastestream including multi-family housing it appears low when compared to both the single family residence data provided in Table 4-1 and the waste generation data developed for other counties in the State of Illinois by their respective planning groups (see Table 4-2). However, the Forest Preserve's estimate does compare favorably with the estimate for waste

generation developed in the County's previous Waste-To-Energy Study.

By averaging the available data, a composite waste generation figure of approximately 3.5 lbs/capita/day is derived. Although this approach represents a rather simplistic approach to justify the differences in waste generation apparent in the above information, comparison of this averaged waste generation figure with other Illinois counties involved in solid waste planning, as summarized in Table 4-2, shows that it is comparable and supportable considering the relative conditions of urban development. **Therefore, the initial (1990) residential waste generation rate used in this Appendix will be 3.5 pounds per capita per day (lbs/capita/day).**

TABLE 4-2
SUMMARY OF RESIDENTIAL WASTE GENERATION
IN OTHER ILLINOIS COUNTIES

County	Year	Pounds/Capita/Day
Lake County	1988	3.2
McClean County	1990	2.7
Peoria County	1990	2.6
Tazwell County	1989	3.0
Will County	1988	2.1

WASTE PLAN can provide a theoretical breakdown of materials or characterization in the residential wastestream. This characterization is derived by the use of data collected from across the country where waste classification studies have been performed. The sources for this information can be found in "Waste Plan - Default Data Report Version 90-6".

A characterization of the materials in the residential wastestream, developed using the WASTE PLAN model, is provided at the end of Section 4.0. The characterization is useful to indicate the relative contributions of various types of materials to the total residential wastestream.

4.3.2 Commercial/Industrial/Institutional

The derivation of estimates for generation in this waste category is very difficult. It is difficult because the waste category is collected almost exclusively by private haulers who do not have set collection boundaries; do not distinguish between commercial, industrial and institutional accounts; and are generally unwilling to discuss specifics of their collection routes.

WASTE PLAN allows the theoretical derivation of waste generation for this category in the planning area based upon national studies on this category of waste if the following locally specific information is input in the model.

1. Retail & Merchandise - Sales ($1,000/yr)
2. Furniture & Home Furnishings - Sales ($1,000/yr)
3. Food Stores - Sales ($1,000/yr)
4. Restaurants - Sales ($1,000/yr)
5. Schools - Number of students
6. Nursing Homes - Number of beds
7. Hospitals - Number of beds
8. Office buildings - Total square feet
9. Large and Small Manufacturing - Number of employees

This Appendix has used data exclusively generated by the use of the WASTE PLAN model for the commercial/institutional/industrial wastestream. This has been done because of the lack of supportable local generation data. Input data was supplied, for the most part, by the DuPage County Development Department and is summarized as follows:

1. Retail & Merchandise: $1,299,159,339 in sales
2. Furniture & Home Furnishings: $408,413,086 in sales
3. Food Stores: $1,144,337,154 in sales
4. Restaurants: 679,738,377 in sales
5. Schools: 118,992 students
6. Nursing Homes: 4,613 beds
7. Hospitals: 1,947 beds
8. Office buildings: 35 million square feet
9. Small Manufacturing: 70,553 employees

WASTE PLAN defines this category of waste as "commercial" in

its differentiation from "residential" but the commercial category includes manufacturing (industrial) and institutional (offices, schools, hospitals, etc). For DuPage County all of the employment for manufacturing in the county has been attributed to the "small manufacturing" category in the WASTE PLAN model.

Table 4-3 provides the waste generation estimates derived using WASTE PLAN by sector. The total estimated waste generation quantity (1990) for this wastestream component is 312,860 tons per year or 857 tons per day. Dividing this quantity by 781,200 (1990 DuPage population) results in an estimate of 2.2 pounds per capita per day. **The initial (1990) commercial/industrial/institutional waste generation rate used in this Appendix will be 2.2 pounds per capita per day.**

TABLE 4-3
COMMERCIAL/INDUSTRIAL/INSTITUTIONAL WASTE GENERATION BY SECTOR

	Tons Per Year
-Retail & Merchandise	58,455
-Furniture & Home Furnishings	51,480
-Food Stores	56,440
-Restaurants	40,840
-Schools	9,440
-Nursing Homes	3,680
-Hospitals	6,500
-Office Buildings	47,250
-Small Manufacturing	38,775
	312,860

A characterization of materials in the commercial/industrial/institutional wastestream as generated by the WASTE PLAN model is provided at the end of Section 4.0.

4.3.3 Construction/Demolition

In order to derive the waste generation for this category of waste, the results from the "Survey Of Origin Of Waste: Greene Valley & Mallard Lake" prepared by the Forest Preserve District has been used. Although very limited in its sampling and analysis

period, the data is the best available information for this waste category and is used for the derivation of generation rates.

The DuPage Forest Preserve's "Survey Of Origin Of Waste: Greene Valley & Mallard Lake" provides the first attempt to quantify this category of waste in DuPage County. Previously, this category of waste was believed to represent a considerable quantity but data specific to DuPage County was unavailable. Summarizing the Forest Preserve District's findings, an estimated generation figure of 2.33 pounds per capita per day results (assumed density equals 800 lbs/cu.yd.). This generation estimate does not include dirt/clay/sludge, another category of waste measured by the Forest Preserve District during its survey. Plan-1990 assumes that sludge will be diverted to other processes for disposal in the future. Dirt and clay are considered to be non-waste fill materials which are subject to alternative fill practices. Also, it is unknown how much of the dirt and clay recorded by the Forest Preserve District as arriving at the landfills is actually used for cover material at the sites. **The initial (1990) construction/demolition waste generation rate used in this Appendix will be 2.3 pounds per capita per day.**

4.3.4 Summary

The above information may be summarized to provide a total base waste generation quantity on a per capita basis:

-Residential	3.5	lbs/capita/day
-Commercial/Industrial/Institutional	2.2	lbs/capita/day
-Construction/Demolition	2.3	lbs/capita/day
Total	8.0	lbs/capita/day

Note that this quantity does not include the category "dirt, clay and sludge" which is recorded by the Forest Preserve District and operators of the two existing landfills. They estimate that this category of incoming waste constitutes approximately 2 more

pounds per capita per day (at an average density of 2,000 lbs/cu.yd.).

4.4 WASTE QUANTITY PROJECTIONS

4.4.1 Quantity Estimates

A base per capita waste generation figure was developed in Section 4.3. The base waste generation figure for 1990 is estimated at 8.0 lbs/capita/day. The United States Environmental Protection Agency estimates that on a national average the per capita waste generation rate will increase at a rate approaching 1 percent per year for the period from 1988 through 2010 (Characterization of Municipal Solid Waste In The United States: 1990 Update). The generation rates for the residential and commercial/institutional/industrial components have been increased at this annual rate in the following waste generation estimates. The construction/demolition component, assumed to be near peak at the present time, has not been increased and has been held constant over the planning period. Table 4-4 provides waste generation estimates for DuPage County over the 20 year planning period.

TABLE 4-4
WASTE GENERATION ESTIMATES
FOR DUPAGE COUNTY

Year	Population	Per Capita Generation(lbs)	Tons of Waste Generated Per Day	Per Year
1990	781,200	8.0	3,125	1,140,625
1995	847,600	8.3	3,518	1,284,070
2000	901,178	8.6	3,875	1,414,375
2005	936,300	8.9	4,166	1,520,590
2010	985,000	9.3	4,580	1,671,700

*excludes dirt/clay/sludge (~2 lbs/capita/day)

4.4.2 Considerations For Application Of Waste Quantity Projections

In the consideration and design of any solid waste disposal facilities the size (capacity) of the facilities has a direct bearing on cost and, for landfills, life expectancy. The waste generation quantities presented in Table 4-4 must be regarded as estimates of a theoretical average unless later confirmed by actual measurement of waste. Several variables will influence this expected waste generation including:

- Are the assumptions made about waste generation accurate?
- What is the variability in the daily waste generation amount?
- Are the estimates for future population accurate?
- Are the assumptions for increase in waste generation and changes in the wastestream which influence waste generation accurate?

Prior to the construction of capital intensive facilities targeting processing or disposal of the total wastestream, additional data should be collected to determine actual waste quantity and daily variability. Such information will also be vital to the County's efforts to document recycling levels. Unfortunately, the collection of more detailed information will be impossible without increased reporting requirements from haulers and municipalities. This seems unlikely in the near future based upon the general unavailability of information produced during previous surveys by the County's Solid Waste Division.

The desire and need for detailed information about solid waste generation in a given area is a strong incentive for the implementation of measures to control the delivery of wastes generated in an area in order to gauge overall quantities. Facilities which deal with only a fraction of the total wastestream (i.e. the Intermediate Processing Facilities as discussed in Plan-1990) are less susceptible to these sensitivities because of the

smaller percentage of materials that they are serving. Nevertheless, even for these facilities, a control mechanism to gauge, limit, and allocate flow is worthy of consideration.

appa1-4

CHARACTERIZATION OF MATERIALS

RESIDENTIAL WASTE STREAM SUMMARY

TOTAL RESIDENTIAL WASTES GENERATED (TONS PER YEAR):

WASTE NAME	1990
Newspapers	40,917
Books and Magazines	27,445
Office Paper	2,994
Commercial Printing Paper	7,485
Tissue and Towel	14,970
Nonpackaging Paper(junkmail)	5,988
Packaging Paper/Paperboard	14,471
Corrugated Cardboard	25,449
Glass Containers(clear)	25,948
Glass Containers(green)	13,972
Glass Containers(amber)	8,982
Misc Glass	4,990
Aluminum Containers/packaging	4,990
Misc Scrap Aluminum	2,994
Ferrous Containers	12,475
Major Appliances	13,972
Miscellaneous Ferrous Scrap	19,461
Plastic Containers/Packaging	19,461
Nonpackaging Plastic	15,968
Leaves	71,356
Yardwaste (grass and brush)	50,897
Stumps	13,972
Woodwaste (pallets, etc)	2,994
Foodwaste	31,935
Textiles	8,982
Leather/Rubber	9,980
Tires	6,487
Ceramics, Misc Inorganics	15,469
Miscellaneous Organics	3,992
TOTALS	498,992

PER CAPITA WASTE GENERATION (POUNDS PER PERSON PER DAY)

WASTE NAME	1990
Newspapers	0.29
Books and Magazines	0.19
Office Paper	0.02
Commercial Printing Paper	0.05
Tissue and Towel	0.11
Nonpackaging Paper(junkmail)	0.04
Packaging Paper/Paperboard	0.10
Corrugated Cardboard	0.18
Glass Containers(clear)	0.18
Glass Containers(green)	0.10
Glass Containers(amber)	0.06
Misc Glass	0.04
Aluminum Containers/packaging	0.04
Misc Scrap Aluminum	0.02
Ferrous Containers	0.09
Major Appliances	0.10
Miscellaneous Ferrous Scrap	0.14
Plastic Containers/Packaging	0.14
Nonpackaging Plastic	0.11
Leaves	0.50
Yardwaste (grass and brush)	0.36
Stumps	0.10
Woodwaste (pallets, etc)	0.02
Foodwaste	0.22
Textiles	0.06
Leather/Rubber	0.07
Tires	0.05
Ceramics, Misc Inorganics	0.11
Miscellaneous Organics	0.03
TOTAL	3.50

CHARACTERIZATION OF MATERIALS

COMMERCIAL WASTE STREAM SUMMARY

TOTAL COMMERCIAL WASTES GENERATED (TONS PER YEAR):

WASTE NAME	1990
Newspapers	7,265
Books and Magazines	0
Office Paper	34,961
Commercial Printing Paper	0
Tissue and Towel	0
Nonpackaging Paper(junkmail)	23,535
Packaging Paper/Paperboard	32,295
Corrugated Cardboard	121,007
Glass Containers(clear)	3,223
Glass Containers(green)	1,823
Glass Containers(amber)	1,056
Misc Glass	1,660
Aluminum Containers/packaging	873
Misc Scrap Aluminum	0
Ferrous Containers	1,465
Major Appliances	0
Miscellaneous Ferrous Scrap	6,133
Plastic Containers/Packaging	8,861
Nonpackaging Plastic	10,171
Leaves	0
Yardwaste (grass and brush)	3,254
Stumps	0
Woodwaste (pallets, etc)	11,694
Foodwaste	25,830
Textiles	1,978
Leather/Rubber	0
Tires	0
Ceramics, Misc Inorganics	6,667
Miscellaneous Organics	9,111
TOTALS	312,860

COMPOSITION OF COMMERCIAL WASTES (IN PERCENT):

WASTE NAME	1990
Newspapers	2.32
Books and Magazines	0.00
Office Paper	11.17
Commercial Printing Paper	0.00
Tissue and Towel	0.00
Nonpackaging Paper(junkmail)	7.52
Packaging Paper/Paperboard	10.32
Corrugated Cardboard	38.68
Glass Containers(clear)	1.03
Glass Containers(green)	0.58
Glass Containers(amber)	0.34
Misc Glass	0.53
Aluminum Containers/packaging	0.28
Misc Scrap Aluminum	0.00
Ferrous Containers	0.47
Major Appliances	0.00
Miscellaneous Ferrous Scrap	1.96
Plastic Containers/Packaging	2.83
Nonpackaging Plastic	3.25
Leaves	0.00
Yardwaste (grass and brush)	1.04
Stumps	0.00
Woodwaste (pallets, etc)	3.74
Foodwaste	8.26
Textiles	0.63
Leather/Rubber	0.00
Tires	0.00
Ceramics, Misc Inorganics	2.13
Miscellaneous Organics	2.91

SECTION 5.0
NEEDS ASSESSMENT

5.1 EXISTING DISPOSAL CAPABILITIES

The principal method of disposal in DuPage County at this time is landfilling. The vast majority of waste is disposed at Mallard Lake and Greene Valley landfills. As reported in Section 2.0 of this Appendix, the Illinois Environmental Protection Agency (IEPA) has estimated that the disposal capacity in northeastern Illinois including Mallard Lake and Greene Valley will be completely depleted sometime between 1995 and 1997 if existing conditions continue. This statement assumes that waste generation levels will remain virtually unchanged; that artificial controls or limits will not be placed on the transport of waste; and that no significant new disposal capacity will be provided in the region during the time period.

On a strictly local basis, the two existing landfills in DuPage County represent a substantial capability to handle DuPage waste quantities if limited in acceptance to this material. According to the Forest Preserve District of DuPage the two sites had a combined total remaining capacity of 63,308,758 gate yards at the end of July 1990 (one ton = 3 gate yards). Table 5-1 compares the theoretical waste generation quantities for DuPage County to the remaining landfill capacity. The column "Tons/Year" subtracts landscape waste (at 13 percent of the theoretical total for this waste component) and does not include the category dirt/clay/sludge. The first boxed column shows cumulative cubic yards landfilled without including dirt/clay/sludge. The second boxed column includes a dirt/clay/sludge component factored in at 2 pounds per capita per day throughout the planning period. Both columns successively add waste quantities on a year-to-year basis. The table assumes that the waste is allocated equally to the two sites during the time period.

TABLE 5-1

COMPARISON OF DUPAGE WASTE TO LANDFILL CAPACITY

YEAR	TOTAL TONS PER YEAR	TOTAL YARDS PER YEAR	CUMULATIVE YARDS	+ D/C/S TONS/YEAR	D/C/S YARDS/YEAR	CUMULATIVE YARDS
1990	992,281	2,976,842	2,976,842	285,138	855,414	3,832,256
1991	1,011,489	3,034,468	6,011,309	289,985	869,956	6,881,265
1992	1,031,012	3,093,035	9,104,344	294,832	884,497	9,988,841
1993	1,050,852	3,152,555	12,256,899	299,680	899,039	13,155,938
1994	1,071,014	3,213,042	15,469,942	304,527	913,580	16,383,522
1995	1,091,503	3,274,509	18,744,451	309,374	928,122	19,672,573
1996	1,109,860	3,329,580	22,074,031	313,285	939,856	23,013,887
1997	1,128,503	3,385,508	25,459,539	317,196	951,589	26,411,128
1998	1,147,437	3,442,310	28,901,849	321,108	963,323	29,865,172
1999	1,166,664	3,499,992	32,401,841	325,019	975,056	33,376,897
2000	1,186,191	3,558,572	35,960,413	328,930	986,790	36,947,203
2001	1,202,292	3,606,875	39,567,289	331,494	994,481	40,561,770
2002	1,218,626	3,655,878	43,223,167	334,058	1,002,174	44,225,340
2003	1,235,194	3,705,582	46,928,749	336,622	1,009,865	47,938,614
2004	1,252,001	3,756,004	50,684,753	339,186	1,017,557	51,702,310
2005	1,269,049	3,807,146	54,491,899	341,750	1,025,249	55,517,147
2006	1,289,222	3,867,667	58,359,566	345,305	1,035,914	59,395,480
2007	1,309,701	3,929,104	62,288,670	348,860	1,046,579	63,335,249
2008	1,330,489	3,991,468	66,280,139	352,415	1,057,244	67,337,383

D/C/S means Dirt/Clay/Sludge

Table 5-1 indicates that current waste generation levels for DuPage would fill the two landfills around 2007, three years short of the end of the planning period. The inclusion of the category dirt/clay/sludge (held consistent in per capita generation) in the totals shortens the remaining life by approximately 1 year.

5.2 EFFECTS OF REVISED AGREEMENTS FOR OPERATION AT MALLARD LAKE AND GREENE VALLEY LANDFILLS

On November 28, 1990 the Forest Preserve District approved amendments to the operation contracts for both sites. Copies of the amendments can be found at the end of this Section. The amendments take effect on June 1, 1992 and essentially supersede the agreements for operation now in-place. The amendments make sweeping changes in the terms of agreement for operation at the two sites. For the purposes of this Appendix, the key provision in the amendments is the manner in which waste receipt is addressed.

The amendments constitute "put or pay" agreements which are common for solid waste disposal facilities. The Forest Preserve District agrees that not less than 468,750 tons (1.5 million cubic yards) of waste will be delivered ("put") to each site on an annual basis. If the agreed minimum quantity is not delivered ("put"), then the Forest Preserve District agrees to "pay" the operator for the difference between the agreed minimum quantity and the actual delivered quantity. Therefore, the Forest Preserve District has committed to the delivery of at least 937,500 tons (3 million cubic yards) on an annual basis until the two facilities are completed (filled) to their permitted capacities.

The Forest Preserve District in its commitment for delivery of waste retains"the right to limit, and shall have the sole responsibility for limiting, disposal of waste at the [sites] to sources within the corporate limits of DuPage County, Illinois and from the following communities: Bartlett, Bensenville, Burr Ridge,

Hanover Park, Hinsdale, Naperville, Roselle, Wayne, and Woodridge." The Forest Preserve District may permit the acceptance of waste at the sites from any other source. Clearly, the intent of the provisions is to limit use of the two sites to DuPage communities so long as the contractual minimum amount of waste is produced from this source. What is the effect of this type of control on the disposal of waste in DuPage County?

The effect is evident in the information presented in Table 5-1. Although Table 5-1 assumes the imposition of control of waste receipt immediately, the effect of limiting waste receipt at the two sites is one of extending the lives of the two sites compared to the likely fill dates under previous conditions.

However, Table 5-1 also shows that simply limiting waste receipt to DuPage waste alone will not in itself satisfy the solid waste disposal needs for DuPage during the 20 year planning process. Limiting waste receipt to the agreed minimum quantity (3 million cubic yards or 937,500 tons annually) would most likely provide more than 20 years of capacity but waste quantity estimates derived in Section 4.0 indicate that DuPage County generated 3,650,000 cubic yards (1,140,625 tons) in 1990. Therefore, actions to reduce the amount of waste sent by DuPage County to the two landfills must be taken to allow disposal capacity for the 20 year planning period. On the other hand, extreme reductions in the amount of waste sent by DuPage County to the two landfills could potentially place the Forest Preserve District in jeopardy of its "put or pay" agreement. Under this condition the Forest Preserve District will have to consider new amendments to the operating contracts if there is a desire to further extend the lives of the landfills.

Another important consideration exists in the amendments to the operating contracts related to the placement of daily cover at the landfills. The use of cover (soil) material at landfills is

fully described in Appendix A-4 but for explanation purposes here the reader should be aware that waste at a landfill is covered on a daily basis with "daily cover". The purposes for placing daily cover include limiting odors and vector (pest) control as well as minimizing blowing litter and the infiltration (seepage) of precipitation. State regulations require the placement of:

a. A uniform layer of at least 0.15 meter (six inches) of clean soil material; or

b. Alternative materials or procedures, including the removal of daily cover prior to additional waste placement, provided that the alternative materials or procedures achieve equivalent or superior performance to the requirements of a in the following areas:

1. Prevention of blowing debris
2. Minimization of access to the waste by vectors
3. Minimization of the threat of fires at the open face: and
4. Minimization of odors.

The amendments to the operating contracts allow the operators to use alternative materials for up to 40 percent of the required daily cover, subject to IEPA permit approval. This could substantially increase the amount of "airspace" for filling with waste rather than soil for daily cover. This is especially true when we considers that although the regulatory standard for daily cover is a minimum of six inches, in practical terms it usually requires an average of 12 or more inches to cover all exposed waste with a minimum of 6 inches. This potential savings in space is not reflected in Table 5-1.

As stated above, simply limiting waste disposal at Mallard Lake and Greene Valley landfills to waste generated by DuPage County will most likely not provide 20 years of capacity. However, actions to reduce, divert and recycle waste could provide sufficient capacity. The effects of these activities will be discussed in Appendices A-2 (Waste Reduction, Recycling And Landscape Waste Diversion - Phase II) and A-3 (Materials Recovery

By Waste Processing - Phase II). Additional methods to process waste prior to landfilling are discussed in Appendix A-4 (Final Waste Processing And Disposal - Phase III)

5.3 SUMMARY

Information presented in this Appendix indicates that the predominate existing method of disposal in DuPage County, landfilling in the two existing landfills, and the current level of waste reduction, recycling and waste diversion activities will be inadequate to meet the anticipated 20 year planning needs. Alternatives which will either provide new disposal capacity or preserve existing disposal capacity must be considered.

appa1-5

GREENE VALLEY LANDFILL OPERATING AGREEMENT
INTENTIONALLY OMITTED

MALLARD LAKE LANDFILL OPERATING AGREEMENT
INTENTIONALLY OMITTED

DUPAGE COUNTY SOLID WASTE MANAGEMENT PLAN

APPENDIX A-2

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DUPAGE COUNTY
SOLID WASTE MANAGEMENT PLAN
APPENDIX A-2 INTENTIONALLY OMITTED

DUPAGE COUNTY SOLID WASTE MANAGEMENT PLAN

APPENDIX A-3

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SECTION 1.0
INTRODUCTION

1.1 OVERVIEW

Appendix A-3 addresses alternatives available to DuPage County for processing of its wastestream after Phase I source separation but prior to final processing and disposal as identified in Phase III. This analysis of "processing" options reflects the recognition that it is apparently no longer acceptable to the public to merely find a place where mixed municipal wastes can be buried or burned. Rather, the municipal wastestream must be viewed as a heterogeneous mix of materials which is best managed by considering its many constituent elements, and configuring an overall system which collectively addresses the various recovery, reuse, and disposal requirements of these constituent elements. Thus, whereas Appendix A-4 addresses the various options available to the County for ultimate processing/disposal (i.e., landfilling, waste-to-energy, etc.), this Appendix addresses preceding processes which can be applied to improve the material recovery and/or environmental protection afforded by the overall system.

In this Appendix, the focus has been intentionally placed on the objectives of processing, rather than on specific equipment systems. The importance of focusing on process objectives cannot be overstated in the consideration of waste processing options. That is, prior to selection or configuration of a facility or program to process a community's wastes, it is absolutely essential that the composition of wastestreams to be processed at a particular step in the waste management system be properly identified and the objectives of the desired processes, usually defined by the subsequent processing or disposal parameters, be explicitly determined. With this information, it can be determined where in the generation/collection disposal cycle it is most effective to effect further processing, and a specific program

and/or facility can be specified to achieve the desired results. Unless this objectiveness-oriented approach is used, it is possible to transplant a type of processing facility used elsewhere, but the facility may duplicate a process already performed or may produce a product for which there is no market. For example, the facilities and programs already included in the County's Recycling Plan substantially alter the composition of the remaining wastestream, and therefore are important considerations in the selection of supplementary waste processing facilities and programs.

The sections which follow examine solid waste processing by first examining the various points at which waste processing can occur. That is, processing can occur at the point of generation, during collection, or after collection has ocurred. Various processes that can be applied at these different points are then explored. Example applications of these processes as they relate to various types of final process/disposal facilities (e.,g., landfills, compost facilities, and waste-to-energy facilities) are then discussed. This Appendix then concludes with an analysis of the waste processing options most directly applicable to the specific waste disposal facilities being considered for DuPage County.

1.2 PROCESSING OBJECTIVES

The effective management of municipal solid waste (MSW) requires an understanding of the many unique characteristics of the municipal solid wastestream and how these characteristics affect the collection, processing, and disposal needs of the entire solid waste management system. Taken as a whole, municipal solid waste is heterogeneous mixture of paper, glass, metal, plastic, landscape wastes, food, grit and various other materials and components discarded by a diversity of residential, commercial, institutional, and industrial sources. Both the quantity and

composition of the MSW generated in a community can vary on a seasonal, monthly, weekly, and even daily basis.

Most of the materials which enter the municipal solid wastestream have vastly different properties and characteristics which can significantly affect the manner in which they are best collected, handled, processed, and disposed. For example, a large fraction of the municipal solid wastestream, including paper, glass, metals, and plastics, is potentially recyclable. Much of the wastestream is combustible or can be composted. However, some materials like discarded hot water heaters, washing machines, dryers, and even smaller glass, metal, and other noncombustable or nondegradable materials may create processing problems in composting or combustion facilities. Other materials, including household cleaners, discarded paint, varnish, automotive products, etc., are undesirable and can pose a hazard to the environment and health and safety of workers when improperly handled in solid waste processing and disposal facilities.

There is a growing recognition of the need to separate municipal solid waste in a manner which allows for more appropriate processing of its individual components. This process, termed "materials recovery", can achieve many simultaneous or independently structured goals and objectives, including:

1. The recovery of recyclable materials;
2. The removal of undesirable components;
3. Improving the quality of waste as a feedstock for subsequent processes; and
4. Reducing the volume of material to be transported, processed or disposed.

In discussing materials recovery, it is important to focus on the processing objective or goal within a waste management system rather than a prior selection of a technology. Each of the materials recovery alternatives discussed below can be used to

achieve, at least in part, similar objectives. Decisions concerning which alternative is best for any particular application require a careful consideration of the additional components and overall structure of the waste management system in a community. The exact configuration of a materials recovery system will depend on the specific needs of the community and the structure of its solid waste management system.

appa3-1

SECTION 2.0
MATERIALS RECOVERY ALTERNATIVES

2.1 INTRODUCTION

There are several alternative methods of materials recovery available. Materials recovery processes are generally classified by point of application in a waste management system and by the type of process or technology which is applied. Materials recovery can occur at any of several points in a solid waste management system ranging from the point of generation to the point of disposal or anywhere in between. The detailed design and technical configuration of individual materials recovery options will vary based on local considerations. Materials recovery systems typically fall into one of the following general categories:

1. Source Separation Programs (including deposit programs and container collection programs);
2. Collection-Based Sorting Programs; or
3. Post Collection Processing Systems, including:
   a. Post-Collection Dump and Pick;
   b. Mechanically-Assisted Hand Separation; and
   c. Mechanical Separation Processes.

Categories 1 and 2 constitute Phase I waste management activities for the County's proposed system as discussed in Appendix A-2. The following sections provide general descriptions of each of these categories of materials recovery processes. An additional discussion of source separation programs and collection-based sorting programs is worthwhile within the overall context of "processing" discussed in this Appendix.

2.2 SOURCE SEPARATION

Although often overlooked in the discussion of waste processing methods, source separation, properly applied, can be an effective way of avoiding the need for more complicated and

expensive sorting methods of later stages during the collection/disposal chain. Source separation is a method of materials recovery which involves the waste generator. Most communities practice some degree of source separation in requiring the separate collection of oversized bulky wastes like furniture, washing machines, hot water heaters, etc. With the recent implementation of a statewide ban on disposal of landscape waste in Illinois landfills, landscape wastes are now separated from other types of municipal waste in Illinois communities. Source separation programs can be developed to address a wide range of additional waste materials and components, including recyclable materials generated by residential and commercial establishments and household hazardous wastes.

An advantage of source separation is the heightened awareness and sense of responsibility which these programs can instill in the waste generator. Source separation and the educational programs which typically ensue, highlight the important link between consumption and disposal. They demonstrate the vital contribution which every individual waste generator can make toward managing solid waste through selective purchasing and enlightened disposal.

Although involvement by the waste generator is a key advantage of source separation, the dependence on participation by generators also is the principal weakness in source separation programs. That is, the extent of materials recovery achieved by such programs is directly dependent on the percentage of generators that participate in the program, and the quality of efforts expended by those participants. Source separation programs require a continuing public education program to enlist and maintain participation, and to ensure that participants are fully informed of current requirements for material segregation and preparation (e.g., washing of bottles and cans) by generators.

To increase program convenience and entice participation, many

recycling programs require less sorting by the generator by providing more collection-based or post-collection processing. For example, most curbside collection programs for recyclables in DuPage County allow residents to commingle materials in a single container, relying on collectors or processing facilities (such as the North Intermediate Processing Facility currently under construction in DuPage County) for later segregation of the source-separated but commingled recyclables.

2.3 COLLECTION-BASED PROGRAMS

Municipal waste generated within the industrial, commercial/institutional, and residential sectors of a community is generally subject to some form of collection and transportation prior to disposal. Municipal waste collection can be handled privately or publicly. The collection of MSW typically involves door-to-door stops by collection crews who empty waste containers (generally garbage cans or bags for residential waste and dumpsters or bins for commercial, institutional, or industrial waste) into a vehicle (typically a compaction-type truck) which then transports the waste to a disposal facility. This door-to-door method of servicing waste generators offers a number of opportunities for the segregation and processing of mixed municipal waste.

Collection-based sorting programs can assume a variety of forms, determined principally by the types of materials targeted for collection and the types of generators served. The key feature which distinguishes a collection-based sorting program is that collectors play a key role in accomplishing the sorting tasks.

Materials can be partially source-separated, as in some residential recycling programs where homeowners are asked to place materials like tin cans, newspaper, glass and plastic containers, etc. in a separate container. Often these materials are then

separated at the curb and placed into separate bins by the collection vehicle driver.

An advantage of this type of program over a non-commingled system is that it enables the participant to minimize the amount of space required to store recyclable materials because only one container is required to hold all materials and increases the overall program convenience. By increasing convenience, recycling program managers hope to secure a greater level of program participation and a concurrent increase in the rate of materials recovery.

Materials like used batteries, motor oil, household hazardous waste, as well as various types of recyclable paper, glass, metal and plastics can be sorted, at least in part, during collection. A disadvantage of collection-based programs is that they tend to slow down the collection process. This can result in the need for larger crews, a greater number of collection vehicles to service the same number of units, and higher overall collection costs.

2.4 POST-COLLECTION PROCESSING

Post-collection processing systems focus on sorting MSW after it has been collected. These systems shift at least part of the responsibility for sorting waste materials from the generator or collector (who may not always be the best trained or qualified party) to a central entity which is better able to assume responsibility for finished product quality. Post-collection processing systems have been developed to handle materials ranging from commingled recyclables to mixed residential or commercial wastes. The types of post-collection processing systems available range in application from simple dump-and-pick operations to a complex series of mechanical sorting processes.

2.4.1 Dump And Pick

Dump-and-pick operations focus on sorting and segregating mixed municipal waste following collection. Municipal waste is brought to a receiving area where it is dumped onto a tipping floor. There the waste is inspected and targeted materials are removed. Targeted materials can include: (1) waste which is considered nonprocessible in subsequent processing operations such as oversized bulky or white goods destined for combustion or composting; (2) materials like batteries, cans of paint, gasoline or other household hazardous wastes which threaten human health, safety, or the environment; or, (3) various recyclable materials.

Dump-and-pick operations are common at commercial transfer station sites where high-value materials such as old corrugated containers (OCC) or office paper are removed prior to baling and transportation to a landfill. These operations generally target loads of municipal waste which are expected to contain large quantities of recyclable material such as those from commercial operations (i.e., "clean loads"), while passing the more contaminated residential wastes directly through to transfer/loading operations.

The principal advantage of dump-and-pick operations is the low capital cost when they are incorporated as part of a transfer disposal facility. The main capital cost is the cost of the additional required floor space. However, such operations are not well suited to consistently separating large quantities of material, and make it difficult to maintain a high quality of recovered materials.

Numerous waste transfer facilities use dump-and-pick sorting for the recovery of targeted materials. For example, the AAA Transfer Station and Recycling Center in McLean County, Illinois which processed over 33,000 tons of solid waste in 1988, manually

sorts through and removes OCC and other material from selected loads of waste (primarily commercial). The OCC is baled and the remaining waste is compacted and shipped to a landfill. The revenue derived through the sale of recovered recyclable material is complemented by an avoided disposal cost which results from a reduction in the volume of waste taken to the landfill. Most private operations will target only those recyclable materials which can be recovered and sold at a cost which is less than the economic benefits, typically comprised of material revenues and avoided disposal costs.

Dump-and-pick operations can also be located at landfills, waste-to-energy plants, or any other municipal waste processing operation which accepts mixed municipal waste. The degree of processing achieved by these facilities is limited by the capability of workers to thoroughly sort through deposited waste and recover targeted materials. Although this sounds like a relatively simple task, the action of sorting through large volumes of waste while not impeding the flow of the waste can require the use of complex handling mechanisms and procedures as quantities increase.

2.4.2 Mechanically-Assisted Hand Separation

The speed and efficiency of the material separation achieved through dump-and-pick operations can be improved by adding mechanical systems to enhance hand separation. Mechanically-assisted hand separation systems typically consist of a series of conveyors which transport the municipal waste past a series of picking stations. Workers at these picking stations systematically remove targeted materials. The remaining waste is transported along the conveyor either directly to a truck or perhaps first to a baler, for subsequent transport to the disposal facilities.

The degree of materials recovery which can be achieved through

mechanically-assisted hand separation is a function of the number of material sorting personnel employed and the types of materials targeted. That is, although manual sorting can in theory achieve a very high level of quality control, business economics dictate throughput and staffing limits which decrease the quality which can actually be achieved. Therefore, the number of workers assigned to a picking line, the physical configuration of their work stations, the speed at which the picking conveyor moves, the depth of material on the belt, and the materials which each worker must segregate, all influence the overall effectiveness and especially the cost-effectiveness of a mechanically-assisted hand separation process. Mechanically-assisted hand separation systems can be provided at virtually any type of solid waste facility to recover recyclable materials, to remove undesired or hazardous materials, to reduce the volume and to improve the quality of any material requiring further processing.

The Wastech Inc. transfer station in Portland, Oregon is an example of a commercial system which directs loads of municipal solid waste containing old corrugated containers (OCC) and office paper to a line of processing equipment which includes a series of trommels (see discussion of mechanical processes below) and sorting conveyors, where workers pick and sort materials from the waste. Hand picking is commonly used to recover materials like newspaper, OCC, glass and plastics which are not readily separated from mixed municipal waste by mechanical devises. However, mechanical processes can be used in place of hand picking to recover a variety of material products from municipal solid waste or to prepare it in various ways for further processing.

2.4.3 Mechanical Processes

Mechanical processes can serve a variety of functions in the management of municipal solid waste. These systems are commonly applied in the processing of commingled recyclable material and

mixed municipal waste. Although the overall systems used to process mixed municipal wastes differ significantly from those used to process commingled recyclables, many of the unit processes used in the two system types are similar. Examples of unit processes employed in both types of systems include size reduction, classification by density or size, and automated recovery of ferrous and aluminum metals.

Facilities designed to process mixed municipal waste also typically use both hand sorters and mechanical processes. There are several mixed waste stand-alone processing plants currently operating in the United States, including those operated by: the X-L Disposal Company in Crestwood, Illinois (technology by NRT, Inc.); Reuter, Inc. in Eden Prairie, Minnesota (technology by Buhler-Miag); ORFA in Philadelphia, Pennsylvania; National Ecology in Cockeysville, Maryland; and Future Fuel (technology by Lundell) in Thief River Falls, Minnesota. The interest in mixed waste processing systems is increasing despite the many problems which have been experienced at several of these operations. There are also a number of mixed waste processing systems employed at various combustion facilities. In fact, refuse derived fuel (RDF) facilities employ, by definition, mechanical waste processing systems. However, even facilities which utilize "mass-burn" combustion equipment may utilize mechanical or manual processing prior to combustion.

One of the most significant problems encountered in the processing of mixed municipal waste to recover recyclable materials concerns the potential contamination when recyclable materials are mixed with other components of the wastestream. Recyclable materials which are contaminated in this manner may be difficult to market. The sensitivity of markets to contamination is increasing as the number of recycling programs throughout the nations grows. Generally, source separated recyclables will exhibit a higher degree of cleanliness which is desirable to end markets.

Other problems encountered in the processing of mixed municipal waste and commingled recyclables relate to the availability of equipment to achieve the actual separation. Because of technological limitations in the capability of equipment to effectively separate certain components of the wastestream, such as plastics, glass, and individual grades of paper, human sorting is still required. Simply put, it is difficult to design machines which provide specific task functions on a feedstock which has ever-changing characteristics. However, the technology for mechanically achieving materials separation has advanced considerably in recent years and can be expected to advance in the future.

Mechanical processing equipment, described in the following sections, is generally classified by its intended function which can include:

1. Size Reduction;
2. Waste Classification; or
3. Automated Metal Recovery.

2.4.3.1 Size Reduction

A reduction in the size of municipal waste can be achieved through the application of one or more shredding units. The use of shredders in waste processing systems generally falls into one of three categories:

1. Primary shredding to reduce bulk density, to open bags, and to improve the efficiency of subsequent size separation systems;

2. Secondary shredding for size control and improved material handling; and

3. Tertiary shredding to improve ferrous or aluminum density or marketability.

There are four types of shredders in common use. They include the flail mill, rotary shear, horizontal hammermill, and vertical

hammermill. Each differs in the way they cut or break refuse.

Flail mills are normally primary shredding units which utilize various types of high-speed impactors to beat the refuse against a flat surface or a second rotor in a manner similar to a manual crushing device. Typical single and dual rotor flail mills are depicted in Figure 2-1.

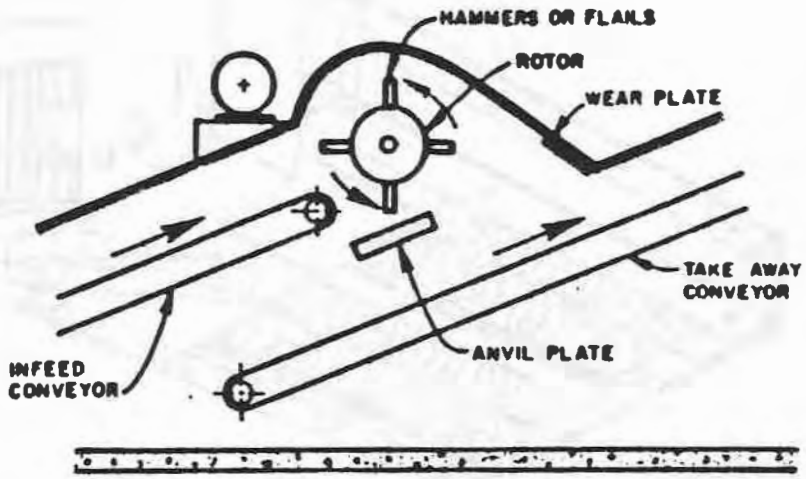
Rotary shears are low horse-power, low-speed size reduction units which slice, tear, or twist material into smaller particle sizes. Rotary shears are reversible so that when they encounter material too tough to cut, the shears reverse and back the materials out for repeated attempts. A typical rotary shear is illustrated in Figure 2-2.

Hammermills consist of multiple, high speed, pivoted swing-hammers connected to a rotor. Refuse introduced to the hammer unit is beaten, hammered, cut, and shredded by the force and shearing action of the hammers. In the horizontal hammermill, the hammer shaft is positioned horizontally and the hammer swings in a vertical plane onto a grate bar. In the vertical hammermill, the hammer swings in a vertical plane, however, grate bars are not used. Both horizontal and vertical hammermills are used in various preprocessing stages. However, the presence of a grate bar in the horizontal device offers better size control. Figure 2-3 shows a typical horizontal and vertical hammermill arrangement.

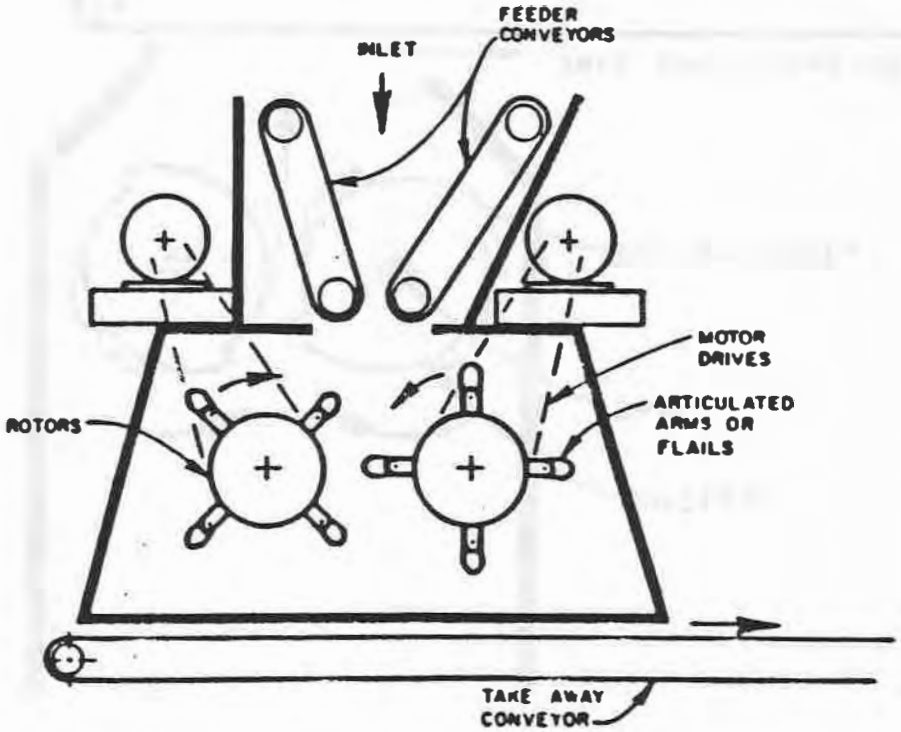
2.4.3.2 Waste Classification

Rotating Screens or Trommels

A trommel is a cylindrical screen that rotates around an axis. The axis is placed at a slight incline to produce movement of the waste through the unit. This process separates the wastes through particle size differentiation. With careful selection of the

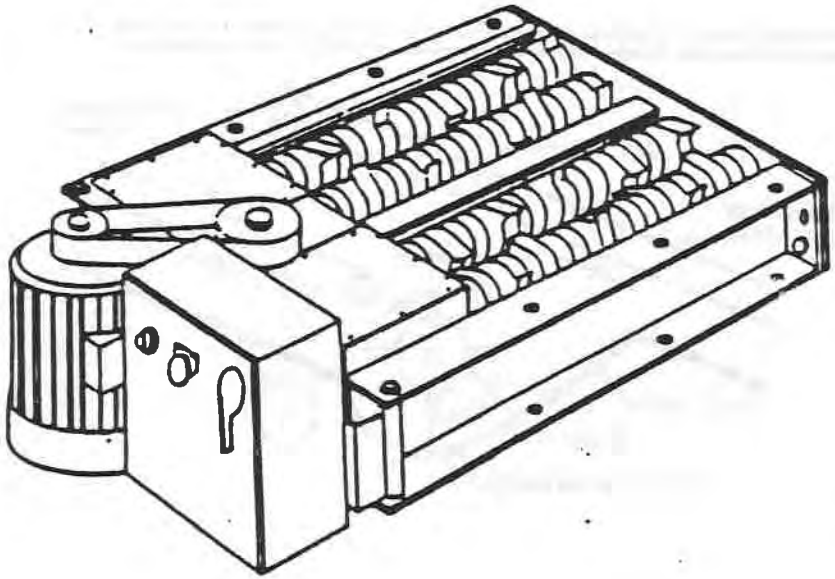


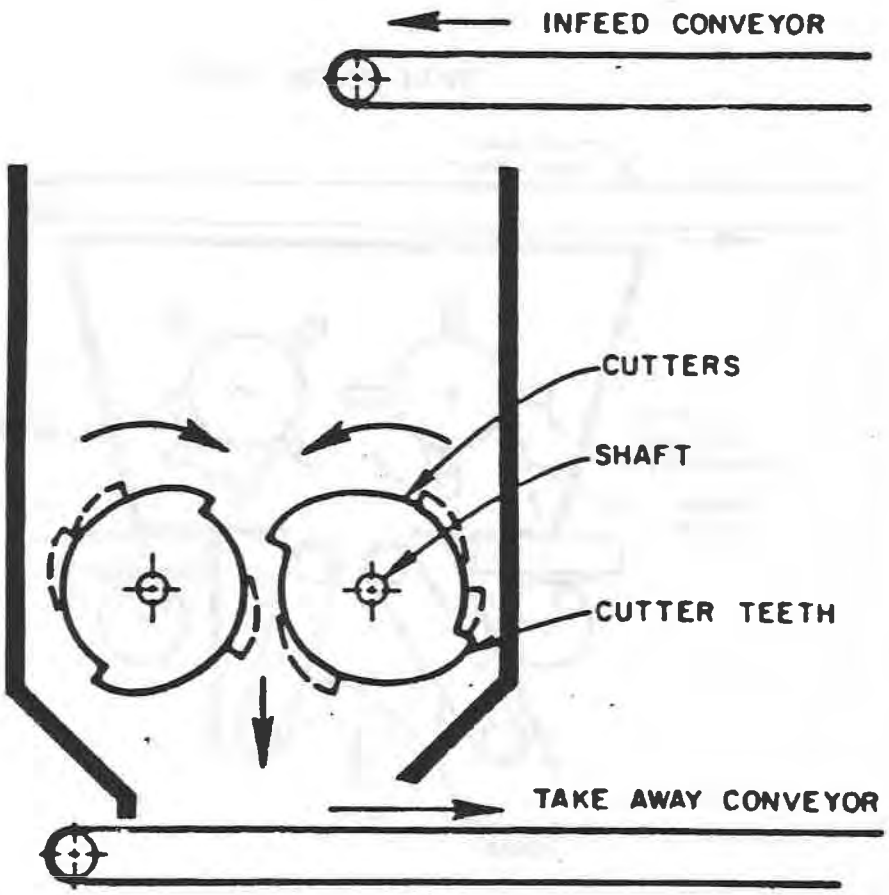
SINGLE ROTOR FLAIL



DUAL ROTOR FLAIL

DUPAGE COUNTY SOLID WASTE MANAGEMENT PLAN Camp Dresser & McKee Inc.	FIGURE 2-1 FLAIL MILL



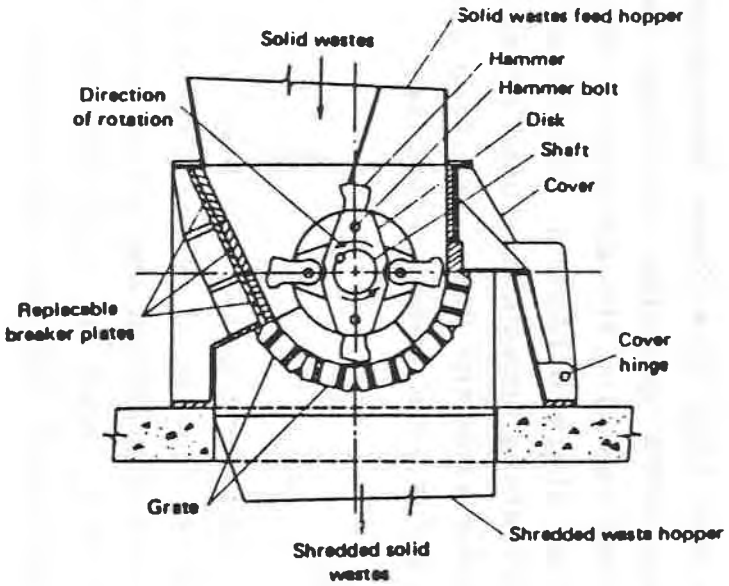


DUPAGE COUNTY SOLID WASTE MANAGEMENT PLAN

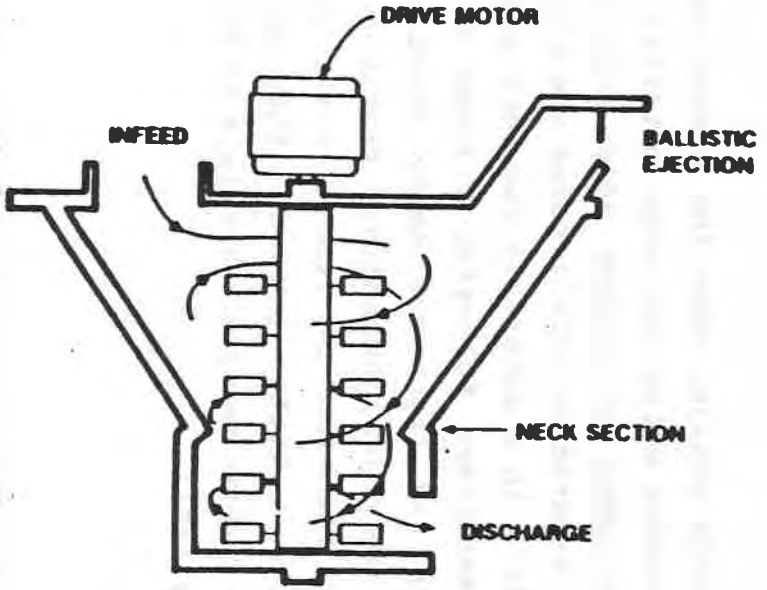
amp Dresser & McKee Inc.

FIGURE 2-2

ROTARY SHEAR



HORIZONTAL SHAFT HAMMERMILL



VERTICAL SHAFT HAMMERMILL

DUPAGE COUNTY SOLID WASTE MANAGEMENT PLAN Camp Dresser & McKee Inc.	FIGURE 2-3 HAMMERMILL

screen size, materials smaller than the screen mesh opening will drop through the screens while the large material travels through the trommel. The rotating action helps mix and tumble the wastestream so that separation efficiencies are high. Trommels can be used at many points in a materials recovery process. Trommels can be used as classifiers following a rough primary shredding process to separate the light and heavy fractions. Following classification and secondary shredding, trommels are also being used on the light fraction to remove dust, grit, and glass particles to produce a better product. They are also used as processing steps in the recovery of materials in the heavy fraction (i.e., metals and glass).

Vibrating Screens

Vibrating screens consist of one or more screens oriented at the same angle and stacked vertically with different mesh openings. They operate in a manner similar to trommels. The advantage of vibrating screens are that they provide good separation in the smaller particle size ranges and are less expensive. Their disadvantages are that they have lower throughput capacities than trommels, and they have problems handling wastes with large particle sizes (which can plug the screens). They also have lower removal efficiencies where different materials tend to cling or stick together. Vibrating screens are used primarily to process or separate large pieces from the heavy fraction (particularly grit, dirt, and crushed glass from other materials).

Air Classification

Air classification equipment has been used to separate the wastestream into fractions based on properties of the waste other than size alone. Classification equipment can be used in a large variety of applications. When air classification is used, shredded solid waste is introduced into an air stream. The lightweight

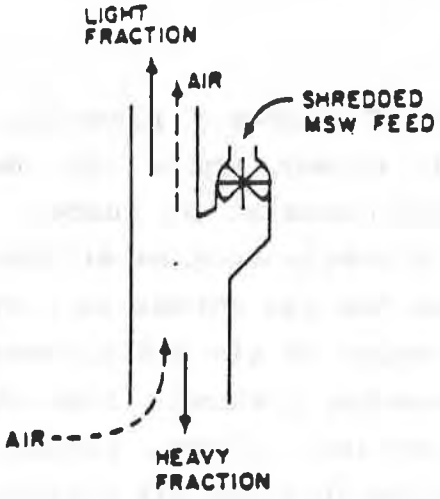
materials, predominantly composed of paper, plastics, and cardboard, are carried in the air stream while the heavier materials drop. The heavier materials consist of rubber, wood, glass, dirt, rock, metals, and other miscellaneous materials. The lightweight materials are removed from the air stream in a cyclone separator or settling chamber. Many types of air classifiers have been or are being used in waste processing systems. Some typical air classification schemes include vertical column, rotary drum, air knife, vertical zigzag, and vibrating inclined air classifiers. Figure 2-4 provides illustrations of these various air classifiers.

Air classifiers typically have high maintenance requirements, due mainly to abrasion from materials like glass and grit. For this reason and because they ineffectively control the carry-over of contaminating materials such as lightweight cans and pulverized glass, air classifiers are rarely used in the pre-processing stage of new facilities. They have, however, been used successfully in secondary processes for the separation of film materials and some high density contaminants. Air classifiers are particularly applicable in the production of fluff refuse-derived fuel (RDF).

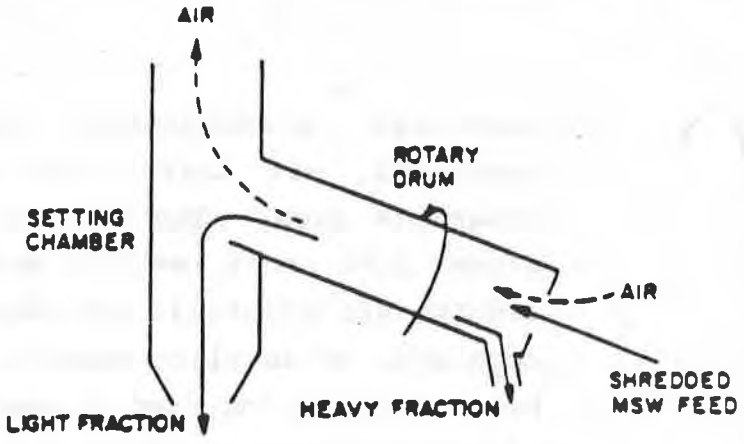
2.4.3.3 Automated Metal Recovery

Magnetic Separation

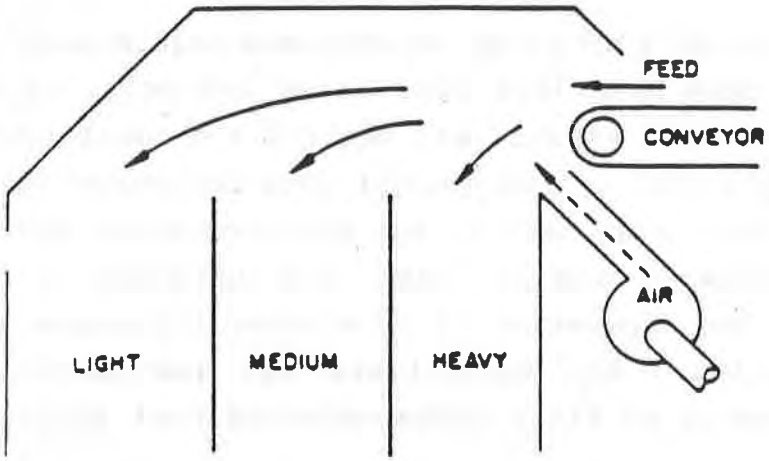
The magnetic properties of iron and steel make ferrous recovery one of the easiest material separation processes. Magnetic separators work by passing shredded solid waste by a magnet. These magnets are usually suspended over the end of a conveyer or located underneath it. As the wastes pass by the magnet, ferrous metals are picked up and diverted into a separate stream. Three basic types of magnetic separators have been used in recovering ferrous metals from shredded refuse including drum magnets, single magnet-belt separators, and multiple magnet-belt separators. These separators are depicted in Figure 2-5.



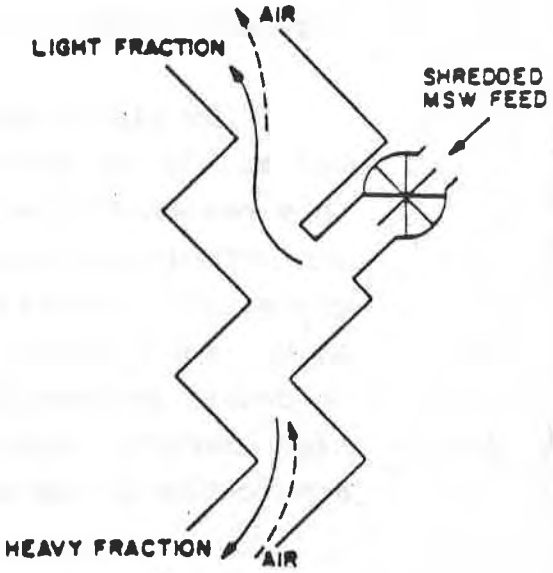
VERTICAL COLUMN AIR CLASSIFIER



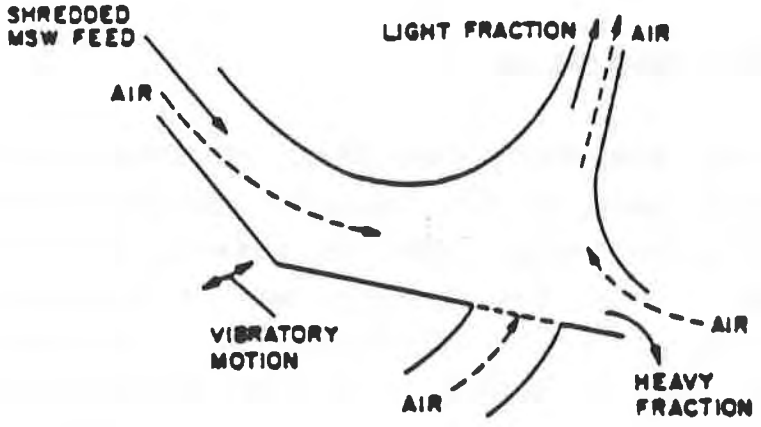
ROTARY DRUM AIR CLASSIFIER



HORIZONTAL AIR CLASSIFIER (AIR KNIFE)

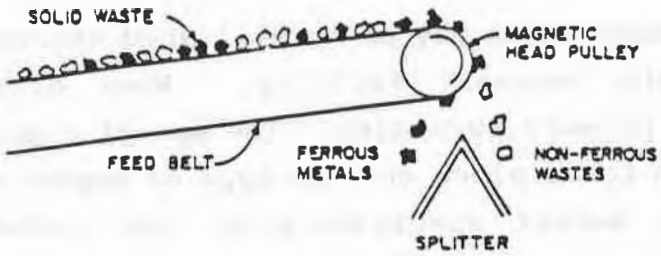


VERTICAL ZIG-ZAG AIR CLASSIFIER

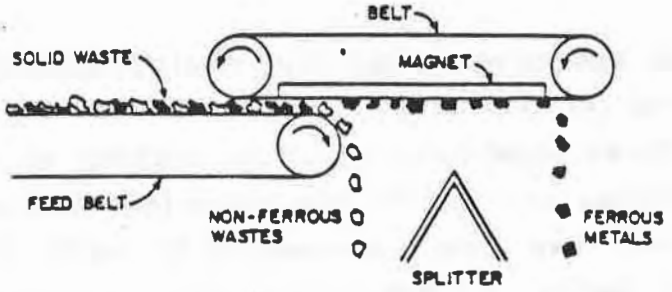


VIBRATING INCLINED AIR CLASSIFIER

DUPAGE COUNTY SOLID WASTE MANAGEMENT PLAN Camp Dresser & McKee Inc.	FIGURE 2-4 AIR CLASSIFIERS

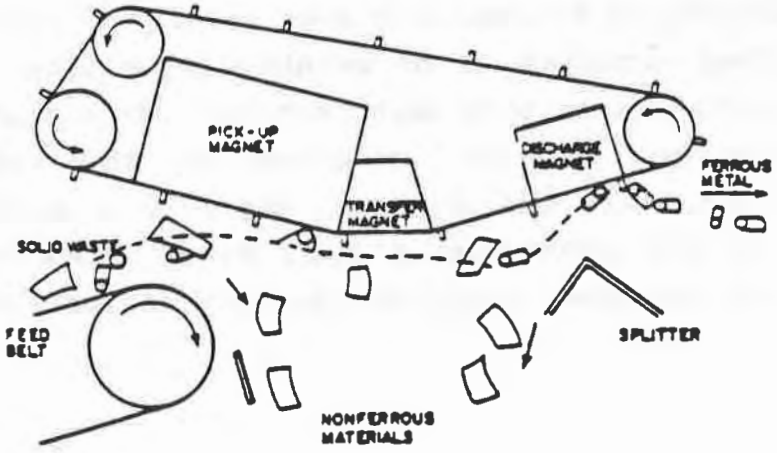


DRUM MAGNET



SOURCE: EPA

SIMPLE MAGNET-BELT SEPARATOR



SOURCE: DINGS MAGNETICS

MULTIPLE MAGNET-BELT SEPARATOR

DUPAGE COUNTY SOLID WASTE MANAGEMENT PLAN **Camp Dresser & McKee Inc.**	**FIGURE 2-5** **MAGNETIC SEPARATORS**

Magnetic separation may be accomplished at many different points in a materials recovery facility. Most often, it is performed following primary shredding. The specific point at which magnetic separation takes place and the type of magnet used depends upon the particular market specifications, the market locations for the ferrous scrap, and requirements for other separation processes.

Electroseparation

These processes generally employ electromagnetic properties and use non-ferrous metal conductivity to separate the metals from refuse. These materials are moved through an electromagnetic field which deflects or carries the materials out of the refuse stream. This system has been successfully used on aluminum, and is currently being investigated for other non-ferrous metals. Aluminum separators of this type are commonly referred to as eddy current separators. Electromagnetic field processes are usually preceded by classification, secondary shredding, and trommels or vibrating screens to produce the required feed material. That is, electroseparation devices work most effectively on wastes in which the targeted material is of relatively uniform size, and after certain contaminants have been removed. The effectiveness of such sorting devices is also influenced by the ability of infeed conveyors to limit the depth of the bed of materials requiring sorting, so that non-targeted items do not block the path to which the sorting equipment subjects the targeted material.

SECTION 3.0
SYSTEM APPLICATIONS

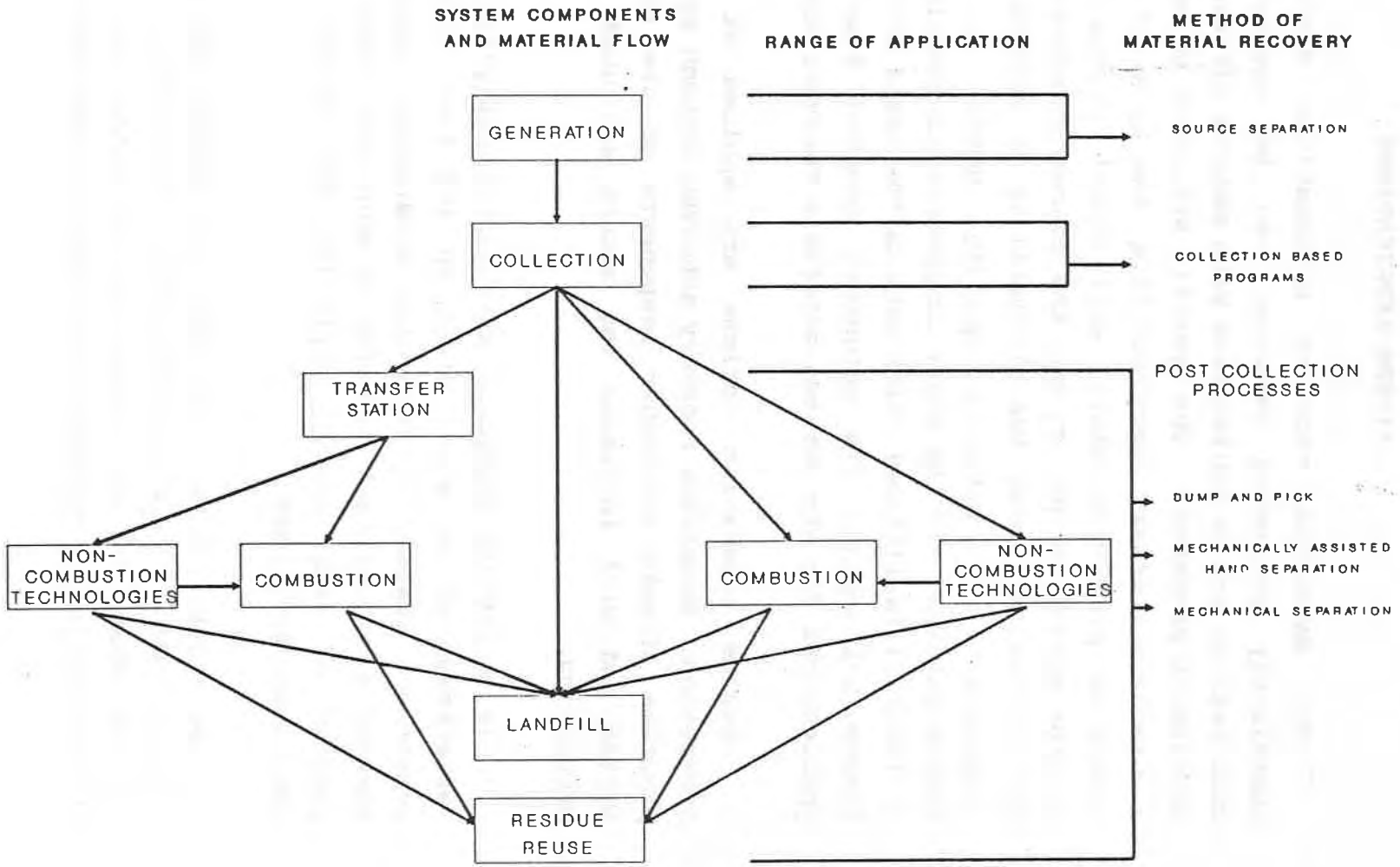
The materials recovery alternatives discussed in the immediately preceding sections can be applied in various combinations and in conjunction with several different solid waste management processes. The specific structure or configuration of a materials recovery operation (i.e. the types of equipment, the number of personnel, etc.), will depend largely on the overall program goals and objectives; the degree of materials separation and recovery desired; the availability of markets for recovered materials; the material quality needed to meet market specifications; and the other components (combustion, composting, or landfill facilities) which make up the waste management system. Figure 3-1 depicts the potential material flow and range of applications for the various materials recovery options.

Source separation options are applied at the point of generation. Materials recovery achieved through source separation programs affects all other components of the waste management system and will influence the nature and need for additional processing.

In a similar manner, collection-based programs impact the wastestream at an early stage in its flow through the waste management system. Like source separation, these programs can recover a significant quantity of municipal solid waste for the purpose of recycling or improving the quality of waste for downstream processes.

As shown in Figure 3-1, municipal solid waste can take any of several paths following collection. Materials recovery methods applied after the waste has been collected are commonly termed post-collection processes and can include dump-and-pick facilities,

FIGURE 3-1
MATERIAL RECOVERY SYSTEM ALTERNATIVES
MATERIAL FLOW AND RANGE OF APPLICATION



mechanically-assisted hand separation processes, and mechanical separation processes.

One of the most common applications of post collection materials recovery processes occurs at municipal solid waste transfer stations. Transfer stations, by design, serve an intermediate processing function. Most transfer stations accept municipal solid waste, reduce its volume through compaction, and transport it to a landfill or some other type of processing facility. The basic function of a transfer station is to process the waste in a manner which optimizes the efficiency of further transportation. Materials recovery compliments this function by further reducing the volume any remaining waste.

X-L Disposal's 400 TPD mixed waste processing facility in Crestwood, Illinois, is located at a transfer station. This facility is designed to separate refuse into five streams, including glass and grit; ferrous metals; nonferrous metals; papers; and plastics. The system includes two hand-picking stations for the separation of paper and plastics; a rotating trommel to break up bags and separate grass and grit; a series of magnets to remove ferrous metals; an eddycurrent separator to remove aluminum; and the recent addition of air classifiers and a cubing system for preparing RDF. The system occupies about 4,000 sq. ft. of a 19,000 sq. ft. transfer facility which X-L has been operating since 1981. In the three months of April, May and June, 1990, X-L claims to have processed over 29,000 tons of mixed municipal waste and to have recycled approximately 15% of this material.

In addition to being located at transfer facilities, materials recovery processes are being applied increasingly to combustion systems. These processes can be applied both before and after combustion. Post-combustion recovery systems generally target ferrous metals which are typically separated from combustion ash

using one or more of the magnetic recovery systems described above. Pre-combustion materials recovery systems can target a wider range of materials including paper, plastic, glass, ferrous, aluminum, and other metals. By removing glass, metals, grit, and other undesirable materials like household hazardous wastes, materials recovery systems can substantially improve the combustion process resulting in smoother operations and cleaner emissions.

In a similar way, materials recovery systems are used to process municipal solid waste prior to composting. Materials recovery systems are typically installed at the front end of a composting operation to remove glass, ferrous metal, aluminum and other nondegradable materials prior to actual composting in a compost reactor. Following the composting process some additional screening may occur to further improve product quality.

Resource Recycling magazine recently reviewed 10 materials recovery facilities operating in the U.S. (Resource Recycling, "Garbage In, But What Comes Out?", September 1990). The facilities examined were:

-	Delaware Reclamation Plant	New Castle, DE
-	Fillmore County Resource Recovery Center	Preston, MN
-	Future Fuel, Inc.	Thief River Falls, MN
-	Rabanco Recycling Company	Seattle, WA
-	Recomp, Inc	St. Cloud, MN
-	Refuse Resource Recovery Systems	Omaha, NE
-	Reuter, Inc.	Eden Prairie, MN
-	Sumter County	Sumterville, FL
-	Wastetech, Inc.	Portland, OR
-	XL Disposal Corporation	Crestwood, IL

Table 3-1 provides a summary of information for the selected facilities. The highest reported recovery rate for recyclables is 50 percent at the Wastetech facility. This operation receives selected commercial waste with a paper-rich fraction. Reportedly, loads with as little as 30 or 40 percent recoverable paper are accepted, although the tipping fee goes up as the percentage and scrap value of the recyclable paper goes down.

The Delaware Reclamation Plant, designed and operated by Raytheon Service Company for the Delaware Solid Waste Authority, is unique. The facility has a 4 percent recycling rate but the combination of co-composting and RDF products gives it a reported overall 84 percent landfill diversion rate. Co-composting involves mixing the organic fraction of solid waste with sewage sludge for composting.

Materials recovery offers benefits even within those waste management systems which do not include combustion or composting operations. Removing recyclable paper, plastic, glass, metals, and undesirable materials like household hazardous waste helps to reduce the volume of waste which requires landfilling. It can also make the remaining waste more compactable, thus saving valuable space in the landfill, and potentially adding years to its life. Removing household hazardous wastes and other undesirable materials may also help reduce the potential environmental risk associated with operating a landfill.

Materials recovery systems can play a key role in the formulation of integrated waste management systems. They can be pivotal in providing for the separation of mixed municipal waste into component parts which can then be processed in the most suitable manner through various recycling, composting, combustion, or landfill alternatives.

appa3-3

TABLE 3-1
PROCESSING AND RECOVERY LEVELS AT SELECTED MIXED WASTE PROCESSING FACILITIES

FACILITY	DESIGN TONS PER DAY	ACCEPTED MATERIALS (1)	PERCENT RECYCLABLE MATERIALS	PERCENT OTHER PRODUCTS (2)	PERCENT LANDFILLED
Delaware Reclamation	1,000 (R,C) 260 sludge	R,C sludge	4	80	16
Fillmore County *	8, also 3 SS	R,C	8	N/A	N/A
Future Fuel	45	R,C	16	73	11
Rabanco *	200	SC	N/A	N/A	N/A
Recomp *	100 SS 100	R,C	5	55	40
Refuse Resource Recovery Systems *	600+	R,C	(4)	(4)	(4)
Reuter (3) *	400	R	7	38	55
Sumter County *	60	R,C	7	76	17
Wastetech *	48, also 60 SS	SC	50	0	50
XL Disposal	400	R	14	20	66

* Indicates source separation program exists in area.

(1) R = mixed residential waste, C = mixed commercial waste, SC = selected commercial waste with paper rich fraction, SS = source-separated curbside materials accepted but processed with other equipment.

(2) Such as refuse-derived fuel or compost.

(3) Two-thirds of the RDF is stored because of inability to sell.

(4) The vendor is contractually obligate to process (recover) 20% of the waste delivered with the goal increasing to 30 percent in yearly increments of 2%.

SOURCE: Resource Recycling, September 1990

SECTION 4.0
PROCESS DESIGN CONSIDERATION

4.1 INTRODUCTION

As discussed earlier in this Appendix, the successful application of materials recovery in an integrated solid waste management system requires a thorough evaluation of the service areas, waste characteristics, and the respective roles of other components of the overall system in processing or disposing of municipal solid waste. The design of a materials recovery process should be based on the overall waste management objectives and the specific need for materials recovery to meet those objectives.

Several different types of facilities are being considered as potential components of an integrated waste management system in DuPage County. As indicated in Appendix A-2, materials recovery through a source-separation-based recycling program is a key component of all options. By constructing intermediate processing facilities to serve the growing number of curbside recycling programs in DuPage County, and by providing related assistance and community education, the County is acting to maximize the recovery of recyclable materials from the wastestream through source separation. Through a complimentary series of commercial/industrial/institutional outreach efforts, the County intends to maximize the participation of these establishments in recycling efforts.

However, even the best designed source-separation based recycling program will not recover all of the available recyclable materials which enters the residential and commercial/industrial/institutional wastestreams. Materials recovery is limited by factors such as those governing the rate of participation and the number of people or businesses which can be realistically and economically served with programs for the

separate collection of recyclable materials. Further, some recycling programs, especially those for DuPage County multi-family residential units, may target only a portion of the available materials, leaving other recyclable materials in the wastestream. Most businesses will only recycle to the extent that the perceived benefits from recycling outweigh the cost of waste disposal.

In designing a post-collection materials recovery program to supplement a source separation program as proposed in Phase I of the County's system, careful consideration must be given to coordinating the two efforts. Conducting materials recovery at two or more points in a waste management system may result in some redundancy. However, some redundancy may be necessary to achieve materials recovery or contaminant reduction objectives. The cost of redundancy associated with achieving higher levels of materials recovery must be balanced against the overall materials recovery goals and objectives.

Materials which are not typically collected in source separation efforts are good target materials for post-collection or secondary materials recovery processing. This may include materials like mixed waste paper or other low quality grades of paper, household hazardous waste, and certain organic materials. However, the cost-effectiveness of providing collection of these materials, especially household hazardous wastes, by source separation efforts must be considered.

An assessment of the current and developing markets or alternative disposal options for materials targeted for recovery is essential. For instance, a materials recovery program accomplishes little by removing mixed waste paper. Similarly, removal of hazardous waste accomplishes nothing if alternative methods for more environmentally acceptable processing or disposal are not available. Again, the processing objective must be considered. Materials recovery is often applied as a preprocessing step for

some other type of operation employing combustion or non-combustion processes prior to landfilling of residue. The processing objective in this type of application is partly to assist in preparing an optimum feed stock for subsequent combustion, composting or other non-combustion processing (e.g., anaerobic digestion). Materials recovery in these applications may proceed under adverse market conditions even though the recovered materials may be sent to a landfill.

As discussed earlier in Section 3.0, the apparent use of materials recovery facilities prior to landfilling has been to primarily reduce the amount of waste requiring disposal. Design of a facility allowing the recovery of materials considered as undesirable for landfilling (i.e. organic solvents) may be achievable in the future and would offer obvious benefits.

In developing a materials recovery program, consideration must also be given to the particular wastestream which is targeted. For example, municipal source-separation recycling programs have tended to target residential waste more than commercial/industrial/institutional wastes. This tendency occurs because local governments are often directly involved in providing, franchising, or licensing the collection of residential wastes, but are rarely involved in similar activities for the collection of commercial, industrial and institutional wastes. However, the commercial/industrial/institutional wastestream often contains a relatively high proportion of recyclable materials, which are generally less contaminated (e.g., with food wastes) than residential wastes. Commercial/industrial/institutional MSW recycling has been driven largely by an economic incentive to reduce disposal costs. Mixed commercial waste sorting can be a viable mechanism for inducing commercial/industrial/institutional materials recovery in excess of that typically achieved through education, promotion, and the application of economic incentives.

Other issues which must be addressed in the design of a materials recovery program include: siting objectives and constraints, cost, environmental impacts, and various implementation concerns. These topics will be discussed in the following sections.

appa3-4

SECTION 5.0
SITING OBJECTIVES AND CONSTRAINTS

5.1 INTRODUCTION

The selection of a proper site for a materials recovery operation is critical to its overall success. The specific nature of the materials recovery operation will have a significant bearing on the siting requirements which must be met.

Materials recovery operations which process mixed residential waste would under current state statutes require a permit from IEPA and, if they meet the definition of a "Regional Pollution Control Facility", would require local siting approval in accordance with Section 39.2 of the Illinois Environmental Protection Act. This process is often referred to as the SB-172 approval process. For more information on this siting approval process, refer to Section 2.0 of Appendix A-1.

In most cases, siting considerations for a materials recovery facility, like any other waste transfer, processing or disposal facility, extend beyond the statutory requirements of the Illinois Environmental Protection Act. Examples of other issues which must be considered include:

1. Land requirements and availability;
2. Transportation and market accessibility;
3. Proximity to utilities;
4. Site subsurface conditions; and
5. Economic and environmental impacts to the surrounding affected community(ies).

These issues are briefly examined below.

5.2 MINIMUM STATE REQUIREMENTS

In August 1990 the Illinois Pollution Control Board promulgated amendments to its landfill regulations (Proceeding R88-7, August 17, 1990). The regulations deal with the disposal of municipal solid waste (including special wastes) at sanitary landfill facilities in Illinois. The regulations set the following minimum location standards for the siting of new landfills in Illinois (ref. Section 811.102):

1. The facility shall meet all requirements under the Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq.).

2. The facility shall not restrict the flow of a 100-year flood, result in washout of solid waste from the 100-year flood, or reduce the temporary water storage capacity of the 100-year floodplain, unless measures are undertaken to provide alternative storage capacity, such as lagoons, holding tanks, or provision of drainage around structures at the facility.

3. The facility shall not be located in areas where it may pose a threat of harm or destruction to the features for which an irreplaceable historic, or archaeological site was listed pursuant to the National Historic Preservation Act (16 U.S.C. 470 et seq.) or the Illinois Historic Preservation Act (Ill. Rev. Stat. 1989, ch. 127, par. 133d1 et seq.) for which a Natural Landmark was designated by the National Park Service or the Illinois State Historic Preservation Officer, or for which a natural area was designated as a Dedicated Illinois Nature Preserve pursuant to the Illinois Natural Areas Preservation Act (Ill. Rev. Stat. 1989, ch. 105 par. 701 et seq.).

4. The facility shall not be located in areas where it may jeopardize the continued existence of any designated endangered species, result in the destruction or adverse modification of the critical habitat listed for such species, or cause or contribute to the taking of any endangered or threatened species of plant, fish or wildlife listed pursuant to the Endangered Species Act 16 U.S.C. 1531 et seq., or the Illinois Endangered Species Protection Act (Ill. Rev. Stat. 1989, ch. 8, par. 331 et seq.).

5. The facility shall not cause a violation of Section 404 of the Clean Water Act (33 U.S.C. 1344).

6. The facility shall not cause a violation of any requirements implementing an area-wide or statewide water quality management plan for nonpoint source pollution that has been approved under Section 208 of the Clean Water Act (33 U.S.C. 1288).

These location standards should be considered in any consideration of sites for materials recovery facilities. Also, any State requirements specifically addressing waste processing facilities should be considered at the time such facility site(s) is (are) considered. For instance, at the current time, a materials recovery facility could be classified as a waste transfer facility (unless located at an existing waste facility) and, therefore, would require minimum setback requirements from residences under State stature. However, in 1990 the separate categorization of waste "processing facilities" was discussed by a State Legislation task force looking into waste facility siting issues. Separate State regulations may apply to these facilities in the future.

5.3 LAND REQUIREMENTS AND AVAILABILITY

The amount of land required for a materials recovery facility will depend on the type of process used, the quantity of materials to be processed, site topography, and the location of the site in relation to adjacent land uses. The need to incorporate buffer area into the site decreases as the compatibility with surrounding land uses increase. However, it can be generally assumed that sites with expanded buffer capabilities are preferable to those without such capabilities. Typically, a centralized processing facility for DuPage County could be expected to occupy anywhere from 5 to 20 acres, depending on the facility's specific requirements and its compatibility with neighboring properties.

5.4 TRANSPORTATION AND MARKET ACCESSIBILITY

In addition to considering the impact which a materials

recovery facility (specifically intermediate processing facilities, not drop-off centers) will have on surrounding traffic flow, some consideration should be given to locating a materials recovery facility as close as possible to major transportation routes serving potential markets for the recovered materials. Choosing a site which is near interstate highway interchanges and, if possible, a railroad line can have a considerable influence on the facility's accessibility to potential markets, and the cost to transport materials to those markets.

5.5 PROXIMITY TO UTILITIES

The utilities required for a materials recovery facility include telephone, sewer, electric, water, and possibly natural gas. Selection of a site where these utilities are readily available is preferred, as the cost of extending utilities to a site can be substantial.

5.6 SITE SUBSURFACE CONDITIONS

Most materials recovery facilities, particularly those applied in the processing of mixed residential or commercial waste, will require relatively large buildings (e.g., often 30,000 square feet or more). The equipment and structures are usually heavy, requiring stable soils for foundations. Soils unable to bear these process buildings and heavy process equipment loads would require more expensive foundations. Such conditions, could preclude an otherwise attractive site from consideration because of the expense involved in the construction of an adequate foundation.

Most materials recovery facilities include a tipping floor but do not generally include a storage pit. This simplifies the construction process and eliminates a number of potential problems. However, where storage pits are used, as in some applications where

material recovery is employed prior to combustion, high groundwater or shallow bedrock could also complicate construction of a materials recovery facility.

5.7 ECONOMIC AND ENVIRONMENTAL IMPACTS

These two considerations are often dealt with on a more subjective rather than quantitative basis in overall consideration. The considerations already listed deal with economic and environmental impacts but often an overall consideration of subjective selection is applied when multiple sites are similar in relative impacts.

5.8 SUMMARY

The sections above describe conditions which should be considered when attempting to locate a potential site(s) for a materials recovery facility. As progress proceeds on site consideration, additional restrictions as considerations may become apparent but the above considerations can be regarded as setting the baseline for evaluation of sites.

SECTION 6.0
ENVIRONMENTAL CONCERNS

6.1 FACILITY IMPACTS

All materials recovery programs and facilities, regardless of type, present the potential for locally negative impacts on the environment, even though the net broader impact on the environment may be positive. For example, curbside collection and drop-off recycling programs may produce locally higher air emissions because of the collection trucks or automobile trips needed to transport materials to a recycling facility. However, on a broader basis, these impacts would need to be compared with emissions reductions resulting from decreased shipping requirements of virgin materials in order to compare the relative advantages of recycling. Residential drop-off sites or storage areas for recyclable materials also present the potential for locally undesirable environmental impacts associated with litter generation, reduced aesthetics associated with poor housekeeping, traffic congestion, dust, etc. The potential environmental impacts associated with a materials recovery operation will vary with the size of the facility or program and the types of processes involved.

A mixed municipal solid waste processing operation can generally be classified as an industrial activity. It generates truck traffic; can potentially be a source of noise, fugitive dust, and odors; and can cause visual impacts to the surrounding community. Measures which can be taken to control the potential environmental impacts resulting from these types of processes include controlling the length of time which putrescible waste or separated contaminants are allowed to remain in the facility both before and after processing; requiring the application of appropriate dust control measures such as the installation of filters in buildings; and reducing traffic-generated dust by paving areas which will receive heavy truck traffic. Noise and aesthetic

concerns can both be addressed through appropriate design of buildings and site landscaping features.

Despite the control measures which can be taken, it is practically impossible to avoid all potential impacts to the environment. For this reason, a facility is most appropriately placed within an area which is classified for industrial or specific solid waste use, or is otherwise appropriately buffered from nearby incompatible land uses. For instance, an area which is surrounded by agricultural land offering significant buffering from residential areas may be adequate. Reviewing land use as a site evaluation criterion indirectly provides a mechanism for considering other siting issues such as noise, aesthetics, and other environmental impacts. A site which rates poorly with regard to zoning and land use would, in all probability, require special attention for such issues as noise and aesthetics due to the identified conflicting land uses.

6.2 RESIDUE MANAGEMENT

During the processing of wastes, waste materials are separated into various categories. Some of these materials are sold to material markets and others may be used as feedstocks for subsequent combustion or non-combustion processing prior to landfilling. There also are materials which remain after processing and which may be unmarketable to material buyers; undesirable components for feedstock materials (e.g., plastics separated from compost feedstock); or have been separated from incoming waste materials because of environmental concerns (e.g., batteries or used oil) from mixed wastes. In planning for waste processing programs and facilities, it is essential that the environmental, legal, and economic considerations associated with the storage, transportation, and disposal of these residue products be properly addressed.

At a recycling facility (e.g., the IPFs), the disposal of residues can be expensive, reducing the net revenues produced by the facility, and can negatively impact the overall material recovery level that is actually achieved. However, the disposal of residue materials is even more challenging when those materials are actually or potentially hazardous, such as contaminants picked from mixed wastes. For example, it may be desirable to pick such household hazardous wastes as batteries, paints, solvents, pesticides and herbicides from mixed wastes destined for landfills. Although the sorting process removes these materials from the mixed wastes, a stream of concentrated contaminants is created, typically requiring disposal of at least some of the materials as hazardous wastes. Accordingly, proper means must be provided for storing, transporting and disposing of any residues classified as hazardous waste. The costs of such requirements must be anticipated. The liability of the owner and/or operator of the facility for the subsequent handling and disposal of such materials should also be thoroughly evaluated.

For recycling facilities, it is often possible through facility design and operation or through market development to reduce the amount of residues produced by the plant. For example, much of the residue produced by a sorting facility for commingled recyclables is usually broken pieces of glass which are too small for laborers to sort by color. Equipment can be designed to minimize glass breakage prior to sorting. As an alternative, efforts can be made to develop uses for this material (e.g., as an aggregate substitute in asphalt pavement), thereby transforming a residue into a marketable product.

appa3-6

SECTION 7.0
COST

7.1 INTRODUCTION

The cost of a materials recovery facility will vary greatly with the type of process involved. Project specific factors such as the specific type and quality of equipment used, size and type of buildings utilized, site purchase and development costs, ownership and financing methods, etc. will all affect the overall cost of a materials recovery process. The cost for curbside collection or drop-off programs can range from less than $20/ton to over $120/ton of material collected depending on many factors chiefly including the cost for the hauling company, the cost of processing for markets and the local market conditions. The cost for an operation like a mixed waste processing facility can also vary considerably but chief considerations include the cost for processing, local market conditions, and the local cost for waste disposal.

Table 7-1 provides a summary of the stated construction costs for the mixed waste processing facilities which were described in Section 3.0. The capital costs of these facilities ranges from $5,000 to nearly $73,000 per design ton of processing capacity. The Resource Recycling article concludes that a combined approach to mixed waste processing using pickers and mechanical devices can keep the construction costs in the range of $30,000 to $50,000 per installed ton of daily processing capacity. Cost data for materials recovery facilities is extremely limited. It may also not be comparable where available or even relevant to local conditions. Therefore, the cost information presented here provides only a general summary of costs for these types of facilities.

The capital cost of a facility (including financing costs),

TABLE 7-1
SITE SIZE AND COSTS FOR SELECTED MIXED WASTE PROCESSING FACILITIES

FACILITY	DESIGN TONS PER DAY (1)	SITE AREA (ACRES)	$ CAPITAL COST (2)	$ OPERATING COST (3)	TIPPING FEE ($)
Delaware Reclamation	1,000 (R,C) 260 sludge	25	76.9	51.21	45.17
Fillmore County *	8, also 3 SS	12	0.8	5	30 or 70
Future Fuel	45	12	1.5	35-45	45
Rabanco *	200 100 SS	5	8.7	N/A	N/A
Recomp *	100	7	6+	N/A	52
Refuse Resource Recovery Systems *	600+	5.5	3	N/A	8.70-13.65
Reuter (3) *	400	11	20	N/A	92
Sumter County *	60	7	2.5	18	35
Wastetech *	48, also 60 SS	6.5	1.2	N/A	48-55
XL Disposal	400	5	4	N/A	20, 7 to ship

* Indicates source separation program exists in area.

- All costs are presented in dollars per ton.

(1) R = mixed residential waste, C = mixed commercial waste, SS = source-separated curbside materials accepted but processed with other equipment.

(2) In millions of dollars.

(3) Does not include debt service.

SOURCE: Resource Recycling, September 1990

together with the operating costs, are typically reflected in the tipping fee which is charged to deliver waste to the facility. The tipping fee does not necessarily reflect the true total costs of operation because of the varied manner in which these fees are applied at solid waste management facilities. However, tipping fees can be a reasonable indicator of relative costs among facilities. Table 7-1 provides a summary of tipping fees at the referenced facilities as well as operating costs. Tipping fees usually include the costs of any subsequent processing or disposal of MSW or residue remaining after material recovery.

appa3-7

SECTION 8.0
IMPLEMENTATION

The implementation of a project providing materials recovery by mixed waste processing is dependent upon the final disposal option(s) selected by the County. However, the provision of materials recovery can proceed in a phased manner in order to provide processing capability which meets the goals of materials recovery as discussed in this Appendix while meeting the processing standards for the final disposal site. The key consideration for this type of project is flexibility. The facility must be sufficiently flexible in design to respond to changes in recovered materials markets as well as changes in the requirements for processing prior to disposal. Obviously, the better defined the total waste management system is, the better the role of materials recovery by mixed waste processing can be determined but the lack of a clearly defined waste management system for disposal should not in itself preclude the implementation of a materials recovery facility.

An important factor in determining the placement of mixed waste processing facilities for materials recovery is the location of waste disposal facilities. For instance, if disposal will be provided at facilities located within the county, it is probably most logical to provide the waste processing facilities at the point of disposal. In Resolutions 90-202 and 90-203 (see Appendix A-4 for copies), which support not closing either Mallard Lake or Greene Valley Landfills prior to their reaching IEPA-permitted capacities, the Forest Preserve District has recognized the advantages of waste processing by assuming that waste processing will be provided in conjunction with future operations at the two sites. However, if in-county disposal options were not available for an extended period of time, then providing waste processing facilities at a transfer station would be logical. This scenario is discussed in Appendix A-4 in the Waste Transfer sections.

Therefore, the site location of any proposed waste processing facility should be considered within the context of future disposal site location.

The requirements for siting and permitting of a mixed waste processing facility are currently in a state of flux. Currently, the facility would apparently qualify as a Regional Pollution Control Facility as defined by SB-172 because it would either be treating or transferring waste and would therefore require local siting approval. However, discussions are underway at the State legislative level to exclude such facilities from the definition of a Regional Pollution Control Facility because the facility's primary purpose would be to recover recyclable materials (or reduce the apparent toxicity of remaining waste). It is unclear what level of permitting would be required for the facility but it can be expected that an IEPA permit for operation would most likely be required. Note that an IEPA permit for the operation of transfer stations is not specifically required at this time by State regulations. Similarly, a permit is not specifically required for recycling facilities either. If such a facility is located at an existing waste disposal (or other permitted waste facility) it is expected that a supplemental permit, issued by the IEPA, for the operation of the facility would be required but local siting approval would not be required because the site is already a Regional Pollution Control Facility.

The detailed design period for such a facility is dependent on the scope of the facility but could be expected to require a minimum of six months. Bidding and construction would be expected to require 24 to 30 months resulting in total project completion schedule 2.5 to 3 years. This amount of time represents the expected time required for project implementation after selection of a site and approval by the local siting authority if required. Allotment of time for these factors would substantially increase the expected implementation timeline. appa3-8

SECTION 9.0
RECOMMENDATIONS

9.1 RECOMMENDATIONS

This Appendix has discussed the application of various materials recovery options and where the various options can be placed in the waste collection and disposal network. Appendix A-2 discussed the implementation of materials recovery programs at the level of the consumer (point of generation) or preceding the consumer which collectively may be termed as "waste reduction." For the purposes of Plan-1990, materials recovery at this stage is defined as Phase I for the County's comprehensive waste management program and is aimed at the individual generators of waste, concentrating on the separation of recyclable materials prior to commingling with other waste.

Although the implementation of Phase I will have a substantial impact on reducing the overall waste quantity to be disposed, it must be recognized that further reduction in the wastestream is possible by the use of post-consumer mixed waste processing. There are several reasons for this statement including:

1. Not all individuals will participate in the separation of materials at the source;

2. Even those individuals that participate in source separation programs regularly will not recycle all materials that are recyclable 100 percent of the time;

3. The coordinated and convenient service to multi-family dwellings in the county is not and will probably not be at the same level as that for single-family dwellings. The recovery rate from this faction of waste generators can be expected to be lower with significant quantities of recoverable material remaining in this component of the wastestream; and

4. The relative recovery rate from the commercial/industrial/institutional faction of waste generators can fairly be expected to lag in

implementation with significant quantities of recoverable materials remaining in this component of the wastestream.

The advantages for the implementation of materials recovery processes which target the additional recovery of recyclable materials from the mixed wastestream are evident when viewed as supportive to source separation (Phase I) efforts. This level of additional waste reduction is proposed as Phase II of the County's comprehensive waste management system. **It is recommended that the County pursue implementation of a system which provides for materials recovery from the mixed wastestream by the use of waste processing technology.** Specific recommendations for action include the following:

1. A siting study should be conducted to determine possible sites and select a site or sites. The siting study should consider the site criteria described in Section 5.0 along with more specific criteria which may be developed at the time. The evaluation of sites should consider the availability of local waste disposal sites including the two existing landfills.

2. The desired performance criteria for the processing facility should be determined. In order to fairly evaluate vendor capabilities, the desired processing capabilities of the system should be defined. The principal goal for the facilities should be the recovery of recyclable materials. In addition, the ultimate goal should be to minimize the volume for final processing or disposal as described in Appendix A-4. The capability to remove materials in order to reduce the apparent toxicity of the processed waste should also be evaluated. Additionally, the delivery standards for the disposal facility should be incorporated into the performance criteria to the greatest extent possible. **A minimum goal of an additional reduction in the wastestream of 10 percent should be sought as a result of mixed waste processing. Future flexibility in the design of the system should be sought in order to be responsive to shifting materials market conditions and changes in final disposal facilities.**

3. A survey of commercially viable technologies and vendors proposed to meet the performance criteria should be performed. An effective way to perform this evaluation is to issue a request for letters of interest from firms interested in providing such facilities to the County and

through a series of interviews determining the relative capabilities of interested firms. This process can be used to develop a shortlist of vendors which the County views as capable to perform the desired services and qualified to submit bids for a project.

4. The County should consider implementing a system to direct the flow of waste to the designated materials recovery facility(ies). The implementation of materials recovery by mixed waste processing can be expected to represent a higher system cost than comparative disposal options which may be locally available and which do not employ materials recovery by mixed waste processing. For example, it is likely that in the short-term it would be cheaper for waste haulers to dispose of waste at surrounding landfills where waste processing is not required.

   In order for a project developer to avoid building a facility which is not used because of this higher standard of treatment imposed by the County and, consequently, cost, it can be expected that any bidder for the provision of such a facility would require the County to guarantee either a minimum delivered waste quantity or payment in lieu of waste delivery. Such requirements are referred to by the waste industry as "put or pay" guarantees and provide the financial guarantee to the facility developers that they will recoup their costs. A common way that government provides this guarantee to private industry is through the imposition of waste flow control provisions which mandate the flow of waste generated within the governmental jurisdiction to designated facilities.

5. The County should bid the provision of the defined materials recovery facility(ies) on a full service basis. Using this procurement approach the County can select a project developer which can design, build and operate the facility for a set cost (or series of costs). Under this method of selection, the project developer assumes responsibility for the design, construction and operation of the facility.

Recommendations made above regarding the bidding for the provision of facilities may not be required if the facilities are provided by the current landfill operators as a result of negotiations for the extension of operating contracts by the Forest Preserve District. This possible action will require further discussion as the continuing role of the two existing landfills in

the County's long-term solid waste management system is defined.

9.2 EXPECTED EFFECTS OF MATERIALS RECOVERY BY WASTE PROCESSING (PHASE III) ACTIVITIES ON DISPOSAL CAPACITY

The activities discussed in this Appendix and defined as Phase II Activities under the County's proposed system are expected to reduce the wastestream remaining after Phase I activities by a minimum of 10 percent. In Appendix A-2 a summary of the expected effects of waste reduction, recycling and diversion activities on disposal capacity was presented (refer to Section 5.4 of Appendix A-2). The implementation of Phase I activities was shown to have the effect of prolonging the life of existing disposal capacity at the two landfills, Mallard Lake and Greene Valley.

Table 9-1 shows the effect of Phase II activities on remaining landfill capacities. The table assumes that the Phase II materials recovery process would be placed on-line by 1996. As explained in Appendix A-2, implementation of Phase I activities will allow the reduction of DuPage waste to a level below the minimum quantities allowed to be disposed in the landfills by the November 28, 1990 amendments to the operating contracts. In Table 5-2 the guaranteed minimum tonnage of 937,500 tons per year has been placed in the table for years 1993 through 2006. As mentioned in Appendix A-2, in the future the Forest Preserve District should consider renegotiating this contracted minimum amount. As reported in Appendix A-1, the estimated remaining capacity at the two landfills is 63,308,758 cubic yards. Therefore, implementation of Phases I and II would allow the two sites to meet the disposal needs for the county through the year 2012.

TABLE 9-1
EFFECTS OF PHASES I AND II ON LANDFILL CAPACITY

YEAR	TONS PER YEAR AFTER PHASE I	YARDS PER YEAR AFTER PHASE I	TONS PER YEAR AFTER PHASE II	YARDS PER YEAR AFTER PHASE II	CUMULATIVE YARDS AFTER PHASE II
**********	**********	**********	**********	**********	**********
1990	992,281	2,976,842	992,281	2,976,842	2,976,842
1991	971,030	2,913,089	971,030	2,913,089	5,889,931
1992	948,531	2,845,592	948,531	2,845,592	8,735,523
1993	937,500	2,812,500	937,500	2,812,500	11,548,023
1994	937,500	2,812,500	937,500	2,812,500	14,360,523
1995	937,500	2,812,500	937,500	2,812,500	17,173,023
1996	937,500	2,812,500	937,500	2,812,500	19,985,523
1997	937,500	2,812,500	937,500	2,812,500	22,798,023
1998	937,500	2,812,500	937,500	2,812,500	25,610,523
1999	937,500	2,812,500	937,500	2,812,500	28,423,023
2000	948,952	2,846,857	937,500	2,812,500	31,235,523
2001	961,833	2,885,500	937,500	2,812,500	34,048,023
2002	974,901	2,924,702	937,500	2,812,500	36,860,523
2003	988,155	2,964,466	937,500	2,812,500	39,673,023
2004	1,001,601	3,004,803	937,500	2,812,500	42,485,523
2005	1,015,239	3,045,717	937,500	2,812,500	45,298,023
2006	1,031,378	3,094,134	937,500	2,812,500	48,110,523
2007	1,047,761	3,143,283	942,985	2,828,955	50,939,478
2008	1,064,392	3,193,175	957,952	2,873,857	53,813,335
2009	1,081,273	3,243,818	973,145	2,919,436	56,732,771
2010	1,098,408	3,295,223	988,567	2,965,701	59,698,472
2011	870,183	2,610,549	783,165	2,349,495	62,047,967
2012	870,183	2,610,549	783,165	2,349,495	64,397,461

As an additional comment on Table 9-1 note that construction/demolition waste is assumed to cease entirely in the year 2010 in this scenario. In Appendix A-1 this component of the wastestream, was held constant throughout the planning period.

The major illustration provided by Table 9-1 is that the implementation of Phase II can help to assure that the disposal needs of the county during the 20 year planning period can be met by existing facilities.

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APPENDIX 8-C

DUPAGE COUNTY SWMP
VOLUME 3

Electronic Filing: Received, Clerk's Office 04/19/2023 C001644

February, 1991

DuPage County

Solid Waste Management Plan

Volume 3 of 4
Appendix A-4

Prepared For:
DuPage County Solid Waste
Planning Committee

Prepared By:

Department of Environmental Concerns
Division of Solid Waste

DuPAGE
COUNTY
RECYCLING
PROGRAM

DUPAGE COUNTY SOLID WASTE MANAGEMENT PLAN

APPENDIX A-4
FINAL WASTE PROCESSING/DISPOSAL OPTIONS
(PHASE III WASTE MANAGEMENT)

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INTRODUCTION

Contents

This Appendix to Plan-1990 examines final waste processing and disposal options. Appendix A-2 examines waste reduction, recycling and landscape waste diversion options while Appendix A-3 examines additional material recovery options by waste processing methods to further reduce the wastestream requiring disposal. This Appendix in turn examines options for waste management for the remaining waste after the use of options presented in Appendices A-2 and A-3.

This Appendix is divided into four broad categories for assessment including waste transfer; combustion; landfilling; and "other" processing/disposal options (i.e. out-of-county disposal and composting, digestion, etc.). Some of these options like waste transfer and combustion are actually further processing methods but are included in this Appendix because of their usual classification in the category of "disposal".

Purpose

At the ends of both Appendix A-2 and Appendix A-3 the relative effects on remaining landfill capacities of the activities discussed in each appendix are summarized. Appendix A-2 concludes that with the implementation of the activities discussed therein that at least 20 years of landfill capacity can be expected at the two existing landfills, Mallard Lake and Greene Valley. Implementation of activities discussed in Appendix A-3 can further increase the expected lives of the landfills.

The purpose for Appendix A-4 is to assess and describe various options available for waste processing disposal after Phase I (waste reduction, recycling and diversion) and Phase II (materials recovery by waste processing). This Appendix is primarily provided

to support future discussions on final processing and disposal methods to be implemented. Any of the options discussed could be implemented while the current landfills are still in operation. In fact, it may be prudent to implement one or more of the alternatives discussed herein in addition to landfilling at Mallard Lake and Greene Valley in order to preserve local waste disposal capabilities.

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SECTION 1.0
INTRODUCTION

1.1 CONTENTS

Sections 1.0 through 5.0 provide an assessment of waste transfer options for solid waste management. An overview of several different systems is provided along with environmental; economic; implementation; and siting considerations. The use of transfer stations may be considered both for transport of waste within DuPage County as well as for the transfer of waste to a remote (out-of-county) disposal site.

1.2 PURPOSE

Waste transfer options are described in order to provide guidance for the possible future provision of new facilities. Waste transfer can be used simply to consolidate waste for more cost-effective transport. A waste transfer operation can also provide a mechanism for the additional processing of waste employing material recovery mechanisms discussed in Appendix A-3 thereby reducing the amount of material requiring final disposal.

appa4-1

SECTION 2.0
OVERVIEW OF SYSTEMS

2.1 INTRODUCTION

Waste transfer is the process in which collection vehicles unload their waste at a facility which combines the waste into a larger load. Several smaller loads are consolidated into larger vehicles which are better suited for long-distance hauls than are collection vehicles. The larger units then haul the wastes to the disposal site.

The larger more cost-efficient vehicles are usually tractor-trailer trucks although trains and, even, barges may be used. Transfer trailers may take waste only a few miles but generally they haul waste for distances greater than 15 miles.

There are several benefits for transfer stations. First, transfer stations can decrease disposal costs by implementing recycling (processing) operations at the facility in order to reduce the amount of waste being sent to the disposal site. Second, transfer can reduce the hauling costs to distant disposal sites. Other benefits include:

- Reduction in collection vehicle maintenance;
- Flexibility in use of multiple disposal sites; and
- Improved productivity of collection vehicles.

Several types of transfer technologies are available including stationary compactors; open top trailers; balers; and other technologies. Similarly, there are several types of transport systems available including truck transport and rail transport as well as intermodal transport (a system where truck bodies are loaded onto or are used as railcars). Barge transport, not in common use, has not been included in this document due to the

requisite special circumstances which usually lead to its selection including water access at both the generating and disposal ends of the system.

2.2 TRANSFER TECHNOLOGIES

2.2.1 Stationary Compactors

Hydraulically operated compactors are manufactured by a number of companies and the technology has been refined over the past 25 years. Various sizes of compactors are widely available allowing the selection of a system which can handle a few tons to several hundred tons per day.

In a compactor, the charging box is loaded with loose wastes from above through a hopper or chute. A hydraulic cylinder moves a ram forward to push the wastes out of the charging box and into a transfer container or a trailer. The container or trailer is attached by a hook and ratchet assembly to the compactor. As the trailer fills up, compaction takes place by the pressure applied from the ram. When a pre-set hydraulic pressure is reached, the compactor stops.

There are four basic compactor arrangements which may be used and they are described below.

Compactor/roll-off. These systems are usually used for small (less than 50 tons/day) operations. Equipment includes compactors rated at 3 to 4 cubic yards, with closed roll-off containers of approximately 40 cubic-yard capacities. Payloads are generally in the 8 to 10 ton range.

Compared with high-density, large-body rear or front loader collection vehicles, these systems may offer no significant economic or operational advantages. The use of ejection containers can push payloads to 14 tons with capacities of 44 to 48 cubic yards.

Compactor/trailer. These systems are used for large tonnage and/or long haul operations usually in excess of 100 tpd.

Large tonnage transfer stations will usually have multiple compactors. Trailers commonly used with these systems have a 65 cubic yard capacity. Using steel transfer trailers can result in payloads of 17 to 18 tons. However, trailer axle weight limits can be exceeded because most compaction takes place within the rear-most portion of the trailer as it fills. Use of aluminum trailers and other methods to reduce trailer body weight can increase payloads.

Compactor/push pit/trailer. Push pits are similar in size and operating concept to a compactor/transfer trailer operation without the top or rear door. Refuse is dumped directly into the pit where a hydraulic blade advances the waste to the compactor charging box. Push pits can allow storage capacity during peak periods.

Self-contained trailer units. These units can be used where refuse can be pushed into the trailer from above. The trailer ejection blade is used to push and compact refuse to the rear of the truck. Payloads are similar to those for compaction transfer trailers (17 to 18 tons).

2.2.2 Open Top Trailers

The use of these trailers is quite common. The principle is used for both trucks and trains. Several floor plan arrangements are available and described below.

Tipping floor transfer stations. These are arranged with a collection vehicle unloading area (tipping floor) and a trailer loading area. The trailer can be positioned at various grades relative to the tipping floor because loading equipment (rubber tired or track loaders) are used to transfer the waste from the tipping floor to the transfer trailer.

These facilities can handle in excess of 1,000 tons/day depending on the number of trailer loading positions, loading equipment, and tipping area. Tipping floor transfer stations isolate the tipping floor operation from the transfer loading operations.

Direct dump transfer stations. These are arranged with two levels. The upper level is where collection vehicles back into position for unloading. Transfer trailers are located below. Usually, various types of cranes are used to pack and move waste which is dumped into the trailers and may remove items not suitable for transport and disposal. Generally speaking, these are lower capacity transfer stations because the operation is directly dependent on the accessibility to a transfer trailer:

Pit type transfer stations. These are effectively used for high volume operations. Facility sizes may range from 500 to 2,500 tons/day. Pit type facilities separate collection vehicle unloading and transfer trailer loading operations. There are three levels characterized as follows.

- The upper level is where collection vehicles unload into the pit.
- In the pit (intermediate level), waste is compacted and worked in a manner similar to that employed at a sanitary landfill. The bulldozer pushes the waste to the far end of the pit where the waste falls into transfer trailers. A crane (knuckleboom crane) may assist in loading.
- The lower level is where the transfer trailers are parked.

The transfer trailers used for open top operations are selected based on materials handled, unloading method at the disposal site, haul distance and economics. Payloads for self-unloading transfer trailers will usually range from 20 to 22 tons while the use of a tipper (hydraulically inclined platform) at the disposal site can increase payloads to 26 tons.

2.2.3 Balers For Transfer

Balers are machines that use rams to compress waste and hold it until wire ties can be placed to hold the compressed waste together in the compressed bale. Solid waste bales are generally in the 2,000 to 2,500 pound range and typical volumes are 50 cubic feet.

Baling facilities require a receiving floor area where collection vehicles unload. A loader is used to feed waste into the infeed conveyor for the baler. These conveyors are typically steel. The conveyor feeds into the baler.

A forklift or skid loader picks up the bales and loads them into the transport vehicle. For trucks, flatbed trailers are usually used due to the low trailer tare weight and consequent

higher payload (23 to 25 tons).

There are more than 40 baler manufacturers according to the "Waste Age 1988 Equipment Processing Guide". Typical processing rates are 25 to 35 tons/hour.

2.2.4 "Other" Transfer Technologies

There are several specialized forms of equipment available for waste transfer which do not fit in any of the above categories. These systems produce a "log" or "cast" of waste material by compressing the waste through tunnels. The waste is then loaded directly into trailers. Because the compression occurs in the tunnel, trailers can be lighter weight thereby increasing payloads.

2.2.5 Summary Of Transfer Technologies

The relative advantages and disadvantages for technologies addressed in Section 2.2 are summarized below.

Stationary Compactor/Roll-Off

Advantages

- Low development cost for "mini transfer station."
- Light density material can be compacted into containers.
- Refuse can be loaded directly into containers and not exposed on receiving floor.

Disadvantages

- Suitable only for small capacity systems.
- With small compactors, not all refuse can be compacted into containers, creating bridging (arching) in hopper and rendering compactor inoperable until bridging material is removed.
- Low ton payload per container.
- Spillage of refuse onto the ground when container is pulled away from compactor.
- If compactor becomes inoperable, roll-off container cannot be loaded.

Stationary Compactor/Trailer

Advantages

- Most bulky refuse can be handled by compactor.
- Light density refuse can be compacted into trailer.
- Refuse can be loaded directly into trailer.
- Securing rear trailer door is easier than placing tarps on top-loading trailers.
- Trailer unloading by push-out blade is very effective.
- Adaptable to materials recovery.

Disadvantages

- Lower trailer payload than other approaches, typically due to overloading of rear axles and/or heavier empty weight trailers than open-top trailers.
- If compactor becomes inoperable, transfer trailers cannot be loaded.
- Little payload advantage to unloading high volume, high compaction collection vehicle into compactor and trailer.
- More equipment required than for top-loading trailers.
- Spillage of refuse onto ground when trailer pulled from compactor.

Stationary Compactor-Pushpit/Trailer

Advantages

- Most bulky wastes can be handled by compactor.
- Light density refuse can be compacted into trailer.
- Securing rear door is easier than placing tarps on top-loading trailers.
- Allows additional storage of refuse in a pit during peak arrival rates.
- Refuse can be loaded into trailer from confined area.
- Trailer unloading by push-out blade is very effective.

Disadvantages

- Lower trailer payload than other approaches, typically due to overloading of rear axles and/or heavier empty weight trailers than open-tops.
- Refuse can bridge in hopper, rendering compactor inoperable until cleared with a backhoe or by hand.
- If compactor becomes inoperable, transfer trailers cannot be loaded.
- Capital costs greater for compaction equipment than for other transfer operations.
- More equipment required than for compactor only system.
- Vehicles cannot unload into pit when pushpit blade is extended.

- Flat materials (such as cedar shakes and roofing shingles, if dumped in one load, can bind rams between floor and bottom of blade.
- Little payload advantage to unloading high volume, high compaction collection vehicle into compactor trailers.
- Spillage of refuse onto ground when trailer pulled from compactor.

Open-Top, Tipping Floor

Advantages

- Least elevation difference of any open-top design; least site work and building cost.
- Trailers are typically driven through, trailers do not back into position.
- If transfer trailer becomes inoperable, another one can be driven into position.
- Collection vehicle unloading is separate from loading and transfer operations.
- Higher payloads than compactor transfer trailers (except new compactor trailer designs).
- Equipment that loads trailers also compacts loads in trailer.
- Adaptable to materials recovery.

Disadvantages

- Light density material not readily compacted in trailers if it constitutes a high percentage of the load.
- Additional handling of wastes required to load trailers (compared to direct dump approach).
- Bulky wastes not as readily handled compared to compactor or open-to-pit, unless mobile equipment is used to break up these materials.

Open-Top, Direct Dump

Advantages

- Simple operation.
- Trailers drive through into loading position.
- If transfer trailer becomes inoperable, another trailer can be driven into position.
- Higher payloads than compactor transfer trailers.

Disadvantages

- Requires backup tipping floor or trailers for peak arrival of collection vehicles.
- Collection vehicle unloading is not separate from loading and transfer operations.

- Separate trailer packing machine required (knuckleboom loader, track hydraulic excavator).
- Light density material not readily compacted in trailers if it constitutes a high percentage of the load.

Open-Top, Pit

Advantages

- Collection vehicle unloading separate from loading and transfer operations.
- Light density materials can be worked and compacted.
- Trailers typically driven forward into loading position.
- Higher payloads than compactor transfer trailers (except new compactor trailer designs).
- If trailer becomes inoperable, another trailer can be driven into position.
- Adaptable to materials recovery.
- Efficient use of space and equipment for high volume operations.

Disadvantages

- Three-level facility requires greatest amount of site work and building cost.
- Additional handling of material required, compared to direct dump.
- Construction and operations costs excessive for smaller operations.

Baling

Advantaged

- Transfer of large payloads per truck.
- Shipment of bales is most flexible; any type of truck, rail, or barge can be used.
- Facility constructed on one level; site and facility costs are low.
- Collection vehicle unloading operations are separate from processing and transfer operations.
- Some landfill operations can operate at lower unit costs with bales than with loose refuse.
- Can be used to bale some types of recyclable materials.

Disadvantages

- If baling system becomes inoperable, facility cannot transfer wastes unless backup transfer method is available.
- Initial processing equipment cost is greater than other technologies.

- Regular maintenance required for wire tie (strapper) mechanism.
- Multiple handling of refuse (loose and baled).
- Some disposal facilities cannot accept bales.

2.3 TRANSPORT SYSTEMS

2.3.1 Truck Transport

The most common method of waste transfer transport in the United States is truck transfer. The reasons for this include:

- Flexibility in siting of transfer stations;
- Flexibility in selection of final disposal sites;
- General availability of over-the-road truck drivers and equipment; and
- Flexibility in scheduling.

Waste transfer has, until recently, been used most often to avoid local waste disposal facility shortages. In areas where the development of new waste facilities were not developed at a pace to keep up with facility closure, waste haulers found that they had to quickly provide transport to more distant sites. Usually the use of specific distant sites was not on a long-term basis. Therefore, the flexibility in final destination allowed by trucking was desired. As destination sites filled, closed, or otherwise limited the inflow of transfer waste, the transfer operators could easily shift to alternate disposal sites.

Several options are available for truck transport systems. Initially the most common vehicles used for transfer were either box or flat trailers used to haul loose and baled wastes. As transfer operations have become more common, specialized trailers have been developed to handle this specialized cargo. Today's modern transfer trailers have specially fabricated bodies often using lightweight aluminum alloys in order to maximize effective

payloads. They also usually employ some type of self-unloading equipment which may be a hydraulic ram system or "walking-floor" system. The use of walking floor systems has substantially increased the effective payloads of self-unloading trailers by alleviating the hydraulic ram weight used by other trucks.

2.3.2 Rail Transport

Although the use of trucks for waste transfer is most common, rail transfer is being discussed more frequently as a viable transport method. One reason for this is the move towards dedicated long-term distant disposal sites. In the case where a transfer operator can lock-in a disposal site with rail access for an extended period of time, the use of rail transport can be very cost-effective, especially in cases of long transport distances. Even for relatively short transport distances, the use of new railcar designs can make rail transfer economical. The following issues must be considered by those considering rail transport for waste transfer.

1. Is the use of rail transport economical compared to motor transport?

2. Are the anticipated costs for rail transport being prepared in a manner for fair comparison with motor transport? As an example, rail transfer costs are often prepared with the assumption that all equipment will be new. Truck transport usually does not make this assumption.

3. Rail transport will tend to drive waste disposal contracts towards longer terms. This is a real advantage for waste-to-energy disposal projects but even landfill disposal sites can show economical advantages for rail transport if long-term contracts are possible.

4. The common misconception that rail transport is cost-effective only for long distance must be avoided. Rail transport can be cost-effective at relatively short distances (25-30 miles) if project conditions are correct.

There are three modes of rail transport available for

consideration broadly categorized by the use of standard or slightly modified railcars, specialized railcars and intermodal transport. A brief description of each type follows.

Standard or Modified Rail Cars. In this system common rolling stock is used. In the most basic systems a standard boxcar or flatcar is used to transport baled waste. loading and unloading of the cars is facilitated by the use of bales.

Some systems modify existing rolling stock to better handle waste transfer. An example of this type of system would be the Bay Colony Railroad operation operated as part of the SEMASS regional disposal system in southeast Massachusetts. In this system, Model B boxcars have been modified by cutting the tops off and reinforcing them to allow removal and replacement; installing grab locations on the sides to allow for hooks to engage at the tipping station; placement of reinforcing walls inside the cars; and complete sealing of the boxcar. Each boxcar will hold about 40 tons of waste. The reported cost for these modifications is approximately $20,000 each in a production run of 12 to 14 boxcars.

Specially Developed Rail Cars. These systems use specially designed railcars employing various levels of design sophistication. For example, in Europe there are several installations employing railcars that resemble tubes or containers. Waste is forced into the container at the transfer site and ejected at the disposal site by any of several methods. Such systems are just now being discussed for possible use in the U.S. These systems, employing very specialized equipment, have not yet shown a cost for installation and operation in the U.S.

Intermodal Transport. Intermodal transport of a variety of

cargos has become quite widespread in recent years. Use of intermodal transport systems for waste transport is relatively new.

In an intermodal system a combination of truck and rail (and perhaps ship) transport is used. Cargo is usually loaded into containers which can be fitted into truck trailers or loaded on trains and ships. As an alternative, there are some truck trailer manufacturers which market specially fabricated truck trailers which allow for the attachment of railroad trucks (wheel assembly) to the trailer.

The obvious advantage for the use of intermodal transport systems is the great flexibility in siting of facilities. The cost-effectiveness of rail transport can be used for long-distances while not requiring that the transfer and/or disposal site have direct rail access. However, this flexibility does not usually come cheaply because waste is essentially double-handled. The waste must first be loaded into a truck and then the truck must be loaded onto a train. Both operations can be costly. Repeating this operation in reverse for unloading carries obvious cost consequences. Access to an existing rail yard with intermodal transfer capability can improve cost factors. At this time it would appear that intermodal transfer should be carefully considered in the following scenarios:

1. Where truck transfer is already occurring but transfer distances are becoming greater and greater thereby making rail transfer more cost beneficial (witness East coast waste transfer);

2. Where either the transfer or disposal site do not have direct rail access but train transport is desired; or

2 Where intermediate transfer points in a large regional system may be truck based leading to a centralized rail transfer facility.

appa4-2

SECTION 3.0
ENVIRONMENTAL CONSIDERATIONS

3.1 INTRODUCTION

Environmental and regulatory issues relating to the siting, design, construction and operation of a waste transfer facility can be complex. Of particular concern are the issues of water pollution, odor, noise, traffic, aesthetics, land use compatibility, and floodplain or wetlands impacts. This Section identifies and discusses these impacts.

3.2 WATER QUALITY

Waste transfer facilities can potentially impact water quality by allowing runoff of liquid which has been in contact with waste to be discharged to surface water. There are three sources for origination of liquids at the facility including liquids arriving with the waste or snow and ice tracked into the facility by delivery vehicles; water used for washdown of the facility; and precipitation occurring outside of the building but at the site.

The first two sources of liquid are easily captured within the facility by the use of interior plumbing and drains. This plumbing is tributary to a municipal sewer system or an on-site sewage treatment facility. The resultant liquid is, therefore, collected and treated prior to discharge to surface waters.

Liquids originating outside of the building are best kept from becoming contaminated by effective housekeeping. Waste should not be present outside of the building. Precipitation is normally routed through a series of storm drains for discharge. Often, facilities will employ catch basins and other settling appurtenances to control the discharge of particulate matter.

3.3 ODOR

The potential for odor emission and resulting impacts to surrounding land uses is an important consideration when providing waste transfer facilities. Effective odor control mechanisms must be included in the facility operations in order to prevent the migration of odors beyond the facilities boundaries.

Objectionable odors generally form when municipal solid waste is left for more than one day. Excessively wet waste can produce odors in a shorter period of time because the existence of soaked waste leads to anaerobic biological conditions which can produce foul odors. Most waste transfer operations are designed to remove all waste from the facility on a daily basis. In other words, all waste delivered during the day is transferred out by the end of the day.

Some large scale facilities are designed not to empty every day. In these, a waste pit may be used (refer to Section 2.0 discussion of push pits). In these facilities the use of an induced inward draft may be used to pass fresh outside air through the entry doors and out through a usually high vent or series of vents which can effectively serve to disperse odors. A facility may also employ mechanical/chemical odor cleansing equipment.

Use of these methods of odor control can effectively prevent odor migration at waste transfer facilities. The selection of a specific control mechanism to be used would be dependent on a number of factors specific to the project.

3.4 NOISE

The primary sources of noise from a waste transfer facility include construction of the facility, daily operation of equipment inside the facility, and facility-generated traffic. In reference

to construction noise, it is estimated that a waste transfer facility sized to meet the needs of DuPage County would involve a construction period of 18 to 24 months. Operation of construction equipment is normally limited to daytime hours and required to comply with local ordinances.

The major source of operational noise is use of the equipment inside the facility. Equipment will include mechanized movers such as endloaders but may also include crane-type assemblies and balers. Other sources of noise such as ventilation fans, conveyors and loud speakers are comparatively insignificant and should not increase overall noise levels above other operational sources.

The truck (or train) traffic generated by a waste transfer facility can also increase surrounding traffic noise levels. Any increase in traffic noise would be expected to be limited to daytime working hours.

There are no federal noise regulations that apply to the operation of waste transfer facilities. Therefore, only state regulations and local ordinances would apply. State regulations and local ordinances that would apply include Illinois Pollution Control Board noise regulations and noise standards contained in the performance standards section for local zoning ordinances.

3.5 TRAFFIC

Siting a waste transfer facility would require a detailed analysis of the short and long-term traffic impacts caused by the facility. These impacts would result primarily in an increased concentration of truck traffic, assuming the transfer facility is located away from the existing disposal site(s). Some traffic would result from the employees of the facility. The impacts are highly site specific and should be considered in the evaluation of possible sites (refer to Section 5.0).

3.6 AESTHETICS AND LAND USE COMPATIBILITY

It is essential that the surrounding land use and aesthetic treatment of any proposed waste transfer facility be considered during project development. For a discussion of land use compatibility refer to Section 5.0.

Aesthetic treatment of the facility can mitigate apparent negative impacts of the facility. Enclosing the operations of the facility and use of an architecturally pleasing building can be used effectively. The use of sight berms, landscaping or fencing can be used to screen the facility from view. Finally, careful consideration of site layout can minimize public views of waste vehicles and tipping areas (doors).

appa4-3

SECTION 4.0
COSTS

4.1 COSTS AT TRANSFER STATION

4.1.1 Capital Costs

Costs specific to construction of the transfer station are influenced by the building's construction, architectural treatment, technology selection and land costs. Costs may be controlled by the use of an existing building but caution must be exercised when considering the use of an existing building. For instance, consideration should be given to whether or not the existing building can be effectively modified for the purposes of use for a transfer facility and whether or not surrounding traffic specifics and land use would be conducive to the siting of a transfer station.

The DuPage County Landfill/Ashfill Feasibility Study (1988) proposed that a facility sufficient for providing 800 to 1,000 tons per day of capacity would require 8 to 10 acres of land. Assuming land costs at $3.50 per square foot, an upper estimate for land costs of $1,525,000 results. A minimum processing area of 35,000 square feet can be expected for an open top transfer trailer type facility. If full development costs including building, site work, engineering, permitting, legal, and accounting are estimated at $170 per square foot, then a construction cost of $5,950,000 results bringing total construction and site development costs to $7,475,000. The cost for three wheel-loaders is estimated at $200,000. The addition of sophisticated baling equipment and tipping floor improvements could substantially increases this estimate of costs.

If the transfer station is capable of transferring 1,000 tons per day and operates 5.5 days per week, it is capable of

transferring 286,000 tons per year. Assuming a 20 year life on the facility (five years for loaders) and no salvage costs for land at the end of the useful life, the cost per ton to construct such a transfer facility is approximately $1.45. This cost does not include the cost for financing the capital costs which can substantially increase the effective cost per ton.

The costs for the construction of a rail transfer facility are nearly inestimable until the specifics for the type of rail haul and requirements and responsibilities for the unloading of the refuse at the disposal site have been determined. Will the refuse be shipped loose or baled? Is a rail siding available at the disposal site or will intermediate transfer be required? Who will be responsible for the unloading at the disposal site? These questions represent just a sampling of those which must be addressed when considering rail transfer.

4.1.2 Costs To Operate

Table 4.1 provides a summary of the expected operational costs for the truck transfer facility described in Section 4.1.1.

TABLE 4.1
TRANSFER STATION OPERATING COSTS

ITEM	ANNUAL COST
Utilities	$ 45,000
Building And Site Maintenance	$ 20,000
Fuel For Wheel-Loaders	
- 3 loaders @ 5 gallons/hr. @ $1.10/gal.	$ 37,750
Maintenance For Wheel-Loaders	$ 35,000
Personnel	
- Foreman (1)	$ 45,000
- Loader Operators (4)	$105,000
- Scale Operator (1)	$ 25,000
- Laborers (4)	$ 88,000
- Fringe (30%)	$ 78,900
- Overtime Allowance (15%)	$ 39,450
TOTAL OPERATING COSTS	$519,100
COST PER TON (286,000 TONS)	$1.81

4.2 COST TO TRANSPORT

The cost for transport is directly dependent upon the decision of whether or not the operation will be contracted out or operated internally. In truth, the impact on cost is a function of the availability of equipment. If the transport is to be performed by the transfer station operator it is unlikely that the transport equipment will already be owned. Further, the use of new vehicles may be sought in order to provide a higher degree of aesthetic treatment for the operation. On the other hand, if the transport function is contracted out to private over-the-road operators, the costs for new equipment are not required because these operators will most likely have existing rolling-stock to commit to the job.

4.3 SUMMARY

The costs for the construction and operation of a waste transfer facility would indicate that the direct costs for an open-top trailer type facility capable of transferring 1,000 tons per day would be approximately $3.26 per ton. A 1,000 ton per day transfer operation would be judged as a large transfer facility at this time in the United States. A larger facility, although possibly benefiting from an incremental savings in building costs, can be expected to carry possibly higher development costs due to the inherent difficulties in handling a greater volume of waste on a daily basis. Note that it is estimated that DuPage County would require approximately 2,150 tons per day of transfer capability in 1995 after the implementation of waste management phases I and II.

It must be stressed that the $3.26 amount does not include the costs for financing of the capital construction and equipment costs. Financing costs can add 60% to the actual costs if financed by government as non-taxable debt and more if financed as taxable debt by private interests.

With these considerations in mind, it is easy to understand why a common value of approximately $10 per ton is often used for initial comparisons of the cost to transfer compared to local disposal. The $10 figure represents an industry value which is useable for initial discussions of waste transfer. To this, the cost of transport can be added on a per ton/mile basis to approximate the costs for waste transfer.

appa4-4

SECTION 5.0
SITING CONSIDERATIONS

5.1 INTRODUCTION

The selection of a proper site for a waste transfer facility should be carefully considered in order to meet the expected goals for the provision of the waste transfer facility. The facility must be located at a site which is both convenient to local haulers delivering waste to the facility as well as being convenient for use for the transport mode selected to transport the waste to the disposal site.

In order to evaluate the convenience to local haulers it is normal for a waste transfer siting analysis to be performed. One of the outputs of this analysis is the determination of the relative generation of waste on a sub-regional basis in order to derive a centroid, or centroids where multiple facilities are proposed, for waste generation. This information can be very useful in the evaluation of optimal sites for the placement of facilities.

In previous solid waste planning efforts, the size of DuPage County has been shown to not necessarily require the provision of two waste disposal facilities for reasons of local transport effectiveness. The county is roughly 18 miles square which is well within the waste industry's normal transport distance range for packer vehicles. Therefore, the placement of just one transfer facility in the county would appear to offer no significant disadvantage from a local waste transport standpoint. The determination of sub-regional waste generation data would be helpful if multiple sites are identified in the county at diverse locations. Multiple facilities may be required or advisable due to local constraints which might include available land size or limitation of local impacts.

5.2 LAND REQUIREMENTS

The amount of land required for a transfer facility will depend on the size of the facility to be constructed; the type of transfer technology to be employed as well as the transport method to be used; and whether or not other processes will be employed at the facility such as materials recovery through waste processing (refer to Appendix A-3). The most significant constraint imposed on the requirement for the size of the site at this time though is specified in the Illinois Environmental Protection Act at Section 22.14:

> "No person may establish any regional pollution control facility for use as a garbage transfer station, which is located less than 1000 feet from the nearest property zoned primarily for residential uses or within 1000 feet of any dwelling except in counties of at least 3,000,000 inhabitants."

If it is assumed that the minimum size for a building would be on the order of 45,000 square feet, the minimum acreage required to meet this setback requirement, if surrounded by an area of residential nature, would be approximately 112 acres. This estimate represents worst case conditions in the assumption that the facility would be surrounded by residential land but is illustrative when considering the general nature of land use in DuPage County. In order to provide this setback requirement it would be advantageous to use the distances for buffer which may be afforded by other land uses in a given area. Siting a facility next to an existing industrial use zoned area or agricultural use area are examples which would provide obvious advantages because the total land required to achieve the required setbacks would not have to be purchased as part of the project. Note that the setback requirements apply to the facility itself, not the entire site which may include roads or other site improvements supporting the transfer facility.

A transfer station of sufficient size to meet the County's

needs can be expected to occupy anywhere from 5 to 20 acres, depending on the facility's specific development plan and mode of transport. It can be expected that rail transfer might require a larger site than a correspondingly sized truck transfer facility.

5.3 TRANSPORTATION ACCESSIBILITY

In addition to considering the impact that the transfer facility will have on surrounding traffic conditions, consideration must be given to locating the facility close to or on major transportation routes. This is especially important where truck transfer is anticipated because the out-going trucks will be large over-the-road vehicles. If rail transport is to be used, the site must be located in the immediate vicinity of a rail line unless intermodal transport is proposed.

5.4 PROXIMITY TO UTILITIES

The utilities required for the operation of a waste transfer facility include telephone, sewer, electric, water and possibly natural gas. Selection of a site where utilities are readily available is preferred because the cost of extending utilities can be substantial.

5.5 SITE SUBSURFACE CONDITIONS

It can be expected that a waste transfer facility will require the construction of a relatively large building designed for heavy use. Heavy equipment and truck traffic will be utilized at such a facility. These conditions demand that stable soils capable of bearing these loads exist at the site. Soils unable to bear the loads imposed by the building and equipment would require more expensive foundation work.

A waste transfer facility may include a tipping hall or a

storage pit. Where the design of the facility includes a pit or other subsurface improvements, groundwater and bedrock depth should also be examined. Shallow conditions for either of these items could complicate construction and substantially increase costs.

appa4-5

SECTION 6.0
IMPLEMENTATION

The implementation of a project involving the transfer of waste is directly dependent upon decisions made regarding the management of waste discussed in other sections of this planning document. For instance, Appendix A-3 addresses materials recovery options involving waste processing. A logical location for this activity is at a transfer station if the transfer of waste is envisioned in the waste management system. However, where will the processed waste then be sent to? Will it be sent to a distant landfill? Perhaps it will be sent to a waste-to-energy facility which may be located locally. Or, in the case of DuPage County, perhaps the two existing landfills in the county will be available for an extended period of time. In either of these local scenarios there may be no need for an intermediate transfer of waste unless there is a desire to minimize some impact (i.e. truck traffic) at the disposal facility.

As stated in Section 2.0, waste transfer should be viewed as a mechanism to make waste delivery more efficient. It is not a processing or disposal mechanism which substantially changes the characteristics of the waste. The basic system of disposal should be fairly well defined before decisions are made regarding the implementation of a transfer facility.

If there are advantages to the provision of a waste transfer component in the solid waste management system, several key activities are required in the implementation process. These are generally described as follows:

1. Assess delivery standards at the disposal facility. How will the waste be received at the disposal facility? Will baling be required or will loose waste be acceptable? Will train transport be possible and, if so, is it cost-effective to provide when compared to motor transport? These types of questions must be addressed as

a first step in assessing and developing a waste transfer project.

2. Determine locational information for the generation of solid waste. Waste transfer is appropriately viewed as a mechanism to provide efficient waste transfer. To maximize this function, it is worthwhile to determine information regarding the generation of waste on a sub-regional basis. It is logical to locate the waste transfer facility(ies) at or near the centroid(s) of solid waste generation in a given area. However, other constraints such as surrounding land uses or land costs may preclude the placement of transfer facilities at locations judged to be optimal from a waste generation and transport standpoint.

   This locational information can also be used to determine the number of facilities which should be provided. It may be appropriate to provide two or more facilities if conditions warrant.

3. Determine specific site attributes to be sought for site selection. Section 5.0 described general site attributes viewed as advantageous when considering transfer sites. More specific site attributes or limits may be incorporated into the evaluation process as project consideration proceeds. For instance, the requirement for access to rail may be one of the most important site attributes if the disposal system warrants rail transport. This would substantially reduce the number of sites available for consideration.

4. Locate sites for consideration and select. A screening process should be conducted to determine possible locations for a waste transfer facility. Following the identification of potential sites, selection should be made after evaluation of the potential sites.

5. Proceed with local siting approval process and permitting as required. Transfer stations are currently defined by the Act as Regional Pollution Control Facilities and as such are required to be approved according to the local (SB-172) siting process. IEPA permits are not specifically required by the Act. The future requirements of both of these actions is uncertain at present time.

Items 1 through 4 above are commonly referred to as the performance of a transfer station siting analysis followed by selection. The performance of the transfer station siting analysis

without the consideration of final selection could be expected to require approximately six months. Local siting approval can be expected to require at least six months but would most likely require a preliminary design period (sufficient to support the local siting approval process) to precede it of approximately four to six months. Detailed design could be expected to require an additional six months. Therefore, a minimum period of two years would be required to implement a process to provide for the bidding and construction of a transfer facility. Bidding and construction of a completely new facility could be expected to require approximately 18 to 24 months resulting in a total project implementation schedule of 4 to 4.5 years. The use of an existing building could reduce this time period.

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SECTION 7.0
RECOMMENDATIONS

Sections 2.0 through 6.0 have presented information which can be used by DuPage County if it is determined that waste transfer capability is desired. Waste transfer could conceivably be developed under three scenarios:

1. Transfer Within The County: It may be desirable to provide transfer capability within the county with the waste being tributary to a disposal facility also located in the county. This could be done in order to maximize waste transport efficiencies or to minimize local traffic impacts at the disposal facility. The cost-effectiveness of this type of facility would have to be carefully evaluated in light of the availability (time) and location of the disposal facility(ies) in the county.

2. Intermediate (Phased) Transfer: Under scenario 1 it should be possible to properly place a transfer facility(ies) which would be available for an extended period of time allowing transfer of waste outside of the county in the future after in-county disposal is not possible. This scenario would be practical if in-county disposal options are only available for a limited amount of time in the future. In this way waste disposal options could be phased.

3. Transfer Outside Of The County: In this scenario the transfer facility(ies) are provided to allow for the transfer of waste outside of the county for disposal.

In each of the above scenarios it would be worthwhile to consider the provision of materials recovery capability by waste processing as discussed in Appendix A-3. This would allow for the efficient transfer of waste by minimizing the amount of material to be transported for final disposal.

The following recommendations are proposed for the evaluation and implementation of waste transfer capability in DuPage County:

1. The availability of in-county disposal capability should be determined. If in-county disposal will be available for an extended period of time, the provision of transfer capability may be unnecessary. However, even if in-

county disposal capability will be available for an extended period of time, the practicality and desirability of providing transfer capability in the county should be evaluated as a mechanism to improve waste transport efficiencies and to minimize local traffic impacts.

2. If waste disposal outside of the county is to be sought, the delivery requirements at the location for disposal should be determined. Although it is conceivable to site and construct a transfer facility which will allow for the transfer of waste to various disposal sites, it is preferable to know the delivery requirements of the specific site prior to construction of the transfer station(s).

3. If it is determined that transfer capability should be provided, a transfer station siting analysis should be performed. The analysis would include, at a minimum, the determination of waste generation profiles in the county and provide a site screening process to identify possible sites for the placement of one or multiple transfer station(s). Criteria to be used in the evaluation of site(s) would include those discussed in Section 5.0 as well as any more specific siting criteria developed prior to the start of the analysis.

4. Following the selection of a site or sites identified during the siting analysis, the implementation process generally described in Section 6.0 should be implemented. The local siting approval and construction process will require 4 to 4.5 years to implement and this consideration should be factored in to relative waste management system timelines.

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APPENDIX A-4
SECTIONS 8.0 THROUGH 32.0
INTENTIONALLY OMITTED

APPENDIX 8-D

DUPAGE COUNTY SWMP
1996 UPDATE

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VOLUME I

SOLID WASTE PLAN FIVE-YEAR UPDATE

DU PAGE COUNTY, ILLINOIS
June 5, 1996

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1996
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DuPage County, Illinois

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SOLID WASTE PLAN FIVE-YEAR UPDATE

June 5, 1996

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SECTION 1 - EXECUTIVE SUMMARY

1.1 EXECUTIVE SUMMARY

Mission Statement

The main goal outlined in the 1996 update to the DuPage County Solid Waste Management Plan is to minimize to the extent possible, the total amount of municipal solid waste that is generated within the County and then to recycle as much as possible. It will be the goal of the DuPage County Solid Waste Department, utilizing its household hazardous waste education and collection programs, to remove as many of the toxic constituents from the waste stream as possible, prior to the waste being transported by private haulers beyond the borders of DuPage County for processing or final disposal.

Introduction

The Illinois Solid Waste Planning and Recycling Act [415 ILCS 15/1 et seq.] provided DuPage County with the primary responsibility to plan for the management of municipal waste within its boundaries, identify waste reduction and recycling operations as preferable to land disposal, encourage solid waste planning on a regional basis, provide incentives for decreasing waste, and requiring counties to develop and implement plans with a time line based on the county's population. The Solid Waste Plan must provide for 15% waste reduction by the third year and 25% reduction by the fifth year. Counties were charged with implementing the Solid Waste Plan and may enlist the help of municipalities and private entities in its implementation.

The first comprehensive Solid Waste Management Plan for DuPage County was developed in 1990 and was approved in February 1991. The State of Illinois requires that the Solid Waste Management Plan be updated every five years. The original plan is hereafter referred to as Plan-1991. The first update to the plan is hereafter referred to as Plan-1996 and is contained in two volumes.

There are fifty-two specific action items in Plan-1991. The body of this document addresses each action item. Any action items recommended for deletion have been listed at the beginning of each section and appropriately labeled.

After each action item, a note has been added indicating that it is new, existing, or that it has been revised. Action items from the original Plan-1991 are followed by a "status" section to summarize pertinent accomplishments during the past five years, as well as a "recommendation" section. The original number of each action item from Plan-1991 is listed for existing or revised statements for cross-referencing purposes.

Obligations Under the Original 1991 Plan

Unless specifically amended under Plan-1996, all of the original obligations imposed upon DuPage County under Plan-1991 remain. Plan-1996 is intended to build upon the planning and implementation basis provided by Plan-1991. Plan-1991 presents and evaluates various options available to satisfy anticipated waste disposal needs in the future. The stated purposes of Plan-1991 is

to provide options for long-term solid waste disposal in an environmentally sound and cost-effective manner for residents of DuPage County.

Plan-1991 depicts a three-phase approach for the County's proposed solid waste management system:

Phase I

Phase I is characterized by waste reduction activities including source reduction, waste prevention, and pollution abatement. The first two components seek to prevent the creation of waste and precede the actual production of waste. The third component is an attempt to differentiate problematic materials and also minimize their production and use. Plan-1991 estimates that these activities, when fully implemented, would reduce the total waste quantity by 33%.

Phase II

Waste remaining after the source separation activities in Phase I would be routed to a materials recovery facility which would remove and recover additional materials from a mixed waste stream. The purpose for the facility is to remove certain materials which are not conducive to or desired in Phase III processes or disposal facilities as well as to recover recyclable materials from the waste which are not source-separated in Phase I. It is estimated that Phase II activities would remove an additional 7% of the waste stream. DuPage County has not built nor selected a Phase II technology.

Phase III

Waste remaining after the materials recovery by mixed waste processing in Phase II could be further processed or sent to a landfill for final disposal. Phase III activities might include combustion or non-combustion technologies that can be used to recover energy in the remaining waste prior to disposal or, perhaps, other useable products (i.e., compost). Additionally, some materials currently considered a residue to be landfilled might be reusable. For instance, combustion ash might be useable as a building material aggregate. Phase III might include a combination of all of the available options and use either existing or new facilities. DuPage County has not built nor selected a Phase III technology.

Plan-1996 anticipates that DuPage County will not necessarily be choosing a Phase II or III technology, relying instead on the private sector to construct or utilize appropriate technology. If the waste processing or disposal methods chosen by the private sector are determined by the County to not be environmentally sound or cost effective, the County has the responsibility and reserves the right to facilitate or implement appropriate solutions from the Phase II and III discussion in Plan-1991. In any case, the County is obligated by law to maintain oversight procedures to assure its citizens safe disposal of their waste at the lowest cost possible. Plan-1996 encourages and anticipates public/private cooperation as appropriate.

Waste Disposal

There are two remaining active landfills within DuPage County located on the property owned by the Forest Preserve District of DuPage County DuPage Forest Preserve District property. Both landfills are operated by private contractors. In 1992 a consent decree was issued which ordered both of the remaining landfills within the County to close by no later than December 31, 2000. The Greene Valley Landfill is expected to close in July 1996 and the Mallard Lake Landfill is expected to close in 1998. Use of the two landfills has been the primary method of solid waste disposal for waste generated in the County. State law 70 ILCS 805/18.6c. prohibits the development or operation of any new pollution control facilities, i.e. landfills, incinerators, composting facilities, on Forest Preserve District property. The law also prohibits sale of Forest Preserve District property to any other party that would construct, expand or operate a solid waste management facility.

In 1994, staff utilized the County's geographic information system to create a map which identified remaining potential search areas in the County for siting solid waste management facilities. The computer-generated map graphically displayed, by a process of elimination, those areas available in the County after applying a 1,000 foot setback requirement from properties zoned for primarily residential use; a 10,000 foot setback from airports required for landfills; and the exclusion of Forest Preserve District properties consistent with State law 70 ILCS 805/18.6c. The map generally indicates that once the setbacks are applied and Forest Preserve District property is excluded, there is little land currently available in the County to develop a landfill large enough to economically or environmentally justify development. Additionally, due to a high population density throughout the County, development of a new landfill in DuPage County would be expected to meet significant public opposition.

Though the 1994 siting map indicates there are search areas that may provide sites large enough for various resource recovery facilities including waste-to-energy incinerators, public support to date has been negligible. During public meetings held in November and December of 1995 to gather comments prior to drafting the update to the Solid Waste Plan, only two comments were received that were favorable to waste-to-energy technology. But even those comments were based on siting the incinerator outside the boundaries of DuPage County.

Additionally, with the repeal of the Retail Rate Law by Public Act 89-448 enacted March 14, 1996, the development of new waste-to-energy facilities has become more uncertain. The Retail Rate Law would have required commercial power companies to purchase electricity from incinerators at the retail, rather than the wholesale rate. Public funds would have made up the difference in electrical rates. Repeal of the Retail Rate Law may cause a delay in the construction of the Summit-McCook and McCook Co-generation facilities. However, developers of the waste-to-energy facility being constructed in the Village of Robbins in Cook County have announced they will finish construction and start accepting waste in December 1996.

There has been some interest by private companies to establish solid waste composting facilities in the County but they have been largely focused on small 50 to 100 ton per day demonstration facilities.

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DuPage County will not be developing any new landfills or resource recovery facilities at this time. The private sector may consider building such facilities in the future.

Transfer Stations

Since it does not appear additional waste disposal capacity will be developed within DuPage County during the next few years, waste generated within the County will need to be transported outside its boundaries for disposal purposes once both remaining landfills close or no later than December 31, 2000. Transporting municipal solid waste greater than about 30 miles becomes uneconomical in a typical rear-loading compactor truck.

Consolidating waste at a transfer station could be a more economical solution for DuPage County. At a transfer station, waste from smaller compactor trucks are transferred to larger trucks or railroad cars for final transport to a disposal site outside the County creating lower per unit transportation costs. Use of transfer stations also allows the operator an opportunity to access more landfill sites in order to take advantage of more competitive disposal rates. The ultimate effect of the County having some transfer station capacity would be lower waste transportation and disposal costs for longer distance hauling. Without transfer stations, waste transportation and disposal costs will be even greater as the two landfills close.

Additionally, local hosts of a transfer station would be able to negotiate significant host community or affected area compensation fees. Indeed, the Village of Carol Stream has been paid a total of over $370,000 since 1991 for having hosted the County's Intermediate Recyclables Processing Facility. A new transfer station to be constructed in Melrose Park, in Cook County, is projected to provide about $20 million to the community over a twenty year period.

DuPage County could be serviced best by the private development of three to five waste transfer stations depending on location and processing capacity. Support for transfer stations is likely once the Greene Valley Landfill closes in July 1996 and expected increases of a minimum of 25% are realized for waste transportation and disposal.

Waste Reduction and Recycling

Since the most environmentally benign method to dispose of waste may be to not generate certain wastes in the first place, the County will be emphasizing waste reduction education activities. Results of a waste characterization study at both landfills in 1994 indicate that the majority of materials generated in DuPage County that were being landfilled and were considered recyclable were coming from small to medium sized businesses. The County will be focusing on voluntary waste reduction and recycling education programs for different types and sizes of businesses.

Additionally, certain types of waste materials are also expensive to transport long distances even via transfer stations. Construction and demolition debris tends to be exceptionally heavy in the case of mineral based materials (i.e., brick, concrete, and asphalt) or characterized by substantial airspace (i.e., uncompacted wood). The 1994 landfill study indicated that construction and demolition

materials accounted for about one-third of all wastes DuPage County generators were depositing in the landfills. The County will emphasize a multi-faceted public education program to decrease the amount of all wastes generated and recycling of new categories of materials such as construction and demolition debris.

Toxicity Reduction

The United States Environmental Protection Agency has estimated that household quantities of hazardous wastes constitute O.5% of the entire municipal solid waste stream. Yet household hazardous waste (HHW) may represent a large portion of the environmental threat from disposal of municipal solid waste in landfills. Removal of HHW from the waste stream is expected to further reduce future landfill cleanup liability as well as reduce the contamination threat of additional processing at resource recovery facilities including incinerators and composters. The County will be initiating a public education program and a mobile household hazardous waste collection program to provide more convenient service to residents not served by the City of Naperville permanent collection facility.

Flow Control

Finally, due to recent United States Supreme Court decisions, adoption of an ordinance requiring private waste haulers to deliver wastes to a particular waste processing or storage facility in order to guarantee a minimum of tipping fee revenue to meet debt service, has been deemed unconstitutional under the Interstate Commerce Clause. All thirty-three municipalities in the County have franchised waste and recyclables hauling via contracts with the private sector. It is currently believed that the municipalities retain the right to direct their waste hauler to a particular processing or disposal facility as a requirement of the franchise agreement without violating the Interstate Commerce Clause of the United States Constitution.

Municipalities within the County have consistently requested that the County not supersede their ability to control the flow of waste. Since the County will not itself be actively pursuing development of any facility that will require flow control, this may only become an issue at transfer stations that may be developed. An advantage may be to expect private haulers to assume all responsibility for final disposal of waste generated within DuPage County releasing all local governmental entities from responsible party status.

1.2 BACKGROUND AND REVIEW PROCESS

The first comprehensive Solid Waste Management Plan for DuPage County was developed in 1990 and was approved by the Illinois Environmental Protection Agency in February 1991. State law requires that the plan be updated every five years. Hereafter, the 1996 five-year update to the Solid Waste Plan will be referred to as Plan-1996.

Prior to development of Plan-1996, a series of seven public input meetings were conducted to obtain comments regarding the original Solid Waste Plan as well as comments pertaining to new issues. One meeting was held in each of the County Board Districts as well as one meeting specific

to the waste hauling industry. Minutes were prepared from each of the meetings and reviewed by members of the DuPage County Solid Waste Committee prior to development of Plan-1996.

1.3 ADMINISTRATIVE FUNCTIONS

The DuPage County Solid Waste Committee is composed of twelve members, six are County Board members and six municipal representatives. The Committee is chaired by a County Board member and the vice-chair is a municipal member. The County Board Chairman appoints the municipal representatives who are recommended by the DuPage Mayors and Managers Conference. The term for municipal members to the Solid Waste Committee is three years. The DuPage County Solid Waste Department serves as staff to the Committee. The Department manages the contracts for the County's Intermediate Processing Facility for recyclables in the Village of Carol Stream, the Solid Waste Education Center, the mobile household hazardous waste education and collection program, and the County's landfill and illegal dumping inspection program. The Department is also responsible for implementing the Solid Waste Plan along with the update(s).

SECTION 2 - WASTE GENERATION AND COMPOSITION

2.1 POPULATION

Plan-1991 was based upon 1980 Census Bureau data and year 2010 population projections developed by the DuPage County Planning Department (Plan-1991, pg. 2-1). Projections for DuPage County's population for 1990 was estimated to be 813,806, an increase of over 23% in a ten-year period (from 1980 to 1990). In addition, the population was projected to increase another 6% to approximately 922,631 people by the year 2000.

Present data from the DuPage County Planning Department (Planning Department) indicates that DuPage County is growing slightly less than originally projected in Plan-1991. According to the 1990 U.S. Census, estimates showed that DuPage County had a total population of 781,666, an increase of 19% in a ten-year period (from 1980 to 1990).

Table 2-1 (see pg.10) presents 1990 Census figures for DuPage County's population, number of households, and an estimated population figure for 1992. This is the only data available at this time that makes the distinction between the individual municipalities and the unincorporated township regions.

Since 1992, DuPage County's population has increased at an average annual rate of 2% (see Table 2-2, pg. 11). By 2015 it has been estimated that there will be 232,063 single-family households and 135,532 multiple-family households. Based on the data from Table 2-3 (see pg. 12), the Planning Department projects that by the year 2015 the nine townships that make up DuPage County will have a total of 367,596 households with a total population of 1,013,721 people. These projections are based upon a five-year growth rate of 2.85%.

2.2 EMPLOYMENT

Plan-1991 was based upon employment statistics provided by the Planning Department. In 1985, there were 376,630 people employed by firms located within the County. Projections made at that time showed a 10.4% increase to 415,857 by 1990 (Plan-1991, pg. 2-4).

Table 2-4 (see pg. 13) illustrates current predictions made by the Planning Department with regards to employment rates through year 2015 for each of the nine township regions that embody DuPage County.

During the last ten years the number of people currently employed by firms within DuPage County has increased significantly more than the population. In 1990, the employment rate increased 29% to 496,216, instead of to the 10.4% increase projected in 1985. This growth is expected to steadily continue well into the future.

Additional projections developed by the Planning Department (see Table 2-5, pg. 13) indicate that since 1990 (with the exception of 1992 employment figures which decreased by 2.0%), the employment rate has increased at an average annual rate of 2.75%. By the year 2015, the County will have a projected employment level of 746,730 which represents a five-year growth rate of 4.83%. Employment statistics continue to provide valuable information needed to track commercial waste generated within the County.

TABLE 2-1

DuPage County Population Projections: 1990-2015

Municipality	1990 Census Population	1990 Census Households	1992 Estimated Population	
ADDISON	32,058	10,722	32,490	
AURORA *	14,811	5,430	19,127	**
BARTLETT *	12,086	3,546	14,658	**
BENSENVILLE	17,767	6,537	17,611	
BLOOMINGDALE	16,614	5,838	19,199	
BOLINGBROOK *	1,472	391	1,496	**
BURR RIDGE *	4,596	1,424	4,971	**
CAROL STREAM	31,716	11,333	35,115	
CLARENDON HILLS	6,994	2,734	7,000	
DARIEN	18,341	6,520	19,053	
DOWNERS GROVE	46,858	17,660	47,883	
ELMHURST	42,029	15,135	42,507	
GLEN ELLYN	24,944	9,413	25,371	
GLENDALE HGTS.	27,973	9,613	29,020	
HANOVER PARK *	14,233	4,556	14,924	**
HINSDALE *	13,956	5,217	16,322	**
ITASCA	6,947	2,451	7,154	
LISLE	19,512	7,833	20,343	
LOMBARD	39,408	15,046	40,234	
NAPERVILLE *	72,931	25,537	78,561	**
OAK BROOK	9,178	2,966	9,354	
OAKBROOK TERAC.	1,907	789	1,982	
ROSELLE *	17,499	5,865	17,890	**
ST. CHARLES *	10	3	10	**
VILLA PARK	22,253	8,018	22,185	
WARRENVILLE	11,333	4,028	11,389	
WAYNE *	718	238	810	**
WEST CHICAGO	14,796	4,652	15,481	
WESTMONT	21,228	8,872	21,769	
WHEATON	51,464	17,770	53,757	
WILLOWBROOK	8,598	3,854	8,690	
WINFIELD	7,096	2,406	7,656	
WOOD DALE	12,425	4,549	12,691	
WOODRIDGE *	26,232	9,614	27,206	**
UNINCORPORATED				
ADDISON	7,507	2,436	N/A	
BLOOMINGDALE	10,017	3,243	N/A	
DOWNERS GROVE	26,253	9,454	N/A	
LISLE	16,126	5,887	N/A	
MILTON	23,198	7,579	N/A	
NAPERVILLE	4,438	1,563	N/A	
WAYNE	4,956	1,574	N/A	
WINFIELD	7,157	2,278	N/A	
YORK	12,031	4,770	N/A	
TOTAL	781,666	279,344	703,909	

Source: 1990 U.S. Census, DuPage County Development Department, November 1994.
Note: All forecasts are preliminary.

* *Municipalities not wholly within DuPage County*
** *DuPage County portions only*
N/A = Data Not Available

COUNTY BOARD COPY

TABLE 2-2

DuPage County Population/Household Projections: 1990-2015

YEAR	POPULATION		ANNUAL CHANGE		PERCENT CHANGE		TOTALS			HOUSEHOLDS		ANNUAL CHANGE		PERCENT CHANGE		TOTALS		
	Single-family	Multi-family	Single-family	Multi-family	Single-family	Multi-family	Population	Annual Change	Percent Change	Single-family	Multi-family	Single-family	Multi-family	Single-family	Multi-family	Households	Annual Change	Percent Change
1990	575,999	201,667	N/A	N/A	N/A	N/A	781,666	5,666	0.70	181,778	97,566	N/A	N/A	N/A	N/A	279,344	N/A	N/A
1991	592,761	206,104	12,762	4,437	2.10	2.20	798,865	17,199	2.20	185,841	99,747	4,063	2,181	2.20	2.20	285,588	6,244	2.20
1992	605,561	210,555	12,800	4,451	2.10	2.10	816,116	17,251	2.20	189,854	101901	4,013	2,154	2.10	2.10	291,755	6,167	2.10
1993	616,850	214,480	11,289	3,925	1.80	1.80	831330	15,214	1.90	193,393	103,801	3,539	1,900	1.80	1.80	297,194	5,439	1.80
1994	625,559	217,508	8,709	3,028	1.40	1.40	843,067	11,737	1.40	196,124	105,267	2,731	1,466	1.40	1.40	301,390	4,196	1.40
1995	631,084	226,399	5,525	8,891	9.00	3.90	857480	75,814	9.70	198,650	109,670	2,526	4,403	1.30	4.00	308,320	6,930	2.20
2000	664,163	246,461	33,079	20,062	4.90	8.10	910,620	53,140	6.20	208,899	119671	10,249	10,001	4.90	8.40	328,570	20,250	6.20
2005	690,632	264,068	26,469	17,607	3.80	6.70	954700	44,080	4.84	217,134	128436	8,235	8,765	3.90	6.80	345,570	17,000	4.90
2010	716,168	269,458	25,536	5,390	3.60	2.00	985,630	30,930	3.24	225045	131193	7,911	2,757	3.60	2.10	356,238	10,668	3.00
2015	736,409	277,311	20,241	7,853	2.70	2.80	1,013,720	28,090	2.85	232,063	135532	7,018	4,339	3.00	3.20	367,595	11,357	3.00

Source: 1990 U.S. Census, DuPage County Development Department, November 1994.

Note: 2015 projections are based on extrapolations of the previous periods - Sept. 1995.

N/A = Data Not Available

COUNTY BOARD COPY

TABLE 2-3

DuPage County Population Projections: 1990-2015

Townships	1990		1995		2000		2005		2010		2015	
	Population	Households	Population	Households	Population	Households	Population	Households	Population	Households	Population	Households
Wayne	40,379	12,643	60,176	19,019	68,806	21,794	76,047	24,099	82,192	26,001	89,309	28,266
Bloomingdale	96,050	32,637	110,443	37,809	114,735	39,482	117,626	40,539	120,896	41,504	124,607	42,844
Addison	82,727	28,577	86,361	29,925	87,714	30,441	88,750	30,819	89,626	31,098	90,221	31,323
Winfield	37,969	12,573	40,124	13,505	44,814	15,255	48,777	16,813	51,331	17,627	53,331	18,546
Milton	108,148	38,430	112,869	41,251	116,668	42,750	119,523	43,907	121,706	44,701	122,153	44,979
York	120,546	45,270	122,863	46,731	127,640	49,053	129,417	49,776	133,343	51,411	133,811	51,633
Naperville	49,533	18,901	62,129	23,261	75,200	28,457	92,478	35,679	98,968	38,200	109,482	43,101
Lisle	108,452	38,643	116,018	41,892	120,060	43,245	123,384	44,494	125,423	45,109	126,584	45,580
Downers Grove - N	127,912	48,220	134,479	50,852	138,800	52,499	140,645	53,188	142,645	53,819	142,732	53,843
Downers Grove - S	9,950	3,450	12,019	4,123	16,187	5,594	18,053	6,256	19,496	6,768	21,491	7,481
TOTAL	781,666	279,344	857,481	308,368	910,624	328,570	954,700	345,570	985,626	356,238	1,013,721	367,596

Source: 1990 U.S. Census, DuPage County Development Department, November 1994.
Notes: All forecasts are preliminary.
2015 projections are based on extrapolations of the previous periods - 9/11/95.

** Population - Includes municipalities and the unincorporated township zones.*
*** Households - Domestic establishments occupied by members of a family.*

TABLE 2-4

DuPage County Employment Projections: 1990-2015

Townships	1990	1995	2000	2005	2010	2015
Wayne	7,310	10,403	15,940	18,814	20,047	24,135
Bloomingdale	40,667	54,941	72,892	84,660	93,962	107,930
Addison	101,348	110,290	118,419	120,818	126,850	131,105
Winfield	18,401	19,608	20,512	24,155	25,068	26,331
Milton	51,005	55,685	59,924	60,521	61,476	64,039
York	123,009	128,818	135,660	139,996	144,054	147,036
Naperville	39,029	47,316	56,764	76,253	92,380	100,811
Lisle	55,590	59,650	64,611	68,534	72,149	75,048
Downers Grove - N	54,505	56,881	59,118	61,327	63,011	63,991
Downers Grove - S	5,352	6,208	8,061	10,721	13,301	14,531
TOTAL	496,216	549,800	611,901	665,799	712,298	754,957

Source: 1990 U.S. Census, DuPage County Development Department, November 1994.

Notes: All forecasts are preliminary.
2015 projections are based on extrapolations of the previous periods - 9/11/95.

TABLE 2-5

DuPage County Employment Projections: 1990-2015

YEAR	EMPLOYMENT	ANNUAL CHANGE	PERCENT CHANGE
1990	497,120	29,108	6.22
1991	497,660	540	0.11
1992	487,724	-9,936	-2.00
1993 *	507,595	19,871	4.07
1994 *	528,276	20,681	4.00
1995 **	549,800	21,524	4.07
2000	611,900	62,100	11.30
2005	665,800	53,900	8.81
2010	712,300	46,500	6.98
2015	746,730	34,430	4.83

Source: 1990 U.S. Census, DuPage County Development Department, November 1994.

*Notes: * Extrapolated figures, September 1995*
*** Development Department Projections, November 1994*

2.3 WASTE GENERATION

2.3.1 Previous Waste Generation Quantities

Plan-1991 (pg. 4-8), estimates that DuPage County generated 1,140,625 tons of municipal waste in 1990. This municipal waste stream comprises residential (combined single-family and multi-family residences), commercial/industrial/institutional and construction/ demolition wastes. A break down of the 1990 waste generation quantities on a per capita basis is provided below.

TABLE 2-6

1990 Waste Generation Quantities

Residential	3.5 lbs/capita/day
Commercial/Industrial/Institutional	2.2 lbs/capita/day
Construction/Demolition	2.3 lbs/capita/day
	8.0 lbs/capita/day

According to Table 4-4 (Plan-1991, pg. 4-8), the United States Environmental Protection Agency's (U.S. EPA's) national average annual waste generation rate of 1% was used to project the increase of waste generation for the period from 1990 through 2010. Plan-1991 estimates that waste generation rates will continue to increase for residential, commercial/industrial/ institutional wastes; however, construction and demolition (C & D) wastes will not increase but remain constant. Plan-1991 provided the following waste generation estimates for DuPage County for a 20-year planning period:

TABLE 2-7

1990 Waste Generation Estimates

YEAR	POPULATION	PER CAPITA GENERATION (LBS)	TONS OF WASTE PER DAY	GENERATED PER YEAR
1990	781,200	8.0	3,125	1,140,625
1995	847,000	8.3	3,518	1,284,070
2000	901,178	8.6	3,875	1,414,375
2005	936,300	8.9	4,166	1,520,590
2010	985,000	9.3	4,580	1,671,700

2.3.2 Current Waste Generation Quantities

DuPage County's local waste generation data is very limited due to privatized collection and disposal practices and the lack of legislation requiring private enterprise to supply this data (through contracts). Therefore, in order to prepare estimated waste generation rates

for Plan-1996, preparers have elected to use a combination of available local data and supplemental data from national statistics.

The *DuPage County 1994 Waste To Date Annual Report* (December 1995) provided waste generation estimates primarily based upon data reported to the Solid Waste Department from various sources including municipalities, townships, waste haulers, and recycling service providers. However, most waste generation data for the multi-family units, commercial, C & D sectors, and a small portion of the single-family units was not reported. Therefore, the County has extrapolated figures for those areas.

Upon analysis of this information, the residential waste generation tonnages from the *DuPage County 1994 Waste To Date Annual Report* were used to calculate the 1994 waste generation rates documented in Table 2-8 (see pg. 16).

The *Waste Stream Characterization for DuPage County, February, 17,1995, (Waste Stream Characterization Study)* provided waste discard estimates based on a one-week waste survey performed by SCS Engineers (Ohio) at the two landfill sites in the County.

Having no other available local source to rely upon for waste generation data, the commercial/industrial and construction/demolition waste discard tonnage estimates from this survey were utilized to calculate the 1994 waste generation rates documented in Table 2-8 (see pg. 16). Since little research has been conducted concerning waste diversion results, it is important to note the assumption that the discard estimates represent a majority of the waste generated.

2.3.3 Generation Rates

In order to develop a total municipal waste generation rate for 1994, generation and discard tonnage estimates provided from the *DuPage County 1994 Waste To Date Annual Report* and the *Waste Stream Characterization for DuPage County, Illinois* were applied to population and employee statistics supplied by the Planning Department and the State of Illinois Department of Employment Security (see Table 2-8, pg. 16).

First, the annual tonnage figures were divided by the corresponding population or employment figures to create tons per capita per year (t/c/y) for the residential sector and the tons per employee per year (t/e/y) for the commercial/industrial and construction/demolition sectors. Next, the tons per year for each sector was converted to tons per day by dividing the individual sector's total by 365.25 (days per year).

Residential sector totals were converted from tons per capita per day (t/c/d) to pounds per capita per day (lbs/c/d) by multiplying the t/c/d totals by 2,000. However, the commercial/industrial and construction/demolition sectors which were refigured as tons per employee per day (t/e/d), need to be converted to pounds per employee per day (lbs/e/d). In order to accomplish this task, each sector's t/e/d was multiplied by 2,000.

To obtain unified lbs/c/d results for all sectors, the employment total of each non-residential sector was divided by the County's total population and then multiplied by the specific sector's lbs/e/d figure to derive a lbs/c/d figure.

Using the calculations described above results in a base waste generation rate estimate of 7.2 lbs/c/d for DuPage County (see Table 2-8 below).

Table 2-8

1994 Municipal Waste Generation Rates

Sector	Population/ Employees	Tons Per Day	Tons Per Year	Annual Tonnages	Lbs./Capita/Day
Single-Family	625,559 Pop.[1]	.0022 t/c/d	0.81 t/c/y	50,8201 [3]	4.45
Multi-Family	217,508 Pop.[1]	.0002 t/c/d	0.09 t/c/y	17,023 [3]	0.43
Commercial	343,550 Emp.[2]	.0015 t/e/d	0.53 t/e/y	182,795 [4]	1.19 [5]
Industrial	69,085 Emp.[2]	0.004 t/e/d	1.30 t/e/y	89,615 [4]	0.58 [5]
Construction/ Demolition	22,699 Emp.[2]	0.010 t/e/d	3.50 t/e/y	79,470 [4]	0.52 [5]
Total Population	843,067 Pop.[1]				7.17

[1] 1994 Population figures provided by the DuPage County Development Department.

[2] 1994 Employment figures provided by the State of Illinois Department of Employment Security.

[3] Residential tonnage figures were derived from the" DuPage County 1994 Waste To Date Annual Report" and represent waste generation rates.

[4] Industry tonnages represent waste discard data derived from a waste sort conducted in 1994 that is documented in the February 17, 1995 "Waste Stream Characterization for DuPage County, Illinois."

[5] The conversion from lbs./employees/day to lbs./capita/day is calculated by dividing the employee total of a specified sector by the total County population and then multiplying by the specific sector's lbs./employee/day figure.

2.3.4 Waste Quantity Projections

Plan-1991 extracted an estimated base of 8.0 lbs/capita/day as the County's waste generation rate.

For purposes of forecasting future waste generation rates, the County utilized this base rate in conjunction with the U.S. EPA's estimate that on a national average the per capita waste generation rate will increase at a rate of 1% per year from the period of 1988 through 2010.

Consequently, the County's prediction about municipal waste generation rates increasing at an annual pounds per capita generation rate of 1% is reflected in the 20-year planning period of the 1990 waste generation estimates in Section 2.3.1. This also indicates the assumption made that the C & D component would hold constant and not increase over this planning period.

Table 2-8 (see pg. 16) summarizes the DuPage County municipal waste generation estimates for 1994. The revised municipal waste generation base rate is equal to 7.17 lbs/c/d. This rate is 5.8 % lower than the 1990 base rate of 8.0 lbs/c/d. This revised rate is comparable to other counties in the northeastern Illinois region (i.e. Cook County, 7.5 lbs/c/d; Kane County, 6.89 lbs/c/d; and Lake County, 7.28 lbs/c/d); but higher than the rate of Kendall County, 6.03 lbs/c/d; Will County, 5.7 lbs/c/d; and the statewide average of 6.5 lbs/c/d (IEPA's *Available Disposal Capacity for Solid Waste in Illinois Eighth Annual Report*, September, 1995).

The County's population has increased at an average of 2% per year. Although there is a strong correlation between an increase in population and an increase in municipal waste generation, waste disposal has decreased beyond this growth rate because of source reduction, recycling, and composting activities. The rate of declining municipal waste generation may be attributed to one or more of the following factors:

FACTORS THAT MAY BE ATTRIBUTED TO DECLINING MUNICIPAL WASTE GENERATION

1) Households implemented source reduction programs which generated less waste in 1994 than in 1990.
2) Previously manufactured products and packages were reused.
3) Products and packages were redesigned with reduced quantities of raw materials and increased quantities of recycled materials thereby, reducing volume at the source.
4) Households and businesses managed landscape waste through on-site composting and land application in response to the July 1, 1990, landfill ban, thus reducing the waste generation rate.
5) The municipal waste generation rate was not increasing at an annual rate of 1%.
6) The original waste generation rate of 8.0 lbs/c/d may have been overestimated.
7) A lack of accurate reporting.
8) Increased county-wide education on all aspects of waste reduction.

Table 2-9 below presents the County's projections of municipal waste for a 20-year planning period from 1994 through 2015. The projections are based upon the 1994 base generation rate of 7.17 lbs/c/d in association with the most currently available population forecasts provided by the Planning Department.

Also being utilized is the U.S. EPA's assumption that current source reduction activities will continue and their estimation that on a national average the per capita generation rate

will decrease 0.1 pounds per person over a seven-year period between 1993 and 2000 (*Characterization of Municipal Solid Waste in the United States - 1994 Update, Executive Summary*, November, 1994). When calculated, this figure equals a waste decrease rate of approx. -.0143 lbs/c/y. This rate has been applied to the 1994 base generation rate and to the adjusted generation rates through 2015 to produce prospective generation rates and tons of waste generated per year. To be consistent, preparers have extended the U.S. EPA's forecast to include the year 2015.

Based on data from the Planning Department, DuPage County's population will increase at an average rate of approximately 1% over the next twenty years. As mentioned previously, there is a strong correlation between increasing population and increasing waste generation. However, the County will continue to focus on source reduction and reuse aspects of waste reduction education and public awareness programs in an effort to further reduce waste generation. Therefore, utilizing the U.S. EPA's assumption as described above, it is estimated that the municipal waste generation rates will continue to slightly decrease over the next twenty years (see Table 2-9 below).

TABLE 2-9

20-Year Waste Generation Estimates
For DuPage County

Year	Population [1]	Rate of Waste Decrease (lbs/capita/day) [2,3]	Adjusted Generation Rate (lbs/capita/day) [4]	Tons of Waste Generated per day	Tons of Waste Generated per year
1994	843,067		7.1622000	3,019.10	1,102,726.27
1995	857,480	0.0000391	7.1621609	3,070.70	1,121,574.95
2000	910,620	0.0000391	7.1619654	3,260.91	1,191,049.01
2005	954,700	0.0000391	7.1617699	3,418.67	1,248,669.53
2010	985,630	0.0000391	7.1615744	3,529.33	1,289,088.25
2015	1,013,720	0.0000391	7.1613789	3,629.82	1,325,790.48

[1] Population figures provided by the DuPage County Development Department.

[2] Rate of Waste Decrease, -0.0000391 is based on the EPA's estimated decline per capita generated per day from 4.4 pounds in 1993 to 4.3 pounds in 2000. (-.1 lbs/capita/7 years = -.0143 lbs/capita/year = -0.0000391 lbs/capita/day).

[3] Waste Generation Rates are assumed to continually decrease at an annual rate of -0.0000391 lbs/capita/day from 2001 through 2015 (based on DuPage County estimates).

[4] 1994 Base Generation Rate derived from the 1994 DuPage County Waste Generation Rates from Table 2.6.

2.4 WASTE COMPOSITION

2.4.1 1990 Waste Composition Analysis

During the development of Plan-1991, local municipal collection data alone was too limited to develop waste generation composition estimates for the County. Therefore, preparers of the report used a personal computer-based software program called WastePlan which is a modeling tool for use in integrated solid waste management planning. According to Plan-1991, the WastePlan program provides for the modeling of local solid waste management options based on national data.

WastePlan helped the County develop revised waste generation estimates and waste characterization for Plan-1991. The local information inputted to produce residential waste stream summary information included the 1990 DuPage County population projection (781,200) and the residential waste generation rate (3.5 lbs/capita/day). The local information inputted to produce the commercial waste stream summary information was supplied by the Planning Department.

2.4.2 1994 Waste Stream Characterization Study

In December 1994, SCS Engineers conducted a waste stream characterization study for DuPage County. This study included a one-week waste survey of DuPage-generated waste disposed at each landfill in the County — Mallard Lake and Greene Valley. SCS Engineers produced waste composition results for each landfill using five generator categories: residential single-family, residential multi-family, non-residential, mixed, and construction and demolition (C & D) debris. Non-residential waste was primarily incoming loads of commercial and industrial wastes. Mixed waste was incoming loads of unknown or more than one type of waste. Exhibits 4-1 through 4-9 from the study (see Appendix B) present a summary of waste composition by generator category, disposal location (by each landfill and DuPage County), and waste component.

2.4.3 Waste Composition by Generator Category

SCS Engineers provided an analysis of principal variations in waste composition across generator category. Chart 2-1 (see pg. 21) presents a summary of waste composition percentages by waste component and generator category. It shows that C & D waste is primarily from C & D/Industrial sources. Paper waste represents more than 40% of the waste composition within the commercial, multi-family, and single-family residential waste generator categories.

TABLE 2-10
LARGEST GENERATOR FOR EACH WASTE COMPONENT

WASTE COMPONENT	GENERATOR
Paper	waste from commercial sources contains the most paper
Organic	waste from single-family residential sources contains the most organic materials
Plastic	waste from commercial sources contains the most plastic
Yard	residential single-family waste contains more grass/leaves yard waste
C&D/Industrial	C & D/Industrial waste contains more construction and demolition material
Metal	waste from single-family residential sources contains the most metal
Glass	waste from multi-family residential sources contains the most glass
Inorganic	residential multi-family waste contains more inorganic waste
HHW	commercial waste contains more household hazardous waste

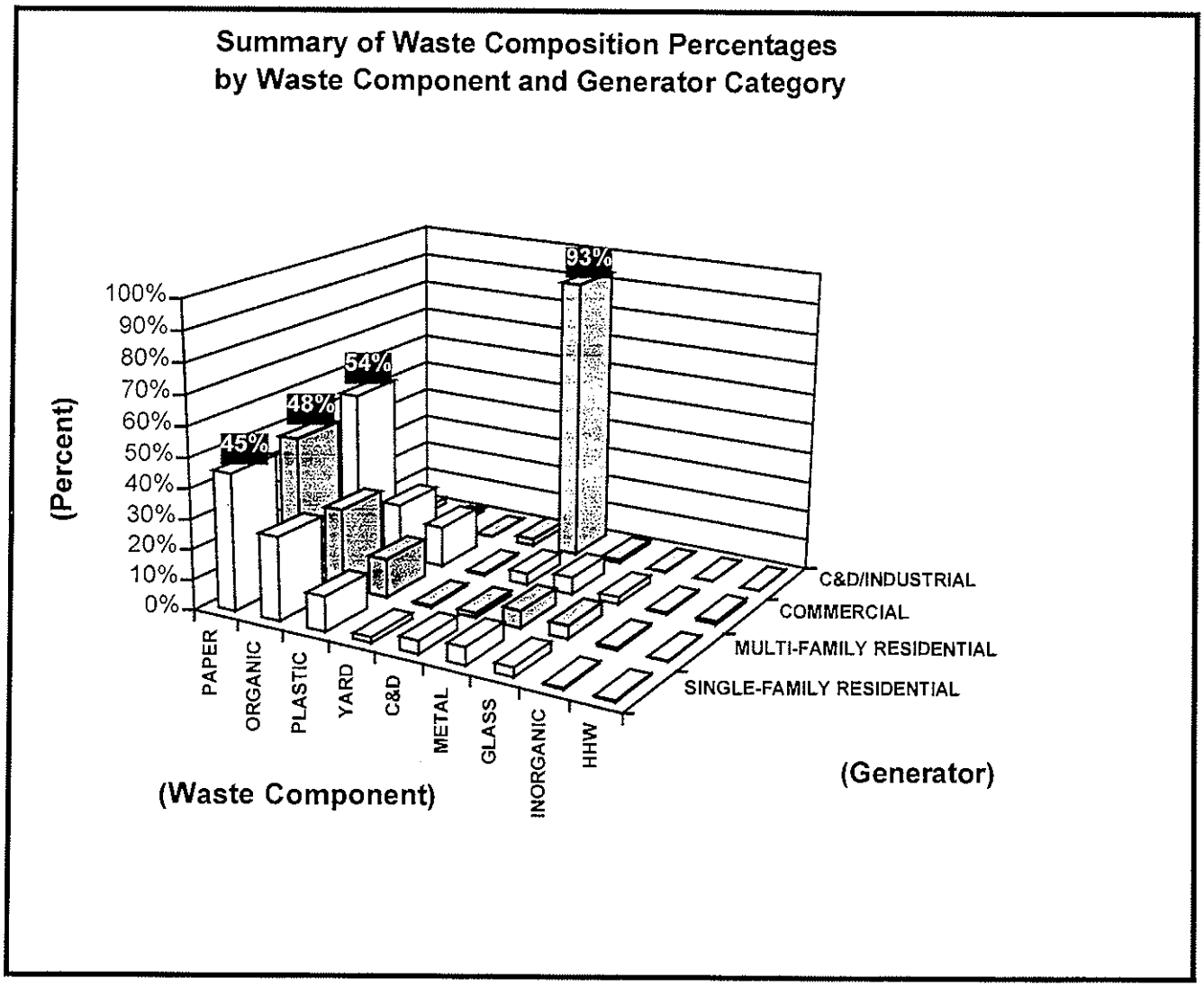
Chart 2-2 (see pg. 22) shows that C & D and paper represent the largest portions of the waste composition.

2.4.4 Comparison Between DuPage County and National Average Waste Streams

The pie charts in Chart 2-3 (A) and (B) (see pg. 23) illustrate a disposal composition comparison between the DuPage County waste stream (from the *Waste Stream Characterization Study*) and the national average (from the *U.S. EPA Characterization of Municipal Solid Waste in the United States: 1994 Update*). Since some variations exist between the two studies, such as definitions of the waste categories, this is not an exact comparison.

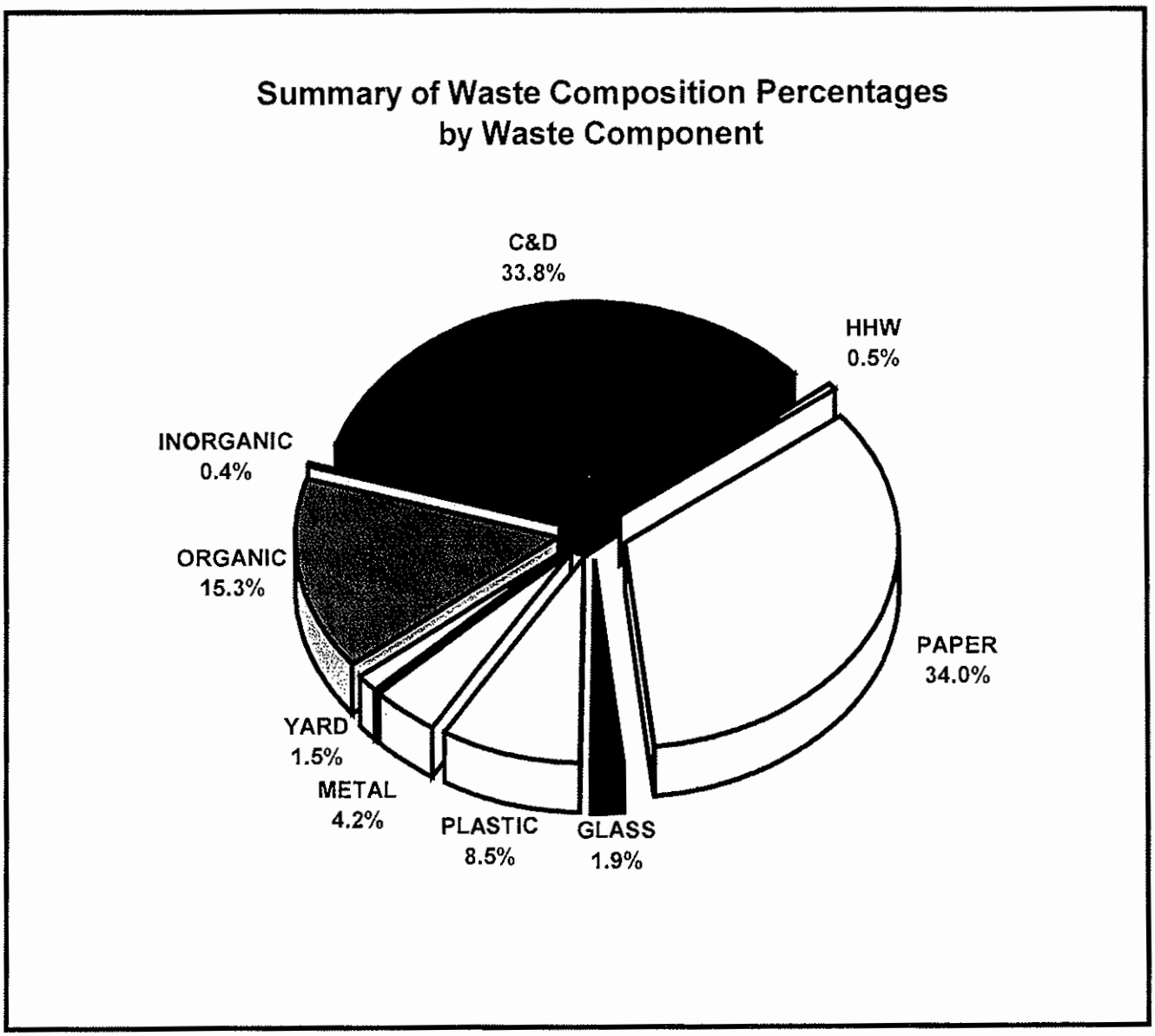
Of the eight categories shown, four categories (wood, metal, plastic, and other) are most comparable by percent of the waste stream. Significant differences are shown for paper and yard waste. The *Waste Stream Characterization Study* suggests that the DuPage percentage for yard waste is notably less than the national average due to the successful diversion of this material through the local yard waste ban.

CHART 2-1



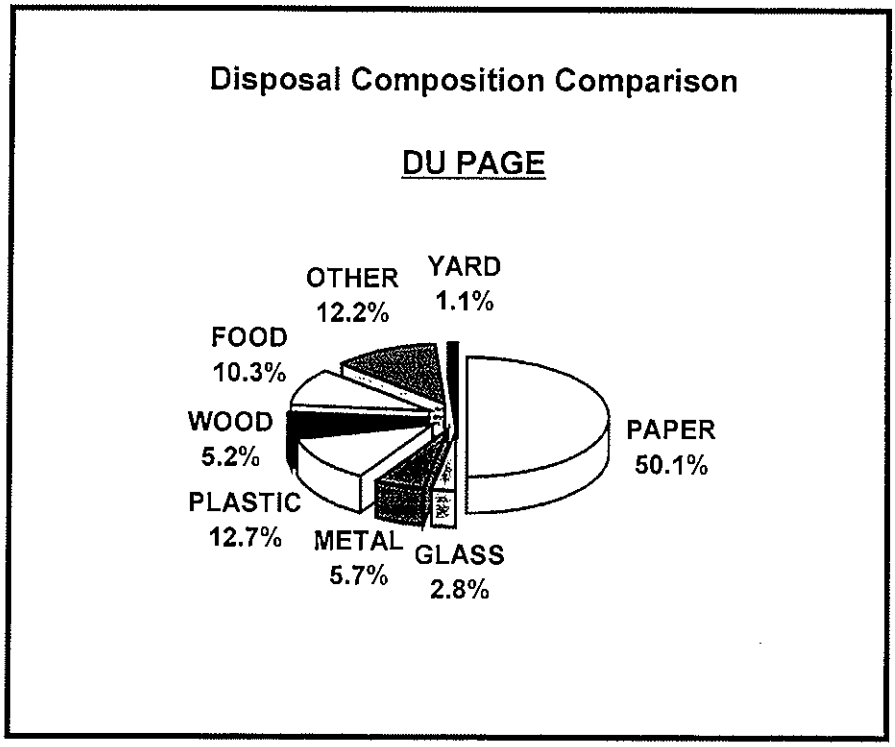
Source: *Waste Stream Characterization for DuPage County, Illinois, February 17, 1995*

CHART 2-2



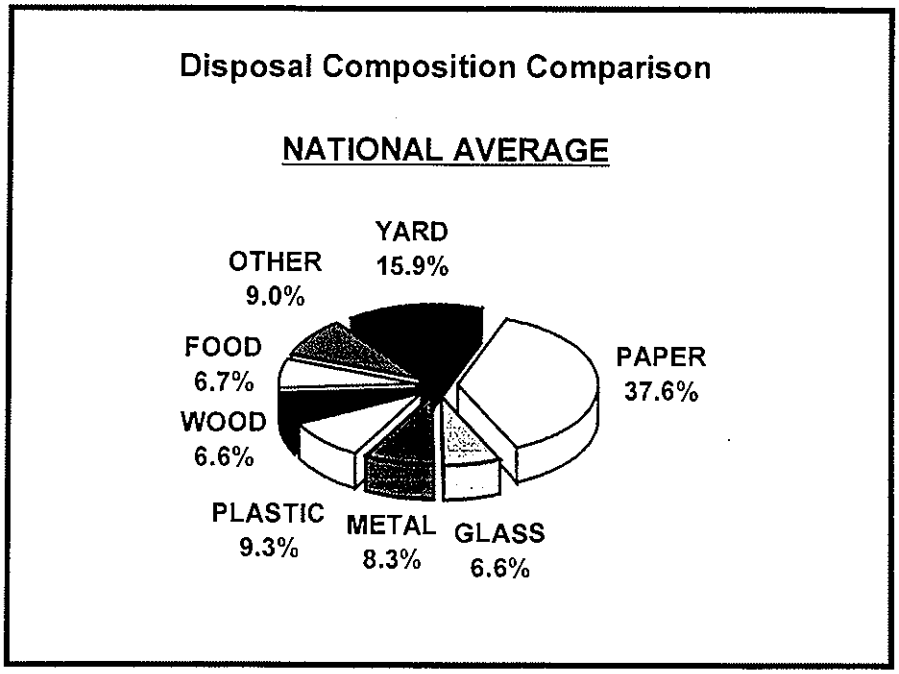
Source: *Waste Stream Characterization for DuPage County, Illinois, February 17, 1995*

CHART 2-3 (A)



Source: *Waste Stream Characterization for DuPage County, Illinois, February 17, 1995*

CHART 2-3 (B)



Source: *U.S. EPA Characterization of Municipal Solid Waste in the United States: 1994 Update*

2.4.5 Recyclable Materials

The table below provides a total of the estimated tonnage of readily recyclable materials generated by residential and commercial sources as reported in the *Waste Stream Characterization Study*:

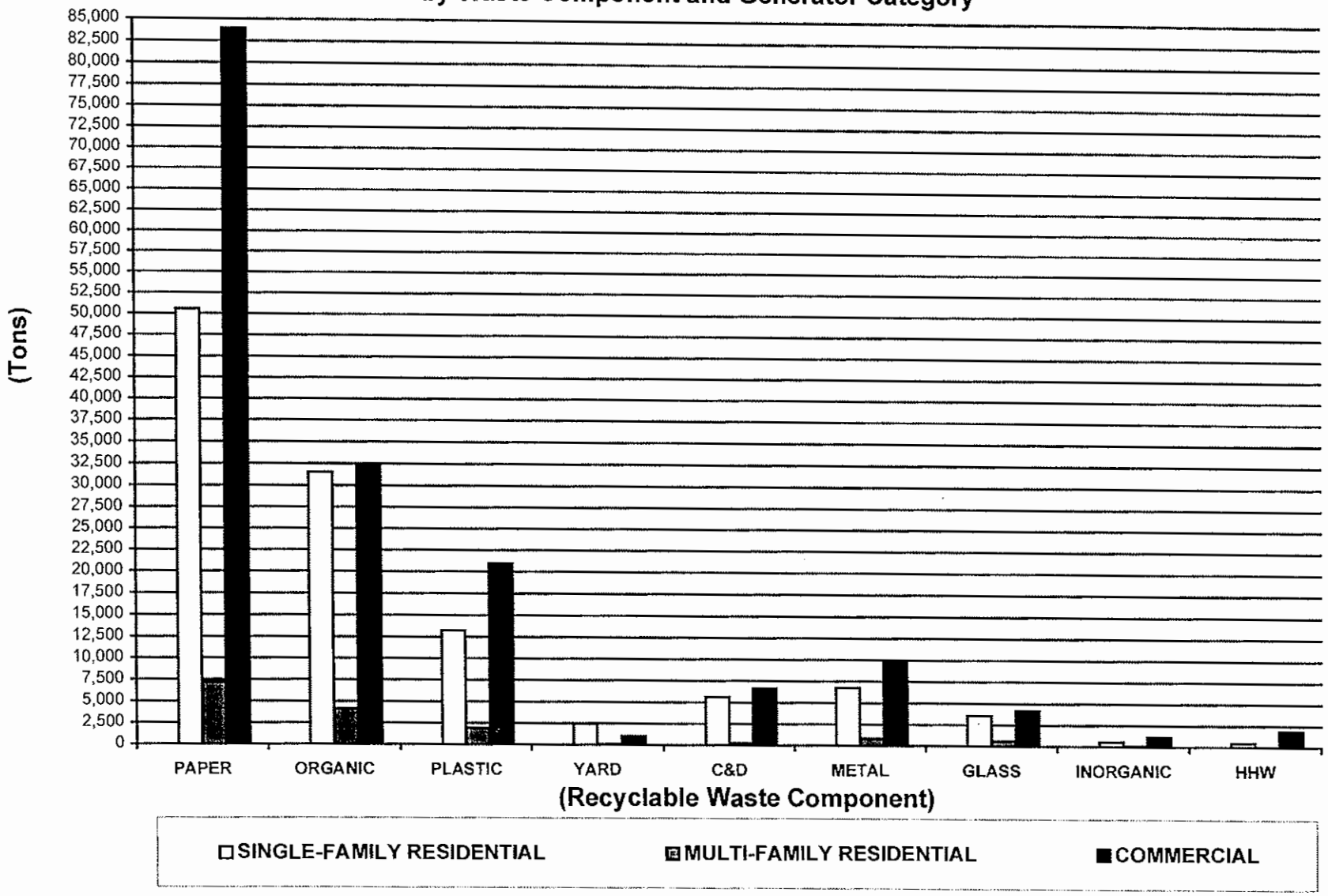
Readily Recyclable Materials

Single-Family Residential	114,800 tons
Multi-Family Residential	15,308 tons
Commercial	161,842 tons
TOTAL	291,949 tons

Note that 161,842 tons, or 55% of the recyclable materials, are from commercial sources. Another 39% is from single-family residential sources. Chart 2-4 (see pg. 25) shows a breakdown of the recyclable waste in tons across nine waste components and three generator categories. Commercial sources generated the highest quantity of paper waste. This alone represents 59% of the recyclable paper waste and 28% of the total recyclable waste identified at the two landfills. Also notable is that another 36% of the recyclable paper waste and 17% of the total recyclable waste were from single-family residential sources. The Department expects that as of this report, readily recyclable paper disposed at the two landfills by residential sources has decreased since the study was conducted. The increase in paper recycling offered by all single-family curbside recycling programs in the County is the most probable cause for this expected decrease.

COUNTY BOARD COPY

CHART 2-4



SECTION 3 -
CHANGES IN STATE AND FEDERAL LEGISLATION

3.1 ILLINOIS SOLID WASTE MANAGEMENT STATUTORY AUTHORITY

ACTION ITEMS DELETED FROM PLAN-1991

Action #48
The County should consider providing a mechanism to direct flow of waste to the various identified waste management processes proposed in its solid waste management system. Alternate methods to flow control by ordinance include by intergovernmental agreement hauler contracts and market determination.

[Deleted due to finding in *C&A Carbone, Inc. v. Town of Clarkstown*, which rendered ordinance methods of waste flow control unconstitutional.]

The Illinois General Assembly has granted various types of governmental entities power to manage solid waste, either individually or in combination. The following summary of the various entities' powers was prepared for the DuPage County Solid Waste Committee by Raymond L. Hansen, former DuPage County Assistant State's Attorney, in August 1993, and updated by DuPage County Solid Waste Department staff in 1995. The summary is a compilation of research and is neither advice of counsel nor a state's attorney's opinion.

The Illinois Solid Waste Planning and Recycling Act [415 ILCS 15/1 et seq.] provided DuPage County with the primary responsibility to plan for the management of municipal waste within its boundaries, identify waste reduction and recycling operations as preferable to land disposal, encourage solid waste planning on a regional basis, provide incentives for decreasing waste, and requiring counties to develop and implement plans with a time line based on the county's population. The Solid Waste Plan must provide for 15% waste reduction by the third year and 25% reduction by the fifth year. Counties were charged with implementing the Solid Waste Plan and may enlist the help of municipalities and private entities in its implementation.

3.1.1 The County will focus on sustaining intergovernmental cooperation with local government agencies authorized by statute to perform solid waste management activities, including but not limited to counties, municipalities, townships, special taxing districts, and joint action agencies. (NEW, Plan-1996)

STATUS

The fundamental authority to manage solid waste by local government agencies is enumerated in the statutes of counties, municipalities, townships, special taxing districts, and intergovernmental cooperative efforts by way of generic intergovernmental cooperation agreements or municipal joint action agencies. Many of the powers identified can be

implemented jointly among municipalities, counties, and townships, but not all. (Specific cites to statutes appear on the following pages.)

Counties, municipalities, and municipal joint action agencies possess a number of powers under various provisions of their codes. These powers include the authority to purchase, condemn, develop, and own solid waste projects; implement flow control; promulgate solid waste rules and regulations; license certain waste management activities; issue bonds; borrow funds; operate facilities or contract with other facilities; contract with municipal and private entities; develop and implement solid waste plans; and most other authority necessary to operate a solid waste management program.

RECOMMENDATIONS

Counties also have statutory obligations regarding solid waste. One important county obligation is the development and implementation of a solid waste management plan. This obligation includes a monetary penalty for failure to comply with the statutory obligation. A second statutory obligation of counties is the obligation to recycle 15% and 25% of the municipal waste generated in the county by years three and five respectively, of the effective date of the solid waste plan. These obligations will remain with the county regardless of how waste is managed within the county.

Townships have limited solid waste management authority. These authorities permit the township to conduct recycling programs and create solid waste taxing districts. The authorities granted to townships cover some of the same geographic areas as the powers provided to counties. In such case, there is case-specific protocol on which authorities apply.

Solid waste disposal districts are a separate type of taxing district for solid waste. These districts can be formed by either counties or townships, either individually or in groups of up to five.

Lastly, local governments have the authority to enter into intergovernmental agreements to share powers in performing their functions. The general rule is that intergovernmental agreements only permit agencies to jointly implement projects to which they share powers that they have individually for their respective geographic areas. If both agencies do not have the authority individually to undertake the project, then they cannot jointly attempt to evade limitations placed on either of them by the state legislature.

Municipal joint action agencies are created under the Intergovernmental Cooperation Act, but provide for the creation of a separate entity which has the powers given to it by the statute. Municipal joint action agencies have the same fundamental powers to manage solid waste as counties and municipalities except they are created by agreement by local governments and not specific state statutes. This statute does not give a municipal joint action agency (MJAA) the authority to impose taxes.

In summary, there are several options to managing solid waste at the local level. Only counties appear to have specific obligations regarding management of the waste stream.

3.1.1(a) County Authorities

Following are several different provisions of the Counties Code that provide solid waste management authority (enforcement activity and site remediation are not included).

55 ILCS 5/5-1047 permits counties to furnish property for disposal, treatment or recycling of solid waste, may charge a fee on the basis of weight, and may acquire property as necessary. The county board may issue revenue bonds to finance said facilities. Previously, counties that had adopted a solid waste management plan could use flow control in the unincorporated areas of the county to retire the bonds; however, a decision from the U.S. Supreme Court rendered on May 16, 1995, in C&A Carbone, Inc. v. Town of Clarkstown (Carbone), declared waste flow control unconstitutional under the Commerce Clause. Congressional legislative action is pending on the matter of flow control.

55 ILCS 5/5-1048 allows the county board to contract with any city, village, incorporated town, county, intergovernmental agency, or person for up to 30 years regarding collection and final disposal of solid waste. Counties may also contract with a not-for-profit agency for recycling, but a committee of three county board members must be assigned to oversee any contracts under this paragraph.

55 ILCS 5/5-8001 through 8007 provides counties authority to regulate solid waste management activity. The powers included in these sections include licensing solid waste disposal areas, licensing solid waste hauling vehicles and making rules and regulations pertaining thereto, providing for inspections of disposal areas and vehicles, and providing for penalties for violations.

55 ILCS 5/5-15006 requires counties to have adopted a solid waste management plan. Upon adopting a plan, a county can enforce the provisions of Division 15 of the Counties Code to the entire county with the exception of certain municipalities.

55 ILCS 5/5-15007 provides that counties have the power to construct and maintain improvements necessary to operate a waste management system. The county shall have the right to acquire by condemnation or other specific methods to protect the quality of the environment and the quality of life from the adverse effects by improper management of waste. The county board shall also have the power to produce and sell products from the storage, treatment, and disposal of waste and any recycled or revised materials withdrawn from the waste stream.

55 ILCS 5/5-15009 is similar to Section 15007 in that it also provides counties with the power to acquire land for waste management systems by various methods.

55 ILCS 5/5-15010 provides counties flow control from any premises within the county except premises in a municipality that has severed itself from the county; however, again, the decision in Carbone declared flow control unconstitutional, with Congressional legislative action pending. The county does not have the authority to regulate the collection of waste within any municipality. The county may appoint a solid waste committee composed of both county board members and municipal representatives to develop and implement the solid waste plan. The committee shall adopt by-laws. Any resolution of the county board affecting such a committee must have 2/3 approval from those members present and voting. The county may purchase and operate a waste management system and enter into long-term contracts with public or private entities to use the service. The fees will be used to pay expenses and retire revenue bonds. Counties can also enter into long-term contracts to operate the waste management system.

55 ILCS 5/5-15017 provides that counties may issue revenue bonds for costs associated with the waste management system. If revenue bonds are issued, then revenues generated must be sufficient to pay for operation, maintenance, and debt service costs. If insufficient revenues are generated, then bond holders may force additional fees for the services.

55 ILCS 5/5-15022 provides that counties may issue general obligation bonds for waste management facilities in a manner consistent with 5/5-1008 (the Home Rule County Use Tax Act.) DuPage County is not a home rule county; therefore, this provision does not apply to DuPage County.

3.1.1(b) Municipalities Authority

65 ILCS 5/11-19-1 provides municipalities with authority to enter into contracts with private or public entities, or any agency by intergovernmental agreements, for collection and final disposition of solid waste. The contracts must be for no more than thirty years.

65 ILCS 5/11-19-1 provides that municipalities may contract with private entities to operate a facility for the disposal, treatment, or recycling of solid waste, and may enter into contracts for up to thirty years with private or public entities for the delivery of waste to such facility. Payments which may be required in regard to any such contract shall not be considered an indebtedness of the municipality for the purpose of any imposed debt limitation.

65 ILCS 5/11-19-4 provides that municipalities of less than 500,000 in population may establish and maintain plants or systems, by contract or direct provision, for the collection and disposal, treatment or recycling of solid waste, and is authorized to levy a tax for said purpose with limitations, which may be adjusted under the referendum provisions of the General Revenue Law of Illinois.

65 ILCS 5/11-19-4 provides that in addition to a garbage tax levy, a municipality may finance the establishment and maintenance of systems or plants by contract or direct provision, for the collection and disposal, treatment, or recycling of garbage through service charges, as adopted by ordinance. Such service charges must be established as can reasonably be

expected to yield revenues not in excess of contract obligations, or the costs of operation and maintenance.

65 ILCS 5/11-19-5 provides that municipalities may use flow control to provide such methods of the disposition of solid waste as shall be approved by the corporate authorities (flow control found unconstitutional in Carbone). Such methods may include, but are not limited to, landfill, incineration, composting, feeding to hogs, or otherwise. Municipalities are further authorized to sell the matter of value in or from the solid waste and the proceeds may be used for the operation of the system. Material that is intended or collected to be recycled is not garbage.

65 ILCS 5/11-19-6 provides that any municipality may exercise the powers granted by Division 19 of the Municipal Code, either individually or jointly and cooperatively with any one or more municipalities, or one or more counties.

65 ILCS 5/11-19-7 provides that two or more municipalities may declare by ordinance that it is in the best interests of the municipalities to join with each other or with one or more counties in the collection and/or disposal of solid waste, and may cause a contract to be prepared for said purpose. The contract shall set forth the decision of the municipalities to either participate in a joint garbage department operated as an inter municipal function or enter into contracts with private parties for collection and disposal of garbage; the financial and personnel responsibilities of each municipality or county; the type of financing, either by service charges and/or tax levies; the term of the contract of up to thirty years; and if the contracting parties so desire, an undertaking that they will provide by ordinance, license, contract, or other means that flow control will be employed within any municipality with more that 130,000 but less than 2,000,000 population; or within any municipality which is signatory to a solid waste management plan providing for the management of wastes generated by more than one municipality or county, and such other powers to effectuate a workable garbage collection and disposal system.

65 ILCS 5/11-19-7 provides that in the event corporate authorities of any municipality or county enter into any such joint exercise of powers previously described, the corporate authorities shall appoint a committee of no more than three of its own members to make continuing studies of the operations of such joint exercise of powers. This committee with other committees appointed by contracting parties shall constitute a joint committee on garbage and refuse disposal, which joint committee shall make recommendations to the corporate authorities on the garbage collection and disposal services, as well as prepare rules and regulations concerning said services. The corporate authorities may adopt such rules and regulations by ordinance and may provide penalties for any related violations.

65 ILCS 5/11-19-10 provides that municipalities may acquire by purchase, gift, or condemnation any real property within or without the corporate limits of the municipality for the purpose of providing facilities for the disposal of solid waste.

3.1.1(c) Townships Authority

60 ILCS 5/13-20(7) provides that a township board of trustees may adopt by ordinance such rules and regulations relating to recycling programs in unincorporated areas of the township as it may deem necessary and may provide penalties for violations.

60 ILCS 120/2 provides that a township board of trustees may ask for a referendum of elections requesting a collection and disposal authority to implement the "Township Refuse Act," ("Act"). This Act does not apply in any township in which a county ordinance or resolution is in effect, regulating the collection and disposal of solid waste. [Note: The decision rendered in Carbone prohibits an ordinance regulating the flow of municipal waste.]

60 ILCS 120/3 provides that township trustees, when authorized, may make contracts with public and private entities for a term less than 15 years which contracts relate to solid waste within the unincorporated area of the township. The township trustees shall declare the unincorporated area of the township a special refuse collection and disposal district for tax purposes. The county clerk shall then be authorized to extend a tax upon the special refuse collection and disposal district in the amount specified in the annual town tax levy, not to exceed .15% of the value of taxable property. The maximum tax rate may be increased to, but not to exceed .20% according to the referendum provisions.

60 ILCS 120/6 provides that the township, under the authorized powers of the Act, may adopt by ordinance such rules and regulations relating to the collection and/or final disposition of solid waste within the unincorporated area of the township. [Note: The decision rendered in Carbone prohibits an ordinance regulating the flow of municipal waste.]

3.1.1(d) Solid Waste Disposal Districts

70 ILCS 3105/4(a) provides that at least 1% of the voters in a county of less than 3,000,000 population may petition the circuit court of such county to order the question as to whether a solid waste disposal district shall be organized. The district boundaries must be coextensive with the boundaries of the county. A group of up to five adjoining counties may create a similar intercounty district by following similar procedures. The purpose of solid waste disposal districts is to provide for a district which shall be responsible for the collection and transport of solid waste or establish one or more solid waste processing facilities with the approval of the IEPA. IEPA approval is required when more than one county is involved in the petition.

70 ILCS 3105/4(b) provides that at least 1% of the voters in any township not already included within a solid waste disposal district may petition the circuit court of the county in which it is located to order the question as to whether a solid waste disposal district shall be organized. The district boundaries must be coextensive with the boundaries of the township. A group of up to five adjoining townships may create a similar intertownship district by

following similar procedures. IEPA approval is required when more than one township is involved in the petition.

70 ILCS 3105/9 provides that the affairs of a solid waste disposal district shall be managed by a board of five trustees who are qualified voters of such district and do not hold any other public office and are not political party officers. Trustees shall be selected on the basis of their demonstrated interest in the purpose of solid waste disposal districts.

70 ILCS 3105/16 provides that the district, with prior IEPA approval, may construct, acquire, and operate its own solid waste disposal facility, contract with other governmental bodies or with private industry for the disposal of solid wastes, or may utilize upon such terms as may be agreed upon between the board of and the other parties involved, any combination of public and private facilities.

70 ILCS 3105/17 provides that the district may charge and collect reasonable fees, adopt by laws, acquire property, make rules and regulations, have employees, and exercise appropriate police powers necessary to its mission.

70 ILCS 3105/18 provides that the district must adopt a combined annual budget and appropriation ordinance. A district may annually levy taxes upon all the taxable property therein, at a rate not exceeding .05%. After adoption of the appropriation ordinance, the board shall levy not to exceed the total amount ascertained upon all the property subject to taxation within the district.

70 ILCS 3105/21 and 3105/22 provides that a district may issue and sell bonds for the purpose of acquiring real property or rights thereto and for constructing or acquiring solid waste disposal facilities. No such bonds, other than bonds payable solely from the revenues derived by the district from the operation of such solid waste disposal facilities, may be issued unless the proposition to issue bonds has been submitted to the legal voters of the district at an election and has been approved by a majority vote. At the time of issuing bonds, other than revenue bonds, the district shall provide by ordinance for the collection of an annual tax, within the limits of the authorized taxes, sufficient to pay such bonds and the interest thereon. The district board shall order a referendum when it proposes to incur indebtedness and issue bonds, other than tax anticipation warrants and revenue bonds.

70 ILCS 3105/23 provides that districts are entitled to exercise the powers of intergovernmental cooperation, as specifically empowered by statute. A district may undertake any of its activities aided by, in cooperation with, or as a joint enterprise with any department or agency of the state or Federal government or any other solid waste disposal district, sanitary district, park district, school district, planning commission, county board, municipality, or other governmental unit.

Any county board, municipality, district, or governmental unit may aid any solid waste disposal district in any appropriate manner including equipping, operating, and maintaining

any conservation or recreation areas; and providing, conducting and supervising programs of activities; and may appropriate money for such purposes. The county board and the municipal corporate authorities may make available to the use of the district any county or municipal equipment, facility, and personnel.

3.1.1(e) Intergovernmental Cooperation Act

5 ILCS 220/3 provides that public agencies are authorized to enter into agreements to exercise any power, privileges, or authority exercised as specifically empowered to a public agency of this State, and to contract to perform any governmental service, activity, or undertaking which any of the public agencies entering into the contract is authorized by law to perform.

3.1.1(f) Joint Municipal Action Agency

5 ILCS 220/3.2 provides that any two or more municipalities, counties, or combination thereof may by intergovernmental agreement establish a Joint Municipal Action (JMAA) to provide for efficient and environmentally sound collection, transportation, processing, storage, and disposal of municipal waste. Any such agency itself shall be a municipal corporation, public body politic and corporate with a board of directors that manage the affairs of the agency within the limits of the statute.

5 ILCS 220/3.2(c) provides that JMAA may develop, own, manage, close, and finance waste projects. JMAA's powers shall be provided in the agreement establishing it, which powers may include acquiring, holding, selling real or personal property, and entering into contracts with the federal, state, or local government unit or any person relating to a waste project. Such contracts may set forth that the contracting party makes exclusive use of a waste project for collection, processing, or disposing of all or any portion of solid waste over which it has control, specific provisions with respect to the collection, processing, transportation, storage and disposal of municipal waste, and fee schedules with respect to the waste project.

5 ILCS 220/3.2(d) provides that JMAA may, borrow money and issue revenue bonds or notes for any of its corporate purposes. Such bonds or notes shall not be claimed for payment other than from revenues of the JMAA derived from the operation of its waste projects, from revenues received from its members, (including from contracts for the use of the JMAA waste projects), from bond or note proceeds, from such other receipts of the JMAA as the agreement establishing the JMAA may authorize to be pledged to the payment of bonds or notes, and from investment earnings. The JMAA shall not terminate so long as it has debt outstanding.

5 ILCS 220/3.2(F) provides that the JMAA and its members shall have the power to enter into contracts for a term not exceeding 50 years relating to municipal waste. Parties to the contract shall have the power to agree to provide for flow control in their jurisdictions. [The

decision rendered in Carbone does not prohibit units of local government from establishing municipal waste flow control by way of its waste hauler contracts.]

5 ILCS 220/3.2(g) provides that JMAA members may, upon request by the JMAA, exercise their condemnation powers and convey the property so acquired to the JMAA. The JMAA may agree to reimburse its members with respect to planning, acquisition, and construction costs of an JMAA waste project.

5 ILCS 220/3.2(h) provides that all JMAA members may be obligated by agreement with the JMAA to make payments in order to finance the costs of planning, acquisition, and construction of a waste project.

5 ILCS 220/3.2(a) provides that a municipal lead agency acting in cooperation with other units of local government to accomplish waste disposal may, by passage of an ordinance, cause the municipal lead agency to possess all the powers of the JMAA as if the municipal lead agency was established as the JMAA and also cause the cooperating units of local government to possess the same powers to enter into contracts and perform those acts as they would with JMAA.

3.1.1(g) IEPA Provisions

The IEPA has several divisions that discuss site specific requirements for siting and operation, enforcement authority to the state, waste-specific statutes such as waste tires and hazardous waste. The following summarizes those sections of the Act that specifically relate to local government solid waste management.

The Local Solid Waste Management Act at 415 ILCS 10/1 et seq., provides local governments with the ability to dispose of solid waste within their jurisdiction by preparing and implementing, either individually or jointly, solid waste management plans (plan) and to the extent feasible, efficiently use products or by-products generated during the disposal process. Units of local government include municipalities, counties, or JMAA. The jurisdiction of the plan will include the corporate boundaries of the participating entities except that a county cannot plan for a municipality that has its own plan. This statute further defines the content of a plan, what is required of an incinerator, how participating entities can share their powers to arrive at and implement the plan, updating the plan in its fifth year, and that municipalities and counties can use some of the flow control granted in their statues within the plan. [Carbone removes the authority to exercise waste flow control by ordinance].
The Solid Waste Planning and Recycling Act's [415 ILCS 15/1 et seq.] primary purpose is to provide counties with the primary responsibility to plan for the management of municipal waste within their boundaries, identify waste reduction and recycling operations as preferable to land disposal, encourage solid waste planning on a regional basis, provide incentives for decreasing waste, and requiring counties to develop and implement plans with a time line based on the county's population. This Act also contains requirements for solid waste plan content. Counties are specifically authorized under this Act to jointly create a

plan that provides for more than one county. Counties may delegate power to a municipality within the county or to a JMAA to prepare a plan on the county's behalf. The plan must provide for 15% waste reduction by the third year and 25% reduction by the fifth year. This Act specifically requires the plan to contain a recycling program which must be implemented. The county must begin implementing the plan immediately and may enlist the help of municipalities and private entities in its implementation. If a township is implementing a recycling program that complies with this Act at the time that the plan takes effect, then it may continue to implement its plan as part of the recycling portion of the county's plan. Townships may always implement a more complete recycling program than that contained in the county's plan.

Violations of this Act by failing to adhere to the schedule set forth in this Act shall be punishable by a civil penalty of $5,000. The Attorney General, States Attorney, or a private citizen may institute the action for the penalty. The court may award costs and attorney's fees for willful, knowing, or repeated violations of this Act.

415 ILCS 5/22.15 of the Land Pollution Division of the Illinois Environmental Protection Act provides the authority, presently, for the county to collect its fee at the landfills. This provision extends the authority to collect this fee to a unit of local government as defined in the Local Solid Waste Disposal Act in which the solid waste disposal facility is located. The funds collected under this Act must be used for solid waste management purposes.

3.2 1991 TO 1996 CHANGES BY THE ILLINOIS GENERAL ASSEMBLY TO LEGISLATION AFFECTING SOLID WASTE MANAGEMENT MATTERS

ACTION ITEMS DELETED FROM PLAN-1991

None.

3.2.1 The County will continue to monitor and develop legislation as necessary to assist in the development and implementation of sound solid waste management programs. (NEW, Plan-1996)

The DuPage County adopted the DuPage County Solid Waste Management Plan, dated February 1991, pursuant to paragraph 15/4 of the Illinois Solid Waste Planning and Recycling Act (415 ILCS 15/1, et seq., 1992) required that by March 1, 1991, each county with a population of 100,000 or more adopt a plan for the management of municipal waste generated within its boundaries. Pursuant to paragraph 15/5 (e) of this Act, the County must update and review the Plan every five years. Since adoption of the DuPage County Solid Waste Management Plan in February of 1991, the Illinois General Assembly has made changes to legislation which impact solid waste management matters. The following summaries, by subject matter, reflect amendments through December 31, 1995.

(4) Public Act 87-1152, became effective January 1, 1993, amending the Illinois Environmental Protection Act at 415 ILCS 5/39.2(a)(ix)(d) by providing that in the siting review process of a pollution control facility, if a member of the county board or governing body of the municipality had publicly expressed an opinion on an issue related to the site review proceeding, the member will not be precluded from taking part in the proceeding or voting on the issue.

(5) Public Act 88-163, became effective July 28, 1993, amending the Solid Waste Disposal District Act at 70 ILCS 3105/17 by providing that solid waste disposal districts are allowed to intervene, participate, and make recommendations in the local siting approval process for a solid waste disposal site or facility if the site or facility is to be located within the boundaries of the solid waste disposal district and the district was formed before January 1, 1993.

(6) Public Act 88-293, became effective January 1, 1994, amending the Illinois Environmental Protection Act to provide that if a pollution control facility does not accept any waste for a period of five years or more, the facility must obtain a new operating permit before accepting any new additional waste.

(7) Public Act 88-681, became effective December 22, 1994, amending the Illinois Environmental Protection Act by changing the term "regional pollution control facility" to "pollution control facility" throughout the Act, thus making all such facilities subject to local siting requirements and all other restrictions and requirements previously applicable to regional pollution control facilities. The amendment defines "pollution control facility" as any waste storage site, sanitary landfill, waste disposal site, waste transfer station, waste treatment facility, or waste incinerator. An opinion rendered in Tennsv, Inc., v. Gade in the United States District Court, Southern District of Illinois, caused Sections 3.32, 39.2 and 22.14(a) of the Act to be unconstitutional as these Sections pertain to the siting of facilities which accept interstate municipal solid waste. Public Act 88-861 set aside this finding by making all pollution control facilities subject to local siting approval criteria under Section 39.2 of the Act, not exclusively "regional" pollution control facilities.

(8) Public Act 89-102, became effective July 7, 1995, amending the Illinois Environmental Protection Act by providing that pollution control facilities in unincorporated Cook County will be subject to the local siting approval process in Section 39.2 of the Act.

(9) Public Act 89-122, became effective July 7, 1995, amending the Illinois Environmental Protection Act at 415 ILCS 5/3.47, 3.83 and 3.48-5 by specifying what is and is not included in the meaning of the terms "storage site" and "transfer station." The law excludes from the categories of transfer stations and storage sites those sites at which waste is stored in the detachable refuse receptacle of a refuse motor vehicle for no more than 24 hours if the receptacle is completely covered and enclosed and is stored on the same site as the load's transport vehicle. (The DuPage County Solid Waste Department staff worked with waste industry representatives from the National Solid Waste Management Association and

their counsel to require that the storage of wastes may be stored only on the same site as the load's transport vehicle).

See Section 4.8.2 herein for definition of "transfer station" and "storage site." The meaning of "transfer container" was changed to exclude completely covered or enclosed reusable transportable shipping containers that have a volume of less than 250 cubic feet based on external dimensions. This Act removes sites included under the described categories from the local siting approval process.

(10) Public Act 89-200, became effective January 1, 1996, amending the Illinois Environmental Protection Act at 415 ILCS 5/39.2 (f) providing that local siting approval granted for a sanitary landfill operation, shall expire at the end of three years from the date upon which it was granted.

3.2.1(d) Municipal Waste

Public Act 87-650, became effective January 1, 1992, to define the term "municipal waste" in the Local Solid Waste Disposal Act at 415 ILCS 10/2 (6) to mean "garbage, general household, institutional and commercial waste, industrial lunchroom or office waste, landscape waste, and C & D debris."

3.2.1(e) Landscape Waste Facility Siting

Public Act 88-557, became effective July 27, 1994, amending the Illinois Environmental Protection Act at 415 ILCS 5/39.2 (o) by exempting waste transfer stations that exclusively handle landscape waste, such as leaves, grass, and twigs, from the local siting approval procedure. In order to address potential odor problems, no single load of landscape waste may be kept at such facility for longer than 24 hours. In place of going through the local siting approval procedure, such facilities would instead require only local zoning approval.

3.2.1(f) Landscape Waste

Public Act 88-163, became effective September 10, 1993, amending the Illinois Environmental Protection Act at 415 ILCS 5/9(f) by providing that the burning of landscape waste for agricultural purposes, habitat management, or firefighter training is permissible, and that the burning of landscape waste by production nurseries shall be considered to be burning for agricultural purposes.

3.2.1(g) Household Hazardous Waste Facility Siting

Public Act 88-474, became effective January 1, 1994, to amend the Illinois Environmental Protection Act at 415 ILCS 5/22.16(b)(d) by providing that household hazardous waste collection centers are not subject to local siting requirements if the local governing authority agrees to waive the siting requirements.

STATUS

3.2.1(a) Solid Waste Management Planning

(1) Public Act 87-906, became effective January 1, 1992, to amend the Solid Waste Planning and Recycling Act at 415 ILCS 15/2(a)(5) by encouraging that solid waste planning take place on a multi-county, regional basis and through intergovernmental cooperation agreements whereby various units of local government within a region determine the best methods and locations for disposal of solid waste. (This Amendatory Act of 1992 is not to be construed to impact the authority of units of local government in the siting of solid waste disposal facilities).

(2) Public Act 87-650, became effective January 1, 1992, to amend Section 3(1) to Section 3(8) of the Illinois Local Solid Waste Disposal Act at 415 ILCS 10/3 which provides that units of local government may, on their own behalf or pursuant to an intergovernmental agreement, prepare solid waste management plans for disposal of solid waste generated within their jurisdictions, by adding that, if prepared, said "solid waste management plans require an estimate of the origin, content, and weight or volume of municipal waste that will be generated within the unit of local government's boundaries during the next 20 years, an evaluation of the advantages/disadvantages of the proposed facilities, a description of the time schedule for the development of each facility, and an explanation of the legal basis for the governmental entity to implement the plan."

(3) Public Act 87-290, became effective January 1, 1992, to amend the Illinois Solid Waste Planning and Recycling Act at 415 ILCS 15/7(b) by providing that a township may at any time adopt and implement a recycling program that is more stringent than that required by the County's Solid Waste Management Plan.

(4) Public Act 88-62, became effective January 1, 1994, authorizing townships to enter into direct agreement with for-profit corporations or other business entities to carry out recycling programs in unincorporated areas of the township and may adopt rules and regulations relating to recycling programs in unincorporated areas of the township (at 60 ILCS 1/85-13 (f) and (g)).

(5) Public Act 87-1250, became effective December 21, 1992, to amend the Illinois Solid Waste Management Act at 415 ILCS 20/6.3 by requiring that a Solid Waste Advisory Council be established (on or before October 1, 1992) consisting of 15 members representing business groups, citizen groups, environmental organizations, local governments, recycling firms, and the waste industry. The council shall meet regularly to make findings and recommendations on the Illinois Department of Natural Resources and the Illinois Environmental Protection Agency solid waste programs that are implemented under the Solid Waste Planning and Recycling Act and the Illinois Solid Waste Management Act.

3.2.1(b) Brownfields/Hazardous Waste Site Remediation Solid Waste Management Fund

(1) Public Act 89-431, became effective December 15, 1995, to amend the Illinois Environmental Protection Act at 415 ILCS 5/22.2 by creating the Site Remediation Program to provide procedures for investigative and remedial activities at sites where there is a release, or threatened or suspected release, of certain substances (Brownfields sites).

(2) Public Act 89-443, signed into law on December 21, 1995, to become effective July 1, 1996, amends the Illinois Environmental Protection Act at 415 ILCS 5/22.15 by removing the ability of the State of Illinois to administer and monitor solid waste plan implementation grants, and removes $2,000,000 from the State Solid Waste Management Fund, placing these funds into the Hazardous Waste Treatment Fund. The $2,000,000 is removed from the State's Solid Waste Fund at $500,000 per fiscal quarter with no sunset provision, or otherwise; monies from the Solid Waste Management Fund will be diverted on an annual basis.

(3) Public Act 89-158, became effective January 1, 1996, amending the Illinois Environmental Protection Act at 415 ILCS 5/22.2 (G) and (H), by excluding from ownership liability for clean up of hazardous substances, a unit of State or local government which acquired ownership or control of a facility through bankruptcy, tax delinquency, abandonment, or other circumstances in which the government acquired title by virtue of its function as sovereign power.

3.2.1(c) Pollution Control Facility Siting

(1) Public Act 87-333, became effective September 6, 1991, amending the Illinois Environmental Protection Act at 415 ILCS 5/39.2(a)(ix)(d) by requiring that notice of a public hearing for local siting approval be given to the governing authority of every municipality contiguous to the proposed site or contiguous to the municipality in which the proposed site is to be located.

(2) Public Act 87-554, became effective September 17, 1991 and amended by Public Act 88-681 effective December 22,1994, to prohibit any landfill owned or acquired by the Forest Preserve District from being used for development or operation of a pollution control facility. The Public Act also prohibited the transfer of interests in Forest Preserve District property to any other entity for the construction, expansion, or operation of a pollution control facility. This language prohibited the transfer of interest in the two landfills, Greene Valley and Mallard Lake, located in DuPage County to any other entity. The consent order entered December 4, 1992 requiring the landfills to close no later than December 31, 2000 dovetailed this Public Act.

(3) Public Act 87-650, became effective January 1, 1992, amending the Illinois Environmental Protection Act at 415 ILCS 5/39.2(a)(viii) by adding to the criteria for local siting approval of a pollution control facility, now requiring that any such pollution control facility be consistent with a county's adopted solid waste management plan requirements.

3.2.1(h) Household Hazardous Waste Collection

Public Act 87-735, became effective September 26, 1991 to create the Household Hazardous Waste Collection Program Act at 415 ILCS 90/1 which requires the Illinois Environmental Protection Agency to formulate and update a plan, by March 1, 1995, for collecting small quantities of household hazardous waste from households within the State of Illinois and requires that the Plan include a method of encouraging county and municipal household hazardous waste collection pilot projects. The Agency must establish a grant program for local governments that desire to provide a local or regional household hazardous waste collection center.

3.2.1(i) Household Hazardous Wastes

Public Act 88-163, became effective July 28, 1993, to amend the Household Hazardous Waste Collection Program Act to provide that the definition of "household hazardous waste" includes petroleum distillate-based solvents, oil-based, liquid paint, paint strippers, and pesticides.

3.2.1(j) Hazardous Educational Waste

Public Act 89-300, became effective January 1, 1996, to amend the Illinois Environmental Protection Act at 415 ILCS 5/22.47 by requiring the Illinois Environmental Protection Agency to develop and implement a program to collect hazardous educational waste from school districts and schools throughout the State of Illinois. The program shall provide for the availability for collection, transportation, and appropriate management of hazardous educational wastes for each school district or school at least every three (3) years. The Act further defines "Hazardous Educational Wastes" as a waste product that could pose a hazard during normal storage, transportation, or disposal generated from an instructional curriculum including laboratory wastes, expired chemicals, unstable compounds, and toxic or flammable materials, but does not include wastes generated as a result of building, grounds, or vehicle maintenance, asbestos abatement, lead paint abatement, or other non-curriculum activities.

3.2.1(k) Landfills/Materials Banned or Permitted for Disposal

(1) Appliances/Public Act 87-727, became effective September 23, 1991, to amend the Illinois Environmental Protection Act at 415 ILCS 5/22.28 banning the disposal of white goods in landfills beginning July 1, 1994, unless the white good portion (CFCs) is removed from appliance.

(2) Tires/Public Act 86-452, amended the Illinois Environmental Protection Act at 415 ILCS 5/55 to prohibit the disposal of tires in landfills beginning July 1, 1994, and beginning January 1, 1995, no person shall knowingly mix any used or waste tire, either whole or cut, with municipal waste, and no owner or operator of a sanitary landfill shall accept any used or waste tire for final disposal.

(3) Batteries/Public Act 86-723 became effective September 1, 1990, by amending the Illinois Environmental Protection Act at 415 ILCS 5/22.23 to prohibit the disposal of lead acid batteries in landfills.

(4) Landscape Waste/Public Act 85-1430 amended the Illinois Environmental Protection Act at 415 ILCS 5/22.22 to provide that as of July 1, 1990, no person could knowingly mix landscape waste that is intended for collection or for disposal at a landfill with any other municipal waste, and as of July 1, 1990, no owner or operator of a sanitary landfill could accept landscape waste for final disposal. The requirements of the Act do not apply to landscape waste collected as part of a municipal street sweeping operation where the intent is to provide street sweeping service rather than leaf collection, nor to landscape waste collected by bar screens or grates in a sewage treatment system.

(5) Waste Oil/Public Act 87-1213 amended the Illinois Environmental Protection Act at 415 ILCS 5/21.6 to provide that beginning July 1, 1996, no person may knowingly mix liquid used oil with any municipal waste that is intended for collection and disposal at a landfill, and beginning July 1, 1996, no owner or operator of a sanitary landfill shall accept liquid used oil for final disposal that is discernible in the course of prudent business operation. "Liquid used oil" does not include used oil filters, rags, absorbent material used to collect spilled oil or other materials incidentally contaminated with used oil, or empty containers which previously contained virgin oil, re-refined oil, or used oil. "Used oil" as defined at 415 ILCS 5/3.51 means any oil which has been refined from crude oil or refined from used oil, has been used, and as a result of such use has been contaminated by physical or chemical impurities; except, "used oil" shall not include that type of oil generated on farmland property devoted to agricultural use and used on that property for heating or burning.

(6) Potentially Infectious Medical Waste/Public Act 87-752 became effective January 1, 1992, to amend the Illinois Environmental Protection Act at 415 ILCS 5/56 by providing that potentially infectious medical waste may be disposed of in a landfill only if the infectious potential has been eliminated by treatment and sharps have been rendered unrecognizable by treatment, for example, ground to a powder. As of July 1, 1992, no person can cause or allow the delivery or transfer of any potentially infectious medical waste to a facility for storage, treatment, or transfer that does not have a permit issued by the Illinois Environmental Protection Agency to receive such waste. Potentially infectious medical waste does not include waste generated as general household waste.

(7) Animal Carcasses/Public Act 88-133, became effective January 1, 1994, to amend the Illinois Dead Animal Disposal Act at 225 ILCS 610 by allowing for the disposal of dead animals, poultry, and fish by on-site composting or conveyance to a licensed landfill; and provides for the licensing of animal collection services and the permitting of vehicles used in the performance of those services; and provides that no license or permit is required for an owner, operator, or caretaker to convey dead animals to a licensed landfill.

3.2.1(l) Waste Reporting

Public Act 87-484, became effective January 1, 1992, to amend the Illinois Environmental Protection Act at 415 ILCS 5/22.31 by providing that beginning January 1, 1992, no landfill or incinerator operator may accept any nonhazardous solid waste for permanent disposal or incineration unless the operator makes a record, based on information provided by the waste transporter, of the state where the waste was generated, or the state from which the waste was shipped to the disposal facility.

3.2.1(m) Recycling

(1) Public Act 87-650, became effective January 1, 1992, to amend the Illinois Planning and Recycling Act at 415 ILCS 15/6(3) which requires that the county waste management plan adopt a recycling program which shall be designed to recycle, by the end of the third and fifth years of the program, respectively 15% and 25% of the municipal waste generated in the county, subject to the existence of a viable market for the recycled material, based on measurements of recycling and waste generated in term of weight, by adding that the "determination of the recycling rate shall not include: discarded motor vehicles; wastes used for clean fill or erosion control; or commercial, institutional, or industrial machinery or equipment."

(2) Public Act 87-485, became effective January 1, 1992, to amend the Illinois Solid Waste Management Act at 415 ILCS 20/3(d) and 3(e) to provide that beginning July 1, 2000, at least 50% of the total dollar value of paper and paper products purchased by the Illinois Department of Central Management Services shall be recycled paper and paper products and established minimum percentages for postconsumer material in various paper products purchased by the Department of Central Management Services. [Note: this legislation may establish a precedence for paper products purchased by units of local government.]

(3) Public Act 88-60, became effective July 7, 1993, to amend the Illinois Solid Waste Planning and Recycling Act at 415 ILCS 15/8.5 by requiring that the Illinois Department of Natural Resources provide a report to the Illinois General Assembly on high-rise residential and office recycling projects on or before July 1, 1994. The report shall include, but is not limited to, a review of the volume of materials collected and costs associated with such projects compared to other collection methods.

3.2.1(n) Enforcement

(1) Public Act 88-474, became effective January 1, 1994, to amend the Illinois Environmental Protection Act at 415 ILCS 5/22.15 by providing that the Illinois Environmental Protection Agency audit expenditures made by local governments from grants for local landfill inspection and enforcement activity.

(2) Public Act 88-381, became effective January 1, 1994, to amend the Junkyard Act at 415 ILCS 95/4.5 by authorizing the Illinois Environmental Protection Agency to inspect any automobile graveyard within 1000 feet of a canal in Illinois to determine if any contaminants are entering canal waters from the automobile graveyard.

(3) Public Act 87-939, became effective August 28, 1992, to amend the Counties Code at 55 ILCS 5/5-1118 by authorizing the county board of any county to provide for the removal of garbage and debris from unincorporated areas of the county if the owner of the property refuses or neglects to remove the garbage and debris and may collect the reasonable costs of removal from the owner or file a lien upon the property affected.

3.2.1(o) Alternate Fuels Act

Public Act 89-410, became effective November 17, 1995, creating the Alternate Fuels Act, which provides that during the years 1996 through 1999 the Office of the Secretary of State shall collect an annual user fee of $20 per vehicle from any individual, partnership, association, corporation or agency of the United States government which operates any combination of ten or more motor vehicles, that do not use alternate fuel sources. Although the law exempts owners of State, county, and local government vehicles; rental vehicles; antique vehicles; electric vehicles; and motorcycles from paying the user fees on such vehicles, the DuPage County Solid Waste Department, as part of a pilot project, is converting a Department vehicle to a bi-fuel vehicle which will operate on either natural gas or gasoline. The Department will subsequently apply for an 80% rebate from the State to cover a portion of the vehicle retrofitting costs.

3.2.1(p) Retail Rate Law

Public Act 89-448, dated March 14, 1996, repealed the Retail Rate Law. The Retail Rate Law was passed in 1988 to attract new energy sources. Under this law, power companies are required to buy electricity from incinerators at the retail, rather than wholesale rate. In general, the Retail Rate Law encouraged the development of new waste-to-energy facilities (municipal waste incinerators) with tax dollars. Repeal of the Law negatively impacts the amount of energy revenues for the Robbins Waste-to-Energy Facility. Municipalities within the County may consider sending their municipal waste to the Robbins Facility after the Mallard Lake and Greene Valley landfills close.

According to the Illinois Environmental Protection Agency Air Pollution Control Division, the air quality permit and land permit for the waste-to-energy facility, known as the West Suburban Recycling and Energy Center, in McCook/Summit was denied on December 27, 1995. According to the IEPA's Community Relations Department this is the only permit application other than the Robbins facility currently pending with the IEPA for a waste-to-energy facility in Illinois. There are several other waste-to-energy facilities being planned or considered throughout the State; however, no additional permit applications have been submitted to the IEPA.

3.3 PROPOSED LEGISLATIVE CHANGES

DuPage County and other public entities have proposed or intend to propose amendments to legislation pertaining to solid waste management issues. A history of the activity and a summary of the proposed legislation by subject matter follows.

RECOMMENDATIONS

3.3.1 Landfill Surcharge Conversion Ratio

On March 22, 1988, the County Board adopted the DuPage County Waste Management Ordinance under ordinance number ECO-0001-88.011 which specified the scope of the County's regulatory authority, with respect to solid waste disposal, performance standards for sanitary landfills, landfill inspection procedures, enforcement procedures, and a mechanism by which a County Solid Waste Fee may be imposed through surcharge at the landfills. This ordinance (identified as Chapter 30 of the DuPage County Code) was adopted in response to the statutory authority granted to the County under the "Solid Waste Management Act," Public Act 84-1319, and an "Act in Relation to Water Supply, Drainage, Sewage, Pollution, Waste Management and Flood Control in certain Counties" under Public Act 85-14.

On September 26, 1991, Public Act 87-735 became effective which provided that the total landfill surcharge to be paid to the State and the County was not to exceed $1.05 per cubic yard or $2.22 per ton. Under Section 22.15 of the Environmental Protection Act, the County and State receive authority to assess a surcharge fee of either $0.45 per cubic yard/$0.60 per cubic yard, the total not exceeding $1.05 per cubic yard or $0.95 per ton/$1.27 per ton, the total not exceeding $2.22 per ton. Subsequent to discussions with the IEPA regarding the surcharge amount received by the Agency and the County, IEPA agreed to invert the surcharge rate, to allow the County to assess $0.60 per cubic yard or $1.27 per ton and the State to assess $0.45 per cubic yard or $0.95 per ton. On November 26, 1991, the County adopted an amendment to Chapter 30 to provide for the inverted surcharge rate.

Prior to the installation of scales at Mallard Lake Landfill and Greene Valley Landfill, volumes were reported by cubic yard. In converting to tons in 1992, the operators used the statutory allowance of 2.11 as a conversion ratio, in lieu of the regulatory conversion ratio of 3.3 as set forth at 35 Illinois Administrative Code 858.401(c). This conversion ratio was previously negotiated between the Agency and the operators to provide the operators with an incentive for installing scales at the landfills.

On March 10, 1992, the County adopted resolution #LEG-001-92 which provided the County the authority to proceed with amendatory legislation, after recognizing the significant revenue loss suffered by the County upon the landfills' conversion from cubic yards to tons. In the Spring Session of 1992, Senator Pate Philip introduced Senate Bill 1712, which proposed to amend the Illinois Environmental Protection Act to require the use of the regulatory conversion ratio of 3.3 in the calculation of the surcharge fee paid to the County

and the State. That bill remained in Rules Committee due to a misinterpretation, that the surcharge was being increased rather than equitably assessed. During that Session, DuPage County Solid Waste Staff testified before the Senate Energy and Environment Committee to clarify this misinterpretation. In the Spring Session of the 1993 General Assembly, a sponsor was sought to once again introduce the amendatory language, however, the amendatory language was not introduced in that Session.

The DuPage County Solid Waste Department has notified other counties within Illinois that have experienced revenue losses due to this conversion. Copies of the proposed legislation and revenue concerns have been forwarded to the impacted counties.

3.3.2 Solid Waste Facility Surcharge and Planning Grants

In a last hour action by Conference Committee recommendation, House Bill 901 was enacted under Public Act 89-443 on December 21, 1995. The legislation will ultimately impact the entire State's solid waste management enforcement, planning, and implementation efforts. The legislation will also effect the private sector providing engineering and planning services to the County and State.

Public Act 89-443 removes the ability of the State to implement and monitor solid waste planning grants, and removes $2,000,000 from the State Solid Waste Fund. Planning grants provide funds to programs that reduce or recycle significant portions of the waste stream. The Solid Waste Department was planning to seek grant monies for several major waste reduction programs, including those pertaining to commercial sector waste reduction education and C & D debris recycling promotion, which operations remove valuable resources from the waste stream. A recent study showed that 34% of DuPage County's waste stream consists of C & D material. By reducing the waste stream, DuPage County businesses and residents could potentially save millions of dollars in waste disposal fees.

In the past two years, DuPage County landfills have placed eight million dollars in the State Solid Waste Fund. The DuPage County contribution to the Solid Waste Fund for 1995 is:

STATE SOLID WASTE FUND 1995 (from all landfills within the State)	*Total Budget*	$6,000,000
DUPAGE COUNTY LANDFILLS 1995	*Total Contribution*	$4,000,000

Under Public Act 89-443, DuPage County will in essence be supporting the clean-up of areas outside its border and will lose funding of its own solid waste and enforcement programs.

In 1992, a consent decree was issued ordering both landfills in DuPage County to close by no later than December 31, 2000. This action has caused the amount of waste going into the Mallard Lake and Greene Valley Landfills to increase dramatically. The Greene Valley Landfill is predicated to close by the end of 1996, and the Mallard Lake Landfill is expected

to close 1998. Once these landfills are closed, they will not generate anymore surcharge revenue for DuPage County solid waste programs.

The Solid Waste Agency of Northern Cook County ("SWANCC") is in the process of proposing legislation for a two-fold purpose, first to respond to the impact of Public Act 89-443 as it pertains to Phase III Grants and secondly, to propose assessing a surcharge at waste transfer facilities in place of a surcharge at a landfill or incinerator.

SWANCC's first proposal calls for the reauthorization of the Illinois Environmental Protection Agency ("IEPA") to issue Phase III grants and to modify the IEPA's grant programs to allow for the issuance of block grants that will allow for greater local flexibility to meet and address local needs. The proposal requires IEPA to spend at least $2 million on Phase III block grants each year.

The proposed SWANCC legislation also intends to authorize units of local government to assess the local surcharge of $1.27 currently charged at landfills at waste transfer stations. The legislation proposes to grandfather DuPage County landfills so the revenue collected by DuPage County for the remaining life of the landfills is not impacted. However, the proposed legislation allows 100% of the surcharge revenue to be assessed up front at waste transfer facilities, and does not give consideration to units of local government hosting the final disposal facilities. The host units of local government which collected a surcharge from these landfills or incinerators would no longer be able to collect a surcharge from these facilities if a surcharge is collected at the front end from the unit of local government at a waste transfer station.

To eliminate this concern, a provision may be incorporated into the legislation requiring a unit of local government hosting a waste transfer facility to enter into an intergovernmental agreement to share the surcharge revenue with the unit of local government hosting the final disposal facility (landfill or incinerator), before a percentage of the surcharge can be assessed at the waste transfer facility (for example provide for a 50% split in revenue).

3.3.3 "Clean C & D Debris" as Defined in the Illinois Environmental Protection Act

The term "clean C & D debris" ("clean C & D") is presently defined at Section 3.78 of the Illinois Environmental Protection Act ("Act") to narrowly include what can basically be classified as clean fill material. However, the Solid Waste Department of DuPage County believes that clean C & D should be redefined as C & D material without outside contaminants or waste streams. Clean C & D does not appear to pose a threat to human health or the environment. A recent waste sort study (dated 12/94) performed by DuPage County, indicated that C & D comprised materials 34% of the waste stream. With these factors in mind, the County would like to encourage continued C & D separation operations throughout the County and State of Illinois, to assist the industry in removing these materials from the waste stream.

One means by which this may be accomplished is to expand the definition of clean C & D material to allow for storage and transfer of C & D material without the need to go through the stringent siting requirements for waste storage or transfer as set forth within the Act.

The amended version of "waste storage" and "transfer" as set forth in the Act states that a waste storage site or waste transfer site does not include a site that accepts or receives open top units containing only clean C & D debris. Therefore, by expanding the definition of clean C & D to include more C & D materials, more C & D materials could potentially be removed from the waste stream.

The Solid Waste Department is presently working with the construction industry and the Illinois Environmental Protection Agency to draft a new, broader definition for "clean C & D debris."

3.3.4 Household Hazardous Waste Fund

The Solid Waste Department Staff is working with the Illinois Environmental Protection Agency to create a new Household Hazardous Waste Fund by drafting legislation which proposes to amend the Illinois Environmental Protection Act at 415 ILCS 90/8. This Fund would consist of donations, reimbursements, voluntary payments, and other sources for the purpose of funding operation of the household hazardous waste collection programs. Appropriation of the funds shall require joint approval from the IEPA and the unit of local government hosting the household hazardous waste collection activity. The proposal would provide that the IEPA assume generator status of all materials collected as part of the household hazardous waste programs operated or contracted by the IEPA. This proposed legislation is in draft form.

3.3.5 Federal Legislation Pertaining to Solid Waste Management Franchising

There are attempts in Congress to tighten up the states and political subdivisions' authority to enter into contracts for the purpose of solid waste management activity. This action is in response to a recent finding in USA Recycling, Inc. v. Town of Babylon, which would not allow political subdivisions to designate a particular solid waste management facility within its waste hauling contracts. Certain units of local government have expressed their interest in retaining authority to designate a facility by contract. The ability to enter into agreements and designate a facility would allow for political subdivisions to enter into waste hauling contracts which stipulate for example, that material cannot be disposed at a facility which accepts special waste. Concern remains as to whether long-term liability for clean up is assumed by a political subdivision that designates a particular solid waste facility within its waste hauling contracts.

Proposed amendments under Federal Senate Bill 534 and HR 1085 have not had any further action to date. Representative Oxley introduced language which intends that "any State or political subdivision would not be prevented from franchising, licensing, or contracting for

solid waste collection, processing or disposal." Lake County and Kane County have expressed interest in having the following language introduced:

> "Notwithstanding the provisions of this Section, a political subdivision may enter into a contract, franchise or agreement with, or issue a license or permit to, a public or private entity by which the public or private entity is exclusively or non-exclusively authorized to provide a solid waste management activity.
>
> Such political subdivision may as a condition in such contract, franchise, agreement, license, or permit, require the public or private entity to deliver the solid waste or voluntarily relinquished recyclable material to a waste management facility identified by the political subdivision in such contract, franchise, agreement, license or permit.
>
> Any such contract, franchise or agreement, regardless of its effective date, and any such license or permit, regardless of when issued, shall be considered to be a reasonable regulation of commerce and shall not be considered to be an undue burden or otherwise impair, restrain, or discriminate against interstate commerce."

After discussion with the DuPage County Mayors and Managers Conference staff, it is recommended that additional language be considered which specifically defines over what area a political subdivision would have the authority to franchise; for example, municipalities would have authority to franchise within their corporate boundaries, counties only within their unincorporated areas and solid waste agencies within their service areas.

3.3.6 Municipal Waste Flow Control

On May 16, 1994, the U.S. Supreme Court held that waste flow control is unconstitutional under the Commerce Clause in a decision rendered in C&A Carbone, Inc. v. Town of Clarkstown. The debate over a solid waste management policy is now pending in Congress where several bills have been introduced that would authorize states and delegated local governments to impose waste flow control. Congress will continue to address the issue of flow control in the next Session. The Solid Waste Committee of the DuPage County Board voted unanimously on May 4, 1994, not to take a position on the issue of flow control of municipal solid waste at that time. The National Association of Counties regularly updates the Solid Waste Department of congressional actions on the issue of municipal waste flow control.

SECTION 4 -
SOLID WASTE SYSTEM

4.1 SOURCE REDUCTION AND REUSE

ACTION ITEMS DELETED FROM PLAN 1991

None.

4.1.1 The County should encourage local industry to streamline the product design, manufacturing, and packaging processes they utilize by offering general information and technical assistance regarding source reduction practices. (EXISTING, Action #1, Plan-1991)

STATUS

The Solid Waste Department and Solid Waste Education Center (Education Center) provide general information in response to local industry inquiries on waste reduction and recycling through phone support and publication distribution.

Department records do not indicate that technical assistance was provided to local industry regarding the source reduction practices of streamlining product design, manufacturing, or packaging processes.

RECOMMENDATIONS

The County, through the Solid Waste Department and the Education Center, should continue to offer general information and technical support on source reduction practices through phone support, literature distribution, and both resource center availability and tours at the Education Center.

In addition, the County should provide grant funding for a pilot commercial outreach program. The principal educational focus of the program should be waste reduction for businesses and multi-family dwellings. Local government units and private industries who become informed about this grant program may have the opportunity to participate in the program or at least receive free educational information on waste reduction. Training sessions and educational materials provided for grant recipients should include a section on the benefits and examples of redesigning products, manufacturing, and packaging processes that contribute to source reduction.

The Solid Waste Department, Education Center, and commercial outreach program grant recipients should also give local industries information on state programs such as the Clean Manufacturing Program of the Illinois Hazardous Waste Research and Information Center (HWRIC). This program provides environmental technical assistance, research, and information to businesses and government agencies on issues related to pollution prevention and improved waste management.

With overall Internet usage on the rise, the Solid Waste Department should utilize the County's Internet Home Page, which is currently in development, to disseminate this information when and where applicable.

4.1.2 The County must promote waste prevention. (EXISTING, Action #2, Plan-1991)

STATUS

The County promotes waste prevention through education and the distribution of literature. The Education Center provides the public and private sector with numerous books, magazines, videos, displays, and workshops which encourage waste prevention and recycling. The Solid Waste Department provides general information and waste prevention brochures such as the *Reduce Waste & Recycle* guides for hospitals, theaters, office buildings, automotive repair shops, and hotel/eating and drinking establishments. These five booklets were created in cooperation with the Cooperative Extension Service (CES) for the purpose of increasing waste reduction/recycling efforts in the commercial sector. Other waste prevention brochures include *The New DuPage Shopper, The Three R's,* and the *Waste Reduction Directory (formerly the Recycling Yellow Pages).*

The Solid Waste Committee is also reviewing establishment of a "Model Business" waste reduction and recycling education program. The program could provide a means to educate key personnel from small to medium-sized companies to examine their own business for waste reduction and recycling opportunities.

RECOMMENDATIONS

The County should continue to provide public information and education encouraging waste reduction in the form of source reduction, reuse, recycling, and procurement strategies and utilize the Education Center as a major resource.

In addition, the County should strongly encourage residents and businesses to purchase products that are durable, reusable, and recyclable; with minimal packaging; and made from post-consumer waste. As a result, not only will landfill space, energy, and resources be saved, but the demand for these products will serve to strengthen material markets as well as develop new markets for recyclables which is necessary for "closing the loop" on recycling.

Furthermore, the County should establish a commercial outreach program offering waste reduction and recycling education for commercial establishments. This outreach program would provide businesses as well as multi-family dwellings with information on how to incorporate waste reduction and recycling practices into their own establishments.

4.1.3 As part of the County's waste reduction program, pollution abatement should be aimed at minimizing the negative impact of potentially hazardous refuse on the environment. (EXISTING, Action #3, Plan-1991)

Please refer to Section 4.5, Household Hazardous Waste.

4.1.4 The County should make an effort to reduce the total amount of waste it generates and should minimize the use of highly toxic or disposable products whenever possible. (EXISTING, Action #4, Plan-1991)

STATUS

The County uses a variety of media to educate the public on waste reduction, reuse, and recycling. To reduce waste, the County has assisted in providing communities with curbside recycling, drop-off centers, and a landscape waste collection site. In addition, the County has made an effort to reduce waste by setting up an "in-house" program. This program includes providing bins and centralized recycling containers for the County complex. Compactors, and trailers were also purchased to reduce the volume of waste.

In previous years, attempts have been made to adopt guidelines for procurement of recycled products. However, the County still needs to formulate a comprehensive waste reduction policy for County offices that will include minimizing the use of highly toxic and disposable products.

RECOMMENDATIONS

The County has made significant progress in setting up and expanding an "in-house" recycling program. Initially, bins and centralized recycling containers were provided. Then compactors, and trailers were purchased to assist in reducing the volume of waste. Now, as of December 1995, the entire County complex is equipped to handle the recycling of multiple materials including: office paper, cardboard, aluminum, glass, and more. Several of the buildings are also accepting newspaper, magazines, soft and hard covered textbooks, blueprints, binders, Styrofoam cups, steel cans, tin cans, six-pack rings, toner cartridges, HDPE and PET plastic bottles, tires, batteries, antifreeze, motor oil, oil filters, and landscape waste.

The County recommends expanding the "in-house" recycling program to include items such as fluorescent light bulbs, various plastics, and rigid and expanded polystyrene materials while striving to exceed our current recycling rate of approximately 33%.

The County's "in-house" program should also include source reduction and reuse of materials. For example, bathroom paper towels could be replaced by reusable cloth towels, Styrofoam cups by glass or ceramic mugs, and unnecessary office paper (used for

inner-office communications such as memos, etc.) by electronic media such as E-Mail or a networking program.

Along with the continued expansion of the County's "in-house" recycling program, the County should also continue the joint purchasing program. Government agencies should be encouraged to make joint purchases for products containing post-consumer waste, like Xerox paper, in large quantities at more economical prices. Guidelines should be developed to help minimize the use of highly toxic products and for procuring recycled products. Establishing procurement guidelines will enable the County's individual departments to select products and supplies that contain recycled materials whenever they are attainable and economically feasible.

4.2 RECYCLING

ACTION ITEMS DELETED FROM PLAN-1991

Action #5
Facilitate the development of as many as 3 additional multi-material recycling centers (MRCs) before 1992.

Action #6
Incorporate standards for equipment, operation, and construction of multi-material recycling centers as described herein and oversee the administration of such standards.

Action #10
The use of County-designated disposal facilities should be prohibited or otherwise discouraged to communities not providing for the collection of the recyclable materials accepted by the IPF.

Action #11
Begin construction of IPF 2 when IPF 1 is shown to be at 85 percent capacity and when funding is available.

Action #12
Facilitate the development of satellite drop-off facilities (SDFs) to address the needs of multi-family housing complexes.

4.2.1 Residential Recycling

4.2.1(a) Continue to provide assistance to the existing drop-off center facilities. (NEW, Plan-1996)

Currently, many multi-family dwellings and commercial establishments rely on drop-off facilities as their only outlet for depositing recyclable materials. Several of the drop-offs even accept a wider variety of materials that are not collected through residential curbside programs. Therefore, it is the County's recommendations to continue to provide assistance to the existing drop-off facilities.

4.2.1(b) Pursue the implementation of curbside collection services to additional households within DuPage County. (EXISTING, Action #7, Plan-1991)

STATUS

The County has been very successful in working with local governments to achieve some type of curbside recycling service. The 32 municipalities within DuPage County all have curbside programs. Curbside recycling programs are also available to the majority of residents in unincorporated areas through their contracted waste hauler. Consequently in 1992, DuPage County became the first county in Illinois to achieve curbside collection capability throughout its borders.

The IPF was developed in 1991 as the first facility in DuPage County to process the recyclables generated by the curbside residential recycling programs initiated as a result of recommendations made in Plan-1991. The IPF began operating in August 1991. The IPF separates recyclables, which have been separated from the rest of the waste stream by citizens at their residences, into individual market categories. Thus, the facility is sometimes referred to as a "clean" materials recovery facility. The County contracted with CRINC of Chelmsford, Massachusetts to operate the facility. The IPF was originally established to not charge a tipping fee. The County owns the land, building, and major processing equipment at the IPF.

Plan-1991 provides that net revenues from the IPF be returned to the delivery agents (haulers) in the form of a rebate that is intended to benefit the municipality which was the source of the residential recyclables delivered to the facility. Some municipal hauling contracts require their hauler to pass the rebate directly to the municipality. Other communities allow their hauler to retain the rebate keeping the amount in mind as their contract is renegotiated. Revenues during the first two years of IPF operation were insufficient to provide a rebate. Rebates totaling approximately $60,000 were returned to haulers in 1993, $325,000 in 1994, and $20,000 in 1995.

RECOMMENDATIONS

In 1992, the County successfully achieved curbside collection capability throughout its municipal borders. However, the County should encourage licensed waste haulers to expand recycling services to unincorporated areas.

4.2.1(c) Encourage drop-off facilities ~~and curbside~~, single-family, and multi-family collection services to accept and market the maximum range of recyclable materials. (REVISED, Action #8, PLAN-1991)

STATUS

Traditional Recyclables Materials

The original agreement between the DuPage County and New England CRINC for the operation of the IPF in Carol Stream lists the processible materials that the IPF is designed to accept and process. The list includes: flint, amber, and green glass; food and beverage containers; tin-plated steel cans (up to one gallon in size); aluminum used beverage containers; PET plastic bottles; HDPE plastic containers; newsprint; corrugated paper; kraft paper; phone books; and magazines (without covers).

In the beginning of 1993, all County municipalities, townships, and residential recyclables haulers were notified of additional materials accepted at the IPF. The County advised all municipalities that they may request their haulers to add these products to their list of curbside recyclables. The new materials accepted beginning in December 1992 were aluminum foil and pie plates, six- & twelve-pack rings, aerosol cans, and catalogs.

In March 1993, the County notified haulers, municipalities, and townships about the addition of paperboard (chipboard and boxboard) to the list of materials accepted at the IPF, effective April 1, 1993.

In July 1993, municipalities, townships, and haulers were notified by a letter from the County that a number of municipalities were pursuing the addition of materials beyond the list of materials currently accepted at the IPF. The County wanted to assure municipalities that their collection programs were provided with the best possible services at the IPF, even though the new materials municipalities were requesting to recycle had limited marketability at the time and minimal impact on waste diversion. The letter also indicated that the County honored requests from Wheaton and Hanover Park to expand the list of materials accepted from their communities at the IPF.

In February 1995, the County issued an IPF Acceptable Materials & Quality Specifications list to notify recyclables haulers and municipal and township recycling officials about the addition of the following new materials to be accepted at the IPF: mixed paper, injection molded HDPE containers, wet strength carrier stock, polystyrene food service containers,

frozen food packages, aseptic packaging & gable top containers, formed steel containers, and custom PET plastic containers. The Solid Waste Department also notified Chicago area recyclables collectors about the availability of the IPF for recyclable materials. The new list of materials accepted at the IPF was included as an attachment.

This list of acceptable materials remains in effect as of September 1995.

Hard-to-Handle Recyclable Materials

Since 1993, the IEPA has sponsored four used tire collections in four County municipalities in coordination with the County. Downers Grove, Addison, and Naperville hosted a collection in 1993, and West Chicago hosted a collection in 1995. In 1994 and 1995, Naperville sponsored, coordinated, and hosted its own used tire collection.

To promote compliance with State statutes which prohibit the disposal of certain hard-to-handle wastes via the municipal waste stream, the Solid Waste Department developed and distributed a newsletter titled "White Paper on White Goods: Handling, Recycling, and Disposal Options" in September 1992. In this newsletter, the Department promoted compliance with Section 608 (c)(1) of the 1990 Amendments to the Federal Clean Air Act which states that, effective July 1, 1992, individuals are prohibited from knowingly venting CFC or HCFC refrigerant gases into the atmosphere while maintaining, servicing, repairing, or disposing of refrigeration equipment. The Department also promoted compliance with a proposed amendment to the Illinois Environmental Protection Act which states that, effective July 1, 1994, white goods are banned from disposal in a landfill unless the white good components such as CFCs or PCBs have been removed. The newsletter also discusses white goods processing and collection, the results of a municipal survey on white goods hauling, and outlets for acceptance and collection of white goods for County municipalities and unincorporated areas.

In June 1994, the Solid Waste Department notified all municipalities, townships, and the DuPage Mayors and Managers Conference about the new legislation prohibiting used tires and white goods disposal by landfilling. The notice refers to and provides as attachments two Titles/Sections of the Environmental Protection Act: Title XIV-Used Tires, Sections 55 and 55.8, and Title V-Land Pollution and Refuse Control, Section 22.28 White Goods.

RECOMMENDATIONS

Traditional Recyclables Materials

Most drop-off facilities and single-family collection services in the County already accept and market a wide range of recyclable materials. However, the County should encourage multi-family collection service providers to accept a wider range of recyclable materials when possible. Furthermore, the County should remain progressive in maximizing recyclable materials collection as it promotes further waste reduction efforts.

The County should continue to track recyclables commodities to ascertain when new markets are developed in the region for additional types of recyclable materials. One method the Department may begin to utilize for tracking market conditions is the Chicago Board of Trade's Recyclables Commodity Exchange Service. This service provides up-to-date material availability and price information for buyers and sellers of recyclable materials. This service may help to identify new material markets not previously known or available to the County, its municipalities, or townships.

Hard-to-Handle Recyclable Materials

The County should continue to promote one-day used tire collections sponsored by the IEPA and municipalities to supplement existing outlets for used tire collection. These one-day collections give residents a no-cost method of proper tire disposal. In addition, residents have the opportunity to drop-off multiple types and quantities of tires. Many residents participate in one-day collections since ongoing collection sites usually impose a drop-off fee and have restrictions both on types and quantities of tires accepted.

The County should continue to notify residents about recycling collection services for white goods. This may be accomplished through Department publications such as the *Waste Reduction Directory (formerly the Recycling Yellow Pages)* and response to phone inquires at the Solid Waste Department and Solid Waste Education Center.

4.2.1(d) Encourage the implementation of ~~curbside~~ residential collection programs which are designed for the convenience of the resident. (REVISED, Action #9, Plan-1991)

STATUS

The County has reached this goal. Residents throughout the County are participating in a commingled collection system where materials are combined in the same container for collection and the only separation required is paper from non-paper. This approach was made possible by the development of the IPF and private processing facilities using similar sorting processes.

RECOMMENDATIONS

The County's goal to develop a commingled collection system which combines materials in the same container with the only separation required being paper from non-paper has been successfully implemented. This approach was made possible by the development of the IPF private processing facilities using similar sorting processes, and by the distribution of curbside recycling bins.

In order to make curbside recycling more convenient and economically feasible the County researched the construction and cost of numerous curbside recycling bins. During the period from 1989 through 1993, the County purchased and distributed approximately

220,500 blue curbside recycling bins to its residents. The blue bins were constructed from a durable LLD Polyethylene recycled plastic with a capacity level of twenty gallons. Through several of the municipalities residents could also purchase secured lids and wheel units, made from the same recycled materials, for a small fee. As a result of the County's efforts, curbside recycling has become extremely successful.

The County no longer provides financial assistance towards the purchase of recycling bins. However, during 1995 the County administered a joint purchasing agreement to allow local government units or contracted haulers to make subsequent purchases for residents at the same low price.

4.2.1(e) Facilitate the development and expansion of recycling services for multi-family housing complexes. (NEW, Plan-1996)

The need to increase the convenience and participation level of recycling within multi-family housing complexes remains. The County should accomplish this through increased public information, education programs, assistance with municipal contract revisions, and possible grant funding for capital expenditures.

A section titled "Recycling for Apartment and Condominium Residents" is included in the Spring 1995 edition of the Recycling Yellow Pages. This information was revised for the Spring 1996 edition of the *Waste Reduction Directory (formerly the Recycling Yellow Pages)*. The Solid Waste Department should research the feasibility of sending a copy of the *Waste Reduction Directory* to all multi-family complex owners/managers in the County. This would provide an opportunity for informing this sector about the availability of the *Waste Reduction Directory* and possibly a grant program. It would also provide an opportunity to survey this sector for waste generation information.

The County should consider assisting municipalities in requiring their haulers to provide multi-family recycling services in their solid waste and recycling services contracts.

The County should utilize its Internet Home Page to disseminate this information when and where applicable.

4.2.1.(f) Document the recycling levels of the residential waste stream. (EXISTING, Action #13, Plan-1991)

STATUS

County-wide recycling levels are documented in the DuPage County *Solid Waste to Date Annual Report*. Copies of the annual report are on file and available for public review.

The County currently sends out recycling surveys to municipalities and townships to obtain recycling data. However, information is not always provided by the hauler to the

municipality or township. Attempts have been made by the County to obtain this information directly from the hauler(s), but efforts have not always been successful.

The Solid Waste Committee has discussed this situation and some options to develop a new system that will be more successful in determining recycling levels in the County. If data is gathered directly from the source (i.e., refuse and recycling haulers), there is less chance for inaccurate or inconsistent records.

RECOMMENDATIONS

The County should continue to collect refuse and recycling data from municipalities, townships, waste haulers, and recycling service providers and include the results in public information provided by the Department such as the *DuPage County Waste to Date Annual Report.*

Reporting methods should continue to be evaluated and revised to attain optimal data input. Municipalities should be encouraged to enforce reporting provisions included in their waste hauler contracts and obtain residential and commercial refuse and recycling data. The County may investigate a software program that will enable data input to be completed by the waste generator. This program should be capable of calculating the amount and type of waste generated per month as well as estimating the annual quantity of municipal waste generated throughout the County.

By continually evaluating and revising reporting methods, a more accurate, consistent and timely data collection system will evolve to be utilized for state reporting, municipal contract negotiations, the evaluation of programs, and the promotion of successful programs.

4.2.1(g) Research the feasibility of coordinating the implementation of volume-based solid waste collection systems for all residents in the County. (NEW, Plan-1996)

At the end of 1995, ten municipalities had volume-based solid waste collection systems, five had modified volume-based collection, sixteen had flat-fee systems, and one offered collection with no direct charge to residents.

A volume-based solid waste collection system is where residents pay for each bag of waste they set out for disposal. Research has shown that this type of collection system may offer an economic incentive to residents. Generally, the less waste they generate and the more they recycle reduces the amount of waste they dispose and increases their cost savings. (This economic incentive may be more applicable to non-affluent communities.) Some communities are not in favor of a volume-based system since larger families or large waste generators may pay more through this system than on a flat-rate system. On a flat-rate system, all residents in a municipality equally share the cost of solid waste collection regardless of family size or waste output. A combination of the volume-based method and

flat-rate system is the modified volume-based system. The modified volume-based system requires that all residents pay a flat fee for a certain number of bags and pay on a volume-based system for additional refuse. This type of collection system may also offer an economic incentive.

Therefore, since there may be many variables involved in setting up or converting to a volume-based system, the County should research the feasibility of promoting a volume-based system for all residents in the County.

4.2.1(h) Develop a county-wide public awareness and information program utilizing outlets for such distribution of information. (EXISTING, Action #14, Plan-1991)

The last paragraph in Section 4.0 of Plan-1991 states that "The County is currently performing activities in the minimum level program. As the County's program activities expand and resources develop, expansion of the education and information program to intermediate and high profile levels should be considered." The following section addresses actions taken within each education and information programming level.

MINIMUM LEVEL PROGRAM

(i) Resume printing of a Solid Waste Newsletter on a regular basis and distribute to individuals on an existing and an expanding contact list at the County. (EXISTING, Action #14, Plan-1991)

STATUS

In March 1993, the Solid Waste Division of the Department of Environmental Concerns distributed the first and only edition of a new newsletter titled "Waste Watch." The newsletter's purpose was to update municipalities and townships on solid waste programs provided by the County, the latest trends and developments in the solid waste field, and current legislation and regulations affecting local solid waste programs and issues facing the County.

RECOMMENDATIONS

The Solid Waste Department is currently developing plans for a pilot Post Office District/DuPage County Solid Waste Newsletter. In October 1995, the Northern Illinois District of the United States Postal Service approached regional solid waste organizations about a joint newsletter concept. Half the newsletter would be dedicated to solid waste information specific to each participating solid waste organization. Current plans are to produce a Spring/Summer 1996 edition in which the DuPage County version would be delivered to approximately 400,000 businesses and households in the County. Potential funding from the Northern and Central Illinois Post Office Districts, Illinois Department of Commerce and Community Affairs,

and DuPage County, and other participating solid waste organizations in the region should make this pilot project possible.

Department publications such as the *Waste Reduction Directory (formerly the Recycling Yellow Pages), Waste To Date Annual Report, Leaders in Waste Reduction and Recycling, Household Hazardous Waste Reduction & Collection Alternatives* brochure, Education Center brochures, and the Post Office District/DuPage County *Solid Waste Newsletter* should adequately update municipalities and townships on solid waste programs provided by the County. Therefore, a separate solid waste newsletter may no longer be necessary.

However, the Solid Waste Department should continue to update and expand its distribution and mailing lists for sending out public information. For example, the distribution list for the Spring 1996 edition of the *Waste Reduction Directory* includes additional delivery points such as park districts and chambers of commerce.

The County should utilize its Internet Home Page to disseminate this information when and where applicable.

(ii) Provide mass appeal informational material. (EXISTING, Action #14, Plan-1991)

STATUS

Local public information materials have been developed by or in coordination with the Solid Waste Department over the last six years. The list of publications includes: *Waste Reduction Directory (formerly the Recycling Yellow Pages), Reduce Waste & Recycle Guides* for businesses, outdoor composting and lawn recycling brochures, *New DuPage Shopper* produced by the DuPage Environmental Awareness Center, *Ripples* newsletter produced by the school outreach program of the Education Center, *Waste Watch* newsletter, *White Paper on White Goods* newsletter, *DuPage County Waste to Date Annual Reports, DuPage County Solid Waste Education Center* brochure, and the *DuPage County Solid Waste Department* brochure.

The Solid Waste Department and its Education Center contractor have also distributed public information materials that exist in the public domain for use by interested parties. Over 20 different types of publications have been distributed including topics on managing household hazardous waste, resources for recycled-content products, commercial waste reduction and recycling, and industrial materials exchange. These publications have been developed by federal and state government agencies and local associations including the Illinois Environmental Protection Agency, Illinois Department of Energy and Natural Resources, United States Environmental Protection Agency, Illinois Chamber, DuPage Environmental Awareness Center, Greater Chicago

Recycling Industry Council, University of Illinois/Office of Solid Waste Management, and Illinois Recycling Association.

RECOMMENDATIONS

The Solid Waste Department should continue to distribute and develop, or coordinate the development of, local solid waste information materials.

The Solid Waste Department should also continue to distribute publications developed by local, state, and federal government agencies and associations.

The Solid Waste Department should provide mass appeal informational material via the DuPage County Internet Home Page.

The scope of the County's educational activities will include the Forest Preserve District acknowledging the heavy use of the District's facilities as well as the need to make waste reduction and recycling easy and convenient for the public. These programs could also include organized education and implementation with special events organizers throughout the county.

(iii) Provide clearinghouse capability for information requests. (EXISTING, Action #14, Plan-1991)

STATUS

The Solid Waste Department maintains and continues to develop an extensive solid waste library consisting of local, regional, national, and international public information materials available for use by interested parties. The Department's clearinghouse has become a credible and diverse source of information.

In addition, the Education Center has a resource room available to the public which contains over 100 videos; more than 125 books related to waste reduction, recycling, composting, and hazardous waste; assorted curriculum guides for grades K - 12; numerous pamphlets concerning solid waste topics; and industry-specific magazines related to solid waste, recycling, composting, and new technologies.

RECOMMENDATIONS

The Department should strive to centralize more public information materials into its library when possible. In addition, the Department should obtain updated versions of existing library materials where applicable. Furthermore, the Department should update the library's catalog as materials are centralized.

The Department, through its Education Center contractor, continues to add new materials to the Education Center's resource room and provides an updated catalog for each material type (i.e., list of videos available).

The Department should provide clearinghouse access for information requests via the DuPage County Internet Home Page.

(iv) Continue regular intergovernmental network meetings but strive for format which encourages local reports and attendance by elected officials. (EXISTING, Action #14, Plan-1991)

STATUS

The County continues to conduct regular and special call Solid Waste Committee meetings. Regular meetings are typically scheduled for the first Wednesday of every month and special call meetings on the third Wednesday of every month. The Committee consists of six municipal representatives and six County Board members. The current format of these meetings encourages local reports and attendance by elected officials. Each meeting agenda is distributed to local press members, municipalities, townships, DuPage Mayors and Managers Conference, Committee members, DuPage County government departments and contractors, special interest groups, local haulers, and interested individuals.

RECOMMENDATIONS

The County is accomplishing this minimal level program item on an on-going basis.

(v) Continue general meetings with public as requested. (EXISTING, Action #14, Plan-1991)

STATUS

The Solid Waste Department Director and staff members make public presentations and attend public meetings upon request and as resources allow. Individual Solid Waste Committee members also attend public meetings when appropriate and when their schedules allow.

RECOMMENDATIONS

The County is accomplishing this minimal level program item on an on-going basis.

INTERMEDIATE LEVEL PROGRAM

(i) Develop and implement information programs for schools. (EXISTING, Action #14, Plan-1991)

STATUS

The DuPage Environmental Awareness Center (DEAC) founded the School Recycling Assistance Program (SCRAP) in August 1990. SCRAP pilots new school recycling programs, expands existing school recycling programs, authors the SCRAP newsletter, and holds educational and instructional workshops on recycling. SCRAP trains teachers, administrators, school staff, students, and parent groups on the basics of waste reduction and recycling including handling, collection, storage, personnel, economic feasibility, motivation, and environmental impact. From August 1991 to February 1995, DEAC sponsored the program with operational funding from the County.

In spring 1994, the County entered into an agreement with Jack Kaufmann, an environmental educator and performer, to provide environmental musical presentations on waste reduction and recycling to DuPage County schools. The County has funded half the cost of these presentations, with participating schools paying the other half. From February 1994 to May 1995, Jack Kaufmann has given 69 presentations to 41 DuPage County schools.

In March 1995, the County entered into an agreement with School and Community Assistance for Recycling and Composting Education (SCARCE) for operation of the Education Center. As a part of this agreement, SCRAP became a school outreach program of the Education Center. This agreement is in effect through February 1997.

In October 1995, the County entered into a third agreement with Jack Kaufmann to fund 50% of the cost of his multimedia environmental presentation in schools. The County also entered into a new agreement with Gaia Theater to fund 50% of the cost of their highly interactive theatrical production called "Use it Again" in schools. The term of both contracts is for the 1995-1996 school year.

RECOMMENDATIONS

The County should continue to fund part of such performances Jack Kaufmann's in schools so that more schools and students can benefit from these educational and highly motivational environmental presentations. The County should also consider funding a portion of these performances in other locations frequented by children (i.e., public libraries, park districts, and community events) and researching other environmental performance offerings.

By the end of December 1995, the Education Center has presented to more than 22,000 visitors since it opened in December 1993. Also, during this time staff has conducted over 200 tours for approximately 80 schools. As part of SCRAP the school outreach program of the Education Center, staff has given more than 425 presentations to approximately 30,000 students during 1995. With the total County population approaching one million people, the County should continue funding the successful operation of the Education Center to educate more school children and the public on the solid waste management issues they face.

(ii) Develop and expand working relationships with grass roots and special interest organizations as well as trade groups. (EXISTING, Action #14, Plan-1991)

STATUS

The Solid Waste Department has and continues to attend and give presentations at municipal and township meetings, business and trade groups, grass roots organizations, and public events. In addition, the Education Center contractor is engaged to operate a community outreach program to educate civic organizations, business groups, clubs, and other organizations on waste reduction, reuse, recycling, and other solid waste management issue as approved by the County.

RECOMMENDATIONS

The Department should continue to foster working relationships with public organizations and groups for creating or increasing public awareness while distributing and sharing information.

(iii) Investigate and utilize resources available through public service/community access media outlets. (EXISTING, Action #14, Plan-1991)

STATUS

The Solid Waste Department utilizes the County Public Information Office for press release development and distribution to newspapers, radio stations, and cable television stations. In addition, staff has on-going communications with press members at the Department office, by phone, at Solid Waste Committee meetings, and at a variety of other public meetings and events.

In May 1994, Solid Waste Department staff worked with a cable station to produce a video of the recyclables processing floor in operation at the IPF. The cable station donated the video to the Education Center. The video is used during tours that are scheduled when the processing floor is not in operation.

The Education Center contractor has and continues to actively work with local newspapers, cable stations, and radio stations as a means of utilizing local resources to publicize events and educate the public on the County's solid waste education programs. Articles have appeared in approximately 18 different newspapers. In addition, Education Center staff has made numerous appearances on six cable stations covering topics on waste reduction, reuse, recycling, recycled-content products, and worm composting.

RECOMMENDATIONS

The Department should continue to investigate and utilize public information services such as newspapers, radio stations, cable television stations, and the Internet for creating or increasing public awareness while distributing and sharing information.

HIGH PROFILE PROGRAM

(i) Initiate promotional activities. (EXISTING, Action #14, Plan-1991)

STATUS

Since December 1991, SCRAP has issued Earth Flag awards to schools. DuPage County schools which meet specified waste reduction and recycling goals are awarded Earth Flags in recognition of their achievements. The awards are presented during Earth Flag ceremonies which are attended by the student body, teachers, staff members, and parents. From December 1991 to June 1995, 186 schools have been awarded Earth Flags. This represents approximately 60% of all DuPage County schools.

In the 1993-94 school year SCRAP began a new vermicomposting and outdoor composting pilot program for third - eighth grades. Schools who participate in a vermicomposting or outdoor composting project and have already earned their SCRAP Earth Flag are eligible to apply for this pilot program funded by the Solid Waste Department. Schools who meet specific vermicomposting goals receive a Worm Composting Streamer Award to attach to their Earth Flag. Schools who meet specific outdoor composting goals receive an Outdoor Composting Streamer Award. As of June, 1995, Composting Streamers have been awarded to 70 vermicomposting and 10 outdoor composting programs.

RECOMMENDATIONS

The County should work with state agencies and on its own to offer grants for projects such as funding the transportation cost for schools to attend the Solid Waste Education

Center field trips and funding school playground renovations that utilize recyclable materials.

The Education Center staff should continue to work with school officials, educators, parents, and students to set up waste reduction and recycling programs in schools that have not benefited from this program to date. A recognition goal should be to fly or display Earth Flags in as many DuPage County schools as possible.

Some school districts do not allow Earth Flags flown outside their schools due to logistics or a lack of equipment. As of January 1996, this policy has affected approximately 30 schools. Therefore, the Department is currently looking into an alternative recognition award for these schools. A recycled-content plaque may be an alternative.

With many more schools eligible for participation in the vermicomposting and composting program, the Education Center staff should continue to promote composting in the schools and award goal achievers. Similarly, schools not allowed to fly composting streamers outside their schools may receive an alternative award for their efforts. The addition of a composting plate attached to the Earth Flag plaque may be an alternative.

Promotional activities should be a key element of a waste reduction grant program for businesses and multi-family dwellings. The County should give these sectors recognition utilizing various media including press releases, newsletters, the Internet, and award ceremonies.

(ii) Solicit regional and national coverage by preparation of articles for journals and presentations of papers at conferences. (EXISTING, Action #14, Plan-1991)

STATUS

Staff has made numerous appearances at conferences and seminars to promote awareness of the County's innovative programs in the fields of processing capability for recyclables and landscape waste.

RECOMMENDATIONS

Staff should continue to attend conferences, workshops, and seminars to present the County's efforts and achievements in waste reduction. Additionally, staff should prepare articles for publications to help establish regional and national interest in the County's programs.

(iii) Develop mass media programs. (EXISTING, Action #14, Plan-1991)

STATUS

In December 1992, the County entered into an agreement with Slack Brown & Myers (SB&M) to assist in the design, development, and operation of a solid waste education center. The goal of this agreement was to build upon existing solid waste education programs and to provide an integrated educational effort to reach all segments of the population including residents, schools, and commercial establishments. Tasks completed by SB&M under this agreement included selecting and training education center staff, designing a program outline of solid waste education in the County, developing educational materials and programs, pursuing alternate funding sources, and designing a solid waste education resource center.

RECOMMENDATIONS

Due to the potential high costs involved, the County should carefully consider this high profile program component. Contracting with a professional firm to develop a marketing campaign should only be considered after all preceding action items for county-wide awareness and information have been addressed.

4.2.1(i) Pursue additional funding resources. (EXISTING, Action #15, Plan-1991)

STATUS

In 1990, the County received a $100,000 grant from the Illinois Department of Energy and Natural Resources (ENR) for the purchase of a windrow turning machine for the County's compost site in West Chicago.

Since 1992, SCRAP, working together with the Regional Office of Education, has been awarded four ENR grants totaling over $88,100. These grants have been used by schools for waste reduction and recycling educational programs and supplies including school classroom recycling bins, toters, canvas lunch bags, reusable lunch trays, dishwashers, indoor and outdoor composting bins, reusable milk bottles, bus rentals for field trips, and to cover the cost differential on a copier purchase to enable a school to have a copier with duplexing capability.

In July 1993, the Solid Waste Department received a $50,000 grant from ENR to expand and enhance the County's In-House Recycling Program. Since the expansion of the In-House Program, the waste diversion rate for the County complex has increased from 3% to 33%.

RECOMMENDATIONS

The County should continue to aggressively pursue additional funding from state and federal agencies, private industry, and other sources for its programs.

The Department should continue to identify and pursue additional funding sources for educational programs and materials for the Education Center.

Refer to Section 3.3.2 regarding legislation pertaining to surcharge revenues from solid waste facilities and planning grants.

4.2.2 Commercial/Industrial/Institutional Recycling

4.2.2(a) Strongly encourage private business to actively pursue recycling and waste reduction practices, as well as to procure secondary materials. (EXISTING, Action#16, Plan-1991)

STATUS

The Solid Waste Department has actively responded to business inquiries on implementing or expanding waste reduction and recycling programs via phone consultation, on-site business visits, and publication distribution.

The Education Center staff assists businesses as part of their community outreach program. Businesses tour the Education Center and receive on-site visits from staff to assist them in pursuing waste reduction and recycling practices and in purchasing recycled-content products.

The Commercial Recycling section of the *Recycling Yellow Pages* offers businesses information on recycling opportunities for various types of office products and an industrial materials exchange.

The *Reduce Waste & Recycle* guide booklets developed by the University of Illinois Cooperative Extension Service (CES) were produced to educate and encourage private businesses to reduce waste and recycle (see Section 4.2.2(b)).

RECOMMENDATIONS

Private business should be encouraged to pursue waste reduction practices and procure recycled-content products through a County assisted commercial outreach program. Businesses may have the opportunity to participate in an outreach program or at least receive free promotional and educational information for their own program implementation.

Increasing disposal costs should also encourage many businesses to implement waste reduction programs in the near future.

The Solid Waste and Education Center staffs should continue to assist businesses on a one-on-one basis as requested.

The Solid Waste Department should continue to revise the Commercial Recycling section of the *Waste Reduction Directory (formerly the Recycling Yellow Pages)* to offer businesses up-to-date information on waste reduction opportunities. In addition to Commercial Recycling section, of the Spring 1996 edition also includes new information such as Construction and Demolition Recycling.

The County should utilize its Internet Home Page to disseminate this information when and where applicable.

4.2.2(b) Expand the commercial/institutional/industrial outreach program. EXISTING, Action #17, Plan-1991)

STATUS

From July 1992 through June 1993, the County contracted with CES to produce waste prevention guides for the commercial, institutional, and industrial outreach program. As a result, CES created five *Reduce Waste & Recycle* guide booklets for hospitals, theaters, office buildings, automotive repair shops, and hotels/eating and drinking establishments. In addition, the program trained individuals to become master commercial recyclers who could develop and implement successful recycling and waste reduction programs in businesses.

The Solid Waste Committee is also currently evaluating options for a Commercial Outreach Program for waste reduction and recycling education.

In March 1996, the County entered into an agreement with DuPage Clean and Beautiful to conduct a DuPage County corporate waste reduction/recycling survey. The main goals of this survey were to gather reliable and significant waste handling data from various sizes of businesses to determine the need and interest of businesses to reduce their waste, and to notify businesses about impending landfill closures and an anticipated increase in disposal costs. Results from this survey are due in June 1996.

RECOMMENDATIONS

Survey results should indicate that the County will need to foster the development of a pilot commercial outreach program for businesses. This program should include workshops and educational materials emphasizing a variety of waste reduction techniques and applications. Participants should be required to report refuse and recycling figures along with waste reduction results to measure the success of the program and attribute recognition to participants. This should inspire more businesses to implement a commercial outreach program. Based on the pilot commercial outreach program's success, the County should assist extending this program to include a wider variety of commercial establishments.

The County also recommends, if permissible through their contract, continuing the Solid Waste Education Center Operator's commercial outreach program to further assist businesses with waste reduction strategies. Another goal is to enhance the Solid Waste Education Center's resource room to include more commercial reference materials and product displays targeting DuPage County businesses.

Furthermore, if voluntary methods do not prove successful, the County should review several mandatory recycling ordinances to determine the feasibility of requiring commercial establishments to reduce their waste through recycling.

4.2.2(c) Document the recycling levels from the commerial/institutional/industrial waste stream. (EXISTING, Action #18, Plan-1991)

STATUS

The Solid Waste Committee has discussed a licensing system for providers of recycling services in this sector to allow for the County to solicit information on levels of service. A licensing system has not been implemented on a County-wide level. The communities of Burr Ridge and Wayne license haulers to conduct business within their jurisdiction and allow individuals to contract directly with the licensed hauler of their choice.

Since 1992, the County has requested recycling data from the commercial/institutional/industrial waste stream through voluntary recycling surveys distributed to all County municipalities and townships. However, the County has been unable to accurately obtain a large portion of this data due to the fact that most County municipalities do not require businesses or haulers to report the amount of commercial refuse or recyclable materials generated. In addition, recyclables processing centers and final disposal facilities are not required to report materials processed or disposed from each county. The DuPage County *Waste To Date Annual Report for 1992 and 1993* lists commercial data reported from just a few municipalities and the IPF which represents a minute portion of the commercial waste stream for the County.

In spring 1995, voluntary surveys were distributed soliciting commercial data from municipalities and townships for the 1994 Annual Report and Plan-1996 Update. Due to minimal response on commercial data from municipalities, in summer 1995 confidential surveys were distributed directly to haulers who service the County in an effort to capture a larger portion of this data. As of September 1995, only a small portion of the haulers surveyed have responded.

RECOMMENDATIONS

Since the County has been unable to accurately obtain a large portion of commercial/institutional/ industrial data from collection service providers, municipalities,

or townships, the County should consider funding and administering a commercial waste generator survey project.

The Solid Waste Department should continue to distribute voluntary surveys soliciting commercial data from municipalities, townships, waste haulers, and recycling service providers until the County or local government units implement ordinances, licensing systems, or survey projects that produce more accurate results.

4.2.2(d) Encourage the siting and development of the industries that use secondary materials in the DuPage County area. (EXISTING, Action #19, Plan-1991)

STATUS

Though Solid Waste Department staff has actively encouraged private development of industries that use secondary materials on a case-by-case basis, an organized, focused effort has not been implemented.

RECOMMENDATIONS

The County should continue to support private industries that develop products using secondary materials. As a result of County funding, Churchill School in Glen Ellyn was able to select a playground renovation company which uses ground up tires to create a shock-absorbing, protection overlay playground surface. In addition, a specific educational effort should be developed to encourage additional industries to utilize recyclable materials in their manufacturing processes. For example, by promoting the Industrial Material Exchange Service (IMES), an information clearinghouse, directory, and marketing facilitator for industry's reusable materials, industries will have a greater opportunity to take advantage of listings of material suppliers and potential end markets.

4.2.3 Public Sector Recycling

4.2.3(a) Develop guidelines for the County's procurement of recycled products. (EXISTING, Action #20, Plan-1991)

STATUS

In 1990, the County's Purchasing Department drafted a resolution specifying the guidelines for procurement of recycled products. The resolution was submitted to the Finance Committee for review. Committee members expressed concern over a few of the selected recycled products and the differential cost percentage for recycled products. The resolution was sent to the Solid Waste Committee to be amended. Records indicate that the resolution for the guidelines for procurement of recycled products was never adopted by the County.

Therefore, the County will need to revise the procurement guidelines, formulate a comprehensive waste reduction policy for County offices that will include minimizing the use of highly toxic and disposable products, and obtain County Board approval. Then, the County can encourage local units of government to create similar procurement standards.

RECOMMENDATIONS

The County needs to re-evaluate and revise the previously drafted guidelines for the procurement of recycled products. A comprehensive waste reduction policy for the County facilities needs to be established and executed to minimize the use of highly toxic and disposable products. The County should periodically review and revise its procurement guidelines and routinely consider products and supplies that are non-toxic, reusable, durable or made from the highest recyclable material content when it is both practical and prudent. Then, the County should encourage local units of government to create and abide by similar procurement standards.

4.2.3(b) The County should itself practice and assist other local governments including the Forest Preserve District in the design and implementation of in-house recycling, waste reduction, and procurement programs. (EXISTING, Action #21, Plan-1991)

STATUS

In April 1992, the DuPage County Board appointed an Environmental Commission to develop an environmental policy for the County. In April 1993, the County Board was presented with this policy. Solid Waste is one of several environmental action areas covered by this policy. This action area includes statements that the County will evaluate and implement all feasible source reduction/recycling alternatives, include a procurement program that encourages the selection of recyclable products, and establish aggressive programs to rid the solid waste stream of toxics.

In 1993, the Department of Environmental Concerns adopted a waste reduction policy in an effort to go beyond recycling and initiate waste reduction and reuse strategies. Specific waste reduction and reuse guidelines are outlined in this policy such as two-sided copying, editing documents on the computer, and centralized filing systems. The primary objectives of this policy are to reduce waste produced by the Department and establish a successful waste reduction program for other County departments to adopt.

In February 1994, the Solid Waste Department instituted a local government cooperative purchasing program for xerographic paper. The Department surveyed all DuPage County governmental units requesting information on their 1993 purchasing volumes and delivery requirements for xerographic paper. Positive responses were then combined into the County's xerographic paper bid specification. The County selected the lowest bidder in April 1994. By December 1994, 29 entities purchased 39 million sheets of xerographic paper at a low rate through the cooperative purchasing program. Since early 1995, the

County has been purchasing on the spot market for paper. A cooperative purchase should be reinstituted when the County goes out to bid again for paper.

The DuPage County Purchasing Department procures a variety of recycled-content products for use by County employees located throughout the government complex. Recycled-content products include janitorial paper supplies such as toilet paper and paper towels, various types of office paper products including copier paper, note pads, and file folders, and laser printer toner cartridges.

The DuPage County In-House Recycling Program was expanded with a grant from the Illinois Department of Energy and Natural Resources. During the grant period from June 1993 to March 1995, the County government complex collected over 2,700 cubic yards of recyclable material. The collection program includes a variety of recyclable materials such as several types of office paper, newspaper, corrugated cardboard, aluminum, glass, motor oil, oil filters, automotive batteries, and tires.

RECOMMENDATIONS

The County should continue to pursue its cooperative purchase program for paper and other materials and obtain additional recycled-content products when economically feasible.

The County should continue to evaluate and expand its own In-House Recycling Program, explore new in-house waste reduction opportunities, and share its efforts and results with local governments.

4.2.3(c) Document the recycling levels from the public sector's waste stream. (EXISTING, Action #22, Plan-1991)

STATUS

The County provides municipalities and townships with quarterly recycling surveys. The commercial recycling report form is used to document recyclables accumulated at their local businesses, schools and in-house recycling programs. After calculating the tonnages, this data is consolidated into the annual report.

The County's in-house recyclables are also documented under commercial recycling figures in the annual report. Monthly reports are provided to the County by various sources including Environmental Recycling, BFI, Waste Management Inc., and the IPF. These reports itemize the tonnages of recyclable materials acquired from the County. The tonnage totals are then incorporated into the annual report.

RECOMMENDATIONS

In order to document waste diversion at local businesses, schools, and local government in-house recycling programs the County should survey waste generators directly at the source. To accomplish this goal, the County should consider using an outside source, such as a college marketing department or an environmental group, to survey the majority of commercial waste generators located in DuPage County. By gathering refuse and recycling data directly from the source the data will be highly consistent and accurate. The results can then be used for state reporting, program evaluations, promoting successful programs, negotiating municipal refuse and recycling contracts as well as being a valuable source to be documented in Department publications such as the *DuPage County Solid Waste to Date Annual Report.*

4.2.4 General Recycling

4.2.4 (a) Establish a new target recycling goal of beyond 25% after 1996. (NEW, Plan-1996)

4 15 ILCS 15/6, (1994), requires that by the third and fifth years of a recycling program, the County should meet recycling goals of 15% and 25% respectively.

It is unknown when the State of Illinois may amend this section of the Solid Waste Planning and Recycling Act. Since the County should meet or exceed the 25% goal by the end of 1996, the County should develop new target recycling goals greater than 25% during the Plan-1996 period.

4.3 CONSTRUCTION AND DEMOLITION

ACTION ITEMS DELETED FROM PLAN-1991

None.

4.3.1 Goals for the reduction in this component of the waste stream should be parallel with other County recycling goals. The County should encourage steps leading towards a minimum reduction in this waste component of ~~15~~ 25 percent in three years and ~~25~~ 50 percent within five years. ~~This action will require the involvement of the Forest Preserve District in limiting the materials to be accepted at its landfill sites.~~ (REVISED, Action #23, Plan-1991)

STATUS

In 1992, the two DuPage County landfills were ordered to close no later than the end of the year 2000. This order has resulted in dramatic increases (fourfold at Greene Valley, twofold at Mallard Lake) in incoming refuse at both landfills. As a result, the site operators also decided to increase the intake of construction & demolition (C & D) materials. A majority of these materials (wood, concrete, asphalt, bricks) are used as road base to accommodate the increased truck traffic. The effort, therefore, in trying to encourage the landfill to remove this component will be easier to accomplish as the need for material diminishes (i.e., incoming volumes are lower.) A recent *Waste Stream Characterization Study* (February 17, 1995) indicated that about 34% of all waste generated within DuPage County and deposited at both county landfills was C & D material. The study summarized the C & D components as follows:

TABLE 4-1

C & D COMPONENTS DEPOSITED AT DUPAGE COUNTY LANDFILLS

Dirt/Rubble/Rocks	62.4%
Wood	13.0%
Concrete	11.2%
Masonry	6.7%
Roofing Shingles	3.6%

(Does not equal 100%, rounded)

Additionally, the Solid Waste Department has been encouraging recycling market development for C & D materials through meetings with representatives of various handlers of C & D components. In expanding new markets , it will make disposal of those C & D less economical at the landfill, and better for reuse/recycling. Formal surveys will be conducted this fall with developers and subcontractors through a regional association. Recent legislation (SB789) has changed the amount of time allowed for offsite waste storage. The Department has met with representatives of the IEPA to more clearly define C & D materials. By developing clearer definitions of C & D, and legislation that encourages recycling of C & D materials, the Department hopes to encourage diversion of these materials from the landfills.

Currently, due to the lack of an established reporting system, it is not known if the C & D recycling goals mentioned in Plan-1991 have been attained. The Solid Waste Department will explore methods whereby recycling and disposal of these materials can be more easily reported. Available C & D recycling data is provided in the DuPage County *Waste to Date Annual Report* for 1992 and 1993. The information stated that 41,500 tons of C & D

materials were recycled by municipalities in 1993. Items recycled included asphalt, concrete, steel, gravel, and clay.

4.3.2 The implementation of programs to achieve the goals stated in Recommendation 1 should proceed in a phased manner. The following methods to reduce or recover materials should be considered. They are listed in ascending order of anticipated costs for implementation. (EXISTING, Action #24, Plan-1991)

STATUS

A. Non-acceptance of uncontaminated soil/clay at disposal sites unless used for cover operations or grading.

Soils/clay intake at DuPage landfills is currently at a minimum. Both landfills extensively utilize alternate daily cover materials such as plastic tarps and reject paper pulp in place of and with soils/clay.

B. Limitation of asphaltic aggregate and concrete/brick and encouragement of recycling/reuse.

As previously mentioned, DuPage landfills are currently accepting large amounts of this material as roadbase. Additionally road building projects, are now incorporating recycled asphalt into the road. This requires additional machinery, but may be more economical if the project is large. Several plants accept the asphalt, concrete and recycle it into new material. Concrete and brick are also used as a roadbase at the landfill, and both can be reused if properly separated.

C. Limitation and diversion of wood products and similar products for alternative use.

Wood has been extensively used as a roadbase at one DuPage landfill, due to the large traffic volumes. Wood, however, does have other reuse/recycle markets, such as for building materials, mulch, and animal bedding (when ground), and fuel. Drywall is another product that has reuse capability. One method is to land apply it (when properly ground and paper is removed) where there are proper soil conditions. Another application is to add it to the concrete mix, which helps in the concrete process. A few Midwest gypsum plants (Sperry, Iowa, East Chicago, Indiana) will accept drywall for the purposes of recycling it back into gypsum. The Solid Waste Department is coordinating the effort to enhance the marketability of both wood and drywall.

4.3.3 The County will focus on reducing the C & D materials that will be leaving DuPage County for disposal once the two DuPage landfills close. (NEW, Plan-1996)

RECOMMENDATIONS

This action is needed to reduce the transport and disposal of C & D materials, and thus, the overall disposal costs to DuPage businesses and residents. The C & D materials that will be focused on will be wood, concrete, masonry, roofing shingles, drywall plaster, and scrap metal items. Old corrugated cardboard, though not officially classified as a C & D component, is generated at construction sites in large volumes, and should be included in a C & D recycling program. Land clearing debris (generally landscape waste) is also generated at C & D sites, but there are disposal mechanisms already in place for such waste (compost sites). Also, less land clearing is being done due to the demand for more trees for environmental/aesthetic reasons.

Recycling of the C & D component has not been addressed by many communities in North America. Few successful programs are currently in place (Portland, Oregon, and Los Angeles, California are the home of two such programs). One main concern with C & D materials is the availability of markets to maintain a consistent flow of material, so that materials do not accumulate at a recycling facility. The other concern is disposal rates, which drive the economics of recycling this material. Landfill tipping fees in DuPage County currently range around $ 30.00/ton. Tipping fees must increase before it will make the additional handling of this material for recycling economical to the hauler, contractor or developer. In the areas where recycling of C & D has been marginally successful, the disposal rates exceed $30.00/ton, and in highly successful situations, the rates exceed $50.00/ton.

This Department will continue to conduct pilot projects whenever appropriate to understand firsthand the obstacles of recycling C & D in DuPage County. One major obstacle appears to be the lack of distinction between C & D materials and the general waste stream. A distinction is needed to remove siting and permitting barriers which currently inhibit establishment of C & D recycling facilities. Also, by increasing the amount of time allowed for storage in order to separate materials for recycling, the private sector will be able to take advantage of the economies of scale. The Solid Waste Department has developed legislation to address these areas.

Another obstacle is the lack of markets for some C & D materials. Consequently, the Solid Waste Department met with representatives of firms that process materials such as drywall and wood for recycling and reuse. Markets for these materials are difficult to generate and maintain, and it will take much effort by anyone handling these materials before long-term solutions are attained. Markets are in place for ferrous and non-ferrous scrap and old corrugated cardboard (OCC). Asphalt and concrete are being reused more regularly in road building projects, and the trend appears to indicate that will continue.

4.3.4 The County should reduce disposal of the C & D waste stream by 50% through reuse and recycling by the year 2000. (New, Plan-1996)

RECOMMENDATIONS

This will reduce disposal costs to DuPage County residents, and benefit local businesses economically. The environment, of course, will benefit from reduced usage of natural resources. The balance of this section sets out a five-point plan for making progress towards the goal of reducing the C & D waste stream.

4.3.5 In cooperation with the private sector, the County will promote whenever appropriate, legislation to enhance C & D recycling. (NEW, Plan-1996)

RECOMMENDATIONS

One way this could be accomplished is to expand the State of Illinois' definition of C & D. The current definition only addresses the "clean fill" portion of C & D. If a more complete definition were inserted into the State's requirements for waste storage/transfer, haulers would have adequate time to accumulate C & D recyclables, making the transport of materials more economical, and enhancing revenue generation from the sale of materials. DuPage County plans to promote these changes during 1996. Clearer definitions which would establish criteria for C & D recycling facilities will make it easier for hauling companies to know what is and is not acceptable (so non-permitted transfer stations do not become a problem), and as a result, more facilities should be established, and thus more material would be reused/recycled.

4.3.6 The County will promote development of markets to ensure permanent recycling of C & D materials.(NEW, Plan-1996)

RECOMMENDATIONS

Markets for C & D materials need to be developed for the recycling effort to remain consistent. This may be addressed through a grant program funded by the County. Assistance will also be available for promotion of grant monies from the State. The grant program will assist firms that dedicate funds towards related expenses which will establish or enhance the processing of C & D recyclables. Special consideration will be given to those applicants dedicating monies toward C & D materials that have poor markets. The amount available will be determined at a later date. Grant rounds will occur on an as needed basis. A maximum award may be offered to a given applicant for any one project. The applicant may be required to report the amount of C & D diverted throughout the following year. This will assist the Department in determining if the markets for C & D materials are developing adequately to assess the need to continue the program.

The second portion of the market development program will be to provide financial assistance to those businesses using (or converting) processed C & D materials. This financial assistance will be offered on a case-by-case basis.

4.3.7 The County will promote waste reduction of C & D materials through a comprehensive educational program. (NEW, Plan-1996)

RECOMMENDATIONS

As markets are being established in various segments of the C & D waste stream, education on "how to recycle" will be implemented. This would entail educating developers, contractors, haulers and residents about various outlets that accept that waste for processing/recycling, as well as those selling recycled content products. Waste surveys (audits) would be conducted to determine what is and is not currently "recyclable". This would assist the waste generator and hauler in saving on disposal through lower costs for recycling a percentage of their waste. Once the waste generator made a habit out of recycling, the recycling of C & D should be here to stay. This has been the case in the residential sector, as curbside recycling programs have proven to be quite successful.

Brochures will be developed utilizing the above information. These brochures will be distributed through various associations related to the C & D industry, and made available to the general public. Promotion of C & D success stories will be circulated through newsletters or press releases, and presentations at various associations. Beginning in January, 1996 representatives from the solid Waste Department and other organization began promoting recycling of C&D materials in various trade publications. Surveys will continue to be conducted whenever needed, to determine the status of the C & D recycling, to collect feedback from builders, and to create an awareness of recycling C & D material.

4.3.8 Provision of equipment and facilities for construction/demolition waste recycling should be sought first from private developers. The implementation of any of the methods discussed in recommendations would logically first be incorporated at the present disposal sites. Other entrepreneurial interests may exist to provide facilities for this action throughout the County. (EXISTING, Plan-1991)

STATUS

Implementation of C & D recycling at current disposal sites (landfills) has already been addressed. Thus far, limited interest for recycling C & D materials has come from private developers. However, recent informal surveys of developers/haulers have indicated a general willingness to recycle their waste, providing the site they used had a less expensive tipping rate than the closest landfill, and was in a convenient location. Development of C & D recycling facilities has not been adequately promoted thus far, but recently efforts

are being made. Regional promotion of such facility(s) is needed, and use of associations is one outlet that is currently being explored.

The County does currently own property that could be used for recycling of C & D materials, and a more thorough analysis is needed before the property could be considered would be taken. A C & D recycling facility that is County or privately owned could utilize private operator(s).

RECOMMENDATIONS

The County, as outlined in previous recommendations, will assist the private sector through legislative changes, market development, and educational and grant programs.

Promotion of regional facilities is another aspect of this segment. Other collar counties such as Will, Kane, McHenry and Lake generate large volumes of C & D waste. Therefore, there may be an opportunity for regional C & D recycling facilities. This may be promoted through organizations such as the Green Construction Council.

4.3.9 The County will encourage the private sector to voluntarily implement C & D recycling programs, and adopt an ordinance if needed. (NEW, Plan-1996)

It is important to note that this segment of the C & D recycling program would only be implemented if needed. An ordinance would be developed for the unincorporated portions of the County, and made available for municipalities, specifying that a builder submit a recycling plan prior to issuance of a building permit. The recycling plan would include the wastes the builder intends to generate and recycle, and what types of recycled content materials will be used in the construction. A demolition permit will include information regarding the amount of recyclables they intend to remove and overall waste generated. Those recycling the highest percentage of material could be given an award at the end of each quarter. The same may be given to those using the highest amount of recycled content.

4.4 LANDSCAPE WASTE MANAGEMENT

ACTION ITEMS DELETED FROM PLAN-1991

Action #28

Efforts should be made to promote uniformity among the various landscape waste collection programs operating within the planning area.

4.4.1 Public Education

4.4.1(a) The County should work in cooperation with the State and the municipalities to intensify public education campaigns which promote landscape waste reduction and backyard composting. (EXISTING, Action #27, Plan-1991)

STATUS

Plan-1991 called for the County to increase homeowner awareness about the virtue of managing landscape waste in one's own backyard. The County has participated in cooperative public education initiatives with the State of Illinois and numerous municipalities aimed at achieving this goal. These efforts have ranged from the development and distribution of literature to participation in landscape waste management educational workshops and composting demonstration sites.

The County's education campaign began in 1990 in response to the statewide ban on the landfill disposal of landscape waste. The DuPage County Board banned open burning of landscape waste in the unincorporated areas in 1989. In order to maximize compliance with these restrictions, the Solid Waste Department has served as a clearinghouse for information about alternative management and disposal options for this portion of the waste stream.

The County developed its own educational materials intended to help homeowners manage as much of their landscape waste in their own backyard as possible. These materials include grass recycling and backyard composting brochures featuring "Y. Baggit." The Department also distributed additional educational materials developed by other sources including the State of Illinois. The County worked with State of Illinois agencies responsible for educating the general public about the landfill ban and alternative means of landscape waste management. On the local level, the Solid Waste Department helped establish backyard composting demonstration sites and participated in educational workshops sponsored by several municipalities.

RECOMMENDATIONS

The County should continue to work in cooperation with the State and the municipalities on public education campaigns that promote landscape waste reduction and backyard composting. Because the ban on landfill disposal has been in effect over five years, most homeowners will have become accustomed to not commingling landscape waste with regular refuse. There is an on-going need, however, to encourage residents to use on-site management techniques for landscape waste instead of relying upon curbside collection and regional composting sites. By managing grass clippings, leaves, and brush in their own backyard, residents can save time and money while reducing the number of landscape waste collection vehicles and commercial composting facilities. The County should renew its commitment to landscape waste reduction and recycling education.

4.4.1(b) The County should develop and implement new innovative public education programs that promote landscape waste reduction and backyard composting. (NEW, Plan-1996)

While the County has successfully developed and implemented a landscape waste reduction and recycling public education program utilizing a traditional approach, enhancing the effectiveness of this effort will require new and innovative techniques. Distributing brochures and establishing backyard composting demonstration sites has had an impact, but the County will need to consider more diverse and proactive methods if the message is to reach significantly more homeowners.

The County should work with other entities for assistance educating residents about landscape waste reduction and recycling. A more innovative approach will involve cooperative relationships with community groups, hardware stores, garden shops, and landscapers. The tools and techniques used for the landscape waste education program should be expanded to include a broad range of media, not just brochures and composting demonstration sites. The County should also research the landscape waste education efforts employed in other areas and adopt new, proven educational techniques.

4.4.2 Landscape Waste Disposal Capacity

4.4.2(a) The County should monitor the adequacy of available landscape waste disposal capacity and (if required) continue to provide a processing facility for the diverted waste stream. (EXISTING, Action #29, Plan-1991)

STATUS

Despite educational efforts aimed at promoting waste reduction and on-site recycling, many homeowners still seek off-site disposal options for their landscape waste. A lack of adequate processing capacity was identified in 1990 just prior to the implementation of the ban on the landfill disposal of landscape waste. In order to facilitate compliance with State law, the County established a landscape waste composting facility in West Chicago in June 1990. The 40 acre facility employed windrow technology and was the largest composting operation in Illinois until it closed in December 1992. Working in conjunction with interested municipalities, the County investigated the development of a new composting site, but the project was eventually abandoned during 1993.

In 1990, there were 106 permitted composting facilities in Illinois. By 1995, there were only 77 permitted sites remaining. This decrease is attributable to various factors including opposition from surrounding residential communities, more stringent regulatory and permitting requirements, and a trend towards larger, more centralized facilities. Private waste haulers and other entities that collect or generate landscape waste are now forced to travel greater distances to the more remote remaining composting sites. This is particularly true in DuPage County since the closure of the West Chicago facility in 1992. Because there

are no permitted composting sites in DuPage County, landscape waste must be transported to Will, Kendall, and other more distant counties for processing. There is one small transfer station for landscape waste being developed in West Chicago at this time. This facility received an IEPA permit in April 1996 and should be operational by mid-1996.

Increased travel time is one factor contributing to an increase in residential disposal cost charged by waste haulers. The average per bag/container fee for landscape waste in 1990 was $1.17. By 1994, the average cost for residential landscape waste disposal had increased to $1.41 per bag/container. The impact of the increased transportation distance has had a particularly heavy impact upon smaller landscaping firms that cannot afford to tie-up their limited number of vehicles for long-distance trips to remote composting sites. While transportation distances and disposal costs have increased, there appears to be adequate landscape waste processing capacity at facilities outside of DuPage County. At this time there is no indication that the existing composting and land application sites in the region are unable to accommodate the material generated by residents in DuPage County. While there has been an increase in the cost of landscape waste disposal, the County has not received any expressions of concern about this trend from municipal officials or residents.

RECOMMENDATIONS

From a broader policy perspective, higher costs may have a positive effect if more homeowners decide to manage their landscape waste in their own backyard in order to avoid higher disposal costs. The County should continue its efforts to monitor the availability of disposal capacity, however, because rising costs may eventually jeopardize compliance with the statewide ban on landfill disposal and the County's prohibition on open burning in the unincorporated areas.

The County should continue its work as an information clearinghouse. To facilitate compliance with restrictions on landscape waste disposal, the Solid Waste Department provides information regarding landscape waste collection services offered by private waste haulers and certain township highway departments. A listing of local composting facilities is also maintained for the benefit of residents who choose to haul their own materials to an alternative disposal site. Some smaller businesses, such as landscapers, also seek information about composting facilities.

4.4.2(b) To assure maximum compliance with Illinois Public Act 85-1430, the County should continuously monitor and evaluate the efficacy of the diversion system. (EXISTING, Action #30, Plan-1991)

STATUS

With the implementation of Public Act 85-1430, Illinois became the first state to enact a complete ban on the landfill disposal of landscape waste. During the first two years after the law went into effect, problems were experienced at processing sites for the diverted

waste stream. In fact, legislation was introduced in the General Assembly to amend or totally repeal Public Act 85-1430 at various times during this shakedown period. Eventually the "bugs" were worked out of the system and the call to return to the landfilling of landscape waste ceased. At this time, landscape waste diversion is considered to be a success and has evolved into a well-establish component of Illinois' integrated waste management strategy.

RECOMMENDATIONS

The County should continue to monitor the efficacy of the landscape waste diversion system to identify problems that could jeopardize compliance with the landfill ban or the County's landscape waste burning ordinance. If such problems are identified, the County should act in conjunction with the State, municipalities, and the private sector to ensure the continued success of the landscape waste diversion program.

4.5 HOUSEHOLD HAZARDOUS WASTE

ACTION ITEMS DELETED FROM PLAN-1991

None.

4.5.1 Overall Program

4.5.1(a) <u>As part of the County's waste reduction program, pollution abatement should be aimed at minimizing the negative impact of potentially hazardous refuse on the environment. (EXISTING, Action #3, Plan-1991)</u>

STATUS

Plan-1991 recommended that the County increase the general public's awareness of the need to divert potentially hazardous wastes from the waste stream. The County's efforts at achieving this goal to date have typically centered on publicizing the availability of one-day household hazardous waste (HHW) collection events sponsored by the Illinois Environmental Protection Agency (IEPA). Limited pro-active HHW education efforts were made through the *Recycling Yellow Pages* and the Solid Waste Education Center.

The approach to HHW diversion outlined in Plan-1991 called for the identification or development of alternative means to manage potentially hazardous waste. To achieve this end, Plan-1991 suggested that the County seek out cooperative ventures with other public agencies and private firms. Since 1991, the County has:

- worked to maximize the number of IEPA one-day HHW collection events held within DuPage County;
- entered into an intergovernmental agreement with the City of Naperville to provide county-wide access to a permanent HHW collection site; and
- commenced negotiations with a private sector firm for the provision of a mobile HHW collection program.

RECOMMENDATIONS

The County should follow through on the HHW management programs initiated pursuant to Plan-1991, but should shift the focus to a more integrated and pro-active approach.

4.5.1(b) Pursue the implementation of an integrated household hazardous waste program. (NEW, Plan-1996)

The ultimate goal of any HHW program is the elimination of potential hazardous waste materials from the waste stream. To get closer to realizing this goal, DuPage County should adopt an integrated approach including proactive public education, an aggressive Re-Use Program, and HHW collection as an option of last resort. By adopting a policy aimed at preventing HHW generation and managing materials with hazardous ingredients as a resource, not as waste, the County's program will achieve maximum effectiveness and cost efficiency. The balance of this section details the education, re-use, and collection components of the County's HHW program.

4.5.2 HHW Education Program

4.5.2(a) The County should attempt to increase the general public's awareness of the need to divert these wastes from the municipal waste stream. (EXISTING, Action #3, Plan-1991)

STATUS

The County's HHW education efforts to date have been limited to short articles in the *Recycling Yellow Pages*, responses to telephone inquiries, efforts at the Solid Waste Education Center, and promotion of one-day IEPA collection events.

Segments in the *Recycling Yellow Pages* have explained the HHW problem, discussed the virtues of less hazardous products, and offered information about local businesses which provide disposal opportunities for materials like motor oil, lead-acid batteries, and antifreeze. Over 50,000 copies of the Spring 1995 edition were distributed to municipal and township offices, schools, libraries, park districts, businesses, and households throughout the County.

Public inquiries regarding HHW typically come in the form of telephone calls to the Solid Waste Department. Department staff answer questions from residents who have been referred to the County by their municipality, township, or waste hauler. The callers usually

have questions regarding disposal alternatives for HHW. The staff provides recommendations of purchasing only what is needed, use it up or give it away, and dispose of the remainder properly as outlined in the *Recycling Yellow Pages*. Many residents and businesses are sent a copy of the *Recycling Yellow Pages* as a result of their inquiry to reinforce the proper management guidelines.

The Education Center, which opened in December 1993, has assisted the County in increasing the general public's awareness of potentially hazardous wastes and their proper disposal through phone support, tours, and a product display located at the Education Center. The product display educates the public to be able to identify household hazardous wastes. In addition, adult visitors who tour the Education Center participate in a discussion about how to purchase only what is needed, use it up or give it away, and how to properly dispose of materials. Adult visitors also receive a copy of the *Recycling Yellow Pages*, *IEPA Guide to Automotive & Small Engine Product Disposal* brochure, and *IEPA Guide to Household Paint Disposal* brochure.

The Solid Waste Department has worked to maximize the number of IEPA one-day HHW collection events held within the County. The Department has assisted municipalities in filing applications for hosting a one-day collection event in their communities. This assistance has helped County municipalities become selected sites among the many applicants throughout the state. The County has also co-sponsored one-day events with municipalities. This offers the municipality application assistance; publicity from the County in the form of press releases, posters, flyers, and newspaper articles; and additional volunteer assistance from Department staff on the day of the event. The County's recent efforts have included hosting a one-day HHW collection event at the Intermediate Processing Facility (IPF) in fall 1994, coordinating and publicizing other in-county events, and attempting to find other means of managing HHW whenever possible.

Such efforts were aimed at increasing public awareness of HHW in general and the availability of special collection opportunities in particular. In late 1995 and early 1996, the County initiated a targeted education campaign advising residents about the availability of the City of Naperville's permanent HHW collection facility (see Section 4.5.2(d) below).

RECOMMENDATIONS

The County should increase the intensity of its HHW consciousness raising efforts. Resident awareness of HHW should be increased as part of a more pro-active public education program stressing:

- HHW avoidance through the use of safer alternatives;
- proper use or re-use of products with hazardous constituents; and
- HHW collection only when use or re-use is not feasible.

Increasing public awareness may also encourage more community groups to get involved in solving the HHW problem. The Conservation Foundation of DuPage County, for example, sponsors a stormwater drain stenciling program. This program discourages residents from pouring HHW into stormwater drains via stenciled messages on the pavement in front of the storm drains (messages such as "Dump no waste, drains to stream"). Community-based consciousness raising initiatives like the Conservation Foundation's stormwater stenciling program are one of the most effective educational methods available. By publicizing the HHW issue, the County may be able to encourage more groups like the Conservation Foundation become involved.

4.5.2(b) Promote HHW avoidance and use of safer alternatives. (NEW, Plan-1996)

The most cost effective means of managing HHW is an aggressive public education campaign that prevents or minimizes HHW generation. The County's efforts enabling citizens to recognize HHW should be paired with information about safer alternatives and HHW minimization.

A multi-media educational campaign should be developed to encourage residents to seek out consumer products without hazardous ingredients. Safer alternatives may include historically benign products like baking soda or new products specifically manufactured to be environmentally friendly. In cases where safer alternatives are not available, residents should be encouraged to buy only as much of a potentially hazardous product as they can use. The County's education campaign should include the development of stand-alone materials that specifically address identification and use of safer alternatives. HHW avoidance and safer alternatives information should appeal to a broad audience, but must target the individuals who make purchasing decisions regarding potentially hazardous items. In addition to using standard means of distributing public education materials, this particular information should be distributed to participants at all HHW collection events to help them to avoid becoming "repeat customers."

4.5.2(c) Promote proper use or re-use of products with hazardous materials/ingredients. (NEW, Plan-1996)

Information regarding HHW avoidance and safer alternatives will not address the problem of potentially hazardous materials that residents already possess. The second approch of the County's HHW education campaign should encourage residents to use up the hazardous product they have in accordance with label directions. The County's educational campaign should provide innovative ideas about how residents can use up products or find other parties (relatives, neighbors, local charities) having a need for such items. The development of a listing of re-use or waste swapping opportunities is consistent with the State's solid waste hierarchy and will ease the burden upon HHW collection facilities (see Section 4.5.3 below for a full discussion of a proposed County Re-Use Program).

Other products with hazardous characteristics may have no useful life left. If there is no potential for re-use of a product, residents must be encouraged to explore whether there is an existing recovery system to divert the item from the waste stream. In some cases, businesses have established the infrastructure to collect and safely manage used products at little or no cost to customers. Examples of potentially hazardous products that can be managed by private sector diversion systems include automobile batteries and used motor oil. The County's education program should promote resident awareness of existing diversion opportunities as a means of reducing the amount of HHW destined for HHW collection sites. Listings of recycling opportunities for items otherwise managed as HHW will be included in the County's *Waste Reduction Directory (formerly the Recycling Yellow Pages).*

Educational materials regarding using up hazardous products or seeking re-use opportunities should appeal to a broad audience, but must target the individuals who make disposal decisions regarding potentially hazardous items. In addition to using standard means of distributing public education materials, this particular information should be distributed to participants at all HHW collection events to help them to avoid becoming "repeat customers."

4.5.2(d) Inform residents about the availability of HHW collection as the option of last resort. (NEW, Plan-1996)

If, and only if, there is no possibility of using up or directing potentially hazardous materials to a private sector diversion system, the focus of the County's education program should be delivery of HHW to an appropriate HHW collection facility or event. Generally, publicity regarding HHW drop-off opportunities will include information about what items are acceptable and unacceptable, the location of permanent facilities or regularly scheduled events, as well as the dates and times when materials will be accepted. Unique public education materials will be developed to address the particulars of each HHW collection facility or event. For example, a specialized publicity campaign has been necessary to control the use of the City of Naperville's HHW collection facility pursuant to the recently approved intergovernmental agreement. Development of specific educational materials for the County's mobile collection program and one-day IEPA collection events will be coordinated with the respective host community.

Educational materials regarding HHW collection opportunities should appeal to a broad audience, but must target the individuals who make disposal decisions regarding potentially hazardous items. Based upon the IEPA's experience with one-day events, newspaper press releases and custom flyers appear to be the most effective means of informing the public about upcoming HHW collection opportunities. Brochures and/or flyers regarding HHW collection options should include an explanation of how the HHW is ultimately disposed of and the related costs. One central theme of such materials will be the importance of avoiding HHW in the future. By stressing the relatively high cost of managing material as HHW, the availability of safer alternatives, and effective HHW reduction

techniques, these educational materials will encourage residents to make their first visit to a HHW collection facility their last visit.

4.5.3 HHW Diversion and Re-Use Program

4.5.3(a) <u>The County should develop a paint re-use program. (NEW, Plan-1996)</u>

With paint averaging more than 40% of the HHW waste disposed of through costly HHW collections, the desirability of diverting this reusable product from the HHW waste stream is obvious.

The County should research existing paint reuse programs such as paint dealer programs and paint exchange events to assess the feasibility of assisting the private sector in setting up a program in the County. If feasible, the County should develop this program.

4.5.3(b) <u>Foster the development of private sector efforts to re-use, recycle, or otherwise divert HHW from the municipal waste stream. (NEW, Plan-1996)</u>

HHW collection efforts sponsored by the IEPA now reject automobile batteries because businesses that sell such batteries are required by state law to accept them for recycling. Even without a state mandate, a substantial number of local firms now accept used motor oil from residents. DuPage County should promote voluntary private sector initiatives to collect materials otherwise managed as HHW for re-use or recycling. The *Waste Reduction Directory (formerly the Recycling Yellow Pages)* should continue listing such firms and the materials they accept. The County should work in cooperation with other public agencies and private sector entities interested in diverting other potentially hazardous materials away from the waste stream and HHW collection events. Proper management of such materials by local business should be much more cost-effective than handling the same materials as HHW. The County should identify and, if feasible, eliminate the barriers to the development of similar diversion systems for other hard-to-handle materials such as waste paints.

4.5.3(c) <u>The County's mobile HHW collection program should include a re-use component. (NEW, Plan-1996)</u>

Despite educational efforts encouraging residents to use up potentially hazardous products, the experience of similar programs indicates that usable products will still be delivered to HHW collection events. The County's mobile HHW program should include a re-use component to capture and divert certain re-usable products brought to collection events. The re-use program should provide for a waste exchange table at mobile collection events where residents can pick-up re-usable items that would have otherwise been handled as HHW. In addition to diverting re-usables out of the HHW stream, the waste exchange table will serve an important educational function by reminding collection event participants to consider re-use as viable HHW management option in the future.

Depending upon the quantities and types of re-usable materials received at the mobile HHW collection events, the County should establish arrangements with private sector and not-for-profit outlets for larger quantities of re-usable materials. Private firms may be able to utilize certain potentially hazardous materials "as is" or as a manufacturing feed stock. Not-for-profit groups may distribute re-usable cleaning products through food banks or other charitable organizations. The success of the re-use element of the County's Mobile HHW Collection Program will depend upon identification of consistently re-usable products, development of reliable outlets for diverted items, and a cooperative relationship with the contractor conducting the collections. If diversion of larger quantities of re-usable products is to be feasible, the County may need to provide assistance to the outlets in the form of storage containers, transportation, or funding.

The diversion of re-usable products should be viewed as preferable to the management of materials as HHW. In most cases, using a potentially hazardous product will be less expensive than treating or disposing of it as part of the HHW stream. The County should consider the preference for re-use over disposal expressed in the State of Illinois' solid waste hierarchy in cases where re-use may entail marginal savings or slight expense. Economics aside, stressing the re-use of products with hazardous ingredients is consistent with the public education component of the County's overall HHW program. By stressing the importance of re-use during mobile HHW collection events, the County's "use it up or find someone who can" message will be more effective.

4.5.4 HHW Collection Programs

4.5.4(a) HHW collection should be considered the option of last resort. (NEW, Plan-1996)

While diversion of potentially hazardous materials from the municipal waste stream protects human health and the environment, HHW collection is expensive and also involves risks. More importantly, a substantial amount of the materials from HHW collection events are destined for disposal, the least preferable waste management option. In order to minimize costs and maximize conformity with the waste management hierarchy, the County should promote HHW collection only as the option of last resort.

Unlike recycling, an effective HHW collection program strives for decreasing participation rates. Because diversion opportunities for hazardous residential waste materials have been rather limited, the County should anticipate the purging of stockpiles of HHW built-up in basements and garages over the years. Once the initial backlog of stored HHW is exhausted however, the County's message of HHW avoidance, reduction, or re-use should enable residents to minimize their reliance of HHW collection. The County's ability to scale back or eliminate the need for HHW collection in the future will depend in large part upon the effectiveness of the HHW education program. By fully funding an aggressive education program, the County will realize a long-term cost savings associated with lower demand for HHW collection.

The balance of this section discusses making HHW collection opportunities more convenient for residents in hopes of maximizing participation. Although this short-term objective is important, the County's ultimate goal must be discouraging resident reliance upon HHW collection events. This message is central to the education program and participants at collection events will receive materials explaining how they can avoid being "repeat customers." Unfortunately, providing convenient HHW collection service on a routine basis free of charge may contradict the notion that avoiding or using up hazardous products is the preferred solution to the HHW problem. The County should investigate additional means of discouraging on-going reliance on HHW collection. The County should not rule out collecting a nominal service charge from residents who participate at County-sponsored HHW collection events. A modest fee would not reduce participation significantly and should reduce the potential for abuse associated with a "free" on-going HHW collection program.

4.5.4(b) Maximize the number of IEPA one-day HHW collection events held within DuPage County. (NEW, Plan-1996)

Since 1990, the only on-going HHW collection program has been the IEPA's one-day collection event program. The IEPA's one-day collection program involves the establishment of a temporary HHW collection site at a location provided by a host community. One-day events are typically held at municipal public works yards, county fairgrounds, high school parking lots, or other public-owned sites. Host communities provide publicity, traffic control, and volunteer staff to assist during the collection event. The IEPA provides a private firm licensed to handle hazardous waste to accept, categorize, package, transport, and dispose of the HHW brought to the collection event. The cost of actually collecting and managing the HHW is paid for by the IEPA.

The Solid Waste Department has worked to maximize the number of IEPA one-day HHW collection events held within DuPage County. The County's recent efforts have included hosting a one-day HHW collection event at the IPF in Fall 1994, coordinating and publicizing other in-county events, and encouraging municipalities to file host community applications with the IEPA. The following table summarizes information from the IEPA one-day events that have been held in DuPage County from 1990 through 1995.

TABLE 4-2

AMOUNTS COLLECTED AT IEPA ONE-DAY EVENTS HELD IN DUPAGE COUNTY FROM 1990-1995

EVENT DATE	LOCATION	NUMBER OF PARTICIPANTS (households)
5/5/90	City of Naperville	1,192
9/14/91	City of Wheaton	1,400
5/2/92	City of Elmhurst	1,008
5/1/93	Village of Lombard	928
6/4/94	City of Bensenville	644
6/4/94	City of Wood Dale & City of Addison	1,159
10/8/94	Village of Downers Grove	2,846
10/15/94	Village of Itasca	411
10/29/94	Village of Carol Stream	1,678
9/16/95	City of Warrenville	878
10/14/95	Village of Lisle	1,472
TOTAL		13,616

The IEPA's one-day collection event program demonstrated that an HHW collection could be successful and that public demand for such events is high. Unfortunately, budgetary constraints and responsibility for providing similar service throughout the entire State of Illinois has limited the number of IEPA one-day events readily accessible to DuPage County residents. From 1990 through 1995 the IEPA held 11 events in the County, serving approximately 13,616 out of 308,320 eligible households. This represents an overall participation rate of roughly 4.4% in DuPage County.

The County should continue its effort to maximize the number of IEPA sponsored one-day HHW collection events held in DuPage County. This effort should include two specific and interrelated courses of action. Because the total number of one-day events conducted by the IEPA impacts the likelihood that one will be held in a DuPage County community, the County should first make an effort to maximize the state funding levels for the IEPA's collection program. Once available funding is maximized, the County should then encourage and provide assistance to any community in DuPage that intends to submit a host community application. This approach should increase the level of service provided to DuPage County residents by IEPA-sponsored HHW collection programs.

4.5.4(c) Maintain an intergovernmental agreement with the city of Naperville to provide permanent HHW collection services for DuPage County residents in a cost-efficient manner. (NEW, Plan-1996)

Recognizing some of the limitations of the one-day collection event approach, the IEPA and the City of Naperville established a permanent HHW collection facility in 1992. The Naperville site is one of only two permanent HHW collection facilities in Illinois. Pursuant to an intergovernmental agreement, Naperville developed, staffs, and provides supplies for the permanent facility located at Naperville Fire Station No. 4. The IEPA provides training for Naperville personnel and has contracted for a licensed hazardous waste hauler to remove the HHW from the facility. The facility was initially only available to Naperville residents.

In December 1995, DuPage County and the City of Naperville entered into a three-year agreement allowing residents from throughout DuPage County to utilize the permanent HHW collection facility. The County will provide $225,000 over the term of the intergovernmental agreement to offset Naperville's operating costs. Use of the permanent facility by County residents is being implemented in a phased manner to reduce the likelihood of the facility being overwhelmed. The agreement with City of Naperville also requires the County to develop additional HHW collection capability within the first two years of the agreement to reduce the burden on the City's permanent facility. To this end, the County has taken steps to establish a mobile HHW collection program (see Section 4.5.4(d) below).

The intergovernmental agreement with the City of Naperville should be maintained in order to assure continued access to a permanent HHW collection facility for residents of all DuPage County. The on-going availability of HHW collection service addresses the needs of residents who cannot hold onto HHW until the next IEPA or DuPage County-sponsored collection event. The presence of the permanent facility is particularly valuable during the winter months, when residents are moving in the immediate future, or when the material in question poses an imminent health threat. A comparison between the level of service and cost efficiency of Naperville's permanent facility and the County's mobile HHW collection program should be made on an on-going basis. If the mobile collection program can achieve a substantially higher level of service and cost-efficiency, the County should work in cooperation with the City of Naperville to re-evaluate the intergovernmental agreement.

4.5.4(d) Establish a mobile HHW collection program. (NEW, Plan-1996)

The agreement opening up the City of Naperville's permanent HHW collection facility to residents on a county-wide basis is only the first step in providing an adequate level of HHW collection service. Surveys performed during IEPA one-day collection events indicate that there are limits to how far participants are willing drive to drop-off HHW. Participation rates drop significantly if individuals must drive more than eight miles. Because the Naperville site is located in the southwest, a significant service gap remains in the eastern and northern portions of the County. Even if residents were willing to a travel greater distance to visit the Naperville permanent facility, the site simply does not possess adequate capacity to service

all of DuPage County. Despite the cautious, phased-in public awareness approach used to publicize the availability of the Naperville permanent collection facility, there are still legitimate concerns about the facility being overwhelmed. Consequently, it is critical that supplemental HHW collection capacity is developed to service DuPage County.

In 1995, the Solid Waste Committee examined the advantages and disadvantages of feasible HHW collection methods. The Committee considered permanent facilities, one-day events, and a mobile collection program. The mobile collection approach was selected because a series of two or three-day temporary collection events should provide a higher level of service than an additional permanent facility in one fixed location. The County's mobile program, unlike the IEPA's one-day events, will be held on a regular schedule at specified locations, and collection hours may span more than one day. The locations in areas not served by either the Naperville permanent facility or the IEPA one-day events will be targeted as mobile collection sites.

A request for proposals (RFP) for the provision of a mobile HHW collection program was issued in late 1995. At this time, the County is in the final stage of contract negotiations with one of the private firms that responded to the RFP. The terms of the draft contract provides for a one-year mobile collection program for a cost not to exceed $400,000. The contract may be renewed for one additional year. Depending upon participation levels and disposal costs incurred, the County anticipates six to seven mobile collection events during the first year of the program.

The County should follow through with the establishment and implementation of a mobile HHW collection program. The mobile collection program will be the first program of its kind in Illinois. The County should capitalize upon the experimental nature of the program. Innovative approaches to HHW management such as holding collections on Sundays and diverting reusables away from the HHW stream should be strongly encouraged. The overall performance of the program should be closely monitored to determine its comparative effectiveness and cost-efficiency. Depending upon these results, the County may opt to expand the program in the future or consider other collection options. The County should aggressively pursue additional funding for the current program from outside sources including the IEPA.

4.6 WASTE-TO-ENERGY

ACTION ITEMS DELETED FROM PLAN-1991

Action #40
An intent to develop a project must be formally expressed.

Action #41
The availability of energy markets should be addressed in conjunction with the decision of intent to develop a project.

Action #42
A site (or sites) should be identified for the project.

4.6.1 Waste-To- Energy as a Disposal Option

4.6.1(a) The County should continue to monitor the technical and economic feasibility of waste- to-energy as a final disposal method. (NEW, Plan-1996)

Since the adoption of Plan-1991, DuPage County has monitored the feasibility of waste-to - energy (WTE) as a final disposal option in light of regulatory conditions and regional tipping fees. Although WTE was not selected as the Phase 3 final disposal technology, the County should continue its on-going evaluation of WTE as a long-term disposal option. This will enable the County to fulfill its role as a solid waste management information clearinghouse. Accurate information about the status of WTE technology should be maintained and provided to municipalities and the general public upon request.

Information regarding WTE was received in response to the County's Request for Qualifications (RFQ) issued in May 1994. The companies that submitted information about WTE and were deemed qualified during the RFQ process were:

1) Energy Answers and Kirby-Coffman;
2) Foster-Wheeler Powers Systems and Reading Energy;
3) Ogden Martin; and
4) National Ecology.

Data from six reference facilities was evaluated. The tipping fees at the six reference facilities ranged from $46 to $94 per ton. The Solid Waste Committee has received

educational presentations from several interested vendors. The Committee has not expressed any further interest in pursuing WTE as a disposal option.

4.6.1(b) The County should continue to monitor the availability of waste-to-energy facilities in the region. (NEW, Plan-1996)

At this time, there is one existing and two proposed municipal solid waste WTE facilities in the northeastern Illinois region. Both proposed facilities are to be located in southern Cook County. Foster-Wheeler Power Systems and Reading Energy are working jointly on a WTE facility in Robbins, Illinois. Energy Answers and Kirby-Coffman are working jointly on a WTE facility in Summit-McCook, Illinois. The City of Chicago recently announced its plan to permanently close down the Northwest WTE Facility, the only mixed municipal refuse WTE facility in Illinois that is currently operational.

The Robbins Facility is scheduled to come on-line in December 1996 and will process up to 1,600 tons per day (TPD). The facility will have front-end processing capable of removing 400 TPD of recyclables from the incoming waste stream. The remaining 1,200 TPD of non-recyclable waste will be converted into electricity by the facility's WTE unit. The total cost of the project will exceed $385 million. Waste is being committed to the facility by Cook County municipalities through the execution of project-use agreements. Foster-Wheeler Power Systems and Reading Energy have filed a lawsuit in federal court challenging the State of Illinois' repeal of the Retail Rate Law. A decision on the lawsuit is expected in late 1996.

Work on the WTE component of the Summit-McCook Facility has been postponed pending an appeal of the Illinois Environmental Protection Agency's (IEPA) denial of the facility's development permit application. Energy Answers and Kirby-Coffman began construction on the 2,150 TPD transfer station component of the facility in late 1995. The transfer station element of the site should be operational in late 1996. A decision on the permit appeal for the 1,750 TPD WTE unit is expected in July 1996. If the appeal results in the issuance of an IEPA development permit for the WTE component, the focus of Energy Answers and Kirby-Coffman will then shift to restoration of the incentives provided under the Retail Rate Law prior to commencement of construction.

In addition to the municipal refuse WTE projects discussed above, there is one wood waste incinerator project proposed in Cook County. Resource Recycling Systems is developing a cogeneration facility in McCook, Illinois, that would convert wood waste into electricity and steam. The McCook Facility would accept commercial wood waste, not municipal solid waste. This project is also "on hold" pending the resolution of challenges to the repeal of the Retail Rate Law.

Continuing to monitor the availability of waste-to-energy facilities in the region will provide municipalities and other waste generators with additional options for disposing of their waste materials.

4.6.2 Waste-To- Energy Legislation

4.6.2(a) The County should continue to monitor and, when appropriate, lobby the General Assembly and the U.S. Congress to shape legislation impacting waste-to-energy. (NEW, Plan-1996)

The most significant development regarding WTE in Illinois since 1991 is the repeal of the Retail Rate law. For a full discussion of this matter, please see Section 3.2.1(p). The repeal of the Retail Rate law has removed a major incentive for the development of WTE projects in Illinois. The elimination of the Retail Rate subsidy may also jeopardize the viability of the WTE project currently under construction. Some WTE project developers and host communities have indicated that they will sue the State to retain the benefits of the Retail Rate arrangement. At this time, the outcome of such litigation is unclear.

The County should continue to monitor legislation pertaining to WTE considered on the state and national level. While the County is not pursuing nor encouraging the development of WTE capacity within DuPage County to serve the disposal needs of its residents, legislation in this field may impact the direct and indirect costs paid by residents and the County's long-term waste disposal options. By keeping a close eye on WTE legislation, the County can protect the overall interests of its citizens and maintain WTE as a potential waste management technology.

4.7 LANDFILLING

ACTION ITEMS DELETED FROM PLAN-1991

Action Item #43
The availability of the two existing landfill sites must be ascertained.

Action Item #44
If so decided, an intent to develop the project must be formally expressed.

Action Item #45
A site (or sites) should be identified for the project.

4.7.1 Any proposals for siting a landfill in DuPage County will be monitored and evaluated (NEW, Plan-1996)

The County monitors permits and regulations pursuant to its delegation agreement with the IEPA. The County can also act as a siting authority, should someone attempt to site a landfill in the unincorporated portions of the County.

STATUS

The landfilling option in DuPage County was greatly limited when a consent decree ordered the two DuPage County landfills to close by December 31, 2000. The decree addressed the fact that the Forest Preserve District, who owns the landfills, does not have the authority to allow a landfill to operate on their property, as waste landfilling is not the preservation of flora and fauna. As a result, the landfill operators (BFI, Waste Management) decided to direct significantly more waste to the landfills. This action will close the landfills earlier than the ordered closure date.

To site a landfill in the State of Illinois, the owner/operator must follow the siting requirements in Section 39.2 of the Environmental Protection Act. This includes approval by the applicable local authority. Development and operating permits must be granted by the IEPA as well as any applicable supplemental permits when needed.

In 1994, Solid Waste Department staff worked with County Development geographic information system personnel to create a map which identified potential search areas for siting solid waste management facilities. The computer-generated map graphically displayed by a process of elimination those areas available in the County after applying the 1,000-foot setback from properties zoned for primarily residential use, the 10,000-foot setback from airports, and Forest Preserve District properties consistent with the 1992 landfill consent decree. A copy of the siting map is available upon request by calling the DuPage County Solid Waste Department at (630) 682-7373. Numerous copies of the map have been requested and forwarded to local and regional waste hauling firms.

Due to the fact that no new landfills are being sited presently, it appears that for the haulers to economically dispose of waste generated in DuPage County, the use of transfer stations is expected. Haulers have indicated that landfilling will first occur in the landfills closest to DuPage County. Those landfills may include Wheatland Prairie (anticipate reopening in 1996), CDT (pending expansion approval) and the Joliet Arsenal landfill in Will County (pending siting approval), Settlers Hill and Woodland Landfills in Kane County, Countryside (pending expansion approval) and BFI #1 in Lake County, Tazewell County Landfill, Orchard Hills Landfill in Ogle County, and Waste Management's Landfill in LaPorte County, Indiana.

Monitoring of the two DuPage County landfills is performed by the operators, DuPage County Forest Preserve District, Illinois Environmental Protection Agency (IEPA), and the Solid Waste Department. The Solid Waste Department inspects the landfills regularly according to the DuPage County's delegation agreement with the IEPA. Groundwater, leachate, and gas are monitored regularly at each facility. The results are submitted to the IEPA. If a detection above acceptable levels is made, the operator notifies the Forest Preserve, IEPA, and the Solid Waste Department. If there is a determination of potential to harm human health or the environment, the site must submit a corrective action plan to address the problem.

RECOMMENDATIONS

The County should continue to monitor any open or closed landfill sites pursuant to its delegation agreement with the IEPA. Any permit applications will be reviewed and commented on as appropriate. Siting of landfills will be the responsibility of the local authority. If someone is seeking to site a facility within the incorporated portion of DuPage County, the County Board would be the siting authority. The County Board would review the site pursuant to the criteria in Section 39.2 of the Illinois Environmental Protection Act.

4.7.2 The County shall continue to provide educational information on landfilling as it becomes available. (NEW, Plan-1996)

STATUS

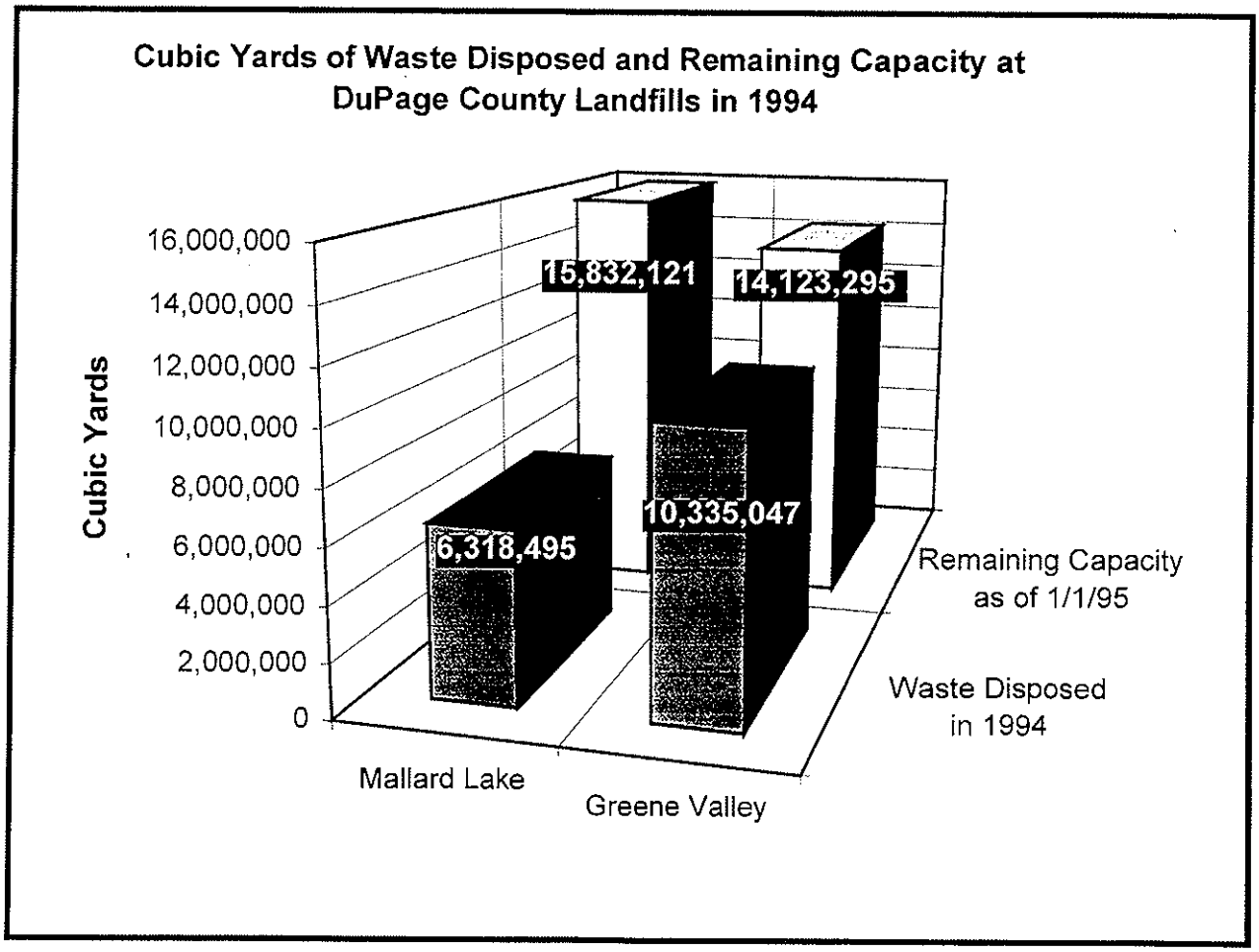
The Solid Waste Committee has provided information regarding landfilling to the public in meetings through various educational presentations from firms that are involved in the landfilling of waste. As needed, the County will continue to use the Solid Waste Education Center or public forums to inform the public regarding the landfilling of waste.

Information that is regularly communicated to the public concerns current landfill disposal capacity and rate information. The following provides a status as of Plan-1996:

A. Disposal Capacity

According to the two DuPage County landfill operators, the amount of remaining disposal capacity (in cubic yards) as of January 1, 1995 for the two DuPage County landfills is depicted in chart 4-1. (see Chart 4-1, pg. 102).

CHART 4-1



Source: DuPage County 1994 Waste To Date Annual Report

The landfill operator at Greene Valley (Waste Management) has indicated that the site will reach capacity by the fall of 1996. The operator at Mallard Lake (BFI, E & E Hauling) has indicated the site will reach capacity sometime during 1998.

According to Plan-1991, disposal of waste in DuPage landfills from generators outside the County was to be kept to a minimum. In some cases only certain DuPage communities were disposing of their waste in DuPage landfills. The aforementioned consent decree (see Section 4.7.1) dramatically increased the flow of waste into DuPage landfills from generators outside the County. Average daily waste deliveries increased from under 10,000 cubic yards a day to over 30,000 cubic yards a day at the Greene Valley Landfill (beginning in December of 1992). Mallard Lake Landfill's average daily intake increased from approximately 10,000 cubic yards a day to over 20,000 cubic yards a day by 1993.

The large influx of waste occurred because the nation's two largest hauling companies (Waste Management and BFI) operate the DuPage landfills and have the ability to direct

their vehicles to tip their loads at the landfills they operate. This large influx of waste has dramatically changed the long-term disposal option of landfilling in DuPage County. Landfilling in DuPage County is not an anticipated solid waste disposal method once the two active landfills close. However, it is an anticipated disposal method to be used outside the County in cooperation with transfer stations.

According to the "Available Disposal Capacity for Solid Waste in Illinois" 1995 report by the IEPA, the amount of available capacity for the region's (northeastern Illinois) sixteen landfills was 128,251,422 cubic yards. This total includes the SWANCC balefill in Cook County which is 37,900,000 cubic yards. The SWANCC balefill, however, still has not been approved by the Army Corps of Engineers. Also, the report states that if current disposal rates continue, and no additional capacity is added to the region's landfills, the region's capacity will be almost exhausted around the year 2000 (see Map 4-A, pg. 104).

Once the region's landfills have reached capacity, the next likely landfill that could be extensively used for solid waste disposal is the Spoon Ridge (Gallatin) Landfill located in Fulton County which is in region 3 (see Map 4-B, pg. 105). The landfill's operator (BFI) is anticipating this region's waste, and has a rail line with a spur to the landfill already in place.

B. Disposal Rates

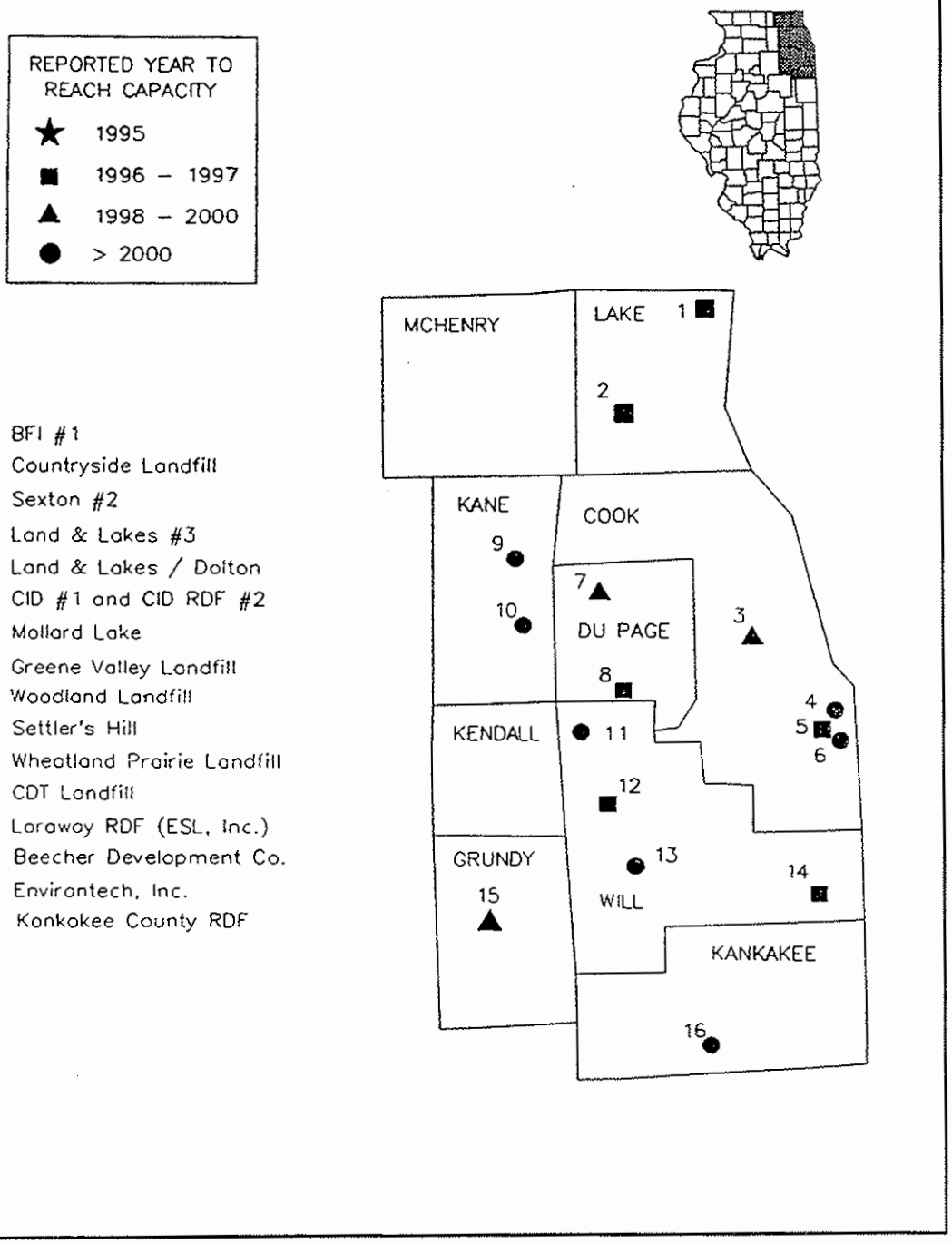
Surveys were conducted from the region's landfill operators in 1994 and 1995, to gain an understanding of the trends in disposal rates. The surveys indicated that in each of the past two years, the rates at the areas landfills have increased by 10%. A major hauler recently indicated that they anticipate rates rising by at least another 25% by the end of 1996. Disposal rates are key to the methods employed in handling the waste stream. Locating transfer stations or other solid waste facilities will be determined by the disposal rates at landfills.

RECOMMENDATIONS

The County should continue to provide information regarding landfilling as it relates to local businesses and residents. Informing the public about disposal capacity and rates can assist various entities and individuals that manage waste hauling contracts. If those entities are informed, they can incorporate such information into projected disposal costs for future waste hauling agreements. This information can also assist businesses in forecasting various disposal costs into their cost of doing business and can help them formulate plans to reduce their waste stream.

MAP 4-A

REGION 2 - 1994 ACTIVE NON-HAZARDOUS SOLID WASTE LANDFILLS



1. BFI #1
2. Countryside Landfill
3. Sexton #2
4. Land & Lakes #3
5. Land & Lakes / Dolton
6. CID #1 and CID RDF #2
7. Mallard Lake
8. Greene Valley Landfill
9. Woodland Landfill
10. Settler's Hill
11. Wheatland Prairie Landfill
12. CDT Landfill
13. Laraway RDF (ESL, Inc.)
14. Beecher Development Co.
15. Environtech, Inc.
16. Konkokee County RDF

Source: "Available Disposal Capacity for Solid Waste in Illinois - Eighth Annual Report." Prepared by Illinois Environmental Protection Agency, September 1995.

4.8 SLUDGE MANAGEMENT

ACTION ITEMS DELETED FROM PLAN-1991

Action #26
The Forest Preserve District Should take steps to prohibit the landfilling of sludge in the County by 1997.

4.8.1 The County will continue efforts to find alternative uses for sludge. (NEW, Plan-1996)

RECOMMENDATIONS

The 1990 Solid Waste Plan recommends limiting the landfilling of sludge. The DuPage County Department of Environmental Concerns, through one of their wastewater treatment plants, has constructed a facility which will maximize the use of sludge by converting the gas from the sludge into a fuel to operate the treatment plant and County vehicles. The technology could save the County thousands of dollars each year in fuel costs plus assist the County in reducing emissions by over 90%.

The Solid Waste Department plans on retrofitting one of its vehicles to natural gas in 1997 to provide a basis for expanding to other County vehicles. A grant is available from the State of Illinois to recover 80% of the costs to retrofit each vehicle. The Solid Waste Department and possibly other Departments within the County are expected to apply for the grant funding.

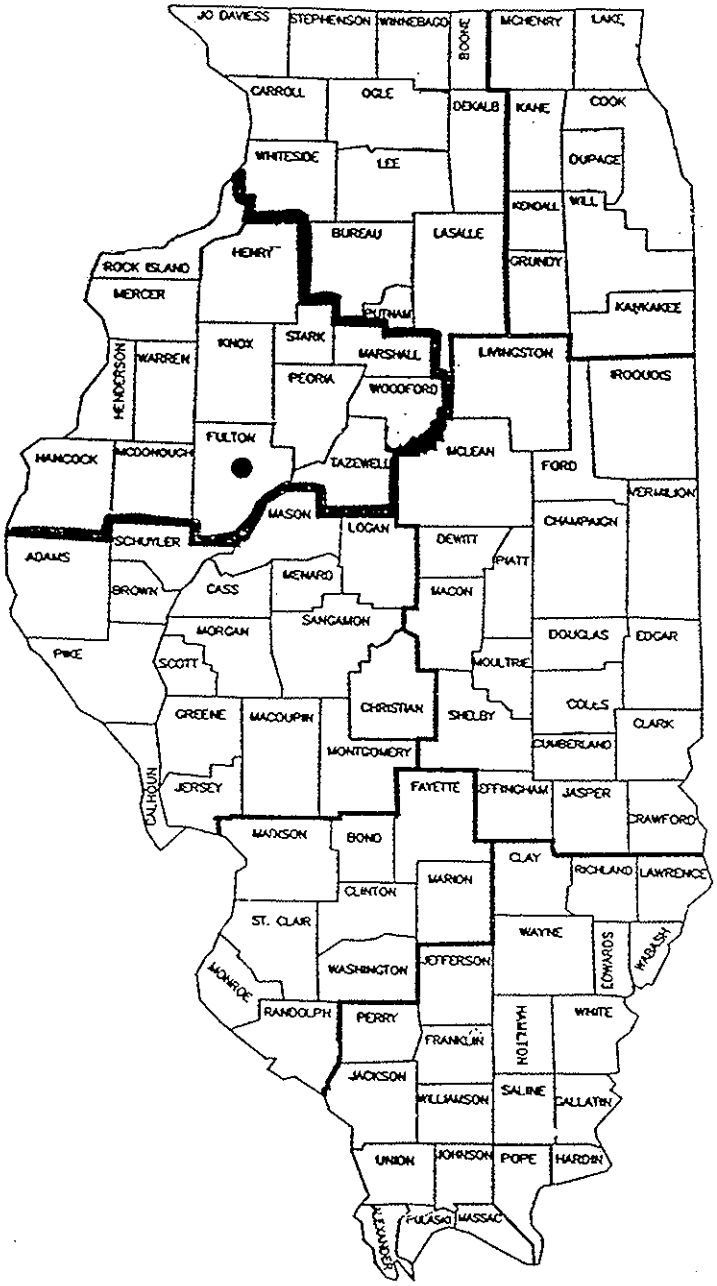
4.9 WASTE HAULING AND TRANSFER STATIONS

ACTION ITEMS DELETED FROM PLAN-1991

Action #36
The availability of in-county disposal capability should be determined. If in-county disposal will be available for an extended period of time, the provisions of transfer capability may be unnecessary. However, even if in-county disposal capability will be available for an extended period of time, the practicality and desirability of providing transfer capability in the county should be evaluated as a mechanism to improve waste transport efficiencies and to minimize local traffic impacts.

MAP 4-B

REGION 3- SPOON RIDGE (GALLATIN) LANDFILL



Source: "Available Disposal Capacity for Solid Waste in Illinois - Eighth Annual Report." Prepared by Illinois Environmental Protection Agency, September 1995.

4.9.1 The County should encourage development of three to five waste transfer facilities throughout the County. The County should assist the private sector in determining the most appropriate and efficient locations for transfer facilities, and providing education and appropriate tours to municipalities, townships or any other people interested in knowing more about waste transfer stations. (NEW, Plan-1996)

STATUS

There presently are no permitted waste transfer stations located within the boundaries of the DuPage County, however, permit and siting issues are pending with reference to certain non-permitted waste transfer facilities within the County. The statutory setback requirement of 1,000 feet and local siting approval are among the issues being addressed. One such facility is located within incorporated Westmont, Illinois. The outcome of these pending issues will impact the amount of waste transfer operations within DuPage County.

Section 22.14 of the Illinois Environmental Protection Act (415 ILCS 5/22.15, 1992) requires that a waste transfer facility may not be situated less than 1,000 feet from the nearest property zoned for primarily residential uses or within 1,000 feet of any dwelling in counties of less than 3,000,000 inhabitants.

As waste transfer facilities must be set 1,000 feet from the nearest property zoned primarily for residential uses the question of point of measurement has been raised. In a 1992 case before the Illinois Pollution Control Board ("Board"), City of Des Plaines v. Solid Waste Agency of Northern Cook County, PCB 92-127, the Board determined that setback from the nearest property zoned for primarily residential uses is to be measured from the permitted facility and not from the property boundaries. In this particular case the permitted transfer station was to be constructed on approximately seven acres, however, the entire buffer area totaled 43 acres. The Board stated that as it was the owner's intent to use the seven acres permitted by the Illinois Environmental Protection Agency to develop a waste transfer station, and it had been demonstrated that they did not intend to use the entire 43-acre site for waste transfer operations, the facility itself was within the statutory setback limits. This Board finding encourages incorporating buffer zones in waste transfer station development.

The ability to site waste transfer stations within the borders of DuPage County is limited due to site availability and the defined setback requirement. A transfer station of sufficient size to meet the County's needs can be expected to occupy anywhere from 5 to 20 acres, depending on the facility's specific development plan and mode of transport. A proposal previously brought before the DuPage County Solid Waste Committee considered amending legislation to remove waste transfer stations from the local siting approval process and restructuring the setback requirement to correlate the setback distances to the amount of wastes received at the facility; for example, a facility operating at 500 or more tons per day may not be located less than 1,000 feet from the nearest property zoned for primarily residential uses; from 250 to less than 500 tons per day, not less than 750 feet;

from 100 to 250 tons per day, not less than 500 feet; and less than 100 tons per day, not less than 300 feet. To date this proposal has not received further action.

As of August 21, 1995, there were approximately 20 permit applications pending with the Illinois Environmental Protection Agency for storage, transfer, processing, and recycling facilities within the State of Illinois.

Those facilities situated more proximate to DuPage County may play an important role in the management of solid waste generated within DuPage County. Existing or proposed waste transfer facilities situated proximate to DuPage County include:

1) Speedway Disposal Transfer Station, Geneva, IL, Kane County existing/operating at approximately 200 tons per day
2) Browning Ferris Industries, Melrose Park, Cook County proposed/approximately 3,000 tons per day
3) XL Disposal, Crestwood, IL, Will County existing/operating at approximately 800 tons per day

A recent amendment to the Illinois Environmental Protection Act, ("Act") enacted July 7, 1995, under Public Act 89-122, more clearly defines the terms "storage site" and "transfer station." Under Section 3.83 of the Act "transfer station" is defined as a site or facility that accepts waste for temporary storage or consolidation and further transfer to a waste disposal, treatment, or storage facility. "Transfer station" includes a site where waste is transferred from a rail carrier to a motor vehicle or water carrier; a water carrier to a rail carrier or motor vehicle; a motor vehicle to a rail carrier, water carrier, or motor vehicle; a rail carrier to a rail carrier, if the waste is removed from a rail car; or a water carrier to a water carrier, if the waste is removed from a vessel. The amendment provides that a "transfer station" does not include a site where waste is not removed from the transfer container, a site that accepts or receives open top units containing only clean construction and demolition debris, or a site that stores waste on a refuse motor vehicle for no more than 24 hours, excluding weekends and holidays.

In addition, "storage site" includes transfer stations but does not include a site that accepts or receives waste in transfer containers unless the waste is removed from the transfer container or unless the transfer container becomes stationary, en route to a disposal, treatment, or storage facility for more than five business days; or a site that accepts or receives open top units containing only clean construction and demolition debris; or a site that stores waste on a refuse motor vehicle or in the vehicle's detachable refuse receptacle for no more than 24 hours, excluding Saturdays, Sundays, and holidays, but only if the detachable refuse receptacle is completely covered or enclosed and is stored on the same site as the refuse motor vehicle that transported the receptacle to the site.

Lastly defined under this amendment is the term "transfer container" which means a reusable transportable shipping container that is completely covered or enclosed, that has a volume of not less than 250 cubic feet based on the external dimensions, and that is constructed and maintained to protect the container contents from water, rain, and wind, to prevent the free movement of rodents and vectors into or out of the container and to prevent leaking from the container.

Currently, the most common method of waste transfer transport is truck transfer; however, rail transfer is becoming a viable transport method. This recent amendment will support the rail waste transfer operations by allowing storage in intermodal containers for up to a five-day period.

In conclusion, although no permitted waste transfer operations currently exist in DuPage County, the County recognizes the development of waste transfer facilities as an integral part of the total solid waste management program. Furthermore, the County advocates multi-regional solid waste planning, including the development of multi-regional waste transfer stations, as encouraged by the Illinois General Assembly in the Solid Waste Planning and Recycling Act, (415 ILCS 15/2 (5), 1992).

RECOMMENDATIONS

The County, through the Solid Waste Department, should assist the private sector in performing siting analyses for waste transfer stations.

Due to the decrease in the number of landfills and the increase of haul distances, transfer stations will become an even greater integral part in the management of solid waste for DuPage County. The location of transfer stations at selected sites throughout the County will serve the management of solid waste generated within the County and may further assist in keeping down costs associated with long-distance hauling of the waste. Industry standards for a packer truck haul distance to a disposal facility is approximately 15 miles. As the Greene Valley Landfill and the Mallard Lake Landfill must close no later than December 31, 2000, and it does not appear that further attempts will be made to site a final disposal facility within the DuPage County, waste transfer becomes one of the few options left available to the County for the management of solid waste.

The DuPage County Development Department prepared a Solid Waste Management Facility Search Area Map in August 1995, which identifies the limited number of locations at which a waste disposal or transfer facility could be sited within the DuPage County, while remaining within the 1,000 foot setback requirements from residentially zoned areas.

Waste transfer facilities are currently being proposed at locations outside of DuPage County, however, proximate to the County's borders. If these facilities are sited and constructed, there may not be a need to site waste transfer facilities within the County.

4.9.2 The County should encourage development of recycling operations and landscape waste operations throughout the county. The County should assist the private sector in siting such operations. One means by which this may be accomplished is to amend legislation to provide for an expanded definition of construction and demolition debris. (NEW, Plan-1996)

STATUS

Landscape waste transfer operations may occur without local siting approval if the landscape waste is transferred off site within a twenty-four hour period. Public Act 88-557 signed into law on July 27, 1994, amended the SB172 local siting approval procedure for regional pollution control facilities to exempt certain waste transfer stations from the requirement of local siting approval before obtaining a permit from the Illinois Environmental Protection Agency. Now excluded from the siting approval requirement are those waste transfer stations that exclusively handle landscape waste such as leaves, grass, and twigs. In order to address potential odor problems, the amendment provides that no single load of landscape waste may be kept at such a facility for longer than 24 hours.

Landscape waste transfer facilities which store landscape waste for more than a 24-hour period are still subject to the more rigorous local siting approval process under Section 39.2 of the Illinois Environmental Protection Act. A permit application for this type of facility is pending before the IEPA to be located on Yorkshire Drive, North of Route 19 in Streamwood, Illinois.

The local siting approval process and statutory setback requirements set forth in the Environmental Protection Act do not apply to recycling facilities and landscape waste transfer facilities. Several such facilities are either in existence in DuPage County, or permits for such facilities are pending with the Illinois Environmental Protection Agency. The following are facilities handling either recyclables or construction/demolition debris located within DuPage County:

1) Burke's Hauling	21 W. 626 North Avenue, Lombard, IL
2) Zimmerman	525 N. Powis Road, West Chicago, IL
3) DuPage County IPF	550 Center Avenue, Carol Stream, IL
4) Molenhouse Enterprises	295 St. Charles Road, Carol Stream, IL
5) Service, Inc.	47 West Irving Park, Roselle, IL
6) BFI Glen Ellyn	1 N. 282 Park Avenue, Glen Ellyn, IL
7) St. Charles Scrap	3 N. 780 Powis Road, West Chicago, IL

RECOMMENDATIONS

Legislation has been introduced which will expand the definition of construction and demolition debris to include material that it not readily marketable, for example drywall. This legislation will encourage the development of construction and demolition debris

recycling operations. The County should continue to work with the private sector to develop legislation which will assist in the development and expansion of recycling operations.

4.10 EMERGING TECHNOLOGIES

4.10.1 Landfill Technologies

4.10.1(a) Gas-to-Energy Plants

The 1990 Solid Waste Plan did not address various other technologies that apply to landfills. Those include the gas to energy concept, which the two active DuPage landfills are currently planning to use. Landfill gas has been used throughout the world to assist communities in reducing their energy costs. The gas can also be a major revenue producer for the landfill's operator or owner. The Mallard Lake Landfill is anticipated to produce large amounts of landfill gas as the facility has accepted significant quantities of "wet" wastes, such as sludges. The Mallard Lake Landfill is also expected to develop a landfill gas-to-energy facility as directed by the owner and operator. The Greene Valley anticipates operating its gas-to-energy facility in 1996. The County's environmental enforcement inspectors will make periodic inspections of the landfills even after the landfills are closed and no longer accepting waste for disposal purposes. The understanding is the operators of the Mallard Lake and Greene Valley Landfills expect to sell the energy they produce as electricity to Common WealthEdison or a local entity.

The basic way a gas-to-energy plant operates is the methane is collected from the landfill through an extensive gas extraction system where it is then sent to turbines which convert the gas into electricity. The power generated is then sent to a utility power substation where transformation to utility voltage occurs. Once there, the power is further regulated by a series of voltage, current and power factor controllers to ensure compatibility with utility requirements for safety and power quality.

Emissions from Gas-to-Energy Plants

The landfill gas received for combustion will be initially passed through a dry filtering system to remove any filterable impurities. Emissions from the process must meet all applicable USEPA/IEPA air standards. Any condensate that is generated is directed to a storage tank and managed in accordance with applicable IEPA regulations.

4.10.1(b) Landfill Mining

This technology is used in areas where space for landfilling is limited, and where the markets of recovered recyclables is relatively high. Thus, the added landfill space plus the revenue from the sale of the recovered recyclables makes the project worthwhile. This is not an anticipated activity at the DuPage County landfills in the near future, as

other landfill space is anticipated to be used, and the opposition from the public would be too great.

Landfill reclamation, or landfill mining, is the excavation and mechanical processing of previously landfilled material to recover materials or landfill airspace, reduce the size of the landfill, or transfer material from an unlined to a lined landfill. Typically the landfill uses a front end loader to excavate the material, a separator separates the oversized non-processible material, which is followed by use of a trommel for separating the soil fraction. The soils may then be used as a cover material again. An excavator may be used to feed the materials, and the oversized fraction from the trommel passes by the magnetic separator to capture ferrous materials, which is sent to an air knife for further separations.

The recyclable items removed from a landfill, though a revenue generator, have not been proven to be as valuable as source separated materials. An economic benefit from landfill mining is in avoiding the capping requirements and staying open. A drawback, however, could be if a hazardous waste is found, because then the costs of testing and transporting the material become great. Other drawbacks could be the harsh odor caused by such activity, as well as worker exposure and safety.

4.11 ENFORCEMENT/INSPECTIONS

STATUS

The Solid Waste Department (Solid Waste Division prior to 1993), has maintained a delegation agreement with the Illinois Environmental Protection Agency (IEPA) since 1986. The current agreement will expire on June 30, 1998. The agreement grants the County authority to inspect non-hazardous solid waste sites and enforce applicable portions of the Illinois Environmental Protection Act and Illinois Pollution Control Board Regulations. This also includes monitoring and commenting on permits submitted to the IEPA. The delegation agreement has proved to be an extremely successful program because the County can react to complaints more expeditiously than the State and can utilize the State's Attorney's Office to litigate any situations that require legal action.

The Solid Waste Department currently inspects both active DuPage County solid waste landfills regularly and closed and regulated landfills once or twice a year. Open dumps and unpermitted transfer stations are also inspected regularly. The Department inspected the Naperville Household Hazardous Waste Facility regularly until an agreement was made in 1995 between the City of Naperville and the County to fund the site. See the table below for inspections performed in the years 1991 - 1994.

TABLE 4-3

INSPECTIONS PERFORMED IN THE YEARS 1991 - 1994

YEAR	INSPECTIONS PERFORMED	INSTANCES OF NON-COMPLIANCE
1991	129	7
1992	153	11
1993	186	62
1994	182	60
1995	160	104

As noted in Table 4-3, the Solid Waste Department currently performs over 150 inspections per year pursuant to the delegation agreement. This is approximately 25% more than what was performed prior to 1992. This increase is attributed to both DuPage landfills dramatically increasing the rate of incoming waste since December 1992. New laws at the landfills, and banning various wastes (see legislative change section 2.3) have also caused additional illegal dumping, resulting in the Department performing additional inspections. The higher number of inspections have also resulted in dramatic increases in the enforcement caseload. It is anticipated that this level of inspections will be maintained until both the landfills have closed.

To conduct inspections pursuant to the delegation agreement, inspectors must be certified by the IEPA. This requires a training program with the State and/or County. The Department currently maintains three certified inspectors and utilizes outside contractors for some inspection work. Utilizing outside contractors (a form of "privatizing") has proven to be a cost effective way to assist the Department in achieving program goals.

The Department regularly assists the private sector by providing information related to open dumping and open/closed landfills that have occurred in the County. The information is needed to complete an environmental analysis prior to the purchase of a property. The program has also provided a mechanism for educating the public on various environmental laws, informing businesses/residents of the do's and don'ts of solid waste disposal, and assistance on better disposal alternatives.

4.11.1 The County will continue with and adapt the enforcement program as the two DuPage landfills close to focus on education of proper waste disposal, open dumps, and unpermitted/permitted transfer stations. The County will continue to monitor the landfills through the closure/post closure periods. (NEW, Plan-1996)

RECOMMENDATIONS

The Department anticipates inspecting additional unpermitted sites, as fly dumping incidences may increase when landfill tipping fees rise, and new waste bans are in place.

The Department also expects to monitor permitted transfer stations as they become sited. These sites are anticipated due to the lack of an in-County disposal facility. The two DuPage landfills, though they are closing, will be monitored for closure and post closure requirements. Groundwater, leachate and gas monitoring, aerial photography and land surveying will be performed to assure compliance by the operator during the closure and post closure periods.

Education may take a larger role in the program, as new bans at landfills occur, and businesses/residents are not always aware of these bans, and how to comply. Educational materials may need to be developed and then distributed to applicable associations. Forums and other mechanisms to distribute information may be established regarding waste disposal. The Solid Waste Education Center will serve as a distribution point for much of the educational material that is created. Areas that may need particular attention are Potentially Infectious Medical Waste (P.I.M.W.) and oil or other petroleum based waste.

The County has been receiving grant funding from the IEPA since the enforcement program began in 1986. The grant period is consistent with the State's fiscal year (July 1 - June 30), and covers a portion of all related costs. The level of funding once was as much as 70%, but as less funding has been made available to the IEPA, and since additional programs have started, the levels have dropped to the current 42%. Recently, House Bill 901 was passed, which reduced the IEPA's Solid Waste budget by $ 2,000,000, or 33%, which is effective July 1, 1996. This action could reduce, or eliminate grant funding for the enforcement program from the IEPA. The County, along with other governmental entities, are seeking to recover this funding through other mechanisms.

4.12 LAND BANKING

The Solid Waste Committee discussed the idea of purchasing property for the purpose of potentially developing a solid waste management facility if the need developed. "Banking" of an appropriate amount of suitable property could function as an incentive to the private sector not to take advantage of waste generators by charging exorbitant waste disposal fees once either of the two landfills closed. After enough time passed, and it was determined that competitive rates would prevail for the long term, the property could be sold. During the time the property is held, improvements to the parcel could be made so it could be left as a natural area or contamination removed to reduce the threat of environmental degradation.

The purchase of property for the purpose of land banking as outlined above was not approved by the Solid Waste Committee.

APPENDICES

APPENDIX A. DOCUMENT SUMMARIES (Publications) 1991-1996

I. WASTE CHARACTERIZATION

The Waste Stream Characterization Study (SCS Engineers, February 1995) was based on sampling and analysis of disposed waste taken from waste collection vehicles at two landfills, Mallard Lake and Greene Valley, located in the County. The study was performed over a one week period during December 1994 and does not take into account seasonal variations. Study results indicate that DuPage County residents generated significantly more paper and construction and demolition material than is typically found in national average estimates and only slightly higher rates of aluminum, plastic and food waste. However, DuPage County residents generated less than the national average rate for landscape waste, wood waste, textiles/rubber/leather, glass and ferrous metal.

II. SOURCE REDUCTION, REUSE, AND RECYCLING

A. **The *Waste Reduction Directory (formerly the Recycling Yellow Pages)*** (DuPage County Solid Waste Department, July 1988) is a comprehensive reference guide, published once or twice a year, listing updates and new information on waste reduction, reuse and recycling in DuPage County. Sections of the publication consist of useful information about drop-off centers, curbside collection programs, haulers, reclamation of automotive products, buy-back centers, household hazardous waste, construction and demolition material recycling resale and thrift shops, multi-family and commercial recycling, landfills, and landscape waste.

B. **The New DuPage Shopper** (DuPage Environmental Awareness Center, November 1990) booklet was produced to assist consumers in reducing, reusing and recycling household products. Consumers were advised to choose products that are reusable, recyclable, and do not use excessive packaging. The brochure offers creative tips for reusing household items and encourages purchasing products made from recycled products to "close the loop."

C. **Reduce Waste and Recycle Guides** (Cooperative Extension Service, June 1993) is a set of five booklets focusing on waste reduction and recycling programs for hospitals, theaters, office buildings, automotive repair shops and hotels/eating and drinking establishments. The guides provide the commercial sector with a specific design to assist in waste reduction by reducing waste at the source through precycling, recycling, and reusing materials, and pursuing additional waste management alternatives.

D. **The Three Rs** (DuPage Environmental Awareness Center, May 1993) guide to waste reduction, reuse and recycling, is a current version of "The New DuPage Shopper," which includes definitions, plastic code information, case studies, and steps for implementing an office paper recycling program.

E. **Waste Watch Newsletter** (DuPage County Solid Waste Department, March 1993) was created to update DuPage County municipalities and townships on County solid waste issues and programs, latest trends and developments and current legislation and regulations affecting local solid waste programs.

F. **White Paper on White Goods** (DuPage County Solid Waste Department, September 1992) was created as informational summary for DuPage County residents and governmental agencies pertaining to white goods disposal issues. The newsletter discussed current regulations established specifically for white goods and made recommendations on how to handle white goods before and during disposal. A list is provided siting locations that accept white goods for disposal.

III. LANDSCAPE WASTE

A. **Recycle Your Lawn With Y. Baggit** (DuPage County Solid Waste Department, August 1989, revised August 1995) brochure encourages residents to manage landscape waste such as leaves and grass clippings in their own backyard.

B. **Composting In Your Backyard With Y. Baggit** (DuPage County Solid Waste Department, August 1989) brochure recommends that residents follow a step-by-step procedure to construct and use a compost container in their own backyard. A list of helpful composting tips is also provided.

A mulch insert was also created to be used as supplementary material for either brochure. This insert **defines** mulch, recommends its use, and describes its benefits.

IV. SOLID WASTE MANAGEMENT PROGRAMS/ACTIVITIES

A. **CES Commercial Outreach Plan & Implementation Strategy** (Cooperative Extension Service, June 1993) is a detailed outline of CES' projected goals to increase waste reduction/recycling efforts in DuPage County's commercial sector. The outreach plan proposed to create five different model industry programs with training handbooks and program guides. Volunteers would be recruited and trained to develop at least one program per model industry. Furthermore, several forms included in the plan were created to assist in recruiting volunteers, such as the master recycler application form. The status report form and other forms would be utilized to monitor and evaluate the program.

B. **DuPage County Solid Waste Department** (DuPage County Solid Waste Department, September 1994) brochure describes the Solid Waste Department's goals and programs. Included in this description is a list of current DuPage County Solid Waste Department programs, Education Center activities and available resources, and an overview of the School Recycling Assistance Program (SCRAP) and the DuPage County Intermediate Processing Facility (IPF). A list of DuPage County Solid Waste Department publications is also documented.

C. **DuPage County Solid Waste Education Center** (DuPage County Solid Waste Department, September 1994) brochure describes the activities and educational information available to educate professional groups, community groups, residents and school children about waste reduction, including reuse, recycling, recycled content products and other solid waste management issues through the DuPage County Solid Waste Education Center.

D. **The Needs Assessment Report** (Slack Brown and Myers, August 1993) was conducted to determine how the DuPage County Education Center would be most effective for residents and businesses. Assessment evaluations included interviews, a business focus group, a teacher focus group, a mail survey and a literature and information search. Results indicated that people are primarily interested in recycling and waste reduction. Therefore, an education coordinator would be necessary to manage the education center and maintain current solid waste management information from a variety of sources. Residents also indicated a strong interest in the development of interactive and mobile displays and activities. Furthermore, the establishment of an outreach program was recommended to assist in educating businesses and school boards about alternative waste management resources.

E. **Ripples** (School Recycling Assistance Program, November 1991 - current) monthly newsletter summarizes the school outreach program activities of the DuPage County Solid Waste Education Center. The newsletter contains information relating to waste reduction, including reuse and recycling endeavors accomplished through classes, workshops, the earth flag program, conferences, educational performances, new ideas, crafts, and interesting facts.

V. SUMMARY REPORTS

A. **DuPage County Waste to Date Annual Report** 1991, 1992/1993, and 1994 (DuPage County Solid Waste Department, May 1992, March 1995, and December 1995) is a publication which reviews policies and programs established to meet current solid waste disposal needs while representing the achievements of DuPage County residents, businesses and government agencies confronting solid waste management issues. The report documents the amount of recyclable materials collected from municipalities and townships, waste generation, collection systems and rates, landfill disposal activity, solid waste inspection activity, recyclables processing operations, solid waste education programs, and waste diversion statistics.

B. **Final Report - University of Illinois Cooperative Extension Service Commercial Sector Update: October, 1993** (Cooperative Extension Service, October 1993) presents an overview of the six waste reduction/recycling training handbooks and the master commercial recycler program. The main focus of the report is on the master commercial recycler program which provides details regarding the participant selection process,

supplemental educational materials, program implementation and a list of topics that were addressed during training.

C. **Final Summary Report** (Slack Brown and Myers, September 1993) is a detailed outline which highlights the overall effectiveness of Slack Brown and Myers' goals and recommendations for achieving recognition for the DuPage County education center.

VI. MULTI-MATERIAL RECYCLING DROP-OFF CENTER DESIGNS AND IMPROVEMENTS

A. **Preliminary Design of a Multi-Material Recycling Drop-Off Center for DuPage County, Illinois** (Patrick Engineering Inc., August 1992) presents a standardized permanent regional multi-material recycling center design for reducing operational costs and increasing availability to the community. The report includes recommendations, outline specifications, recyclable material research, community participation options, and a project budget. The base structure and site work has a cost estimate of $121,600. Three options are available for a roof system. Option 1 - a fabric structure, has an estimated cost of $41,400. Option 2 - a shingled gabled roof, has an estimated cost of $20,700 and Option 3 - a flat roof system, has an estimated cost of $12,500. The minimum final cost estimate based on the roof system Option 3 is $134,100. However, community participation options could result in a potential budget reduction of $34,150, resulting in a potential cost of $99,950.

B. **Scope of Work Description and Estimated Costs for the Proposed Capital Improvements at the DuPage County Intermediate Processing Facility** (Patrick Engineering Inc., November 1993) presents a report which includes an executive summary, scope of work and cost estimates proposed for capital improvements at the Intermediate Processing Facility. The capital improvement descriptions, rates and cost estimates are provided in detail for a total project estimated cost of $1,743,843.

VII. SOLID WASTE MANAGEMENT TECHNOLOGIES/SYSTEMS

Final Review of Statements of Qualifications from Businesses Interested in Providing Solid Waste Processing, Disposal, or Transfer Capabilities (DuPage County Solid Waste Department, October 1994) is an extensive report which evaluates qualified companies who are interested in providing a processing, disposal, transfer or other facility for the mixed municipal waste stream generated within DuPage County. The report separated the respondents into qualified and non-qualified companies. Then the qualified companies' state-of-the-art reference systems were analyzed using a weighted matrix consisting of thirteen criteria areas. The weighting factor was multiplied by the evaluation score and the sums totaled for a final score. Scores are relative to other scores in the same category. The results were then categorized as new, emerging, or existing technology. The matrix scores were intended to serve as a guide for the DuPage County Solid Waste Committee in developing a scope for a potential Request for Proposals.

APPENDIX B. Exhibits 4-1 through 4-9 from the Waste Stream Characterization for DuPage County, Illinois, February 1995

EXHIBIT 4–1
SUMMARY OF SINGLE–FAMILY RESIDENTIAL COMPOSITION
MALLARD LAKE LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
PAPER				
Newsprint	7.1%	7.1%	4.9%	9.3%
OCC/Kraft Paper	6.6%	4.2%	5.3%	7.9%
Glossy/Magazines	3.5%	3.0%	2.5%	4.4%
Mixed Paper	10.5%	8.1%	8.0%	13.1%
Office/Computer Paper	1.6%	2.6%	0.8%	2.4%
Coated Paper	0.5%	1.0%	0.2%	0.9%
Wet Strength Carrier Stock	0.5%	0.5%	0.3%	0.6%
Miscellaneous Paper	13.8%	5.8%	12.0%	15.7%
Total Paper	44.2%			
PLASTIC				
PET (#1) Containers	0.4%	0.4%	0.3%	0.5%
Clear HDPE (#2) Containers	0.4%	0.5%	0.3%	0.6%
Color HDPE (#2) Containers	0.5%	0.5%	0.3%	0.6%
PVC (#3) Containers	<0.1%	0.1%	<0.1%	0.1%
LDPE (#4) Containers	<0.1%	0.0%	<0.1%	<0.1%
PP (#5) Containers	0.1%	0.2%	<0.1%	0.2%
Expanded Polystyrene (#6)	0.7%	0.6%	0.5%	0.8%
Rigid PS (#6) Containers	0.4%	0.4%	0.3%	0.5%
Other (#7) Containers	<0.1%	0.1%	<0.1%	<0.1%
Films & Bags	5.7%	2.7%	4.8%	6.5%
Miscellaneous Plastic	1.9%	1.9%	1.3%	2.5%
Total Plastic	10.2%			
ORGANICS				
Vegetative Food Waste	12.5%	6.6%	10.4%	14.5%
Other Food Waste	1.8%	2.1%	1.1%	2.4%
Wood	1.0%	2.4%	0.2%	1.7%
Textiles/Rubber/Leather	4.6%	4.5%	3.2%	6.0%
Disposable Diapers	3.5%	2.9%	2.5%	4.4%
Miscellaneous Organics	3.5%	3.6%	2.4%	4.6%
Total Organics	26.7%			
YARD WASTE				
Grass/Leaves	1.6%	5.4%	<0.1%	3.3%
Brush/Prunings/Stumps	0.8%	2.7%	<0.1%	1.6%
Total Yard Waste	2.3%			
CONSTRUCTION/DEMOLITION				
Treated Lumber	3.4%	8.2%	0.8%	5.9%
Untreated Lumber	0.9%	2.7%	0.1%	1.8%
Concrete/Brick/Asphalt	<0.1%	0.4%	<0.1%	0.2%
Other	3.0%	5.5%	1.3%	4.8%
Total C&D	7.4%			

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4-1 (continued)
SUMMARY OF SINGLE-FAMILY RESIDENTIAL COMPOSITION
MALLARD LAKE LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
METAL				
Aluminum Cans	0.6%	0.7%	0.4%	0.9%
Bi-Metal Cans	0.3%	0.4%	0.2%	0.5%
Tin Cans	1.5%	1.2%	1.1%	1.9%
Foil	0.4%	0.4%	0.2%	0.5%
Other Ferrous	2.7%	4.4%	1.3%	4.1%
Other Non-Ferrous	0.1%	0.4%	<0.1%	0.2%
Total Metal	5.7%			
GLASS				
Food/Drink Containers	2.4%	2.1%	1.7%	3.0%
Other Glass	0.3%	0.6%	0.1%	0.5%
Total Glass	2.7%			
SPECIAL WASTES				
White Goods	<0.1%	0.0%	<0.1%	<0.1%
Tires	<0.1%	0.0%	<0.1%	<0.1%
Used Oil	<0.1%	0.0%	<0.1%	<0.1%
Total Special Waste	<0.1%			
INORGANIC	0.5%	1.3%	<0.1%	0.9%
HOUSE. HAZARDOUS WASTE				
Empty HHW Containers	0.1%	0.4%	<0.1%	0.3%
Dry Cell (alkaline)	<0.1%	0.1%	<0.1%	<0.1%
Dry Cell (non-alkaline)	<0.1%	0.0%	<0.1%	<0.1%
Lead-Acid Batteries	<0.1%	0.0%	<0.1%	<0.1%
Oil-Based Paint	<0.1%	0.2%	<0.1%	0.1%
Latex Paint	<0.1%	0.0%	<0.1%	<0.1%
Other Flammable	<0.1%	0.0%	<0.1%	<0.1%
Pesticides/Poisons	<0.1%	0.0%	<0.1%	<0.1%
Medical Wastes	<0.1%	0.0%	<0.1%	<0.1%
Fluorescent Tubes	<0.1%	0.0%	<0.1%	<0.1%
Oil Filters	<0.1%	0.2%	<0.1%	0.1%
Other HHW	<0.1%	0.0%	<0.1%	<0.1%
Total HHW	0.3%			
TOTAL	100.0%			

Note: 1. Composition based on 39 samples.
2. Confidence Limits are shown at the 95 percent level.

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4–2
SUMMARY OF SINGLE–FAMILY RESIDENTIAL COMPOSITION
GREENE VALLEY LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
PAPER				
Newsprint	5.7%	3.9%	4.3%	7.1%
OCC/Kraft Paper	5.6%	4.5%	3.9%	7.2%
Glossy/Magazines	7.5%	4.6%	5.9%	9.1%
Mixed Paper	4.4%	3.2%	3.3%	5.6%
Office/Computer Paper	1.8%	2.5%	0.9%	2.7%
Coated Paper	1.3%	1.5%	0.7%	1.8%
Wet Strength Carrier Stock	0.5%	0.5%	0.3%	0.7%
Miscellaneous Paper	19.3%	7.6%	16.6%	22.0%
Total Paper	46.0%			
PLASTIC				
PET (#1) Containers	0.7%	0.6%	0.5%	0.9%
Clear HDPE (#2) Containers	0.5%	0.5%	0.4%	0.7%
Color HDPE (#2) Containers	0.5%	0.5%	0.4%	0.7%
PVC (#3) Containers	0.1%	0.2%	<0.1%	0.2%
LDPE (#4) Containers	0.2%	0.2%	<0.1%	0.2%
PP (#5) Containers	0.3%	0.3%	0.2%	0.4%
Expanded Polystyrene (#6)	0.7%	0.5%	0.5%	0.9%
Rigid PS (#6) Containers	0.6%	0.4%	0.5%	0.8%
Other (#7) Containers	0.1%	0.2%	<0.1%	0.2%
Films & Bags	5.9%	3.0%	4.8%	6.9%
Miscellaneous Plastic	3.1%	4.3%	1.6%	4.7%
Total Plastic	12.9%			
ORGANICS				
Vegetative Food Waste	9.1%	4.6%	7.4%	10.7%
Other Food Waste	2.6%	3.1%	1.5%	3.8%
Wood	0.8%	1.3%	0.3%	1.2%
Textiles/Rubber/Leather	4.1%	3.8%	2.7%	5.5%
Disposable Diapers	5.9%	4.6%	4.2%	7.5%
Miscellaneous Organics	6.1%	5.2%	4.2%	8.0%
Total Organics	28.6%			
YARD WASTE				
Grass/Leaves	0.9%	1.9%	0.3%	1.6%
Brush/Prunings/Stumps	0.4%	0.9%	<0.1%	0.7%
Total Yard Waste	1.3%			
CONSTRUCTION/DEMOLITION				
Treated Lumber	0.4%	1.1%	<0.1%	0.8%
Untreated Lumber	0.3%	1.0%	<0.1%	0.7%
Concrete/Brick/Asphalt	<0.1%	0.0%	<0.1%	<0.1%
Other	0.5%	1.5%	<0.1%	1.0%
Total C&D	1.2%			

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4–2 (continued)
SUMMARY OF SINGLE–FAMILY RESIDENTIAL COMPOSITION
GREENE VALLEY LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
METAL				
Aluminum Cans	0.6%	0.4%	0.5%	0.7%
Bi–Metal Cans	0.2%	0.3%	0.1%	0.3%
Tin Cans	1.5%	0.8%	1.2%	1.8%
Foil	0.6%	0.5%	0.5%	0.8%
Other Ferrous	1.8%	2.5%	0.9%	2.7%
Other Non–Ferrous	1.0%	2.1%	0.3%	1.7%
Total Metal	**5.8%**			
GLASS				
Food/Drink Containers	2.8%	2.1%	2.0%	3.5%
Other Glass	0.4%	0.8%	0.2%	0.7%
Total Glass	**3.2%**			
SPECIAL WASTES				
White Goods	<0.1%	0.0%	<0.1%	<0.1%
Tires	<0.1%	0.0%	<0.1%	<0.1%
Used Oil	<0.1%	0.0%	<0.1%	<0.1%
Total Special Waste	**<0.1%**			
INORGANIC	0.4%	0.9%	0.1%	0.7%
HOUSE. HAZARDOUS WASTE				
Empty HHW Containers	0.3%	0.6%	<0.1%	0.5%
Dry Cell (alkaline)	0.1%	0.2%	<0.1%	0.2%
Dry Cell (non–alkaline)	<0.1%	0.0%	<0.1%	<0.1%
Lead–Acid Batteries	<0.1%	0.0%	<0.1%	<0.1%
Oil–Based Paint	<0.1%	0.0%	<0.1%	<0.1%
Latex Paint	<0.1%	0.0%	<0.1%	<0.1%
Other Flammable	<0.1%	0.2%	<0.1%	0.1%
Pesticides/Poisons	<0.1%	0.0%	<0.1%	<0.1%
Medical Wastes	<0.1%	0.1%	<0.1%	<0.1%
Fluorescent Tubes	<0.1%	0.0%	<0.1%	<0.1%
Oil Filters	<0.1%	0.1%	<0.1%	<0.1%
Other HHW	<0.1%	0.2%	<0.1%	0.1%
Total HHW	**0.5%**			
TOTAL	100.0%			

Note: 1. Composition based on 30 samples.
2. Confidence Limits are shown at the 95 percent level.

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4–3
SUMMARY OF MULTI–FAMILY RESIDENTIAL COMPOSITION
MALLARD LAKE LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
PAPER				
Newsprint	6.5%	8.0%	1.3%	11.8%
OCC/Kraft Paper	11.5%	6.9%	7.0%	16.0%
Glossy/Magazines	4.7%	3.6%	2.4%	7.1%
Mixed Paper	9.5%	12.7%	1.2%	17.8%
Office/Computer Paper	0.7%	1.1%	<0.1%	1.4%
Coated Paper	2.1%	4.4%	<0.1%	4.9%
Wet Strength Carrier Stock	2.1%	3.5%	<0.1%	4.4%
Miscellaneous Paper	9.5%	8.8%	3.8%	15.3%
Total Paper	46.7%			
PLASTIC				
PET (#1) Containers	0.8%	0.8%	0.3%	1.3%
Clear HDPE (#2) Containers	0.6%	0.6%	0.2%	1.0%
Color HDPE (#2) Containers	0.5%	0.9%	<0.1%	1.1%
PVC (#3) Containers	<0.1%	0.2%	<0.1%	0.2%
LDPE (#4) Containers	<0.1%	0.0%	<0.1%	<0.1%
PP (#5) Containers	0.2%	0.4%	<0.1%	0.5%
Expanded Polystyrene (#6)	0.7%	0.8%	0.2%	1.3%
Rigid PS (#6) Containers	0.9%	1.2%	0.1%	1.7%
Other (#7) Containers	<0.1%	0.1%	<0.1%	<0.1%
Films & Bags	7.0%	3.2%	4.9%	9.1%
Miscellaneous Plastic	2.0%	3.3%	<0.1%	4.1%
Total Plastic	12.8%			
ORGANICS				
Vegetative Food Waste	15.3%	11.6%	7.7%	22.9%
Other Food Waste	1.7%	2.5%	<0.1%	3.3%
Wood	0.9%	1.7%	<0.1%	2.0%
Textiles/Rubber/Leather	4.3%	5.0%	1.1%	7.6%
Disposable Diapers	6.0%	14.4%	<0.1%	15.4%
Miscellaneous Organics	1.6%	2.4%	<0.1%	3.2%
Total Organics	29.8%			
YARD WASTE				
Grass/Leaves	<0.1%	0.0%	<0.1%	<0.1%
Brush/Prunings/Stumps	<0.1%	0.0%	<0.1%	<0.1%
Total Yard Waste	<0.1%			
CONSTRUCTION/DEMOLITION				
Treated Lumber	0.2%	0.7%	<0.1%	0.6%
Untreated Lumber	<0.1%	0.0%	<0.1%	<0.1%
Concrete/Brick/Asphalt	<0.1%	0.0%	<0.1%	<0.1%
Other	0.7%	2.0%	<0.1%	2.0%
Total C&D	0.9%			

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4–3 (continued)
SUMMARY OF MULTI–FAMILY RESIDENTIAL COMPOSITION
MALLARD LAKE LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
METAL				
Aluminum Cans	1.0%	0.8%	0.4%	1.5%
Bi–Metal Cans	0.4%	0.5%	<0.1%	0.7%
Tin Cans	1.7%	1.3%	0.8%	2.6%
Foil	0.4%	0.4%	0.2%	0.7%
Other Ferrous	0.8%	1.5%	<0.1%	1.7%
Other Non–Ferrous	0.6%	1.4%	<0.1%	1.5%
Total Metal	4.8%			
GLASS				
Food/Drink Containers	4.2%	4.3%	1.4%	7.0%
Other Glass	0.3%	0.8%	<0.1%	0.8%
Total Glass	4.5%			
SPECIAL WASTES				
White Goods	<0.1%	0.0%	<0.1%	<0.1%
Tires	<0.1%	0.0%	<0.1%	<0.1%
Used Oil	<0.1%	0.2%	<0.1%	0.2%
Total Special Waste	<0.1%			
INORGANIC	0.3%	1.0%	<0.1%	1.0%
HOUSE. HAZARDOUS WASTE				
Empty HHW Containers	<0.1%	0.1%	<0.1%	0.1%
Dry Cell (alkaline)	<0.1%	0.0%	<0.1%	<0.1%
Dry Cell (non–alkaline)	<0.1%	0.0%	<0.1%	<0.1%
Lead–Acid Batteries	<0.1%	0.0%	<0.1%	<0.1%
Oil–Based Paint	<0.1%	0.0%	<0.1%	<0.1%
Latex Paint	<0.1%	0.0%	<0.1%	<0.1%
Other Flammable	<0.1%	0.0%	<0.1%	<0.1%
Pesticides/Poisons	<0.1%	0.0%	<0.1%	<0.1%
Medical Wastes	<0.1%	0.0%	<0.1%	<0.1%
Fluorescent Tubes	<0.1%	0.0%	<0.1%	<0.1%
Oil Filters	<0.1%	0.0%	<0.1%	<0.1%
Other HHW	<0.1%	0.0%	<0.1%	<0.1%
Total HHW	<0.1%			
TOTAL	100.0%			

Note: 1. Composition based on 9 samples.
2. Confidence Limits are shown at the 95 percent level.

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4-4
SUMMARY OF MULTI-FAMILY RESIDENTIAL COMPOSITION
GREENE VALLEY LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
PAPER				
Newsprint	10.3%	5.7%	7.9%	12.7%
OCC/Kraft Paper	8.0%	4.4%	6.1%	9.8%
Glossy/Magazines	6.0%	3.6%	4.6%	7.5%
Mixed Paper	4.1%	2.8%	2.9%	5.3%
Office/Computer Paper	1.8%	2.0%	0.9%	2.6%
Coated Paper	1.0%	0.7%	0.7%	1.3%
Wet Strength Carrier Stock	0.5%	0.6%	0.3%	0.8%
Miscellaneous Paper	16.8%	6.8%	14.0%	19.6%
Total Paper	48.5%			
PLASTIC				
PET (#1) Containers	0.9%	0.8%	0.6%	1.2%
Clear HDPE (#2) Containers	0.7%	0.9%	0.3%	1.1%
Color HDPE (#2) Containers	0.9%	0.8%	0.6%	1.2%
PVC (#3) Containers	<0.1%	0.2%	<0.1%	0.1%
LDPE (#4) Containers	<0.1%	0.2%	<0.1%	0.1%
PP (#5) Containers	0.2%	0.4%	<0.1%	0.4%
Expanded Polystyrene (#6)	0.6%	0.5%	0.4%	0.8%
Rigid PS (#6) Containers	0.8%	0.6%	0.6%	1.1%
Other (#7) Containers	<0.1%	0.2%	<0.1%	0.2%
Films & Bags	5.9%	2.5%	4.9%	7.0%
Miscellaneous Plastic	2.5%	2.8%	1.4%	3.7%
Total Plastic	12.8%			
ORGANICS				
Vegetative Food Waste	6.9%	3.6%	5.4%	8.4%
Other Food Waste	1.7%	1.7%	1.0%	2.4%
Wood	1.0%	2.1%	0.2%	1.9%
Textiles/Rubber/Leather	4.5%	5.1%	2.4%	6.7%
Disposable Diapers	3.1%	3.6%	1.6%	4.6%
Miscellaneous Organics	6.8%	5.8%	4.4%	9.3%
Total Organics	24.2%			
YARD WASTE				
Grass/Leaves	0.5%	1.7%	<0.1%	1.2%
Brush/Prunings/Stumps	0.6%	2.6%	<0.1%	1.7%
Total Yard Waste	1.1%			
CONSTRUCTION/DEMOLITION				
Treated Lumber	0.2%	0.8%	<0.1%	0.5%
Untreated Lumber	0.5%	1.6%	<0.1%	1.1%
Concrete/Brick/Asphalt	<0.1%	0.0%	<0.1%	<0.1%
Other	1.3%	2.5%	0.2%	2.3%
Total C&D	1.9%			

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4–4 (continued)
SUMMARY OF MULTI–FAMILY RESIDENTIAL COMPOSITION
GREENE VALLEY LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
METAL				
Aluminum Cans	1.0%	0.6%	0.8%	1.3%
Bi–Metal Cans	0.2%	0.3%	0.1%	0.4%
Tin Cans	1.5%	0.9%	1.1%	1.8%
Foil	0.6%	0.5%	0.4%	0.8%
Other Ferrous	2.2%	3.4%	0.8%	3.6%
Other Non–Ferrous	0.6%	1.2%	<0.1%	1.1%
Total Metal	**6.1%**			
GLASS				
Food/Drink Containers	3.6%	2.6%	2.6%	4.7%
Other Glass	0.4%	0.7%	0.1%	0.7%
Total Glass	**4.1%**			
SPECIAL WASTES				
White Goods	<0.1%	0.0%	<0.1%	<0.1%
Tires	<0.1%	0.0%	<0.1%	<0.1%
Used Oil	<0.1%	0.0%	<0.1%	<0.1%
Total Special Waste	<0.1%			
INORGANIC	1.0%	3.8%	<0.1%	2.6%
HOUSE. HAZARDOUS WASTE				
Empty HHW Containers	0.2%	0.3%	<0.1%	0.3%
Dry Cell (alkaline)	<0.1%	0.2%	<0.1%	0.2%
Dry Cell (non–alkaline)	<0.1%	0.1%	<0.1%	<0.1%
Lead–Acid Batteries	<0.1%	0.0%	<0.1%	<0.1%
Oil–Based Paint	<0.1%	0.0%	<0.1%	<0.1%
Latex Paint	<0.1%	0.0%	<0.1%	<0.1%
Other Flammable	<0.1%	0.0%	<0.1%	<0.1%
Pesticides/Poisons	<0.1%	0.0%	<0.1%	<0.1%
Medical Wastes	<0.1%	0.0%	<0.1%	<0.1%
Fluorescent Tubes	<0.1%	0.0%	<0.1%	<0.1%
Oil Filters	<0.1%	0.0%	<0.1%	<0.1%
Other HHW	<0.1%	0.0%	<0.1%	<0.1%
Total HHW	**0.3%**			
TOTAL	100.0%			

Note: 1. Composition based on 22 samples.
2. Confidence Limits are shown at the 95 percent level.

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4-5
SUMMARY OF COMMERCIAL COMPOSITION
MALLARD LAKE LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
PAPER				
Newsprint	6.0%	7.6%	3.5%	8.5%
OCC/Kraft Paper	15.4%	14.5%	10.6%	20.2%
Glossy/Magazines	4.1%	8.7%	1.2%	7.0%
Mixed Paper	9.2%	11.0%	5.5%	12.8%
Office/Computer Paper	5.3%	5.9%	3.3%	7.3%
Coated Paper	0.6%	1.0%	0.2%	0.9%
Wet Strength Carrier Stock	0.5%	1.1%	0.1%	0.8%
Miscellaneous Paper	9.6%	7.1%	7.2%	12.0%
Total Paper	50.6%			
PLASTIC				
PET (#1) Containers	0.4%	0.7%	0.2%	0.7%
Clear HDPE (#2) Containers	0.2%	0.4%	0.1%	0.4%
Color HDPE (#2) Containers	0.6%	1.0%	0.2%	0.9%
PVC (#3) Containers	<0.1%	0.3%	<0.1%	0.2%
LDPE (#4) Containers	<0.1%	0.0%	<0.1%	<0.1%
PP (#5) Containers	0.1%	0.4%	<0.1%	0.2%
Expanded Polystyrene (#6)	0.7%	0.9%	0.4%	1.0%
Rigid PS (#6) Containers	0.8%	2.8%	<0.1%	1.8%
Other (#7) Containers	<0.1%	0.3%	<0.1%	0.2%
Films & Bags	8.1%	10.8%	4.5%	11.6%
Miscellaneous Plastic	5.0%	10.2%	1.6%	8.4%
Total Plastic	16.1%			
ORGANICS				
Vegetative Food Waste	4.7%	5.9%	2.8%	6.7%
Other Food Waste	0.4%	1.6%	<0.1%	1.0%
Wood	7.5%	12.2%	3.5%	11.5%
Textiles/Rubber/Leather	2.0%	3.4%	0.9%	3.1%
Disposable Diapers	0.7%	1.4%	0.3%	1.2%
Miscellaneous Organics	1.2%	2.3%	0.4%	1.9%
Total Organics	16.6%			
YARD WASTE				
Grass/Leaves	0.7%	3.1%	<0.1%	1.7%
Brush/Prunings/Stumps	0.2%	0.7%	<0.1%	0.5%
Total Yard Waste	1.0%			
CONSTRUCTION/DEMOLITION				
Treated Lumber	0.6%	2.6%	<0.1%	1.5%
Untreated Lumber	1.6%	6.1%	<0.1%	3.6%
Concrete/Brick/Asphalt	0.4%	2.2%	<0.1%	1.1%
Other	1.7%	5.5%	<0.1%	3.5%
Total C&D	4.2%			

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4-5 (continued)
SUMMARY OF COMMERCIAL COMPOSITION
MALLARD LAKE LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
METAL				
Aluminum Cans	0.6%	0.7%	0.4%	0.8%
Bi-Metal Cans	<0.1%	0.2%	<0.1%	0.1%
Tin Cans	0.5%	0.8%	0.2%	0.7%
Foil	0.3%	1.0%	<0.1%	0.6%
Other Ferrous	4.1%	7.6%	1.6%	6.6%
Other Non-Ferrous	0.5%	1.9%	<0.1%	1.1%
Total Metal	**6.0%**			
GLASS				
Food/Drink Containers	2.1%	3.4%	1.0%	3.2%
Other Glass	1.2%	5.7%	<0.1%	3.1%
Total Glass	**3.3%**			
SPECIAL WASTES				
White Goods	<0.1%	0.0%	<0.1%	<0.1%
Tires	<0.1%	0.0%	<0.1%	<0.1%
Used Oil	<0.1%	0.0%	<0.1%	<0.1%
Total Special Waste	**<0.1%**			
INORGANIC	1.0%	4.2%	<0.1%	2.4%
HOUSE. HAZARDOUS WASTE				
Empty HHW Containers	<0.1%	0.2%	<0.1%	0.1%
Dry Cell (alkaline)	<0.1%	0.0%	<0.1%	<0.1%
Dry Cell (non-alkaline)	<0.1%	0.0%	<0.1%	<0.1%
Lead-Acid Batteries	<0.1%	0.0%	<0.1%	<0.1%
Oil-Based Paint	<0.1%	0.3%	<0.1%	0.1%
Latex Paint	<0.1%	0.3%	<0.1%	0.2%
Other Flammable	0.1%	0.8%	<0.1%	0.4%
Pesticides/Poisons	<0.1%	0.0%	<0.1%	<0.1%
Medical Wastes	0.2%	1.0%	<0.1%	0.5%
Fluorescent Tubes	0.4%	2.6%	<0.1%	1.3%
Oil Filters	0.2%	1.0%	<0.1%	0.5%
Other HHW	0.1%	0.5%	<0.1%	0.3%
Total HHW	**1.2%**			
TOTAL	100.0%			

Note: 1. Composition based on 35 samples.
2. Confidence Limits are shown at the 95 percent level.

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4–6
SUMMARY OF COMMERCIAL COMPOSITION
GREENE VALLEY LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
PAPER				
Newsprint	9.9%	14.1%	5.0%	14.8%
OCC/Kraft Paper	12.7%	9.7%	9.3%	16.0%
Glossy/Magazines	3.9%	4.7%	2.2%	5.5%
Mixed Paper	7.4%	8.5%	4.5%	10.4%
Office/Computer Paper	9.0%	12.9%	4.5%	13.4%
Coated Paper	1.4%	2.4%	0.5%	2.2%
Wet Strength Carrier Stock	0.5%	0.8%	0.2%	0.8%
Miscellaneous Paper	12.7%	7.1%	10.2%	15.2%
Total Paper	57.4%			
PLASTIC				
PET (#1) Containers	0.4%	0.3%	0.2%	0.5%
Clear HDPE (#2) Containers	0.7%	0.7%	0.4%	0.9%
Color HDPE (#2) Containers	0.6%	1.0%	0.3%	1.0%
PVC (#3) Containers	<0.1%	0.0%	<0.1%	<0.1%
LDPE (#4) Containers	<0.1%	0.1%	<0.1%	<0.1%
PP (#5) Containers	0.2%	0.5%	<0.1%	0.3%
Expanded Polystyrene (#6)	0.6%	0.7%	0.4%	0.8%
Rigid PS (#6) Containers	0.7%	0.7%	0.5%	1.0%
Other (#7) Containers	<0.1%	0.1%	<0.1%	<0.1%
Films & Bags	4.5%	2.3%	3.7%	5.3%
Miscellaneous Plastic	3.0%	7.1%	0.6%	5.5%
Total Plastic	10.8%			
ORGANICS				
Vegetative Food Waste	9.6%	13.0%	5.1%	14.1%
Other Food Waste	1.7%	3.0%	0.6%	2.7%
Wood	1.6%	4.4%	<0.1%	3.1%
Textiles/Rubber/Leather	1.8%	2.2%	1.1%	2.6%
Disposable Diapers	2.1%	4.1%	0.7%	3.6%
Miscellaneous Organics	3.3%	5.1%	1.5%	5.0%
Total Organics	20.1%			
YARD WASTE				
Grass/Leaves	<0.1%	0.4%	<0.1%	0.2%
Brush/Prunings/Stumps	<0.1%	0.2%	<0.1%	0.2%
Total Yard Waste	0.2%			
CONSTRUCTION/DEMOLITION				
Treated Lumber	0.5%	2.3%	<0.1%	1.3%
Untreated Lumber	2.1%	7.0%	<0.1%	4.5%
Concrete/Brick/Asphalt	<0.1%	0.0%	<0.1%	<0.1%
Other	0.6%	1.9%	<0.1%	1.3%
Total C&D	3.3%			

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4–6 (continued)
SUMMARY OF COMMERCIAL COMPOSITION
GREENE VALLEY LANDFILL

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
METAL				
Aluminum Cans	0.8%	0.5%	0.6%	0.9%
Bi–Metal Cans	<0.1%	0.2%	<0.1%	0.1%
Tin Cans	1.3%	1.7%	0.7%	1.9%
Foil	0.5%	0.9%	0.2%	0.8%
Other Ferrous	1.6%	2.8%	0.7%	2.6%
Other Non–Ferrous	1.1%	2.5%	0.2%	1.9%
Total Metal	**5.3%**			
GLASS				
Food/Drink Containers	1.4%	1.4%	0.9%	1.9%
Other Glass	0.1%	0.4%	<0.1%	0.3%
Total Glass	**1.5%**			
SPECIAL WASTES				
White Goods	<0.1%	0.0%	<0.1%	<0.1%
Tires	<0.1%	0.0%	<0.1%	<0.1%
Used Oil	<0.1%	0.0%	<0.1%	<0.1%
Total Special Waste	**<0.1%**			
INORGANIC	0.3%	1.0%	<0.1%	0.6%
HOUSE. HAZARDOUS WASTE				
Empty HHW Containers	0.1%	0.7%	<0.1%	0.4%
Dry Cell (alkaline)	<0.1%	0.1%	<0.1%	<0.1%
Dry Cell (non–alkaline)	<0.1%	0.0%	<0.1%	<0.1%
Lead–Acid Batteries	<0.1%	0.0%	<0.1%	<0.1%
Oil–Based Paint	<0.1%	0.0%	<0.1%	<0.1%
Latex Paint	<0.1%	0.0%	<0.1%	<0.1%
Other Flammable	<0.1%	0.0%	<0.1%	<0.1%
Pesticides/Poisons	<0.1%	0.0%	<0.1%	<0.1%
Medical Wastes	0.2%	0.9%	<0.1%	0.5%
Fluorescent Tubes	<0.1%	0.0%	<0.1%	<0.1%
Oil Filters	0.6%	3.4%	<0.1%	1.8%
Other HHW	<0.1%	0.0%	<0.1%	<0.1%
Total HHW	**1.0%**			
TOTAL	100.0%			

Note: 1. Composition based on 32 samples.
2. Confidence Limits are shown at the 95 percent level.

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4–7
SUMMARY OF MIXED LOADS COMPOSITION
DUPAGE COUNTY

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
PAPER				
Newsprint	7.5%	4.6%	4.1%	10.9%
OCC/Kraft Paper	20.3%	20.9%	4.8%	35.7%
Glossy/Magazines	2.7%	3.0%	0.5%	5.0%
Mixed Paper	8.1%	10.2%	0.5%	15.6%
Office/Computer Paper	5.4%	9.5%	<0.1%	12.4%
Coated Paper	0.2%	0.2%	<0.1%	0.4%
Wet Strength Carrier Stock	<0.1%	0.1%	<0.1%	0.1%
Miscellaneous Paper	12.2%	12.2%	3.1%	21.3%
Total Paper	**56.4%**			
PLASTIC				
PET (#1) Containers	0.2%	0.2%	<0.1%	0.4%
Clear HDPE (#2) Containers	0.3%	0.3%	<0.1%	0.5%
Color HDPE (#2) Containers	0.2%	0.4%	<0.1%	0.5%
PVC (#3) Containers	<0.1%	0.2%	<0.1%	0.2%
LDPE (#4) Containers	<0.1%	0.0%	<0.1%	<0.1%
PP (#5) Containers	<0.1%	0.0%	<0.1%	<0.1%
Expanded Polystyrene (#6)	0.7%	0.9%	<0.1%	1.4%
Rigid PS (#6) Containers	0.2%	0.2%	0.1%	0.3%
Other (#7) Containers	<0.1%	0.0%	<0.1%	<0.1%
Films & Bags	5.0%	3.8%	2.2%	7.8%
Miscellaneous Plastic	1.6%	1.9%	0.2%	2.9%
Total Plastic	**8.3%**			
ORGANICS				
Vegetative Food Waste	12.8%	13.9%	2.5%	23.2%
Other Food Waste	5.1%	7.0%	<0.1%	10.3%
Wood	3.9%	10.2%	<0.1%	11.4%
Textiles/Rubber/Leather	1.1%	1.9%	<0.1%	2.5%
Disposable Diapers	0.7%	1.2%	<0.1%	1.6%
Miscellaneous Organics	2.6%	3.1%	0.3%	4.9%
Total Organics	**26.2%**			
YARD WASTE				
Grass/Leaves	<0.1%	0.0%	<0.1%	<0.1%
Brush/Prunings/Stumps	<0.1%	0.0%	<0.1%	<0.1%
Total Yard Waste	**<0.1%**			
CONSTRUCTION/DEMOLITION				
Treated Lumber	0.1%	0.3%	<0.1%	0.4%
Untreated Lumber	<0.1%	0.0%	<0.1%	<0.1%
Concrete/Brick/Asphalt	<0.1%	0.0%	<0.1%	<0.1%
Other	<0.1%	0.0%	<0.1%	<0.1%
Total C&D	0.1%			

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4-7 (continued)
SUMMARY OF MIXED LOADS COMPOSITION
DUPAGE COUNTY

WASTE COMPONENT	Mean	Standard Deviation	Lower Confidence Limit	Upper Confidence Limit
METAL				
Aluminum Cans	1.1%	1.3%	0.2%	2.1%
Bi-Metal Cans	<0.1%	0.1%	<0.1%	0.1%
Tin Cans	1.7%	1.8%	0.3%	3.0%
Foil	0.3%	0.2%	<0.1%	0.4%
Other Ferrous	3.0%	6.0%	<0.1%	7.4%
Other Non-Ferrous	<0.1%	0.1%	<0.1%	<0.1%
Total Metal	**6.1%**			
GLASS				
Food/Drink Containers	2.6%	2.4%	0.8%	4.3%
Other Glass	0.2%	0.5%	<0.1%	0.6%
Total Glass	**2.8%**			
SPECIAL WASTES				
White Goods	<0.1%	0.0%	<0.1%	<0.1%
Tires	<0.1%	0.0%	<0.1%	<0.1%
Used Oil	<0.1%	0.0%	<0.1%	<0.1%
Total Special Waste	**<0.1%**			
INORGANIC	<0.1%	0.0%	<0.1%	<0.1%
HOUSE. HAZARDOUS WASTE				
Empty HHW Containers	<0.1%	0.1%	<0.1%	<0.1%
Dry Cell (alkaline)	<0.1%	0.0%	<0.1%	<0.1%
Dry Cell (non-alkaline)	<0.1%	0.0%	<0.1%	<0.1%
Lead-Acid Batteries	<0.1%	0.0%	<0.1%	<0.1%
Oil-Based Paint	<0.1%	0.0%	<0.1%	<0.1%
Latex Paint	<0.1%	0.0%	<0.1%	<0.1%
Other Flammable	<0.1%	0.0%	<0.1%	<0.1%
Pesticides/Poisons	<0.1%	0.0%	<0.1%	<0.1%
Medical Wastes	<0.1%	0.0%	<0.1%	<0.1%
Fluorescent Tubes	<0.1%	0.2%	<0.1%	0.2%
Oil Filters	<0.1%	0.0%	<0.1%	<0.1%
Other HHW	<0.1%	0.0%	<0.1%	<0.1%
Total HHW	**0.1%**			
TOTAL	100.0%			

Note: 1. Composition based on 7 samples from both the Mallard Lake Landfill and the Greene Valley Landfill

2. Confidence Limits are shown at the 95 percent level.

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4–8
SUMMARY OF C&D and INDUSTRIAL WASTE RECEIPTS
MALLARD LAKE LANDFILL

WASTE COMPONENT	Volume (cy)	Aggregate Composition (by weight)
PAPER		
Newsprint	<1	<0.1%
OCC/Kraft Paper	79	0.4%
Glossy/Magazines	<1	<0.1%
Mixed Paper	<1	<0.1%
Office/Computer Paper	<1	<0.1%
Coated Paper	<1	<0.1%
Wet Strength Carrier Stock	<1	<0.1%
Miscellaneous Paper	49	2.4%
Total Paper	**128**	**2.8%**
PLASTIC		
PET (#1) Containers	6	<0.1%
Clear HDPE (#2) Containers	<1	<0.1%
Color HDPE (#2) Containers	26	0.1%
PVC (#3) Containers	<1	<0.1%
LDPE (#4) Containers	<1	<0.1%
PP (#5) Containers	<1	<0.1%
Expanded Polystyrene (#6)	5	<0.1%
Rigid PS (#6) Containers	<1	<0.1%
Other (#7) Containers	<1	<0.1%
Films & Bags	4	<0.1%
Miscellaneous Plastic	11	<0.1%
Total Plastic	**51**	**0.2%**
ORGANICS		
Vegetative Food Waste	<1	<0.1%
Other Food Waste	<1	<0.1%
Wood	<1	<0.1%
Textiles/Rubber/Leather	6	0.2%
Disposable Diapers	<1	<0.1%
Miscellaneous Organics	22	1.1%
Total Organics	**28**	**1.3%**
YARD WASTE		
Grass/Leaves	<1	<0.1%
Brush/Prunings/Stumps	12	1.3%
Total Yard Waste	**12**	**1.3%**
CONSTRUCTION/DEMOLITION		
Treated Lumber	144	4.4%
Untreated Lumber	182	7.4%
Concrete/Brick/Asphalt	133	11.2%
Other	470	70.0%
Total C&D	929	92.9%

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4–8 (continued)
SUMMARY OF C&D and INDUSTRIAL WASTE RECEIPTS
MALLARD LAKE LANDFILL

WASTE COMPONENT	Volume (cy)	Aggregate Composition (by weight)
METAL		
Aluminum Cans	<1	<0.1%
Bi–Metal Cans	<1	<0.1%
Tin Cans	<1	<0.1%
Foil	<1	<0.1%
Other Ferrous	20	1.2%
Other Non–Ferrous	4	0.1%
Total Metal	**25**	**1.3%**
GLASS		
Food/Drink Containers	<1	<0.1%
Other Glass	4	0.2%
Total Glass	**4**	**0.2%**
SPECIAL WASTES		
White Goods	<1	<0.1%
Tires	<1	<0.1%
Used Oil	<1	<0.1%
Total Special Waste	**<1**	**<0.1%**
INORGANIC	<1	<0.1%
HOUSE. HAZARDOUS WASTE		
Empty HHW Containers	<1	<0.1%
Dry Cell (alkaline)	<1	<0.1%
Dry Cell (non–alkaline)	<1	<0.1%
Lead–Acid Batteries	<1	<0.1%
Oil–Based Paint	<1	<0.1%
Latex Paint	<1	<0.1%
Other Flammable	<1	<0.1%
Pesticides/Poisons	<1	<0.1%
Medical Wastes	<1	<0.1%
Fluorescent Tubes	<1	<0.1%
Oil Filters	<1	<0.1%
Other HHW	<1	<0.1%
Total HHW	**<1**	**<0.1%**
TOTAL	1,176	100.0%

Note: Compositional estimates are based on weight. The weight is derived by multiplying the volume for each material by the respective density (pounds per cubic yard).

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4-9
SUMMARY OF C&D and INDUSTRIAL WASTE RECEIPTS
GREENE VALLEY LANDFILL

WASTE COMPONENT	Volume (cy)	Aggregate Composition (by weight)
PAPER		
Newsprint	<1	<0.1%
OCC/Kraft Paper	367	0.9%
Glossy/Magazines	<1	<0.1%
Mixed Paper	<1	<0.1%
Office/Computer Paper	<1	<0.1%
Coated Paper	<1	<0.1%
Wet Strength Carrier Stock	<1	<0.1%
Miscellaneous Paper	27	0.7%
Total Paper	394	1.6%
PLASTIC		
PET (#1) Containers	<1	<0.1%
Clear HDPE (#2) Containers	<1	<0.1%
Color HDPE (#2) Containers	2	<0.1%
PVC (#3) Containers	<1	<0.1%
LDPE (#4) Containers	<1	<0.1%
PP (#5) Containers	<1	<0.1%
Expanded Polystyrene (#6)	8	<0.1%
Rigid PS (#6) Containers	<1	<0.1%
Other (#7) Containers	<1	<0.1%
Films & Bags	33	<0.1%
Miscellaneous. Plastic	3	<0.1%
Total Plastic	44	<0.1%
ORGANICS		
Vegetative Food Waste	<1	<0.1%
Other Food Waste	<1	<0.1%
Wood	<1	<0.1%
Textiles/Rubber/Leather	50	0.6%
Disposable Diapers	<1	<0.1%
Miscellaneous Organics	<1	<0.1%
Total Organics	50	0.6%
YARD WASTE		
Grass/Leaves	41	<0.1%
Brush/Prunings/Stumps	58	3.1%
Total Yard Waste	99	3.1%
CONSTRUCTION/DEMOLITION		
Treated Lumber	114	1.7%
Untreated Lumber	236	4.7%
Concrete/Brick/Asphalt	291	9.5%
Other	707	77.8%
Total C&D	1,349	93.7%

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

EXHIBIT 4–9 (continued)
SUMMARY OF C&D and INDUSTRIAL WASTE RECEIPTS
GREENE VALLEY LANDFILL

WASTE COMPONENT	Volume (cy)	Aggregate Composition (by weight)
METAL		
Aluminum Cans	<1	<0.1%
Bi–Metal Cans	<1	<0.1%
Tin Cans	<1	<0.1%
Foil	<1	<0.1%
Other Ferrous	31	0.9%
Other Non–Ferrous	4	<0.1%
Total Metal	**34**	**0.9%**
GLASS		
Food/Drink Containers	<1	<0.1%
Other Glass	2	<0.1%
Total Glass	**2**	**<0.1%**
SPECIAL WASTES		
White Goods	<1	<0.1%
Tires	<1	<0.1%
Used Oil	<1	<0.1%
Total Special Waste	**<1**	**<0.1%**
INORGANIC	<1	<0.1%
HOUSE. HAZARDOUS WASTE		
Empty HHW Containers	<1	<0.1%
Dry Cell (alkaline)	<1	<0.1%
Dry Cell (non–alkaline)	<1	<0.1%
Lead–Acid Batteries	<1	<0.1%
Oil–Based Paint	<1	<0.1%
Latex Paint	<1	<0.1%
Other Flammable	<1	<0.1%
Pesticides/Poisons	<1	<0.1%
Medical Wastes	<1	<0.1%
Fluorescent Tubes	<1	<0.1%
Oil Filters	<1	<0.1%
Other HHW	<1	<0.1%
Total HHW	**<1**	**<0.1%**
TOTAL	1,972	100.0%

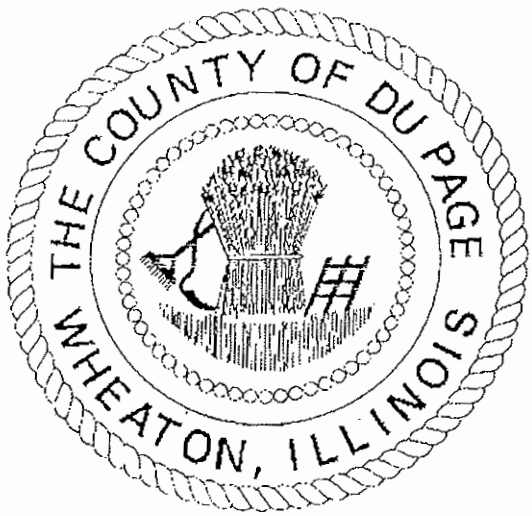
Note: Compositional estimates are based on weight. The weight is derived by multiplying the volume for each material by the respective density (pounds per cubic yard).

Source: *Waste Stream Characterization for DuPage County, Illinois*, February 17, 1995

APPENDIX 8-E

DUPAGE COUNTY SWMP
2001 UPDATE

DuPage County, Illinois
Solid Waste Management Plan
2001



PREFACE

The Illinois Solid Waste Planning and Recycling Act (415 ILCS 15.1 et seq.) provides DuPage County with the primary responsibility to plan for the management of municipal waste within its boundaries, identify waste reduction and recycling operations as preferable to land disposal, and requires counties to develop and implement plans with a time line based on the county's population. The law further requires county solid waste plans to provide for 15 % waste reduction by the third year and 25 % waste reduction by the fifth year. Counties are required to implement their solid waste management plan and can enlist the help of municipalities and private entities in its implementation.

The first comprehensive Solid Waste Management Plan for DuPage County was developed in 1990 and was approved in February 1991. The State of Illinois requires that the Solid Waste Management Plan be updated every five years (415 ILCS 10/5 (e)). The first five-year update to the plan was approved in November 1996. This document is the second five-year update to the plan. The DuPage County Solid Waste Division prepared this document.

Printed on Recycled Paper

2001
DuPage County Solid Waste Committee Members

DuPage County Board Members

Kyle Gilgis, Chairman	District 3
Roger Jenisch	District 1
Irene Stone	District 2
Paul Didzerekis	District 4
Alice Peterson	District 5
Roger Kotecki	District 6

Municipal Members

Douglas Krause, Vice-Chairman	District 5
Ronald Putzell	District 1
Daniel J. Kordik	District 2
James A. Addington	District 3
James Perlstein	District 4
John J. Bajor, Jr.	District 6

1.0 Waste Generation

According to the 2000 Census, there are 904,161 persons living in DuPage County. The Illinois EPA has estimated that Illinoisans generated waste at a rate of 6.9 pounds per person per day in 1999 (1), or 1.26 tons waste/per person, per year. This estimate includes non-hazardous residential and commercial waste sources. Utilizing these figures, the volume of waste generated is determined below:

Population of DuPage County in 2000 = 904,161 persons

904,161	2000 Population of DuPage County (2000 U. S. Census)
x 1.26	Tons Waste/Person/Year
1,139,000	Tons Waste/Year Generated

The county wide total diversion and recycling rate is currently about 35% for residential waste sources based on reported data for 2000. Therefore, assuming 65% of waste is currently being disposed of in landfills. The remaining waste for disposal is calculated as follows:

1,139,000	Tons Waste Generated
x 65 %	Percent Remaining after Recycling
740,000	Tons Landfilled/Year

2.0 Transfer Station Capacity

Estimated 5-Year Budget $500,000
Estimated FTE: 0.1

The DuKane Transfer Facility, privately owned and operated by Groot Industries, is the only facility in the county that accepts solid waste for transfer to landfills outside DuPage County. This facility is currently permitted to accept a maximum of 1,950 tons of waste per day with an annual average amount not to exceed 1,500 tons per day. Approximately 50 percent of the waste generated by the service area for the DuKane Transfer Facility originates from DuPage County (2).

As currently permitted, the DuKane Transfer Facility may accept 468,000 tons/per year. The estimated amount of waste generated in DuPage County and accepted at the DuKane Transfer Facility is approximately 50% or 234,000 tons/per year. Thus, the following represents the amount of waste generated in DuPage County that is not recycled or being handled by the DuKane Transfer Facility:

740,000	Tons Landfilled/Year
- 234,000	Tons Processed at DuKane
506,000	Tons of Waste not using local transfer station

It is recommended that the permitted capacity of the DuKane Transfer Facility be increased from 1,500 tons per day to 2,500 tons per day (a 66.7 % increase) with a proportionate increase in acceptance at the facility of waste generated in DuPage County. The remaining need for an additional one or two transfer facilities would be as follows:

506,000	Tons Waste not using local transfer station
- 156,000	Tons Waste/Year for DuKane expansion
350,000	Tons Waste/Year remain for addition transfer facility

DuPage County has not received information regarding the amount of waste generated in DuPage County that is transferred out of the Onyx operated Melrose Park Transfer Station.

The second and/or third transfer station(s) should be sized to accommodate the 350,000 tons waste/year and accommodate future population growth and subsequent waste generation. A second and/or third transfer station is expected to increase competition, reduce wear on roads, reduce overall truck miles traveled and decrease truck air emissions.

It should be noted that Groot Industries has applied to the City of West Chicago for a special use permit for a 150 ton per day singlestream recycling facility at 1655 Powis Road (3). The service area for the proposed facility was not defined. However this facility, if approved and constructed, could provide additional processing of recyclables from generators in DuPage County reducing the need for solid waste transfer station capacity in the county.

Additionally, recycling of construction & demolition debris or other material may also reduce the transfer capacity needed at future transfer facilities.

2.1 Generic Host Community Benefit Agreement for Municipalities

The County shall encourage municipalities to develop, approve and enact a generic host community benefit agreement for new pollution control facilities subject to local siting approval pursuant to 415 ILCS 5/39.2. The generic host community benefit agreement shall apply to all new pollution control facilities or specific types such as only waste transfer facilities. The generic host community benefit agreement shall include monetary compensation or other requirements to protect residents and the environment.

The County shall encourage municipalities to include provisions in the host community benefit agreements that would provide funds to assist the County in implementing the DuPage County Solid Waste Management Plan and subsequent amendments. The funds would be used to share in the cost of implementing household hazardous waste collections; hazardous educational waste collections; tire, electronic and other specialty collections; solid waste enforcement; educational and other activities as contained in the Plan.

2.2 Waste and Recycling Agreement Funding for Municipalities

The County shall encourage municipalities to include provisions in future waste and recycling hauling agreements to provide funds to assist the County in implementing the DuPage County Solid Waste Management Plan and subsequent amendments. The funds would be used to share in the cost of implementing household hazardous waste collections; hazardous educational waste collections; tire, electronic and other specialty collections; solid waste enforcement; educational and other activities as contained in the Plan.

2.3 Generic Host Community Benefit Agreement for DuPage County

The County shall develop, approve and enact a generic host community benefit agreement for new pollution control facilities subject to local siting approval pursuant to 415 ILCS 5/39.2. The generic host community benefit agreement may apply to all new pollution control facilities or specific types such as only waste transfer facilities. The generic host community benefit agreement may include monetary compensation to the County or other requirements to protect residents and the environment.

Use of funds received by the County pursuant to any generic host community benefit agreement shall be prioritized and first used to implement any and all provisions of the County's Solid Waste Management Plan and subsequent amendments as needed. The funds would be used to share in the cost of implementing household hazardous waste collections; hazardous educational waste collections; tire, electronic and other specialty collections; solid waste enforcement; educational and other activities as contained in the Plan.

3.0 Household Hazardous Waste — **Estimated 5-Year Budget $2.3 million**
Estimated FTE: 0.25

The County should continue to plan collection events for household hazardous waste. The residential portion of the household hazardous waste program currently consists of a permanent collection facility located in Naperville, Illinois and the County's one-day collection program. The funding agreement between Naperville and DuPage County expires September 2003. Forty-three one-day mobile collections have been held throughout the County since 1996 and have collected approximately 354,312 gallons of hazardous waste.

4.0 Environmental Education — **Estimated 5-Year Budget $1,500,000**
Estimated FTE: 0.50

The County should continue to plan for environmental education activities including waste reduction, reuse, and recycling. An emphasis should be placed on the most cost-effective approaches such as teacher training. Tours and educational materials regarding transfer stations could be included as needed.

5.0 Computers and Electronics Recycling Events

Estimated 5-Year Budget $500,000
Estimated FTE: 0.10

The first one-day collection event held in fiscal year 2001 brought in over 40,000 pounds of computer and electronics material. With an ever-increasing amount of older and obsolete computer and electronic equipment entering the waste stream due to rapid advancements in technology, the county should plan to continue and expand providing a recycling outlet for this part of the waste stream.

6.0 Latex Paint Recycling Program

Estimated 5-Year Budget $500,000
Estimated FTE: 1.4

The County should plan to continue to work in cooperation with the State to collect residential latex paint and gradually increase collection efforts. To sustain a successful program, the County should also plan to continue to actively market and locate a multitude of outlets for reusing the recycled paint.

7.0 Recycling Guide

Estimated 5-Year Budget $500,000
Estimated FTE: 0.50

The Recycling Guide is a publication that continues to educate the public about various ways to manage their waste through reducing, reusing, recycling and proper disposal. The County should plan to continue to provide a paper copy of this publication every other year to all residential addresses in the county and update the Website version annually.

8.0 Enforcement Activities

Estimated 5-Year Budget $500,000
Estimated FTE: 1.0

The DuPage County Solid Waste Division currently has an agreement with the Illinois Environmental Protection Agency (Illinois EPA) to conduct non-hazardous waste inspections for the Bureau of Land. The agreement continues through June 30, 2005. The County should plan to continue applying for and maintaining grant funding and delegated authority agreements for this program.

The Division, on average, has conducted more than 130 inspections per year over the last five years at Illinois EPA permitted facilities and illegal dumps throughout the County. The Division anticipates partial grant funding from the Agency for the program.

9.0 Investigate New Areas of Need for Waste Reduction or Recycling

Estimated 5-Year Budget $250,000
Estimated FTE: 0.25

The County should plan to investigate the potential need for new areas of waste reduction or recycling. One such area of need may be construction and demolition debris recycling.

10.0 Investigate Options for More Efficient, Cost Effective Methods to Collect and Manage Waste and Recyclables

Estimated 5-Year Budget $200,000
Estimated FTE: 0.15

The County should plan to assist units of local government by investigating potential options for reducing the cost of collection, processing, and disposal of residential and commercial solid waste, recyclables, landscape waste, and household hazardous waste in the unincorporated areas of the County. Methods for improving recyclability of materials may be investigated. Effectiveness of drop-off locations may be examined. Alternative proposals could be evaluated and compared to current costs. More cost-effective service could be implemented if appropriate subject to financial limitations and constraints by DuPage County Board rules.

11.1 Product Procurement Policy

Estimated 5-Year Budget $100,000
Estimated FTE: 0.10

The County should plan to develop a model product procurement policy and corresponding procedures for increasing the procurement of recycled-content and other environmentally preferable products for use by the County and its consultants and contractors as well as other local government entities. This model policy should plan to adhere to waste prevention practices such as purchasing products that are durable, reusable, recyclable, made from post-consumer material, with minimal packaging and toxicity, and efficient use of energy resources whenever cost effective and to the extent practicable.

11.2 Packaging Reduction

Estimated 5-Year Budget $50,000
Estimated FTE: 0.20

The County should plan to discuss with manufacturers potential options to reduce excessive product packaging and reduce toxicity of materials and products.

12.0 Local Grants and Assistance **Estimated 5-Year Budget $100,000**
Estimated FTE: 0.15

The County should plan to offer grants and assistance to communities and local service groups in the county for waste reduction and recycling activities subject to DuPage County Board rules.

13.0 Hazardous Educational Waste **Estimated 5-Year Budget $100,000**
Estimated FTE: 0.10

In the fall of 1999 and spring of 2000, DuPage County held a program to collect hazardous education waste from schools in the County. The collections were held in conjunction with the mobile household hazardous waste collection events. Schools were required to inventory their wastes prior to acceptance at the event. The opportunity was available to all public and private schools in DuPage County.

The DuPage County Regional Office of Education assisted in promoting the event and teaching the techniques of microscale chemistry. A total of forty-eight schools participated during the length of the program. The intent of the program is to perform additional collections of hazardous curriculum-based wastes from schools emphasizing microscale chemistry teaching methods to reduce the amount of hazardous waste generated by schools in the future.

14.0 Waste Reduction **Estimated 5-Year Budget $100,000**
Estimated FTE: 0.10

The County will continue to host specialty waste reduction events to reduce the amount of waste going to the landfills. Recycling will be encouraged and publications will include information on reducing the amount of waste a household generates. The County should plan to educate the public as to the availability and benefits of recycled-content products and materials to encourage their purchase thereby 'closing the loop' on recycling.

15.0 Recycling Events for Other Nuisance Materials

Estimated 5-Year Budget $100,000
Estimated FTE: 0.10

The County should plan to continue and expand providing collection of illegally dumped or troublesome materials such as tires, construction and demolition waste, scrap metals and automotive parts and fluids. The County should plan to provide multi-material collection events and co-sponsor events with state agencies.

16.0 Reporting, Brochures, and Other Informational Media

The following sections include estimated costs for labor, materials, computer layout and printing costs. An estimate of the full-time staff labor equivalency is included after the budget estimate for each item.

16.1 Public Informational Brochures — **Estimated 5-Year Budget $70,000**
Estimate FTE: 0.10

The County plan to continue to promote waste reduction efforts in the form of source reduction, reuse, recycling, and procurement strategies by developing and distributing informational brochures such as the Recycling Guide, Paint Management, Household Hazardous Waste, and Safer Household Cleaners brochures, to government entities and the general public.

16.2 Maintain Website — **Estimated 5-Year Budget $70,000**
Estimated FTE: 0.10

The County should plan to continue to provide new and updated solid waste management information on the Solid Waste Division's Internet Website to help disseminate information to the general public. The very popular Recycling Guide is maintained on the Website.

16.3 Waste Management Reports — **Estimated 5-Year Budget $50,000**
Estimated FTE: 0.10

The County should plan to continue to develop and distribute reports mandated or required by federal, state, and local government entities including the Annual Report which documents recycling levels of the County's waste stream, solid waste management programs, and municipal solid waste collection services.

References:

(1) Nonhazardous Solid Waste Management and Landfill Capacity in Illinois – 1999 Annual Report, Illinois Environmental Protection Agency, January 2001
(2) Application for Local Siting Authority for the DuKane Transfer Facility, prepared by Engineering Solutions for Browning-Ferris Industries of Illinois, Inc., Volume 1, Page I9, May 1997
(3) Request for Special Use Permit and Text Amendment, Groot Industries, Inc., August 2001

SUMMARY

		5-Year Budget	FTE
2.0	Transfer Station Capacity	$500,000	0.1
3.0	Household Hazardous Waste	$2,300,000	0.25
4.0	Environmental Education	$1,500,000	0.5
5.0	Computers and Electronics Recycling Events	$500,000	0.1
6.0	Latex Paint Recycling Program	$500,000	1.4
7.0	Recycling Guide	$500,000	0.5
8.0	Enforcement Activities	$500,000	1.0
9.0	Investigate New Areas of Need for Waste Reduction or Recycling	$250,000	0.25
10.0	Investigate Options for Cost Effective Methods to Manage Waste/Recyclables	$200,000	0.15
11.1	Product Procurement Policy	$100,000	0.1
11.2	Packaging Reduction	$50,000	0.2
12.0	Local Grants and Assistance	$100,000	0.15
13.0	Hazardous Educational Waste	$100,000	0.1
14.0	Waste Reduction	$100,000	0.1
15.0	Recycling Events for Other Nuisance Materials	$100,000	0.1
16.1	Public Information Brochures	$70,000	0.1
16.2	Maintain Website	$70,000	0.1
16.3	Waste Management Reports	$50,000	0.1
TOTAL		$7,490,000	5.3
Current Fund Balance		$6,700,355	
Future Revenue			
	Land Sale	$1,700,000	
	Interest	$750,000	
	Transfer Station	$500,000	
TOTAL AVAILABLE FUNDS		$9,650,355	
Potential IEPA Inspection Grant (5 Yr.)		$240,000	
TOTAL		$9,890,355	

STATE OF ILLINOIS)
)SS
COUNTY OF DU PAGE)

I, GARY A. KING, COUNTY CLERK AND CLERK OF THE COUNTY BOARD IN THE COUNTY AND STATE AFORESAID, AND KEEPER OF THE RECORDS AND FILES THEREOF, DO HEREBY CERTIFY THE FOREGOING TO BE A TRUE AND CORRECT COPY OF

AN ORDINANCE

ADOPTED BY THE COUNTY BOARD AT A MEETING HELD AT THE DU PAGE CENTER, 421 NORTH COUNTY FARM ROAD, WHEATON, ILLINOIS, ON THE 23RD DAY OF APRIL, A.D. 20 02.

ALL OF WHICH APPEARS FROM THE RECORDS OF THE PROCEEDINGS OF SAID COUNTY BOARD NOW IN MY OFFICE REMAINING.

GIVEN UNDER MY HAND AND OFFICIAL SEAL AT WHEATON, ILLINOIS, THIS 24TH DAY OF APRIL, A.D. 20 02.

Gary A. King

COUNTY CLERK AND CLERK
OF THE COUNTY BOARD OF
DU PAGE COUNTY, ILLINOIS

APPENDIX 8-F

DUPAGE COUNTY SWMP
2007 UPDATE

DU PAGE COUNTY, ILLINOIS

FIVE YEAR UPDATE SOLID WASTE MANAGEMENT PLAN 2007

February 1991, Adopted DuPage County Solid Waste Management Plan
June 1996, Adopted the first Solid Waste Plan Five Year Update
April 2002, Adopted the second Solid Waste Management Plan 2001

Approved by: DuPage Environmental Committee on February 12, 2008
Approved by: DuPage County Board on February 26, 2008

Prepared by: DuPage County Department of Economic Development and Planning
421 North County Farm Rd.
Wheaton, IL 60187

Assisted by: Shaw Environmental, Inc.
1607 E. Main St.
St. Charles, IL 60174

Robert J. Schillerstrom, County Board Chairman

DuPage County Environmental Committee

Jeff Redick – Chairman (District 2)
Yolanda Campuzano – Vice Chairman (District 1)
James D. Healy (District 5)
Linda A. Kurzawa (District 6)
Michael F. McMahon (District 3)
Debra Olson (District 4)

DuPage County Department of Economic Development and Planning
Tom Cuculich, Director

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Monday – Friday

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INTRODUCTION

The 2007 Solid Waste Management Plan Update goals are to review the current status of solid waste management activities within the County and set the priorities for the next five years.

The DuPage County Solid Waste Management Plan (the "Plan") was first adopted in 1991 to comply with the Solid Waste Planning and Recycling Act ("Act"). As mandated by the State, subsequent five-year updates were done and were approved by the County Board. The intent of the Act is for counties to continually evaluate waste generation, capacity, technology and other solid waste components.

This Plan update has been drafted to comply with the Act. It serves to provide direction to the County and evaluate the status of waste disposal capacity. The status of waste management in the County has changed drastically since the first Plan was adopted. All landfills have closed and transfer stations have become the preferred method of disposal. This not only affects waste capacity, but the revenue to accomplish the goals set forth in the original Solid Waste Plan.

As for the County's role in determining the future of waste handling facilities, the {Illinois} Environmental Protection Act provides authority to the county board of the county or the governing body of the municipality to approve or disapprove a request for local siting approval for each pollution control facility which is subject to such review. An applicant for local siting approval shall submit sufficient details describing the proposed facility to demonstrate compliance, and local siting approval shall be granted only if the proposed facility meets nine criteria. The governing body must decide if the pollution control facility is needed to meet the waste generation needs of the area and they must decide if the facility that is proposed is consistent with the County's Solid Waste Plan.

BACKGROUND

WASTE GENERATION

Previous solid waste plans have included a waste generation rate (pounds per capita per day). Periodically the rate must be evaluated and compared to the region's disposal trends. For this document, DuPage County worked with Shaw Environmental, Inc. to develop a more accurate reporting method. The methodology employed utilized recent landfill disposal data including Cook, Will Lake, Grundy, Lee, Livingston, Ogle, and Kane counties in Illinois, and multiple sites in Michigan, Wisconsin and Indiana. Forty-six landfills were identified as having accepted waste from the Chicago metropolitan region during the period between 1996 and 2006. The evaluation found that in general, waste disposal within the metropolitan region has been consistently increasing.

The result was that in 2006, waste is estimated to be disposed at a rate of 7.5 pounds per capita per day (pcd). This is an increase from the rate of 6.9 pcd that was reported in 2001.

The 2006 population of DuPage County was estimated to be 932,670. When multiplied by the waste generation rate listed above, the County is currently disposing of 6,995,025 pounds of waste per day, or 3,498 tons of waste per day for a total of 1,276,592 tons per year. Considering the recycling rate of 31%, the County is landfilling 893,614 tons of waste each year.

WASTE DISPOSAL

DuPage County is currently home to one municipal solid waste transfer station[(1)], one landscape waste transfer station and three construction and demolition debris recycling facilities. All waste intended for landfilling or incineration is shipped out of the County.

The 2001 Plan Update concluded that an additional one or 2 more transfer stations were necessary assuming that 50% of the capacity at the DuKane Transfer Station was for DuPage County waste. It also recommended that the capacity of the DuKane facility be increased.

In 2002, DuKane's capacity was increased to 3,000 tons per day. Three new transfer stations have been proposed since the last update, however, none were approved. Transfer facilities have been constructed outside the County border that are close enough to serve our needs.

To provide an accurate snapshot of the current waste disposal capacity, an evaluation was done of existing transfer stations and disposal facilities (Attachment A). The County was divided into quadrants and the consultant reviewed the nearest three transfer stations to each quadrant. The ideal transport distance is no more than 10 miles. Out of the ten stations that were analyzed, only two facilities serving southern DuPage County failed to meet this criterion (Attachment B).

The trend in the Chicagoland area has been to utilize transfer stations because viable landfills are closing. The waste must be moved farther distances to landfills located in more rural areas, contributing to higher waste disposal/hauling costs. To determine the extent of this trend, a comparison of the disposal fees of municipalities was completed. It found that on average rates had increased 37.5% since 1995.

RECYCLING

One of the opportunities to reduce disposal costs is to increase recycling. As identified in the Solid Waste and Recycling 2006 Report, DuPage County has achieved a residential recycling rate of 37% and a commercial recycling rate of 22%, making the overall recycling rate 31%. This is well above the State mandated 25%. The County has been successful in maintaining a high residential recycling rate, however, there is room for improvement in commercial recycling.

(1) *A transfer station is a materials consolidation facility in which loads from several collection vehicles are combined into a single transfer trailer (or rail car or barge) for long haul to a landfill or other permanent disposal site.*

CHANGES AND DEVELOPMENTS 1991 to 2007

DuPage County is home to 39 municipalities (wholly and partially) and as of 2006 approximately 932,670 residents. It is 332 square miles and as of 2004, there were 32,908 business establishments and 337,454 households.

At the adoption of the 1991 Plan, DuPage County's population was 813,806 and there were 169,040 single-family homes and 83,010 multi-family households. There were two operating sanitary landfills which had 6,861,362 cubic yards of capacity. Today there are no operating landfills, and due to the setback and expansive space requirements, siting a new landfill is nearly impossible.

FIVE YEAR DISPOSAL

Attachment A indicates that the northwestern portion of the County is being served by one in-county transfer station and three outside the county line. The northeastern portion is being and/or could be served by three transfer stations. The analysis concluded that the only areas that might benefit from a waste transfer station are located in the southern portion of the County. The distances exceed the ideal maximum of 10 miles, however, it appears that current disposal costs are at a level that satisfies supply and demand.

Regardless of this analysis, setback requirements and space limitations continue to challenge the private sector in locating new pollution control facilities. An additional hurdle is the current sentiment of local governments which makes the possibility of siting any additional waste transfer stations in DuPage County highly unlikely.

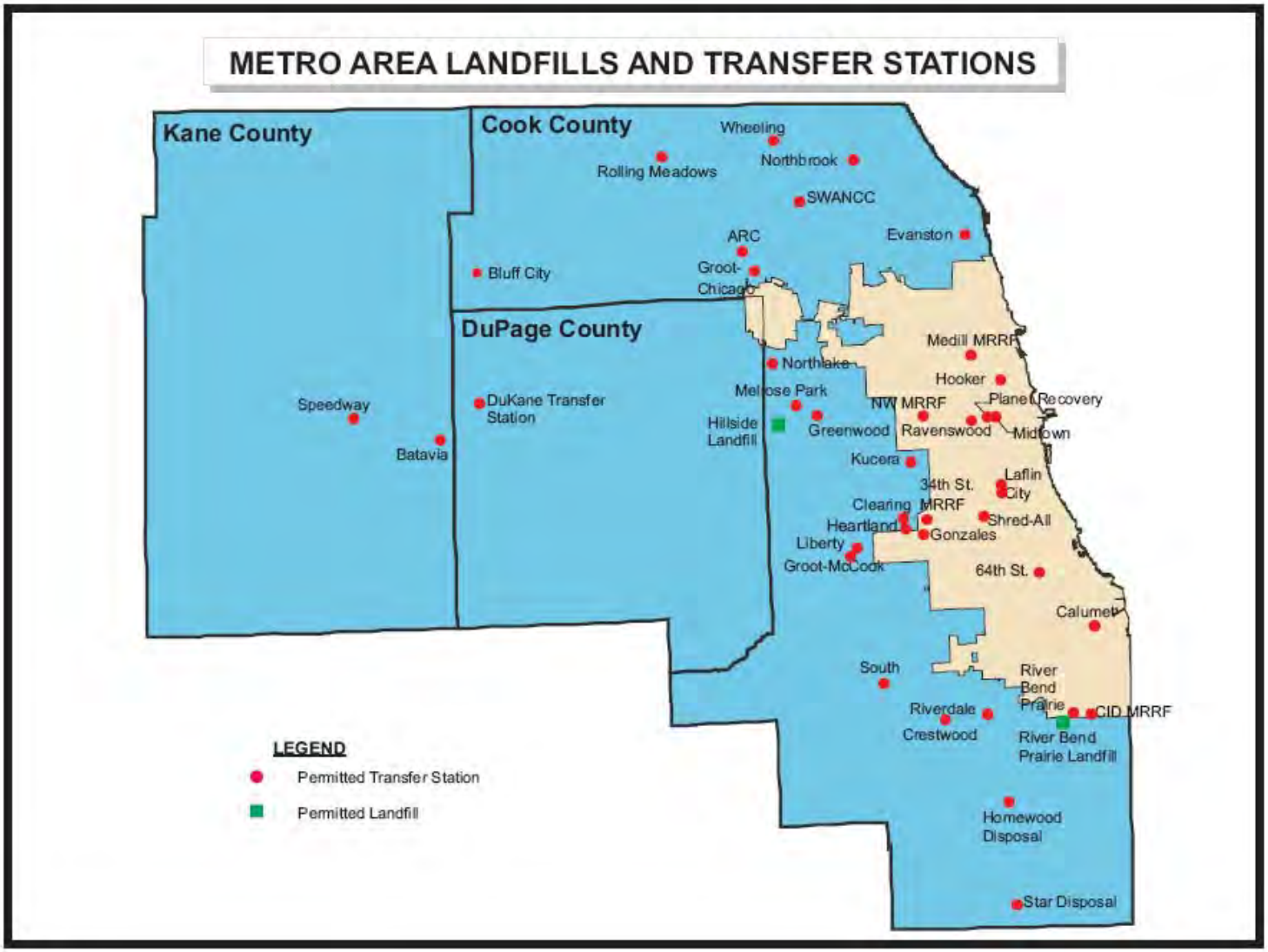
The position at this time is to rely on existing stations both inside and outside of the County borders. While this reliance comes at the cost of higher disposal rates, it is the preferred method. This method will serve the County's needs for the next 5 years.

Attachment C lists the recommendations of the original Solid Waste Plan and subsequent updates. It provides a review of those recommendations including status of implementation and any future plans.

****

ATTACHMENT A

SHAW ENVIRONMENTAL, INC.



ATTACHMENT B

SHAW ENVIRONMENTAL, INC.

TABLE 1. DISTANCES TO NEAREST TRANSFER STATIONS, BY QUADRANT			
	One-Way Travel		Average Travel Speed (mph)
	Miles	Minutes	
Northwest DuPage County			
DuKane Transfer	4.7	8	35
Batavia Transfer	8.6	18	29
Bluff City Transfer	12.0	22	33
Average	*8.4*	*16*	*32*
Northeast DuPage County			
Northlake Transfer	5.6	13	26
Melrose Park Transfer	6.8	12	34
Groot-Chicago Transfer	8.9	17	31
Average	*7.1*	*14*	*30*
Southwest DuPage County			
Batavia Transfer	10.3	23	27
DuKane Transfer	12.6	22	34
Speedway Transfer	18.8	36	31
Average	*13.9*	*27*	*31*
Southeast DuPage County			
Groot-McCook Transfer	8.8	22	24
Liberty Transfer	9.7	25	23
Heartland Transfer	13.1	22	36
Average	*10.5*	*23*	*28*

The areas served by each of these facilities are indicated on the figures contained in Attachment 2. Service areas were obtained from applications for local siting approval, where available. For all other facilities, a service area consisting of a 10-mile radius around the facility was assumed, based on the distance that waste may be economically transported in areas of higher population density.

1996 TO 2007 ACCOMPLISHMENTS AND RECOMMENDATIONS

1990 Solid Waste Plan and 1996 Update Recommendations	*Status*	*Future*
The County will focus on sustaining intergovernmental cooperation with local government agencies authorized by status to perform solid waste management activities, including but not limited to counties, municipalities, townships, special taxing districts, and joint action agencies.	Implemented/ongoing	Through standing and future relationships, the County should continue to remain as an informational clearinghouse for other entities and provide whatever support is necessary to accomplish solid waste and recycling obligations.
The County will continue to monitor and develop legislation as necessary to assist in the development and implementation of sound solid waste management programs.	Implemented/ongoing.	As potential problems or existing problems arise that are in need of legislative modifications, the County will draft the necessary language.
The County should encourage local industry to streamline the product design, manufacturing, and packaging processes they utilize by offering general information and technical assistance regarding source reduction practices.	Implemented/ongoing.	This is done on a limited basis through the County's community outreach portion of the contract with SCARCE. Continue program as is.
The County must promote waste prevention.	Implemented/ongoing.	Promoted through education contract and information on the website. Continue to promote waste reduction through outlets and by becoming an example.
As part of the County's waste reduction program, pollution abatement should be aimed at minimizing the negative impact of potentially hazardous refuse on the environment.	Implemented/ongoing	The County hosts one-day HHW events and monetarily supports the regional HHW facility in Naperville.
The County should make an effort to reduce the total amount of waste it generates and should minimize the use of highly toxic or disposable products whenever possible.	Implemented/ongoing	The County has jointed Clean Air Counts and committed to reduce toxics generated. It participates in many special and hazardous waste recycling and proper disposal programs. It utilizes low or non toxic cleaners.
Continue to provide assistance to the existing drop-off center facilities.	Implemented	The County purchased the IPF where recycling drop off is available 7 days a week. Even after the sale of the property, the

		purchaser continues this program.
Pursue the implementation of curbside collection services to additional households within DuPage County.	Implemented.	All municipalities provide curbside recycling service. Haulers offer recycling in unincorporated areas on a limited basis.
Encourage drop-off facilities single-family, and multi-family collection services to accept and market the maximum range of recyclable materials.	Implemented/ongoing	Drop off facilities accept a range of materials for recycling. Provides the Recycling Guide which lists companies that accept hard-to-handle items.
Encourage the implementation of residential collection programs which are designed for the convenience of the resident.	Implemented/ongoing	All DuPage municipalities provide curbside recycling. In addition, there are several drop off centers for use.
Facilitate the development and expansion of recycling services for multi-family housing complexes.	Implemented/ongoing.	The County provided a sample multi-family recycling ordinance for municipalities. Drop off sites are listed on the website.
Document the recycling levels of the residential waste stream.	Implemented/ongoing.	The County calculates the recycling rate annually with rates consistently exceeding the State mandated 25%.
Research the feasibility of coordinating the implementation of volume-based solid waste collection systems for all residents in the County.	Not pursued.	At this time, State regulations do no permit county-wide waste collection.
Develop a county-wide public awareness and information program utilizing outlets for such distribution of information.	Implemented/ongoing.	EDP maintains a website, distributes brochures including the Recycling Guide, Green Building brochure and Safer Household Cleaner Alternatives.
Resume printing of a Solid Waste Newsletter on a regular basis and distribute to individuals on an existing and an expanding list at the County.	Implemented/ongoing.	Due to technological advancements, the website is a more reliable and up-to-date tool for disseminating information.
Provide mass appeal informational material.	Implemented/ongoing	The County continues to develop new information that is distributed and posted on the website.
Provide a clearinghouse capability for information requests.	Implemented/ongoing	EDP call center, pamphlets and the website all provide information to the public.
Continue regular intergovernmental network meetings but strive	Implemented	The Solid Waste Committee was dissolved in

for format which encourages local reports and attendance by elected officials.		2003 due to a diminished need for its existence. The majority of the work had been completed and the municipalities had taken on recycling responsibilities.
Continue general meetings with public as requested.	Implemented/ongoing.	Continue to hold Environmental Committee meetings to address these items.
Develop and implement information programs for schools	Implemented/ongoing.	S.C.A.R.C.E. has been contracted through 2008 to provide education to teachers and community groups.
Develop and expand working relationships with grass roots and special interest organizations as well as trade groups.	Implemented/ongoing	S.C.A.R.C.E. has been contracted through 2008 to provide information to community groups and businesses as necessary. The DuPage Environmental Commission meets monthly on a range of environmental topics and hosts an annual environmental summit.
Investigate and utilize resources available through public service/community access media outlets.	Implemented.	Addressed under several other recommendations.
Initiate promotional activities.	Implemented.	The County recognizes successful and innovative programs and through S.C.A.R.C.E. presents Earth Flags to schools.
Solicit regional and national coverage by preparation of articles for journals and presentations of papers at conferences.	Implemented.	Due to financial restrictions, this will be done on a limited basis.
Develop mass media programs.	Implemented/ongoing	On a program basis, advertising will continue to be pursued thorough newspapers, websites, press releases and brochures.
Pursue additional funding resources.	Implemented/ongoing	The County has received grant funding in the past and will consistently look into alternate funding sources.
Strongly encourage private business to actively pursue recycling and waste reduction practices, as well as to procure secondary materials.	Implemented/ongoing	The County continues to provide the Recycling Guide which provides recycling outlets to all entities. S.C.A.R.C.E. provides

		education on recycling, energy efficiency, waste audits and other green recommendations to businesses.
Expand the commercial/institutional/industrial outreach program.	Implemented.	Due to staffing levels, this program will not be maintained on a full scale. Educational information will be posted on the website periodically. The WeReduce program educated an array of entities.
Document the recycling levels from the commercial/institutional/industrial waste stream.	Implemented/ongoing.	Each year, staff expands its request for recycling information. Unfortunately, due to its voluntary nature and privacy issues, this will receive minimal time.
Encourage the siting and development of the industries that use secondary materials in DuPage County area.	Implemented.	The County annually supports entities applying to DECO for recycling grants.
Develop guidelines for the County's procurement of recycled products.	Pursuing	The County is currently working on a Conservation Policy that will incorporate purchasing practices. It is expected to be introduced in early 2008.
The County should itself practice and assist other local governments including the Forest Preserve District in the design and implementation of in-house recycling, waste reduction, and procurement programs.	Implemented.	The County is currently working on a Conservation Policy that will incorporate purchasing practices. The environmental educator also provides assistance.
Document the recycling levels from the public sector's waste stream.	Implemented/ongoing	The County calculates the recycling rate annually with rates consistently exceeding the State mandated 25%.
Establish a new target recycling goal of beyond 25% after 1996.	Implemented/ongoing	Through the implementation of many of the County's programs, significant efforts have been made to increase the recycling rate. The County has consistently exceeded 25% without mandating a target.
Goals for the reduction in this component (construction and demolition debris) of the waste stream should be parallel with other County recycling goals. The County should encourage steps	Implemented	The County assisted in the development and distribution of the Illinois Construction and Demolition Site Recycling Guidebook in

leading towards a minimum reduction in this waste component of 25 percent in three years and 50 percent within five years.		1997. An update was printed in 2001. A pilot program working with general contractors to recycle was also conducted. Currently outlets are listed on the website and in the Recycling Guide.
The implementation of programs to achieve the goals stated in Recommendation 1 should proceed in a phased manner. The following methods to reduce or recover materials should be considered. They are listed in ascending order of anticipated costs for implementation. (construction and demolition debris)	Implemented	The County assisted in the development and distribution of the Illinois Construction and Demolition Site Recycling Guidebook in 1997. An update was printed in 2001. A pilot program working with general contractors to recycle was also conducted. Outlets are listed on the website and in the Recycling Guide.
The County will focus on reducing the C&D materials that will be leaving DuPage County for disposal once the two DuPage landfills close.	Implemented	The County assisted in the development and distribution of the Illinois Construction and Demolition Site Recycling Guidebook in 1997. An update was printed in 2001. A pilot program working with general contractors to recycle was also conducted. Currently outlets are listed on the website and in the Recycling Guide.
The County should reduce disposal of the C&D waste stream by 50% through reuse and recycling by the year 2000.	Implemented	Unfortunately, the tracking of construction and demolition debris recycling is difficult. There are two recycling facilities operating in the County that divert this waste stream. Proprietary issues limit the amount of information obtained.
In cooperation with the private sector, the County will promote whenever appropriate, legislation to enhance C&D recycling.	Implemented	The County assisted in changing the regulations to allow construction and demolition debris facilities operating in DuPage to be exempt from IEPA permits
The County will promote development of markets to ensure permanent recycling of C&D materials.	Not pursued	The County is working on a Conservation Policy which will encourage the purchase of recycled goods. It is slated to be approved in

		early 2008.
The County will promote waste reduction of C&D materials through a comprehensive educational program.	Implemented	The County created a pilot program to teach waste handlers and construction contractors on how to recycle C&D. There are now 2 recyclers operating in the County.
Provision of equipment and facilities for construction/demolition waste recycling should be sought first from private developers. The implementation of any of the methods discussed in recommendations would logically first be incorporated at the present disposal sites. Other entrepreneurial interests may exist to provide facilities for this action throughout the County.	Not pursued	The County has taken an approach to allow the private sector and the market to drive this economy.
The County will encourage the private sector to voluntarily implement C&D recycling programs and adopt an ordinance if needed.	Implemented	The County created a pilot program to teach waste handlers and construction contractors on how to recycle C&D. There are now 2 recyclers operating in the County.
The County should work in cooperation with the State and the municipalities to intensify public education campaigns which promote landscape waste reduction and backyard composting.	Implemented.	The County utilized the environmental educator to work with composting in addition to distributing a brochure.
The County should develop and implement new innovative public education programs that promote landscape waste reduction and backyard composting.	Implemented	The County utilized the environmental educator to work with composting in addition to distributing a brochure.
The County should monitor the adequacy of available landscape waste disposal capacity and (if required) continue to provide a processing facility for the diverted waste stream.	Implemented/ongoing	As required as part of the Solid Waste Plan Update the County will monitor landscape waste disposal capacity. Establishing new facilities will be left to the private sector. The County no longer is operating a compost site.
To assure maximum compliance with Illinois Public Act 85-1430, the County should continuously monitor and evaluate the efficacy	Implemented/ongoing	The County annually reviews recycling by compiling the Solid Waste and Recycling

of the diversion system.		Annual Report and calculating the recycling rate.
As part of the County's waste reduction program, pollution abatement should be aimed at minimizing the negative impact of potentially hazardous refuse on the environment.	Implemented/ongoing	The County continues to host one-day HHW collection events and has provided monetary assistance to the Regional Household Hazardous Waste Facility. The County also operates a Latex Paint Recycling Program.
Pursue the implementation of an integrated household hazardous waste program.	Implemented/ongoing	The County continues to host one-day HHW collection events and has provided monetary assistance to the Regional Household Hazardous Waste Facility. The County also operates a Latex Paint Recycling Program.
The County should attempt to increase the general public's awareness of the need to divert these wastes from the municipal waste stream.	Implemented/ongoing	The County continues to offer these alternative disposal outlets. Municipalities and waste haulers are taking the lead in providing education. The County maintains information on alternate outlets for waste.
Promote HHW avoidance and use of safer alternatives.	Implemented/ongoing	The County distributes A Guide to Safer Household Cleaners and provides this information on the website.
Promote proper use or re-use of products with hazardous materials/ingredients.	Implemented	The County provides assistance on an as needed basis to inquirers but a full blown program has not been pursued.
Inform residents about the availability of HHW collection as the option of last resort.	Implemented	The County has attempted to educate residents to reduce purchases to only necessary amounts and to donate usable items.
The County should develop a paint re-use program.	Implemented	The County has operated the Latex Paint Recycling Program since 2002.
Foster the development of private sector efforts to re-use, recycle, or otherwise divert HHW from the municipal waste stream.	Partially implemented	The County lists these businesses on the website and in the Recycling Guide.
The County's mobile HHW collection program should include a re-use component.	Implemented	Due to the impractical nature of giving products to the public, this program has been

		discontinued.
HHW collection should be considered the option of last resort.	Implemented	This has been an internal mantra however due to the availability and success of the HHW program it has not been implemented.
Maximize the number of IEPA one-day HHW collection events held within DuPage County.	Implemented	The County continues to make attempts at hosting as many HHW events as possible but due to financial constraints this has been restricted. Delete
Maintain an intergovernmental agreement with the City of Naperville to provide permanent HHW collection services for DuPage County residents in a cost-efficient manner.	Implemented	The County has provided funding for both capital and operational expenses since 1995. Continued funding is dependent upon available revenue and will be considered on an annual basis.
Establish a mobile HHW collection program.	Implemented/ongoing	Since 1996, the County has hosted 63 one day HHW events.
The County should continue to monitor the technical and economic feasibility of waste-to-energy as a final disposal method.	Implemented/ongoing	Staff continues to evaluate waste-to-energy technologies.
The County should continue to monitor the availability of waste-to-energy facilities in the region.	Implemented/ongoing	Staff continues to evaluate waste-to-energy technologies.
The County should continue to monitor and, when appropriate, lobby the General Assembly and the U.S. Congress to shape legislation impacting waste-to-energy.	Not pursed	As technology becomes more standardized and reliable, the County could consider this opportunity.
Any proposals for siting a landfill in DuPage County will be monitored and evaluated.	Implemented	As no property can meet the setback criteria for siting a landfill, transfer stations are the primary method of waste disposal. Delete
The County shall continue to provide educational information on landfilling as it becomes available.	Implemented/ongoing	This item has been addressed by SCARCE with education and the purchase of a landfill

		model.
The County will continue efforts to find alternative uses for sludges.	Not pursued	This has been handled through the Department of Public Works.
The availability of in-county disposal capability should be determined. If in-county disposal will be available for an extended period of time, the provisions of transfer capability may be unnecessary. However, even if in-county disposal capability will be available for an extended period of time, the practicality and desirability of providing transfer capability in the county should be evaluated as a mechanism to improve waste transport efficiencies and to minimize local traffic impacts.	Implemented	As part of this update, the County will be reviewing disposal capacity and making recommendations. Transfer of waste is the preferable method of disposal. In the 2001 update, the County recommended siting additional transfer stations.
The County should encourage development of three to five waste transfer facilities throughout the County. The County should assist the private sector in determining the most appropriate and efficient locations for transfer facilities, and providing education and more about waste transfer stations.	Implemented/ongoing	The County is currently evaluating disposal capacity. Transfer of waste is the preferred method. DuPage published the Solid Waste Transfer in Illinois Handbook in December 1998.
The County should encourage development of recycling operations and landscape waste operations throughout the county. The County assist the private sector in siting such operations. One means by which this may be accomplished is to amend legislation to provide for an expanded definition of construction and demolition debris.	Partially implemented	The County assisted in changing the regulations to allow construction and demolition debris facilities operating in DuPage to be exempt from IEPA permits
The County will continue with and adapt the enforcement program as the two DuPage landfills close to focus on education of proper waste disposal, open dumps, and unpermitted/permitted transfer stations. The County will continue to monitor the landfills through the closure/post closure periods.	Implemented/ongoing	The County currently holds an agreement with the IEPA to conduct inspections through 2010.

APPENDIX 8-G

DUPAGE COUNTY SWMP
2012 UPDATE

DUPAGE COUNTY ILLINOIS

SOLID WASTE MANAGEMENT PLAN FIVE YEAR UPDATE

2012

Third DuPage County Solid Waste Management Plan Update - February 2008
Second DuPage County Solid Waste Management Plan Update - April 2002
First DuPage County Solid Waste Management Plan Five Year Update - June 1996
DuPage County Solid Waste Management Plan - February 1991

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EXECUTIVE SUMMARY

The State of Illinois passed the Solid Waste Planning and Recycling Act in 1988 ("Act"). The Act mandated that counties must each submit to the Illinois Environmental Protection Agency an officially adopted plan for the management of municipal waste generated within its boundaries. Such plan shall conform with the waste management hierarchy established as State policy in subsection (b) of Section 2 of the Illinois Solid Waste Management Act (Appendix A).

The initial DuPage County Solid Waste Management Plan was adopted February 1991 with subsequent updates completed in 1996, 2001 and 2008. The 15-year update focused on providing status of the programs in the original plan and providing a snapshot of waste disposal in the County. It also highlighted an increased waste generation rate from the previous plan.

This Plan update reconsiders the current waste disposal capacity of the County and includes new recycling successes due to the landfill ban placed on electronics, the commercial recycling program and new food scrap collection and composting programs.

1.0 WASTE GENERATION

For purposes of this document, need has been derived from first calculating a waste generation rate per capita and then reviewing the capacity of existing pollution control facilities. This number can be impacted by waste hauling contracts with municipalities and between waste companies. The closest pollution control facility is not always economically feasible for all waste haulers. Due to confidentiality of these contracts, this report only takes into account information that is publicly available.

In recent years the waste generation rate has been 8.15 pounds per person per day (lbs/pp/day) in 2008 and most recently 2011 reported to be 5.3. These numbers are based solely on residential hauling reports submitted to the County from the municipalities and the waste haulers.

Some factors that have an impact on the rate include the economy and the success of recycling. Residential recycling has increased in the County from 36% in 2008 to 42% in 2011. This can likely be attributed to the countywide implementation of single stream recycling and the use of toter/cart systems for recycling. Commercial recycling data remains unavailable as there is no reporting requirement.

In 2009, the Illinois Department of Commerce and Economic Opportunity commissioned the Illinois Recycling Association to complete the *Illinois Commodity/Waste Generation Study*[1]. The study concluded that the waste generation rate for the Chicago Metropolitan area was 8.3 lbs/pp/day. Their conclusion included sampling at landfills, modeling to account for moisture content and calculations for commercially generated waste.

The following data on the content of the waste stream was derived from the samples conducted at landfills throughout the State.

- Construction & Demolition Debris – 25.3%
- Paper – 23.4%
- Organics – 20.7%
- Plastic – 13.0%
- Textiles – 7.0%
- Metal – 4.8%
- Glass 2.8%
- Inorganics - 2.4%
- Household Hazardous Waste 0.4%
- Beverage

In 2010, the U.S. EPA published the Municipal Solid Waste Generation, Recycling, and Disposal in United States: Facts and Figures for 2010. The document reported a waste generation rate of 4.43 lbs/pp/day an increase from 3.66 lbs/pp/day and a 34.1% recycling rate up from less than 10% between 1980 and 2010.

Due to the actual samples and inclusion of commercial waste, the County is adopting the rate identified by the *Illinois Commodity/Waste Generation Study*[1] 9.19 lbs/pp/day for the Chicago Metropolitan Region.

2.0 COUNTY POPULATION

The 2010 DuPage County population was reported to be 916,924 in the County's 2011 Statistical Profile[2]. Growth within the County has slowed with minor growth of 1.4% since 2000. Assuming a similar growth rate over the next five years, this plan needs to account for 929,760 residents generating 1,537,842 tons of waste per year.

3.0 EXISTING FACILITIES

Table 1 below provides a snapshot of existing pollution control facilities located in the County. The first ten facilities listed operate under permits from the Illinois Environmental Protection Agency. The last two facilities are construction and demolition debris recycling centers and are allowed to operate without IEPA permits under the conditions set forth 415 ILS 5/22.38. If the facilities cannot meet these criteria, they also must obtain a permit.

TABLE 1.0 EXISTING POLLUTION CONTROL FACILITIES IN DUPAGE COUNTY

FACILITY	LOCATION	WASTE STREAM	CAPACITY
DuKane Transfer Facility	West Chicago	Municipal Solid Waste	3,000 tons/day
DuPage Yard Waste	West Chicago	Landscape Waste	400 yd^3/day
Anderson Landscape Supply, LLC	Elmhurst	Landscape Waste	260 yd^3/day
A.K. Mulch	Villa Park	Landscape Waste	40 yd^3/day
Advanced Environmental Systems	Itasca	Potentially Infectious Medical Waste	14,000 lbs/day
Recycle Technologies, Inc.	Wood Dale	Antifreeze	22,700 gal/day
St. Francis Crematory	Wood Dale	Animal Carcass	Based on storage capacity
Mallard Lake Landfill	Hanover Park	Municipal Solid Waste	Closed
Greene Valley Landfill	Naperville	Municipal Solid Waste	Closed
Bensenville Landfill	Bensenville	Construction & Demolition Debris	Closed
K. Hoving Recycling & Disposal	West Chicago	Construction & Demolition Debris	Not specified
Neil's Hauling	West Chicago	Construction & Demolition Debris	Not specified

4.0 RECYCLING AND DIVERSION

The *Illinois Commodity/Waste Generation and Characterization Study* concludes that a 19.1% recycling rate is more accurate when industrial/commercial/institutional and construction/demolition waste is included in the calculation. While the County's residential rate was calculated to be 41% for 2011 (Appendix C), commercial recycling is much lower. The study is statewide and does not specifically account for the County's two construction demolition debris recycling operations nor its proximity to many recycling centers including the intermediate processing facility in Carol Stream. It also does not consider the County's successful commercial recycling, electronics recycling and document shredding programs (see Section 6.0). Roughly one-third of the municipalities providing commercial recycling data yielded a 21% commercial recycling rate. This rate does not consider segregated recycling of items such as scrap metal, electronics and document shredding.

A more accurate combined recycling rate for DuPage is 30%, an average of the reported residential and commercial recycling rates.

5.0 NEEDS ASSESSMENT

This Plan's needs assessment is limited to municipal solid waste which is defined as "garbage, general household and commercial waste, industrial lunchroom or office waste, landscape waste, and construction or demolition debris." (415 ILCS 5/3.290). It does not include special waste, hazardous waste, potentially infectious medical waste, pollution control waste and clean construction and demolition debris. Because these wastes are not included in the assessment, facilities proposed to handle these materials should be considered on a case by case basis. Single-stream facilities accepting exclusively waste materials that are not classified as municipal solid waste as defined above, and which require local siting approval in accordance with the Illinois Environmental Protection Act, may be considered by the appropriate local authority.

In recent years, a number of waste-to-energy technologies have been contemplated in the solid waste industry, such as gasification, pyrolysis, and waste-to-fuel in addition to more traditional mass-burn incineration technology. The County continues its assertion that these types of technologies are inconsistent with the County's structure and are an inappropriate disposal method within the County for municipal solid waste. The status of development of these technologies and their appropriateness for development in the County will be considered in future Plan Updates.

The DuKane Transfer Facility accepts waste approximately 307 days per year (Monday – Saturday, excluding some holidays) Previous studies by Shaw Environmental[4] have estimated that 50% of the waste brought to the facility is generated from within DuPage County. Therefore, the facility is capable of handling 460,500 tons/year (307 operating days x 1,500 tons/day). Using the U.S. EPA's conversion[3] for volume-to-weight for landscape waste, the two facilities can accept another 63,319 tons of the waste stream (660 yd^3 x 625 lbs/yd^3/ 2,000 lbs/ton x 307 days). Taking into account a 30% recycling/diversion rate, which prevents 461,352 tons from being landfilled, approximately 552,671 tons remain.

Recent legislation which permits the collection and composting of food scraps/organics is having an impact on waste within the County as well. Several businesses are leading the effort to use composting as an alternative to disposal. At this time, all organics are composted outside of the County. This has impacted how quickly and economically this waste can be removed from the waste stream. Because it is an additional truck route, costs of this single stream collection are expensive and in some cases are prohibitive. The County would benefit from more local facilities that can meet the site location requirements. Existing facilities should be utilized to address this new waste stream.

In the information provided by the *Illinois Commodity/Waste Generation and Characterization Study,* construction and demolition debris is the largest portion of the waste stream. DuPage

County participated in efforts to make it easier to recycle this waste. The efforts resulted in Section 22.38 of the Environmental Protection Act which allows facilities to recycle construction and demolition debris without a permit in counties with a population of 700,000 or more. DuPage County is currently home to two construction and demolition debris recycling facilities which add to the diversion of waste from landfills.

Public Act 97-0287 - Electronic Products Recycling & Reuse Act also impacted the County's waste steam. Certain electronics products were banned from landfills as of January 1, 2012. Fortunately, the County had been working with governmental partners since 2008 to provide electronics recycling drop-off locations. The County has continued to provide a vendor for recycling and promotes events and locations. In 2011, the County met with municipalities and haulers to ensure that the framework was in place to handle the diversion of the electronics. As of 2012, the County through its partners has recycled more than 3 million pounds of electronics.

Appendices D and E are maps of permitted landfills and transfer stations in the region. Appendices F, G, H and I show transfer stations in adjacent counties which may provide service to residents and businesses within the County. Service areas were determined in a 2007 report completed by Shaw Environmental for DuPage County. They reflect actual services areas identified in siting documents or a 10-mile radius determined to be the maximum economical distance for a waste hauling company.

Disposal in landfills is not the preferred method of disposal but at this time, it is still preferred to incineration. The County currently has no operating landfills and this Plan concludes that new landfills are not possible or needed within the County. The preferred method for disposal continues to be waste transfer. The above mentioned maps indicate that while solid waste is currently being handled at existing facilities, they may not be a long term solution for the County's disposal needs. Factors that contribute to the need for new facilities are an increasing population; rising waste generation rate and fuel/operating costs. Future conditions may necessitate a new facility in the southern portion of the County. The maps and table indicate that this area is somewhat underserved and that some areas are out of range for existing facilities. These conditions can result in less competitive waste hauling and higher costs especially in unincorporated areas where homeowners contract directly with waste haulers. There is a direct correlation with cost and distance to waste disposal facility.

Under the aforementioned conditions, it is potentially foreseeable that the out-of-county facilities may cease serving all, or parts, of the current DuPage area. In the event that occurs, there would be a service gap in the affected areas thereby creating a potential need for a new facility.

6.0 RECOMMENDATIONS

Source reduction and recycling remain the first step in managing waste. The County will continue to promote the use of reusable items and support efforts to reduce waste generated. In 2010, the County implemented waste reduction at the campus by launching the use of reusable dishware at the Convalescent Center and the use of reusable mugs in the cafeterias. The project has netted measureable waste reduction as well as energy and cost savings.

Also in 2010, the County launched a Commercial Recycling program. The program was implemented to increase recycling efforts with commercial entities. It is ongoing and has resulted in more than 3,500 tons of waste being diverted from landfills. The program is also working with DuPage businesses to launch food scrap composting. The County has set a goal of bringing 100 business locations online with composting by June of 2013. The County is almost halfway to this goal at the publication of this document.

Recycling remains a priority for the County. As relayed in the USEPA Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2010: "Recycling has environmental benefits at every stage in the life cycle of a consumer product–from the raw material with which it's made to its final method of disposal. Aside from reducing GHG emissions, which contribute to global warming, recycling also reduces air and water pollution associated with making new products from raw materials. By utilizing used, unwanted, or obsolete materials as industrial feedstocks or for new materials or products, we can each do our part to make recycling work."

Solid waste industry groups have been working on disposal alternatives for latex paint, carpet, plastic bags and medicine. The County will continue to monitor and participate in these discussions. State legislation also created a Recycling Task Force. The County will monitor progress and provide input as requested to the Task Force to aid in increasing recycling. DuPage County residents are currently provided solutions for household hazardous waste and unwanted medications.

[1] Illinois Commodity/Waste Generation and Characterization Study- 2009
Illinois Recycling Association as commission by Illinois DCEO
[2] DuPage County 2011 Statistical Profile
[3] U.S. E.P.A. Measuring Recycling: A Guide for State and Local Governments Appendix B Standard Volume-to-Weight Conversion
[4] Application for Local Siting Approval for the West DuPage Recycling & Transfer Facility

APPENDIX A

SOLID WASTE PLANNING AND RECYCLING ACT EXCERPT
(415 ILCS 15/1)

Sec. 1. This Act shall be known and may be cited as the Solid Waste Planning and Recycling Act.

Sec. 2. (a) The General Assembly finds:

(1) that parts of this State have inadequate and rapidly diminishing disposal capacity for municipal waste;

(2) that counties should have the primary responsibility to plan for the management of municipal waste within their boundaries to insure the timely development of needed waste management facilities and programs;

(3) that waste reduction and recycling are preferable to the disposal of municipal waste;

(4) that removing certain materials from the municipal waste stream will decrease the flow of waste to sanitary landfills, aid in the conservation and recovery of valuable resources, conserve energy in the manufacturing process, increase the supply of reusable materials for the State's industries, and reduce substantially the need for municipal waste incineration facilities and contribute to their overall combustion efficiency, thereby resulting in a significant cost savings in the planning, construction and operation of these facilities; and

(5) that solid waste planning should be encouraged to take place on a multi-county, regional basis and through inter-governmental cooperation agreements whereby various units of local government within a region determine the best methods and locations for disposal of solid waste. This amendatory Act of 1992 shall not be construed to impact the authority of units of local government in the siting of solid waste disposal facilities.

(b) It is the purpose of this Act to provide incentives for decreased generation of municipal waste, to require certain counties to develop comprehensive waste management plans that place substantial emphasis on recycling and other alternatives to landfills, to encourage municipal recycling and source reduction, and to promote composting of yard waste.

Illinois Commodity/Waste Generation and Characterization Study- 2009

DuPage County Municipal Solid Waste (MSW) Generation

	County Generation (lb/p/yr)	Total Generation (tons)		County Generation (lb/p/yr)	Total Generation (tons)
Paper	***1,104.8***	***513,290***	***Metal***		
Newsprint	173.9	80,780	Other Ferrous	55.2	25,650
High Grade Office Paper	67.3	31,270	Other Non-Ferrous	5.1	2,390
Magazines/Catalogs	70.9	32,930	Other Metal	21.5	9,980
Uncoated OCC/Kraft	584.9	271,730			
Boxboard	40.6	18,860	***Organics***	***584.8***	***271,690***
Mixed Paper - Recyclable	71.2	33,100	Yard Waste - Compostable	73.3	34,070
Compostable Paper	73.9	34,330	Yard Waste - Woody	67.3	31,270
Other Paper	22.2	10,300	Food Scraps	316.8	147,200
			Bottom Fines & Dirt	20.0	9,310
Beverage Containers	***5.4***	***2,490***	Diapers	46.8	21,720
Milk & Juice Cartons/Boxes - Coated	5.4	2,490	Other Organic	60.5	28,120
Plastic	***373.5***	***173,520***	***Inorganics***	***136.5***	***63,440***
#1 PET Bottles/Jars	25.6	11,900	Televisions	6.5	3,020
#1 Other PET Containers	2.2	1,000	Computer Monitors	4.6	2,130
#2 HDPE Bottles/Jars - Clear	10.0	4,660	Computer Equipment/Peripherals	5.3	2,440
#2 HDPE Bottles/Jars - Color	14.6	6,770	Electronic Equipment	24.2	11,260
#2 Other HDPE Containers	2.0	960	White Goods - Refrigerated	8.6	4,010
#6 Exp. Polystyrene Packaging	24.3	11,290	White Goods - Not refrigerated	19.0	8,820
#3-#7 Other - All	24.6	11,430	Lead-acid Batteries	16.0	7,430
Other Rigid Plastic Products	91.2	42,370	Other Household Batteries	1.1	500
Grocery & Merchandise Bags	17.3	8,050	Tires	29.0	13,460
Trash Bags	25.8	12,000	Household Bulky Items	22.2	10,330
Commercial & Industrial Film	46.4	21,570	Fluorescent Lights/Ballasts	0.1	40
Other Film	30.3	14,060			
Other Plastic	59.1	27,470	***Textiles***	***214.6***	***99,720***
			Carpet	38.8	18,010
Glass	***86.2***	***40,060***	Carpet Padding	5.7	2,650
Recyclable Glass Bottles & Jars	80.9	37,590	Clothing	71.5	33,230
Flat Glass	3.8	1,770	Other Textiles	98.6	45,830
Other Glass	1.5	700			
			Household Hazardous Waste	***28.8***	***13,370***
Metal	***138.2***	***64,200***			
Aluminum Beverage Containers	15.7	7,290	***Construction and Demolition Debris (C&D)***	***682.6***	***317,110***
Other Aluminum	13.0	6,040			
HVAC Ducting	0.6	300	***Total MSW (tons)***		***1,558,890***
Ferrous Containers (Tin Cans)	27.0	12,540	***Total MSW (pounds/person/day)***		***9.19***

2007 population 929,192

County generation based on 2007 data.

APPENDIX C

2011 MUNICIPAL RECYCLING RATES

Municipality	Tons of Refuse Collected (1)	Tons of Recycled Collected (1)(2)	Landscape Waste Tons (1)(2)	Total Recycled	Total Waste	Recycling Rate
Addison	35,683.00	2,119.81	9,912.00	12,031.81	47,714.81	25%
Aurora	34,750.55	15,930.96	8,346.77	24,277.73	59,028.28	41%
Bartlett*	12,995.00	4,736.00	2,552.00	7,288.00	20,283.00	36%
Bloomingdale	4,690.20	1,326.00	0.00	1,326.00	6,016.20	22%
Carol Stream	10,654.80	4,178.67	4,621.00	8,799.67	19,454.47	45%
Darien	3,185.81	1,828.89	991.49	2,820.38	6,006.19	47%
Downers Grove	9,926.00	6,368.00	3,152.00	9,520.00	19,446.00	49%
Glen Ellyn	7,273.00	4,210.00	2,761.00	6,971.00	14,244.00	49%
Hanover Park	10,722.00	2,412.00	952.00	3,364.00	14,086.00	24%
Lisle	3,454.73	2,167.56	605.51	2,773.07	6,227.80	45%
Lombard	16,250.00	10,145.00	3,003.00	13,148.00	29,398.00	45%
Naperville*	38,487.00	16,629.49	9,453.00	26,082.49	64,569.49	40%
Oak Brook	2,910.00	1,169.00	183.00	1,352.00	4,262.00	32%
Roselle	7,899.20	2,938.77	906.29	3,845.06	11,744.26	33%
St. Charles	9,960.00	6,403.00	3,893.00	10,296.00	20,256.00	51%
Villa Park	6,857.99	1,643.99	1,403.57	3,047.56	9,905.55	31%
Warrenville	1,959.10	1,139.50	355.10	1,494.60	3,453.70	43%
West Chicago	5,767.09	2,713.52	2,275.00	4,988.52	10755.61	46%
Westmont	4,078.00	1,739.00	885.00	2,624.00	6,702.00	39%
Wheaton	9,354.51	7,099.25	12,046.00	19,145.25	28,499.76	67%
Willowbrook	1,113.45	589.45	118.77	708.22	1,821.67	39%
Winfield	1,888.30	1,040.70	536.10	1,576.80	3,465.10	46%
Wood Dale	4,111.00	1,158.00	1,249.00	2,407.00	6,518.00	37%
Woodridge	4,893.60	3,525.00	1,068.00	4,593.00	9,486.60	48%
TOTAL/AVERAGE	**248,864.33**	**103,211.56**	**71,268.60**	**173,154.16**	**417,328.29**	**41%**

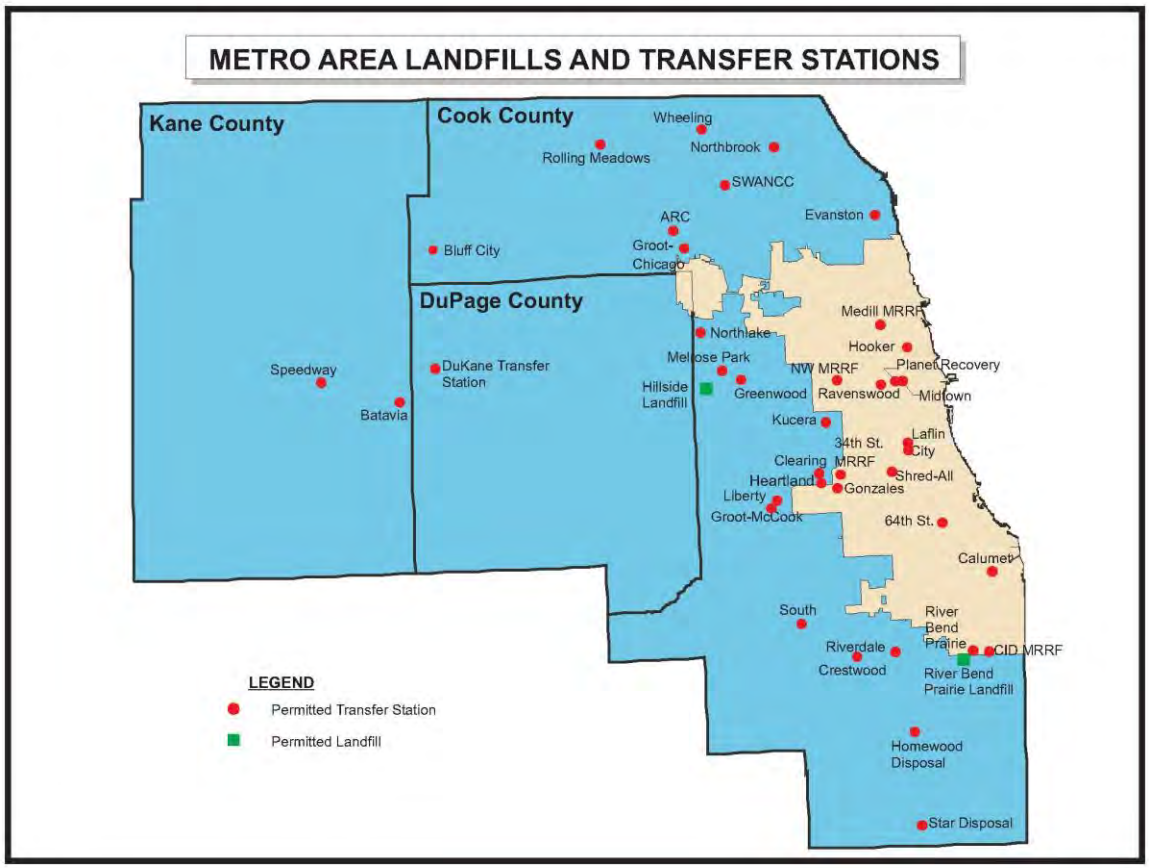
KEY:

(1) Data as provided by the municipality or waste hauler.

(2) Standard Volume-to-Weight Conversion Factors "Measuring Recycling - A Guide For State and Local Governments U.S. Environmental Protection Agency Sept. 1997

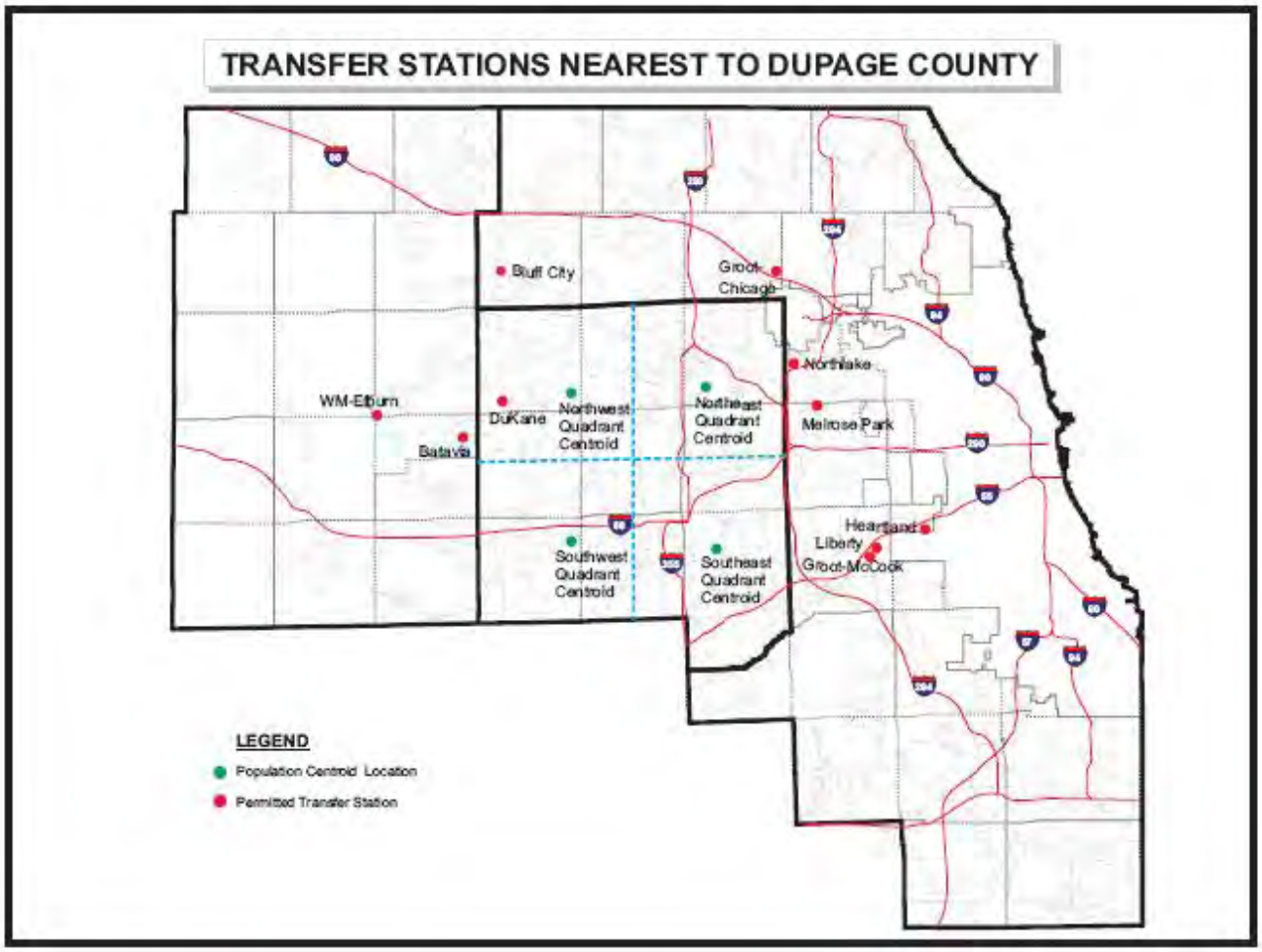
MSW (compacted in truck) (cubic yards x 750 lbs/2000) LSW (loose) cubic yard x 625 lbs/2000

APPENDIX D



2007 Shaw Environmental Report completed for the County of DuPage

APPENDIX E



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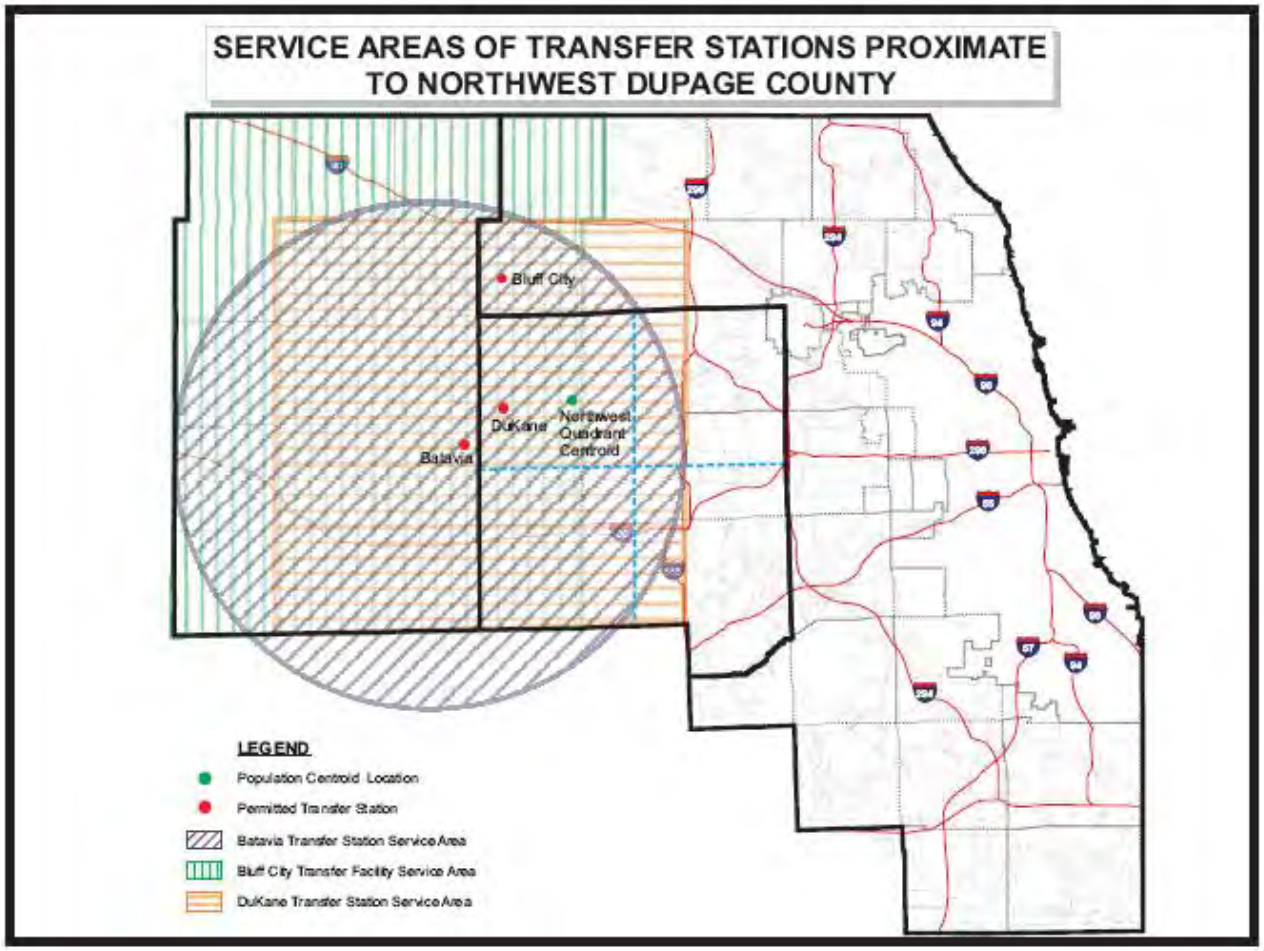
APPENDIX F



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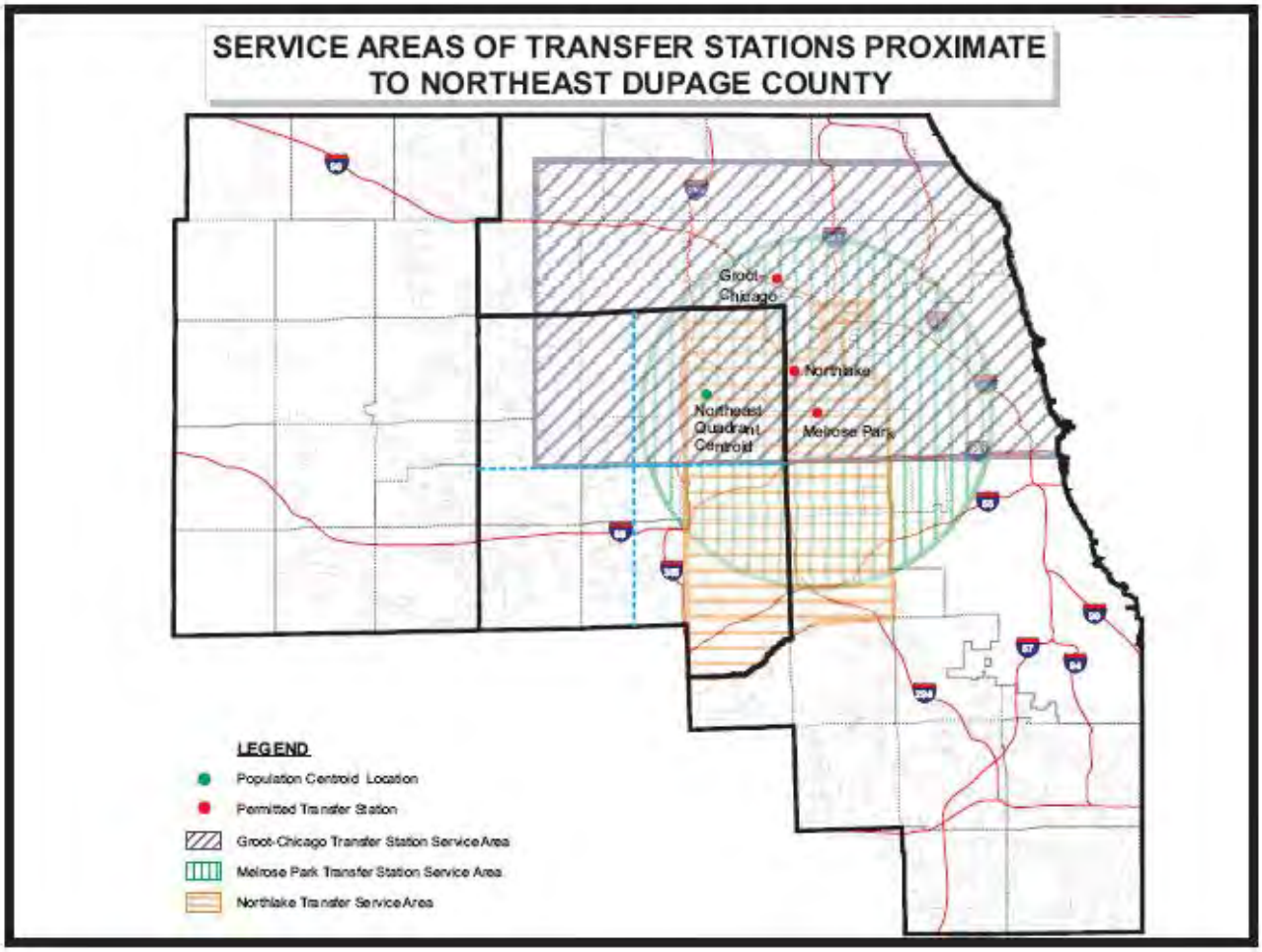
APPENDIX G



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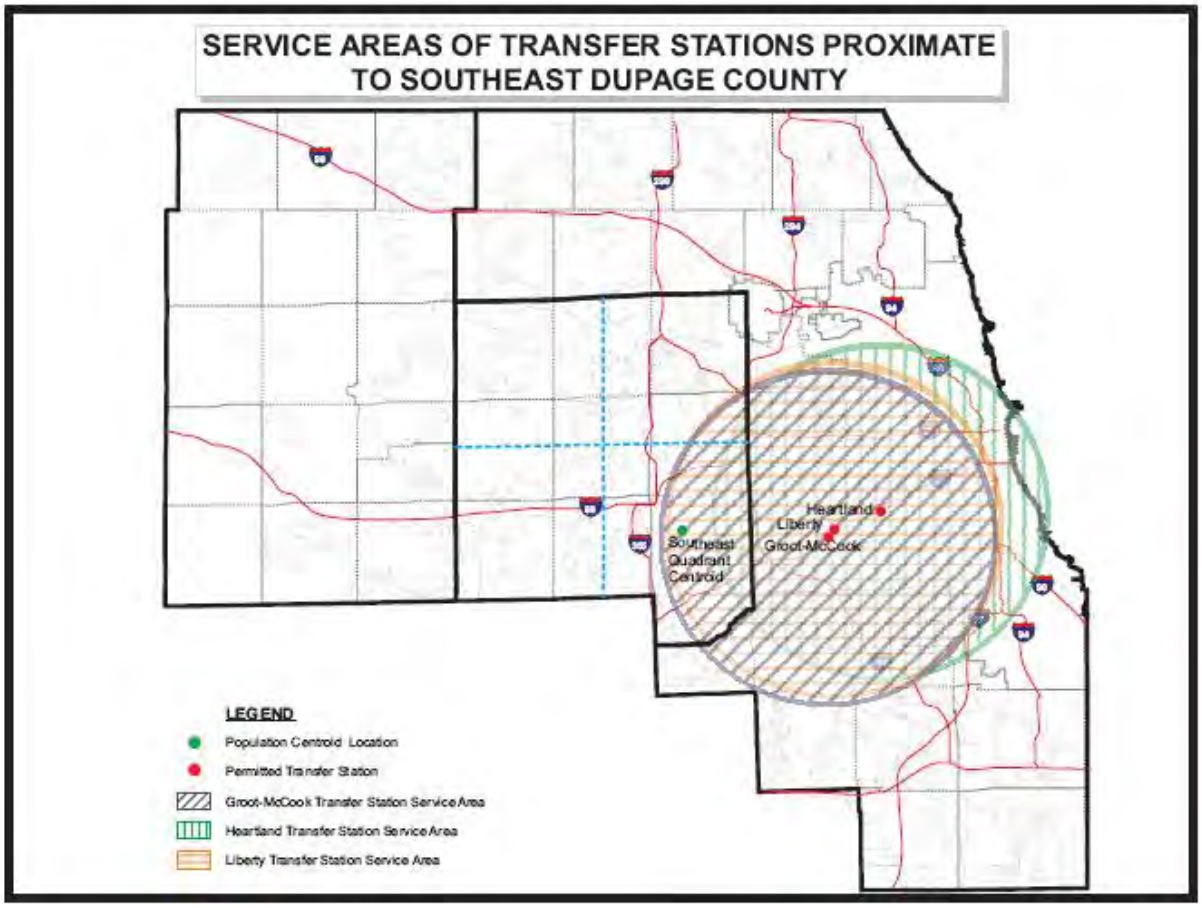
APPENDIX H



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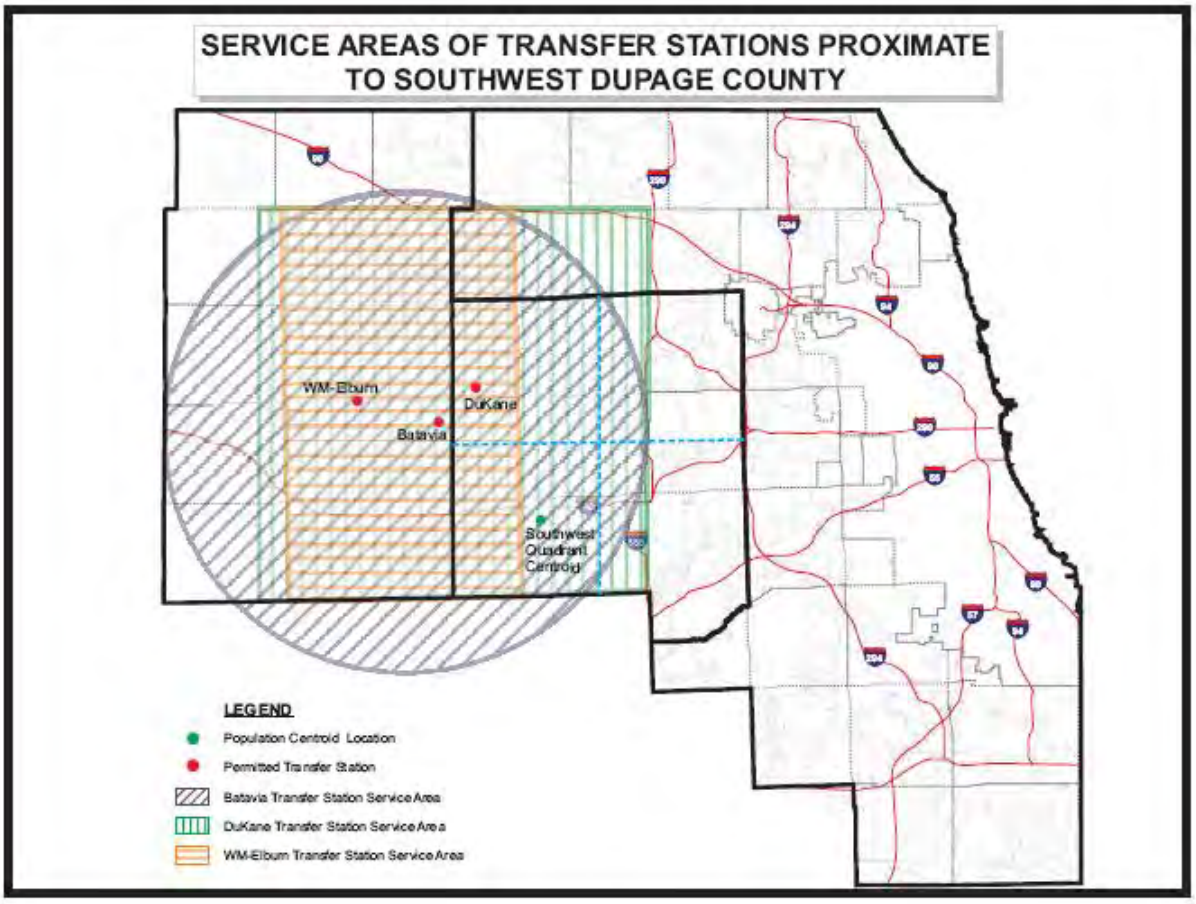
APPENDIX I



2007 Shaw Environmental Report completed for the County of DuPage

APPENDIX 8-H

DUPAGE COUNTY SWMP
2017 UPDATE

Electronic Filing: Received, Clerk's Office 04/19/2023 C001879

DUPAGE COUNTY
ENVIRONMENTAL DIVISION

Solid Waste Management Plan
Five Year Update
2017

DuPage County
Daniel J. Cronin, County Board Chairman
Building & Zoning Department
Environmental Division
421 North County Farm Rd.
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Section 1.0

Introduction

The State of Illinois enacted the Solid Waste Planning and Recycling Act in 1988 ("Act"). The Act mandated that counties must each submit to the Illinois Environmental Protection Agency an officially adopted plan for the management of municipal waste generated within its boundaries. The Act serves to encourage the continuous planning for solid waste management and pushes local governments to perpetually move forward with a waste reduction and recycling agenda. The Assembly cited diminishing landfill capacity along with the more environmentally preferable management of waste by increasing conservation of valuable resources and energy. The effort was reinforced in 2014, when the Solid Waste Hauling and Recycling Program Act was put into place to mandate the availability of recycling to commercial entities in the Chicago metro region. Haulers must offer as part of waste hauling or as an additional service recycling services.

The initial DuPage County Solid Waste Management Plan was adopted February 1991 with subsequent updates completed in 1996, 2001, 2007 and 2012. This Plan update evaluates the waste disposal capacity of the County, electronic recycling coverage, and identifies food scrap collection and compost feasibility within the County. The initial Solid Waste Management Plan included multiple recommendations to reduce, recycle and handle solid waste. The County, along with many valuable local government and private sector partners successfully completed several goals including: construction and operation of a regional recycling center and a household hazardous waste facility; the establishment of several recycling drop-off locations; a latex paint recycling and reuse program; an environmental education program as well as supporting reduced requirements on construction and demolition debris recycling.

The United States Environmental Protection Agency has been actively moving perceptions for the management of solid waste from a disposal and recycling toward a much broader delineation of sustainable materials management. The shift is demonstrative of worldwide efforts to embrace life cycle analyses of resource consumption. This approach recognizes that many items should have a second or third life prior to final landfill disposal. Another term that has grown in popularity is "closed loop" which signifies an effort to maintain resources in a manner that does not allow them to go unused at any point.

This perspective of material management has influenced this solid waste management plan update. This document will take a broader approach to planning for waste by considering other technologies that may be a higher or best use in a waste hierarchy. Items that may remain in the waste stream cannot be recycled or reused without significant economic investment so the need for disposal is still prevalent.

Section 2.0

Waste Generation

It is beneficial to understand that the waste stream included in solid waste planning is limited to the items and definitions described below. There are many other waste streams that are generated by industrial, commercial, business entities that do not fall within the definition of municipal solid waste.

2.1 Definitions

The definitions below are taken from the {Illinois} Environmental Protection Act, 415 Illinois Compiled Statutes.

Composting. "Composting" means the biological treatment process by which microorganisms decompose the organic fraction of waste, producing compost.

Food scrap. "Food scrap" means garbage that is (i) capable of being decomposed into compost by composting, (ii) separated by the generator from other waste, including, but not limited to, garbage that is not capable of being decomposed into compost by composting, and (iii) managed separately from other waste, including, but not limited to, garbage that is not capable of being decomposed into compost by composting. "Food scrap" includes, but is not limited to, packaging, utensils, and food containers composed of readily biodegradable material. For the purposes of this Section, packaging, utensils, and food containers are readily biodegradable if they meet the ASTM D6400 standard.

Garbage. "Garbage" is waste resulting from the handling, processing, preparation, cooking, and consumption of food, and wastes from the handling, processing, storage, and sale of produce.

General Construction or Demolition Debris. "General Construction or Demolition Debris" means non-hazardous, uncontaminated materials resulting from the construction, remodeling, repair, and demolition of utilities, structures, and roads, limited to the following: bricks, concrete, and other masonry materials; soil; rock; wood, including non-hazardous painted, treated, and coated wood and wood products; wall coverings; plaster; drywall; plumbing fixtures; non-asbestos insulation; roofing shingles and other roof coverings; reclaimed or other asphalt pavement; glass; plastics that are not sealed in a manner that conceals waste; electrical wiring and components containing no hazardous substances; and corrugated cardboard, piping or metals incidental to any of those materials. General construction or demolition debris does not include uncontaminated soil generated during construction, remodeling, repair, and demolition of utilities, structures, and roads provided the uncontaminated soil is not commingled with any general construction or demolition debris or other waste…

Household waste. "Household waste" means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

Landscape waste. "Landscape waste" means all accumulations of grass or shrubbery cuttings, leaves, tree limbs and other materials accumulated as the result of the care of lawns, shrubbery, vines and trees.

Municipal Waste. "Municipal waste" means garbage, general household, institutional and commercial waste, industrial lunchroom or office waste, landscape waste, and construction and demolition debris.

Recycling, Reclamation, Reuse. "Recycling, reclamation, or reuse" means a method, technique or process designed to remove any contaminant from waste so as to render the waste reusable, or any process by which materials that would otherwise be disposed of or discarded are collected, separated or processed and returned to the economic mainstream in the form of raw materials or products.

Resource conservation. "Resource conservation" means reduction of the amounts of waste that are generated, reduction of overall resource consumption and the utilization of recovered resources.

Sanitary landfill. "Sanitary landfill" means a facility permitted by the Agency for the disposal of waste on land meeting the requirements of the Resource Conservation and Recovery Act, P.L. 94-580, and regulations thereunder, and without creating nuisances or hazards to public health or safety, by confining the refuse to the smallest practical volume and covering it with a layer of earth at the conclusion of each day's operation, or by such other methods and intervals as the Board may provide by regulation.

Transfer station. "Transfer station" means a site or facility that accepts waste for temporary storage or consolidation and further transfer to a waste disposal, treatment or storage facility. "Transfer station" includes a site where waste is transferred from (1) a rail carrier to a motor vehicle or water carrier; (2) a water carrier to a rail carrier or motor vehicle; (3) a motor vehicle to a rail carrier, water carrier or motor vehicle; (4) a rail carrier to a rail carrier, if the waste is removed from a rail car; or (5) a water carrier to a water carrier, if the waste is removed from a vessel. ..

Waste. "Waste" means any garbage, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility or other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows, or coal combustion by-products as defined in Section 3.135, or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as now or hereafter amended, or source, special nuclear, or by-product materials as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 921) or any solid or dissolved material from any facility subject to the Federal Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87) or the rules and regulations thereunder or any law or rule or regulation adopted by the State of Illinois pursuant thereto.

2.2 Population Trends & Forecasts

The 2010 DuPage County population was reported to be 916,925 from the U.S. Census Bureau. The Bureau projects the County growth to slow to 1.4% increase since 2010 with an average 2.72 persons/household. Current U.S. Census estimates put the population at 929,368 including 338,083 households. The State of Illinois has been experiencing a population decline starting in 2013 according to the U.S. Census Bureau estimates from 2016.

2.3 Waste Composition - IL Commodity/Waste Generation and Characterization Study

In 2014, the Illinois Department of Commerce and Economic Opportunity commissioned the Illinois Recycling Association who utilized CDM Smith to complete an update to the 2008 *Illinois Commodity/Waste Generation Study 2*[1]. The report developed metrics for municipal solid waste and industrial, commercial and institutional solid waste generated throughout the State of Illinois. Their methodology included sampling at landfills, modeling to account for moisture content and calculations for commercially generated waste. The data provides the State with a better understanding of what items are being landfilled and enables entities to prioritize efforts based on recycling, diversion availability, and quantity of varying categories of waste. The data can also be folded into strategic planning efforts at the county level.

[1] *Illinois Commodity/Waste Generation Study*

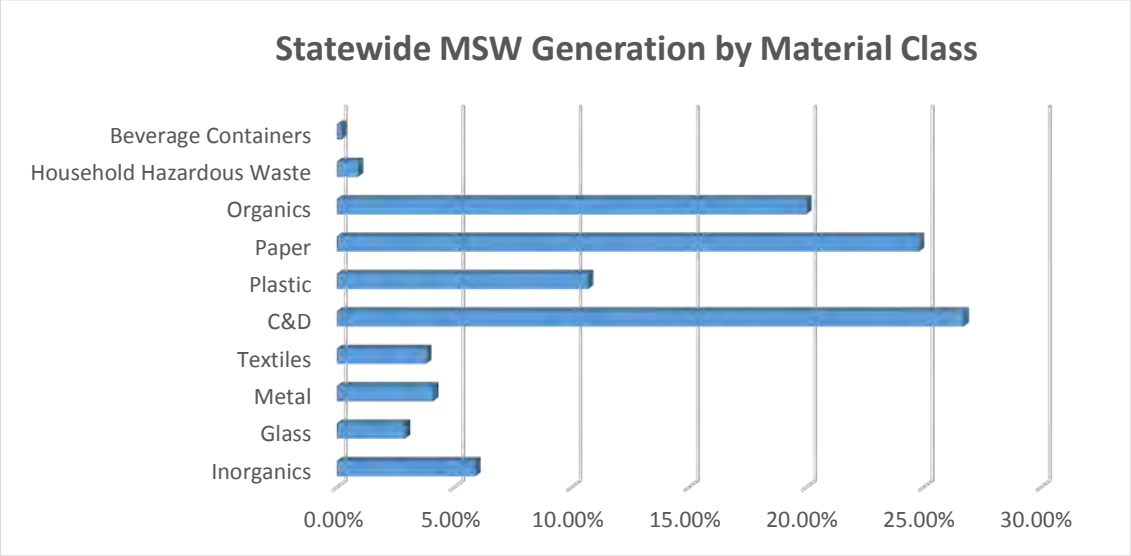


Figure 1: Compiled from data included in the Illinois Commodity/Waste Generation Study Update March 30, 2015

The study also identified the top ten waste categories for both residential municipal solid waste, and urban industrial, commercial & institutional. The tables below reflect just over 50% of the overall waste stream with organics/food scraps comprising the highest percentage by weight. Other large contributors include yard waste and uncoated old corrugated cardboard and brown paper material.

Top Ten Individual Material Categories in Landfilled Urban Residential MSW	
Category	**Waste Composition %**
Food Scraps	20.6%
Yard Waste - Compostable	5.4%
Uncoated OCC/Kraft	4.3%
Compostable Paper	4.1%
Recyclable Glass Bottles & Jars	3.6%
Other Organic	3.6%
Painted Wood	3.4%
Mixed Paper - Recyclable	3.2%
Diapers	3.2%
Household Bulky Items	3.2%
Total	**54.7%**

Table 2: Data from Table 2-9, Illinois Commodity/Waste Generation Study Update March 30, 2015

Top Ten Individual Material Categories in Landfilled Urban Industrial Commercial & Institutional Municipal Solid Waste	
Category	**Waste Composition %**
Food Scraps	15.6%
Uncoated OCC/Kraft	13.3%
Bottom Fines & Dirt	3.8%
Other C&D	3.7%
Compostable Paper	3.6%
Commercial & Industrial Film	3.6%
Wood Pallets	3.4%
Other Film	3.3%
Painted Wood	2.7%
Other Rigid Plastic Products	2.6%
Total	**55.6%**

Table 1: Data from Table 2-9, Illinois Commodity/Waste Generation Study Update March 30, 2015

The study identified that standard recyclable materials, glass bottles and jars, aluminum beverage containers, ferrous containers, and food waste were at a lower recovery rate than the national average. A recommendation of this plan is to improve the diversion of these commodities.

2.4 Waste Generation Rate

Waste generation varies annually. Table 3 provides a summary of the annual rates from the inception of the first Solid Waste Management Plan in 1990. A waste generation rate is inclusive of all items that are generated from residential, construction & demolition debris, commercial, industrial, and institutional. The rate does not take into account the materials that are repurposed, recycled or otherwise recovered prior to disposal.

The rate identified below was derived from the Illinois Commodity/Waste Generation and Characterization Study Update March 2015 and is an estimate based on landfill waste composition audits and associated modeling. It is consistent with data reflecting an ongoing increase as noted in the U.S. EPA's Advancing Sustainable Materials Management 2013 Fact Sheet which reports that the United States consumed 46 percent more materials on a per capita basis in the year 2000 than in 1975.

The information shows a slight decrease in waste generation for DuPage County since the last Plan Update in 2012. While this time frame included an economic downturn, it also saw a shift in lifestyles for many residents and businesses. Sustainability, zero waste and other resource conservation efforts have become increasingly mainstream. Many corporations and businesses have incorporated sustainability plans that set recycling and waste goals. The impact of this shift is expected to be reflected over the next 5 year time frame ending in 2022.

Historical Waste Generation Estimates for DuPage County Solid Waste Management Plans

Year	Population	lbs./Capita/Day	Estimated tons of MSW/day (Residential, ICI, C&D)	Countywide estimated tons /year
1990	781,200	8.0	3,124	1,140,260
1996	843,067	7.17	3,022	1,103,030
2001	904,161	6.9	3,119	1,138,564
2007	932,670(1)	6.9	3,217	1,276,592
2012	929,760(1)	9.19(2)	4,272	1,537,842
2017	929,368(1)	8.7(2)	4,042	1,475,604

Table 3

(1) Population based on growth estimates not actual U.S. Census data.
(2) Rate taken from Illinois Commodity/Waste Generation and Characterization Studies

Section 3.0

Recycling and Diversion

In 2011, The County's residential recycling rate was calculated to be 41%, with commercial recycling much lower. The *Illinois Commodity/Waste Generation and Characterization Study*[1] concludes that a 19.1% recycling rate is more accurate when industrial/commercial/institutional and construction/demolition waste is included with standard recycling in the calculation. The study is statewide and does not specifically account for the County's two construction demolition debris recycling operations, nor its proximity to many recycling centers including the intermediate processing facility in Carol Stream. Roughly one-third of the municipalities that provided commercial recycling data as part of the 2016 survey, reported a rate of approximately 21%. A more accurate combined recycling rate for DuPage County is 30%, an average of the reported residential and commercial recycling rates.

3.1 Municipal Contracts

The County continues to collect data on individual municipal contracts to waste and recycling. Appendix A summarizes the waste and recycling information compiled as part of the County's Solid Waste & Recycling Annual Report for 2016. The data found that all communities in DuPage County offer recycling services to residents. There are variations in how the service is provided and whether the service is extended to commercial and multi-family customers. In recent years, many municipalities have expanded their recycling collection services through one-day or seasonal collection events for non-curbside recyclable items (Figure 2).

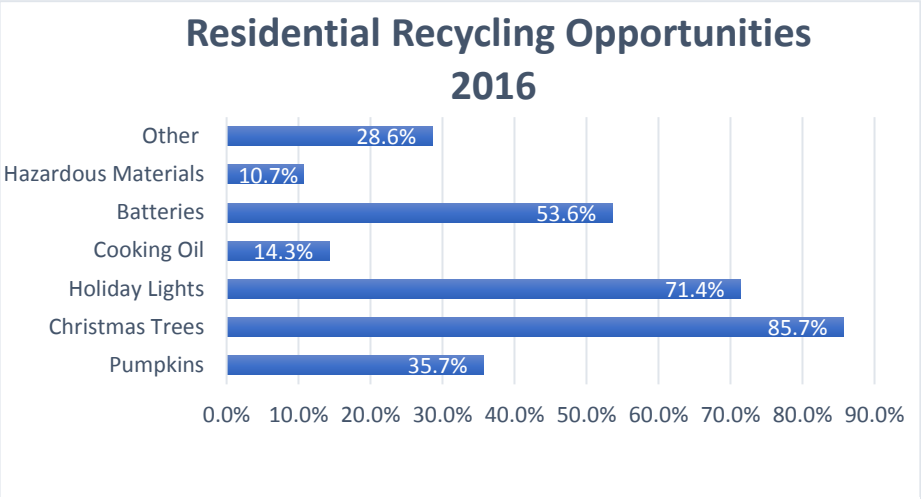


Figure 2

Although commercial waste franchises are not typically found in DuPage County there are a few municipalities that maintain these agreements, the Village of Addison, the Village of Lombard and the City of Oakbrook Terrace. The commercial waste franchise agreement cover businesses and multi-family structures waste and recycling services. The Village of Addison additionally included residential dumpster rental in the waste hauling contract and residents must utilize the Village's for this service.

There are various waste hauling programs that municipalities can utilize. One model offers a flat monthly rate for specified container size and other options include what is known as pay as you throw or volume based. There are pros and cons to both programs. While volume based offers a reduction in costs for those generating less waste, it has been shown to increase contamination in recycling bins. A flat rate program can keep average costs lower due to the known revenue for the haulers. The City of Wheaton recently launched a newer model program utilizing RFID tags for waste and recycling. Each community customizes the expenditure in accordance with their priorities ranging from price to easy access to recycling services. The County will continue to review annual data from the local governments in an effort to provide best practices in the future.

3.2 Multi-Family Recycling

In 2015, the County met with multiple waste haulers to discuss efforts to expand recycling opportunities in multi-family buildings. The discussion and emphasis mirrored that of the recycling industry that contamination rates had increased in single-stream recycling. The County shifted its focus to develop better outreach materials about what can and cannot be recycled. This remains a priority as better recycling yields equate better economic value and recovery rates.

Additionally, at the meeting it was noted that providing recycling services in multi-unit tenant buildings requires consistent ongoing education to address new tenants. Transporting items to shared recycling bins is also challenging for residents to maintain a recycling container within limited space dwellings. Recycling is easily contaminated when residents are not educated on procedures or when waste bins are filled to capacity and tenants utilize the recycling containers erroneously. Recycling can be an additional cost, but can be offset as recycling can reduce waste pickups. Some communities have added waste hauling and recycling services for multi-family buildings to contracts and others have mandated that haulers offer recycling in all waste contracts.

Outside of curbside recycling options, drop-off centers are an outlet for recycling when residing in a multi-family building. The Waste Management DuPage County Recycling Center drop-off center in Carol Stream is available to all residents while the recycling centers in Addison and Naperville are limited to residents within their boundaries. The County has reviewed the viability of additional drop-off centers however, the staffing and financial commitment cannot be secured at this time.

3.3 Construction & Demolition Debris Recycling

Due to its volume of the waste stream, construction and demolition debris recycling is an option to reduce landfilled waste. The County is unique in that it is currently home to three construction and demolition debris recycling sites which are able to process thousands of tons of debris that would be disposed of as a waste otherwise. This type of landfill diversion is being encouraged with a new County effort to educate construction contractors and residents of these local recycling opportunities.

Construction and demolition debris recycling has seen advantageous changes in recent years, as roofing shingles have been approved as an ingredient in road construction. Legislation mandating the recycling of

roofing asphalt shingles was enacted for sites outside a specified distance of a landfill. In contrast, construction wood has experienced some fluctuation and is currently more difficult to recycle. The wood can be utilized for wood chips, mulch, and road base in landfills and has intermittently been used as biomass fuel for electricity generation. There has been a shift in the construction industry to generate less waste material through the use of pre-fabricated items that do not require any trimming therefore do not create waste.

3.4 Household Hazardous Waste

Since the last solid waste plan update, 2012, the City of Naperville relocated the Household Hazardous Waste Facility to their Environmental Collection Campus next to the City's Public Works facility. The transition was made to simplify and consolidate recycling for residents. The new facility reported a significant increase in participation during the first year of operation. In 2016, the site collected an additional 67,000 gallons of household hazardous waste. The City reported that in 2016 there were over the 20,766 drop offs of which 12,594 were from DuPage. As partially funded through the Illinois Environmental Protection Agency, the facility is open to all Illinois residents and the City of Naperville receives financial support from DuPage, Kane and Will counties and the City of Aurora.

Residents have other opportunities to dispose or recycle specific sectors of household hazardous waste. The City of Addison has partnered with a local business to recycle various types of batteries from their residents. Other items that are collected by businesses include compact fluorescent bulbs, paint, automotive fluids, fire extinguishers, propane tanks. The County publishes an Online Recycling Guide to assist residents in locating these recycling services. SCARCE, through the County's environmental education contract and with private grant funding, has worked with various entities to launch eight permanent, used cooking oil collection sites. These collections are augmented by communities hosting one-day collection events following holidays like Thanksgiving. The recycling of cooking oil is beneficial in that it can be made into a new fuel source. It also reduces the amount of cooking oil and grease poured down drains causing blockages in the sanitary system and treatment plants.

Waste Management, Inc. recently launched At-Your-Door Special Collection^{SM} service which has been added into several municipal contracts and provides another option for communities to safely dispose of household hazardous waste. The company offers pick up service for household, automotive and garden chemical items as well as specified electronics and small battery recycling.

3.5 Electronics Recycling

Starting January 1, 2012 many categories of residential electronics were banned from Illinois landfills. Currently there are 17 items that cannot be placed in with household refuse. DuPage County has been working with electronics recyclers to ensure that consumers have access to recycling sites. The program has struggled to remain sustainable as the manufacturer funded programs are limited and/or reduced and recycling markets for the materials are deemed volatile. Nationwide, many recycling companies struggle to keep up with demand and maintain steady outlets for the hard to handle cathode ray tube devices that have lead in the glass screen. Several companies have been forced into bankruptcy and others have been fined for the improper stockpiling and storage of the devices[2].

In 2016, the County pursued a system using a recycling fee for the harder to handle items and relaunched two weekday collection sites and two collection sites that are open one Saturday per month, both week day and

[2] Resource Recycling, *Closed Loop execs ordered to pay millions in Ohio*, Bobby Elliot, August 8, 2017

Saturday programs are staffed by the recycler[3]. These are conducted through valuable partnerships with the municipalities Burr Ridge, Lisle, Wheaton and Naperville. These communities have voluntarily participated and have agreed to accept items from residents throughout the County.

The Electronic Products Recycling and Reuse Act was significantly amended in 2017 and mandated a specified number of collection sites in counties based upon population density. The changes are effective starting January 1, 2019 and the County of DuPage is expected to receive 5 collection sites. The electronics manufacturers or a manufacturer clearinghouse will be working with Illinois counties to identify the locations, hours, and other details for collection sites.

The County continues to provide information and outreach materials on electronics recycling through flyers, social media, newsletters, advertising, the online recycling guide and the website. A map of locations was developed to display all available recycling options as well as aid in strategic planning of future sites.

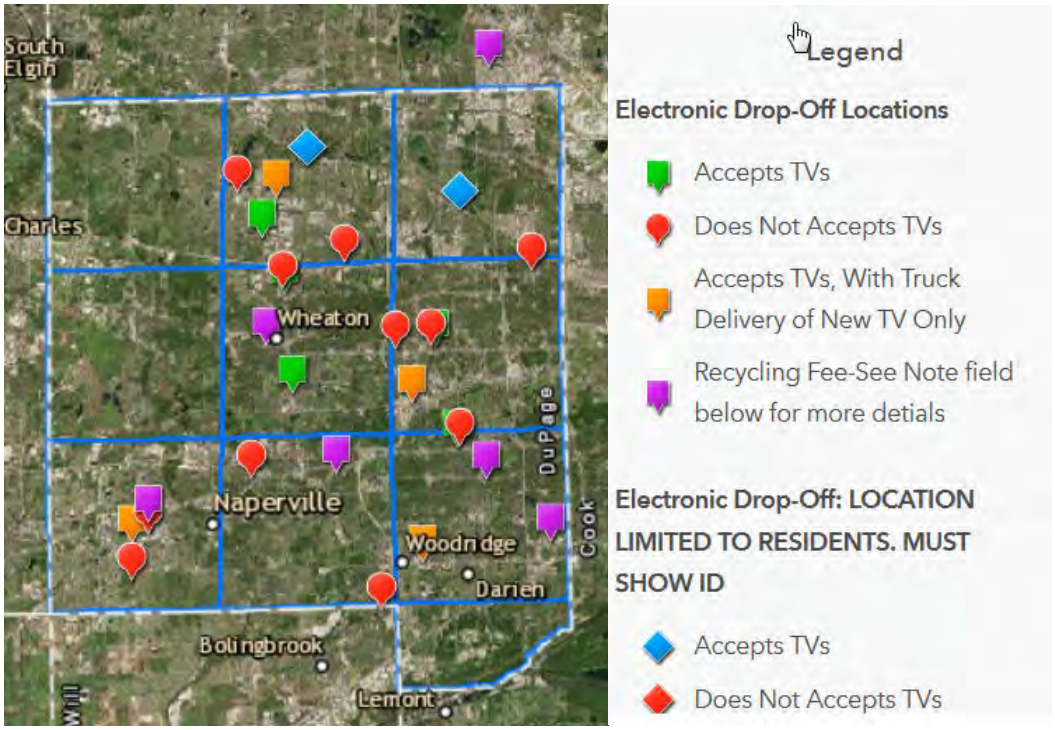


Figure 3: Map of Residential Electronics Recycling Locations in DuPage County

3.6 Sharps/Needles

Sharps remain a difficult item to manage in the waste stream. While the Illinois EPA allows households to place needles in a puncture proof container for landfill disposal, this is not the preferred method. Despite several medicine drop-off locations across the County, these sites cannot accept sharps through their programs. Residents are relegated to purchasing a mail back container for safe disposal or find a local sharps drop-off of which there are few in the County. The waste and recycling industry identifies sharps as a hazard when placed in recycling containers and continues to work on educating and restricting residents from disposing of sharps in this fashion.

[3] The Wheaton Saturday collection is staffed by the recycler and local volunteers who desired to remain part of the collection site program.

While it is a smaller portion of the waste stream, sharps are an item that merits consideration. The U.S. EPA estimated that approximately 8 million people in the U.S. use varying types of sharps or needles in the home[4]. They further conclude that this leads to the need for disposal of 3 billion sharps. The City of Westmont included a sharps drop-off kiosk in their municipal waste contract issued to Waste Management. The Village of Lisle offers a drop off point with the Rx Box at the police station for residents and the Glenside Fire District recently launched a collection that is free for residents and for a small fee will accept the needles from residents outside their district. These proactive approaches are commendable and are encouraged.

Some waste companies including Republic Services and Stericycle offer mail back programs for a fee. Waste Management Inc. offers both a mail back program and a sharps drop box collection to communities as well.

3.7 Special Collections/Recycling Events

For many years, DuPage communities, schools and churches have been encouraged by SCARCE, through the County's environmental education contract, to host one-day recycling events. The recycling opportunities vary at each event and encompass items from keys to scrap metal to furniture and pet supplies. More recently, document shredding services have been added to the events. Several communities have worked with their local bank to host document shredding events and the County has provided financial support to communities as well since 2015.

There are several businesses and non-profits that provide recycling services throughout the year. The County provides these opportunities in an online recycling guide by waste category. Communities are encouraged to provide links to the page which can be easily and regularly updated. Residents without access to the internet are encouraged to contact the county via phone for inquiries.

3.8 Landscape Waste and Food Scraps

Diversion of landscape waste has been a statewide priority since 1990 when the waste was banned from Illinois landfills. DuPage County encourages the composting or reuse of landscape waste and prohibits the burning of the waste for disposal in unincorporated areas. Waste-to-energy has been proposed however, businesses have not yet identified economical model for this area.

In a comparison of landfilled commodities from 2008 to 2014, there was a significant uptick in the amount of food scraps. [5] Curbside collections have seen a rise in popularity with several large waste haulers providing seasonal service in conjunction with their traditional landscape waste. Communities currently with a voluntary curbside food scrap collection include; Glen Ellyn, Naperville, and Wheaton. In addition to the curbside collections, Lombard provides alternative funding to support backyard composting of food scraps. This increase and interest in food scrap composting will assist with diverting this commodity from the current residential waste stream.

In response to this measured increase statewide, the Illinois Food Scrap Coalition ("Coalition") was formed as a statewide effort to divert food scraps from landfills. DuPage County is a founding partner with the Coalition and has staff that participate on the Executive Board. In 2017, the group published the *Economic Impact and Market Study Report: Elements of the Case for Advancing Food Scrap Composting Industry and the Link to*

[4] *Community Options for Safe Needle Disposal*, U.S. EPA, October 2004

[5] Comparison of 2008 and 2014 Illinois MSW Landfilled Commodity Materials, Figure 5-2 within the Illinois Commodity/Waste Generation and Characterization Study, 2015.

Building Illinois' Local Food Economy. The group's study was comprehensive and included, among the items, an extensive review of current practices, recommendations, tonnages, market flow and interviews with stakeholders. The recommendations were numerous with several using fee incentives and grant programs to encourage food scrap composting. Of particular notice was the inclusion of a proposal to add food scraps to the landfill landscape waste ban. The study does elaborate that a phased-in approach which includes development of infrastructure would be the most successful roadmap. The study explains that there is low demand for compost which stalls industry development. The group proposes among other things cost-sharing, cooperative purchasing, use in transportation projects and the development of financial incentives. Additionally, the Coalition received grant funding from the State of Illinois and other private funding sources including the Chicago Community Trust for programs including We Compost a free recognition program for entities choosing to compost food scraps in the State of Illinois.

There are limited locations where food scraps can be composted within range of DuPage County. Waste Management, Inc. has a permitted landscape waste and food scrap composting site in Romeoville and Midwest Compost, LLC has locations in West Chicago and Elgin that are permitted to accept and transfer food scraps with yard waste. Further from the County are two additional composting facilities that also accept food scraps for composting - Green Organics in Bristol, IL, and Compost Supply in Newark, IL. The seasonality of collecting the material with landscape waste reduces the impact of the service but this obstacle may be resolved if digesters are utilized. There are discrepancies between the definition of food scrap and what is typically accepted by organic compost sites. Industry members are advocating to modify the definition by removing references to packaging, utensils and food containers that create issues during the composting process.

3.9 Recycling and Contamination

Recycling conserves energy and natural resources and can create jobs. Recycling has become part of the population's daily lives. It has become an every changing industry with many of the changes yielding a negative impact. The switch to single stream began to harm recycling with an additional degradation when carts were introduced. Ever increasing types of packaging has also had an effect. It has become increasingly difficult to identify what is accepted in the recycling bin and this confusion may be leading to apathy about sorting recyclables.

In addition, the recycling stream is changing. The U.S. EPA found an increase in consumption of plastic bags, sacks, wraps, corrugated containers and a reduction in newspaper. While recycling companies have perpetually seen changes in the streams, the newer trend to reduce the plastic or other resource of a product like a plastic bottle, have increased recyclers costs as it takes more to get a ton of material. As discussed below, many recycling companies are trying to simplify the recycling stream to maintain the quality, value and predictability of the items collected.

Waste Management found in 2013 that on average 16% of inbound recycling is non-recyclable. They estimate the cost of the contamination to be approximately $140/ton which is a 20% increase over two years. The company has launched a Recycle Right campaign that attempts to return to the basics of recycling by encouraging the recycling of valuable items. Resource Management, a local recycling company, reported a nearly 3-fold increase in contamination since 2001 reaching more than 21% in 2017. They recommend several strategies that can aid in the reduction of contamination including developing programs where the local government is invested in a program's success. David Biderman, CEO of Solid Waste Association of North America (SWANA) explained in a January 27, 2016 Waste 360 article that communities are "unknowingly causing the increases by allowing residents to clog up the recycling waste stream with non-recyclable components". He goes on to say that it's "really more important for the individual customer to keep

out contaminants… the processing facilities are seeing a substantial amount of non-recyclable waste thrown in or with waste and it costs time to remove that material – thus causing facilities to charge the haulers more. Those rates get passed on to the cities". Given these rising costs, many in the industry are advocating for a shared solution with haulers and governments. The City of Chicago recently launched a tagging program where recycling carts can be rejected by the hauler until unacceptable items are removed. Tracking of recyclables to specific routes can aid in determining sources of contamination so that a follow up communication can be made. A multi-faceted approach may aid in stabilizing recycling costs and insulate consumers from future price increases.

Another recent impediment to recycling was China's implementation of what has become known as the National Sword. In a 2017 statement to the World Trade Organization, the country heightened restrictions on imports of recycling commodities including but not limited to mixed paper, textiles and several types of plastic that are scheduled to take effect in early 2018. China placed restrictions on contamination at percentages projected to be unattainable. Many agencies are focusing on expanding domestic markets but market saturation is expected to take place while businesses broaden. SWANA and industry representatives are to starting to have conversations to educate consumers that there is a real cost to recycling - labor, equipment, transportation etc.

The impact of the impending policy has already forced some communities in the U.S. to reduce recycling or accept disposal waivers. With contamination at the forefront of the National Sword, working to limit unacceptable items has become imperative. This Plan Update is recommending that the County continue to expand outreach about contamination in recycling. The County has developed online information as well as postcards that try to simplify what goes in a recycling bin. Staff will provide technical support to communities and haulers on an as-needed basis.

4.0 EXISTING FACILITIES & CAPACITY

The Illinois Environmental Protection Agency annually reports on the status of waste facilities within the State. The 2016 Illinois Landfill Disposal Capacity Report[6] stated that there were 38 permitted landfills in Illinois receiving a total of 46,750,820 cubic yards of solid waste. These landfills have a remaining combined available disposal capacity of 983,948,083 cubic yards. At the current disposal rate, these landfills will have a cumulative life expectancy of approximately 21 years. However, landfill capacity and life expectancy may vary year-to-year based on a number of factors, including waste disposal rates, landfill expansion, and the construction of new landfills.

Landfill Capacity and Disposal Volume by Region

Region Number	Geographic Area	Number of Landfills	Capacity (yd^3)	Disposal Volume (yd^3)	Life Expectancy (yrs)
1	Northwestern Illinois	7	280,751,604	16,399,306	17.1
2	Chicago Metropolitan	5	90,108,208	7,817,946	11.5
3	Peoria/Quad Cities	6	129,398,168	4,692,903	27.6
4	East Central Illinois	7	170,783,372	7,313,074	23.4
5	West Central Illinois	4	35,430,276	1,670,290	21.2
6	St. Louis Metropolitan East	4	194,395,976	7,233,307	26.9
7	Southern Illinois	5	83,080,479	1,623,994	51.2
Total		**38**	**983,948,083**	**46,750,820**	**21**

[6] Illinois Environmental Protection Agency *2016 Illinois Landfill Disposal Capacity Report*

Table 5 below provides a snapshot of existing facilities that handle waste within DuPage County. The first ten facilities listed operate under permits from the Illinois Environmental Protection Agency. Two facilities are construction and demolition debris recycling centers and are allowed to operate without IEPA permits under the conditions set forth 415 ILS 5/22.38. The third C&D recycling facility was required to obtain a permit when the statute was modified.

Name of Facility	Location	Waste Stream	Permitted/Avg. Capacity/Day
A.K. Mulch	Villa Park	Landscape waste	40 yd^3
Amber Solvent	Addison	Fountain solution	
Anderson Landscape Supply	Elmhurst	Landscape waste	260 yd^3
Bensenville Landfill*	Bensenville	Closed construction and demolition debris	n/a
DuKane Transfer Facility	West Chicago	Municipal solid waste Landscape waste	3,000 tons
DuPage Yard Waste	West Chicago	Landscape waste Food scrap pending	400 yd^3
Greene Valley Landfill*	Naperville	Closed municipal solid waste landfill	n/a
Heritage Crystal Clean/Recycle Technologies	Wood Dale	Anti-freeze recycler	22,700 gal/day
Mallard Lake Landfill*	Hanover Park	Closed municipal solid waste landfill	n/a
Neil's Hauling/Molenhouse	West Chicago	Construction and demolition debris	Not specified
Recycle America/Waste Management DuPage County Recycling Center	Carol Stream	Papers, cardboard, plastic bottles, aluminum cans, steel cans etc.	Not specified
Regional Household Hazardous Waste Facility	Naperville	Household hazardous waste	Not specified
St. Francis Pet Crematory	Wood Dale	Animal carcass storage & transfer	Based on storage capacity
Stericycle	Itasca	Potentially Infectious Medical Waste Transfer & Storage	14,000 lbs.
Wastebox	Lemont	Construction & demolition debris	Not specified
Western DuPage Landscaping Inc.	Aurora	Landscape Waste	
West DuPage Recycling & Transfer, Inc.	West Chicago	Construction and demolition debris	Not specified

*Table 5: **Existing Solid Waste Management Facilities in DuPage***

In addition to these recycling centers, recent legislation allowing the collection and composting of food scraps/organics will soon impact waste within the County. Several businesses are leading the effort to use composting as an alternative to disposal. At this time, commercially collected organics are composted outside of the County. This has impacted how quickly and economically food scraps can be removed from the waste stream. Due to the absence of a local site collecting food scraps cost becomes a factor as there is a need to run an additional truck route. The County would benefit from more local facilities that can meet the site location requirements.

4.1 Waste Disposal Capacity

As estimated in Section 2.4, DuPage County generates 1,475,604 tons of waste per year. The average of recent recycling data has estimated the recycling rate to be 37% which leaves approximately 929,431 tons of waste in need of disposal annually. The DuKane transfer facility is permitted to accept up to 3,000 tons per operating day so it can move 939,000 tons/year. However, service areas must be considered as well as the market forces of private sector waste hauling entities. Large regions of the County are not optimally served due to the lengthy transportation routes which lead to increased costs and air emissions. To address this the County of DuPage will consider new or expanded facilities handling, treating and recycling waste on a case by case basis. Any new proposed pollution control facilities located in unincorporated areas are subject to the siting criteria stipulated in 415 Illinois Compiled Statutes 5/39.2 as well as Chapter 25 of the County's Code.

5.0 MOVING FORWARD

Diversion and sustainability continue to be at the forefront of planning and implementing solid waste recommendations. To guide the public and decision makers, U.S. EPA developed a Waste Management Hierarchy[7], which is recognized by many entities in solid waste planning as the preferred order of waste disposal.

Figure 4: ***U.S. EPA Waste Management Hierarchy***

The top tier, source reduction and reuse is described by the U.S. EPA to include reuse, donation, purchasing in bulk, package reduction, product redesign, toxicity reduction. Several industries have focused significant efforts on product redesign and product sustainability and are noted by third party certifying bodies or designations including but not limit to Cradle to Cradle, Forest Stewardship Council™, Green-e, Green Seal™, PCF (Processed Chlorine Free) and Level® by BIFMA. Information on these products, services or organizations are widely available through various outlets. The County assists with providing information as requested including education on this and other topics through a professional services agreement. The County supports reductions and reuse through various local entities to minimize the overall waste entering Illinois landfills. Education and outreach will continue to be provided to residents, schools, organizations, businesses and other interested individuals on this and all aspects of waste management.

[7] U.S. Environmental Protection Agency https://www.epa.gov/smm/sustainable-materials-management-non-hazardous-materials-and-waste-management-hierarchy

Once all efforts to reduce and reuse have been made, recycling or composting are considered the next best use. Recycling has seen a significant amount of change over the last decade with volatile market values, contamination issues and shrinking end users. Although there continues to be uncertainty in the recycling arena these higher level issues have not deterred municipal waste contracts from including recycling.

The County recognizes the local challenges of contamination and access as limiting factors in expanding or increasing programs or the diversion rate. High rates of unacceptable recyclables harm both the recycling and composting industries and cause significant strain on equipment and personnel. Educational and marketing efforts are underway to assist with addressing this challenge and will aid in the understanding of recyclable commodities, specifically those identified to be at a lower recovery rate in the County; glass bottles, jars, aluminum beverage containers, and ferrous containers. Composting continues to grow as evidenced by the Village of Glen Ellyn's contract to include food scrap pick-up year round. Another area of recycling, construction and demolition debris, is gaining exposure due to green building which requires the reuse and recycling of materials. This sector was identified under the County's Strategic Plan as a priority waste reduction category and as such the County is launching an outreach effort that supports the displacement of this waste from landfills both through recycling and reuse.

The first two categories of waste management hierarchy are easily accessed by the public and opportunities abound within and around the County to divert waste using any of the above methods. Energy recovery is less accessible, but has been achieved through alternative technologies including waste-to-energy and waste-to-fuel developments. As projects arise, these opportunities will be assessed to ensure all other preferred avenues have been explored. Previous studies have found that low landfill tipping fees can be a large barrier to these emerging technologies. As landfill space decreases more opportunities in the energy recovery sector may become available. Other influences that could hasten the development of these technologies include, raising transportation costs, land value, alternative energy portfolios and energy prices.

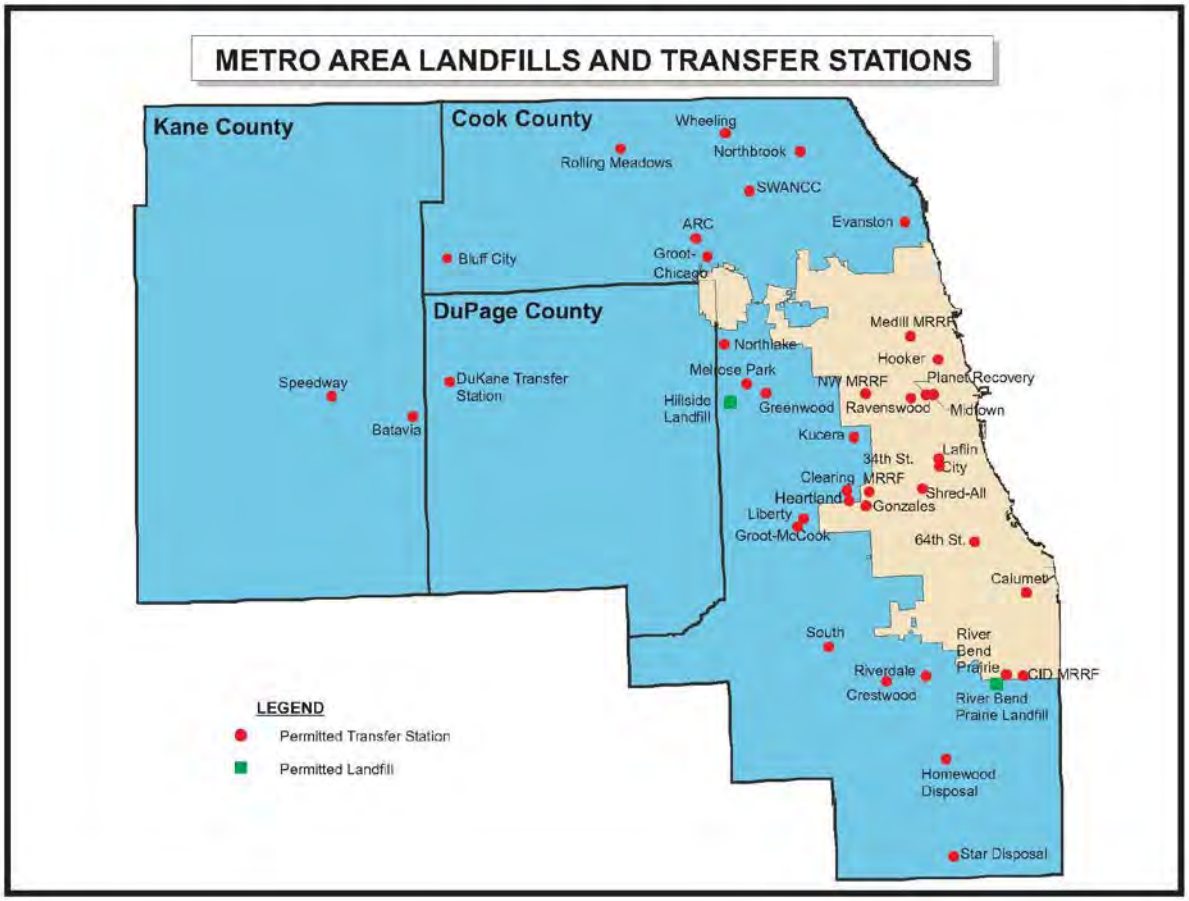
Landfilling continues to be a final option after all other preferred methods are exhausted. Illinois' abundance of landfill sites creates difficulties to the more complicated or energy expending processes of reusing, recycling or recovering energy, however, this five year update continues to focus on sustainable modes of disposing of the nature "things" we consume and collect. Legislation has provided regulatory language which has assisted with providing more incentive for reuse or recycling, and more recently alternative energy through the Future Energy Jobs Act (FEJA,) which may result in an increase the energy recovery sector. The County will continue to monitor and participate, as needed, on legislative efforts that might impact the waste stream. Other recent legislation has evolved around local permitting authority, electronics recycling, commercial franchising, food scrap composting and solid waste planning. Staff will continue to participate in regional and statewide conversations in addition to monitoring pending legislation. DuPage County will continue to provide technical assistance and leadership in all sectors of solid waste management.

APPENDIX A

2016 Municipal Waste & Recycling Data

	Refuse Tonnage	Recycled Tonnage	Landscape Waste Tons	Total Recycled	Total Waste	Recycling Rate
Addison	10547	2386	2074	4,460.00	15,007.00	30%
Bartlett	12919	4491.53	2509.61	7,001.14	19,920.14	35%
Bensenville	5553.32	1242.26	1897.89	3,140.15	8,693.47	36%
Bloomingdale	7198.95	2084.84	588.87	2,673.71	9,872.66	27%
Bolingbrook	21862.41	6780.04	4811.8	11,591.84	33,454.25	35%
Carol Stream	9639.43	3534.51	13.58	3,548.09	13,187.52	27%
Clarendon Hills	2176	1092	525	1,617.00	3,793.00	43%
Darien	4536.35	2546.26	766.64	3,312.90	7,849.25	42%
Downers Grove	11708.75	5965.78	1975.22	7,941.00	19,649.75	40%
Elk Grove Village	10467	3904	1204	5,108.00	15,575.00	33%
Elmhurst	12561.2	5421.46	1924	7,345.46	19,906.66	37%
Glen Ellyn	6946.6	3526.59	2420.07	5,946.66	12,893.26	46%
Hanover Park	11251	2455	1126	3,581.00	14,832.00	24%
Hinsdale	5327	2428	563	2,991.00	8,318.00	36%
Itasca	3272.32	970.35	782.43	1,752.78	5,025.10	35%
Lisle	8204	2898	521	3,419.00	11,623.00	29%
Lombard	10626	4091	1923	6,014.00	16,640.00	36%
Naperville	37405.1	15655.08	6591	22,246.08	59,651.18	37%
Oak Brook	2995	1221	130	1,351.00	4,346.00	31%
St Charles	7231.34	892.95	892.95	1,785.90	9,017.24	20%
Warrenville	2039	1116	335.5	1,451.50	3,490.50	41%
West Chicago	5756.05	2819.54	773.77	3,593.31	9,349.36	38%
Westmont	4265	1915	619.2	2,534.20	6,799.20	37%
Wheaton	17164	6592	3657	10,249.00	27,413.00	37%
Willowbrook	1033.31	548.62	34.95	583.57	1,616.88	36%
Winfield	2034	856	449	1,305.00	3,339.00	39%
Wood Dale	4386	1145	834	1,979.00	6,365.00	31%
TOTAL/AVERAGE	**239,105.13**	**88,578.81**	**63,67.92**	**80,853.41**	**234,009.56**	**34%**

APPENDIX B



2007 Shaw Environmental Report completed for the County of DuPage

APPENDIX 8-I

DUPAGE COUNTY SW PLAN CONSISTENCY LETTER

DUPAGE COUNTY

BUILDING & ZONING DEPARTMENT

630-407-6700
Fax: 630-407-6702

www.dupageco.org/building

Building Division
Zoning & Planning Division
Environmental Division

April 23, 2020

City of West Chicago
Attn. Michael Guttman
475 Main Street
West Chicago, IL 60185

Re: Lakeshore Recycling Systems Application for Siting Approval for a Pollution Control Facility

Dear Mr. Guttman,

DuPage County has received notification that Lakeshore Recycling Systems (LRS) will be submitting a local siting application for a municipal solid waste transfer station in the City of West Chicago. LRS has requested that I review the proposed site for consistency with the DuPage County Solid Waste Management Plan pursuant to 415 ILCS 5/39.2. In my role as an Environmental Specialist II for the County, I am responsible for overseeing the Plan and solid waste management as it relates to the county as a whole.

DuPage County adopted its initial countywide Solid Waste Management Plan in 1991 with subsequent updates completed intermittently in accordance with the Solid Waste Planning and Recycling Act (415 ILCS 15/). The latest plan update (attached) was adopted by the County Board in 2017 and included Section 4.1 which addresses Waste Disposal Capacity. The document finds that service areas of existing facilities be considered as well as market forces. It observes that the County lacks disposal capacity for the waste generated within the borders and that additional pollution control facilities may be needed but will be considered on a case by case basis. The proposed pollution control facility appears to be consistent with the aforementioned Solid Waste Management Plan Five Year Update (2017).

If you have any further questions regarding the proposed application as it relates to the DuPage County Solid Waste Management Plan, please do not hesitate to contact me at (630) 407-6753.

Sincerely,

Joy Hinz
Environmental Specialist

CRITERION 9:

“if the facility will be located within a regulated recharge area, any applicable requirements specified by the Board for such areas have been met”
415 ILCS 5/39.2(a)(ix)

CRITERION 9:
REGULATED RECHARGE AREA

The Illinois Environmental Protection Act, at 415 ILCS 5/39.2 (a)(ix), requires that an applicant for a transfer station siting demonstrate that the proposed transfer station is not located within a regulated recharge area, and that any applicable requirements specified by the Illinois Pollution Control Board for such areas have been met. This report demonstrates that the proposed Lakeshore Recycling Systems, LLC West DuPage Recycling and Transfer Station is not located within or near a regulated recharge area at the time this Application for Local Siting Approval was submitted.

Prepared for:

LAKESHORE RECYCLING SYSTEMS, LLC
WEST DUPAGE RECYCLING AND TRANSFER STATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS
DUPAGE COUNTY

Prepared by:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
NAPERVILLE, ILLINOIS

CEC Project 163-899

AUGUST 2022

9.0 REGULATED RECHARGE AREA

Regulated recharge areas are established by Illinois Environmental Protection Agency regulations. "Regulated recharge area" means a compact geographic area, as determined by the Illinois Pollution Control Board, the geology of which renders a potable resource groundwater particularly susceptible to contamination [415 ILCS 5/3.67]. Regulations related to the regulated recharge areas are provided in the Title 35 of the Illinois Administrative Code (Ill. Adm. Code) Part 617 - Regulated Recharge Areas. These regulations provide general and specific requirements for designated recharge areas within the State of Illinois.

According to Ill. Adm. Code Part 617, only one regulated recharge area has been established in Illinois, as of the date of this report. The regulated recharge area, Pleasant Valley Public Water District (Pleasant Valley), is located in Peoria County, Illinois. The boundaries of the Pleasant Valley regulated recharge area are provided in Ill. Adm. Code Part 617, Subpart B.

The proposed West DuPage Recycling and Transfer Station is located in DuPage County, Illinois, which is over 100 miles northeast of Pleasant Valley in Peoria County, Illinois. The proposed West DuPage Recycling and Transfer Station is not located within or near a regulated recharge area.

9.1 CERTIFICATION

I hereby certify that all information contained in this Application for Local Siting Approval for Criterion 9 was prepared by me or under my direct supervision, and is true and correct to the best of my knowledge and belief.

John Hock, P.E.

4-14-2022
Date

062-047623 - IL
Professional Engineer Registration Number and State

LAKESHORE RECYCLING SYSTEMS, LLC

WEST DUPAGE RECYCLING AND TRANSFER STATION

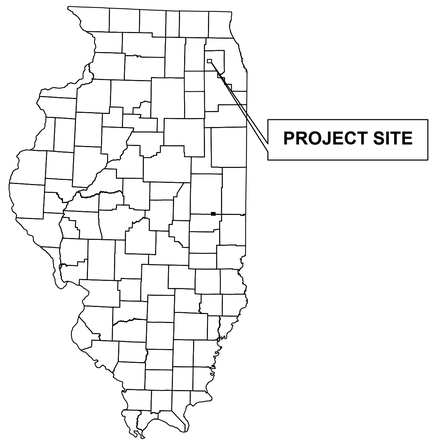
1655 POWIS ROAD

WEST CHICAGO, ILLINOIS

LOCAL SITING APPLICATION

LEGEND

- STORM MANHOLE
- CATCH BASIN
- INLET
- FLARED END SECTION
- STORM STRUCTURE NOT LOCATED
- SANITARY MANHOLE
- CLEAN OUT
- WATER MANHOLE
- WATER VALVE
- FIRE HYDRANT
- POWER POLE
- LIGHT POLE
- ELECTRIC BOX
- AC UNIT
- ELECTRIC CONTROL CABINET
- ELECTRIC TRANSFORMER
- GAS METER
- FIBER OPTIC PULL BOX
- BOLLARD
- STALL COUNT
- SPOT GRADE
- CONIFEROUS BUSH
- DECIDUOUS TREE
- PROPERTY LINE
- EASEMENT LINE
- ADJACENT RIGHT-OF-WAY (APPROX.)
- SETBACK LINE
- CONTOUR W/ ELEVATION
- STORM SEWER
- SANITARY SEWER
- 8" DIP WATER LINE (UNCONFIRMED)
- BURIED ELEC. LINE
- RAILROAD TRACKS
- WOOD FENCE
- CHAIN LINK FENCE
- WIRE/METAL FENCE
- 100-YR FIS BFE=752.25
- 10-YR FIS BFE=751.50
- WETLAND BUFFER
- DELINEATED POND/WETLAND
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATER SERVICE
- PROPOSED GAS
- PROPOSED ELECTRIC
- PROPOSED COMMUNICATIONS
- PROPOSED SPOT GRADE
- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- PROPOSED COIR LOG DITCH CHECK
- PROPOSED RIPRAP
- PROPOSED CATCH BASIN
- PROPOSED INLET
- PROPOSED SANITARY MANHOLE
- PROPOSED CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED GAS METER
- PROPOSED ELECTRIC METER
- PROPOSED OIL WATER SEPARATOR
- PROPOSED STALL COUNT
- PROPOSED FLARED END SECTION
- PROPOSED EROSION CONTROL BLANKET
- PROPOSED WETLAND BUFFER VEGETATION
- PROPOSED INLET PROTECTION
- EXISTING ASPHALT PAVEMENT
- EXISTING CONCRETE PAVEMENT
- PROPOSED LIGHT DUTY PAVEMENT
- PROPOSED HEAVY DUTY PAVEMENT



COUNTY MAP SOURCE:
ILLINOIS STATE GEOLOGICAL SURVEY

SITE LOCATION MAP

NOT TO SCALE

BENCHMARKS

BM 1
"+"CUT, CONTROL POINT 8
ELEVATION = 756.28 (NAVD 88)

BM 2
REBAR, CONTROL POINT 5
ELEVATION = 758.60 (NAVD 88)

BM 3
REBAR, CONTROL POINT 6
ELEVATION = 755.04 (NAVD 88)

BM 4
REBAR, CONTROL POINT 4
ELEVATION = 755.31 (NAVD 88)

NGS DK3273
BRASS DISK, NE CORNER OF POWIS ROAD
AND POWIS COURT
ELEVATION = 757.10 (NAVD 88)

NGS DK3275
BRASS DISK, W SIDE HOWARD DRIVE 300' S OF
HOWARD DRIVE.
ELEVATION = 751.73 (NAVD 88)

BASIS OF BEARING

THE HORIZONTAL DATUM IS THE ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE NAD 83 AND THE VERTICAL DATUM IS NAVD 88.

PROJECT CONTACT INFORMATION

SITE OPERATOR
LAKESHORE RECYCLING SYSTEMS, LLC
PH: (708) 774-9301
CONTACT: RICHARD GOLF

SURVEYOR
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
1230 EAST DIEHL ROAD, SUITE 200
NAPERVILLE, IL 60563
PH: (630) 963-6026
FX: (630) 963-6027
CONTACT: DOUGLAS MCCLINTIC, P.L.S.

VILLAGE
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
MAYOR: RUBEN PINEDA
PUBLIC WORKS: ROBERT FLATTER
COMMUNITY DEVELOPMENT: TOM DABAREINER
ENGINEER: STEVE PERTZBORN

CIVIL ENGINEER
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
1230 EAST DIEHL ROAD, SUITE 200
NAPERVILLE, IL 60563
PH: (630) 963-6026
FX: (630) 963-6027
CONTACT: JOHN E. HOCK, P.E.
DAVE A. KAMANO, P.E.

UTILITY COMPANIES

ELECTRIC SERVICE
COMED
PH: (877)-426-6331

SANITARY
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

GAS
NICOR
PH: (888) 642-6748

WATER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
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PUBLIC WORKS: ROBERT FLATTER

STORM SEWER
VILLAGE OF WEST CHICAGO
1400 W. HAWTHORNE LANE
WEST CHICAGO, IL 60185
PH: (630) 293-2255
PUBLIC WORKS: ROBERT FLATTER

LIST OF DRAWINGS

C000	COVER SHEET
C100	AERIAL PHOTOGRAPH AND SURROUNDING FEATURES
C100A	AERIAL PHOTOGRAPH WITH USGS AND SITE TOPOGRAPHY
C100B	FLOOD INFORMATION AND ZONING COMPOSITE
C101	ALTA/NSPS LAND TITLE SURVEY
C102	EXISTING SITE CONDITIONS WEST
C103	EXISTING SITE CONDITIONS EAST
C104	AMENDED P.U.D. SITE PLAN WEST
C105	AMENDED P.U.D. SITE PLAN EAST
C106	AMENDED P.U.D. GRADING AND DRAINAGE PLAN WEST
C107	AMENDED P.U.D. GRADING AND DRAINAGE PLAN EAST
C108	AMENDED P.U.D. UTILITIES WEST
C109	AMENDED P.U.D. UTILITIES EAST
C200	PROPOSED SITE PLAN WEST
C201	PROPOSED SITE PLAN EAST
C300	HYDRO EXCAVATION WASTE BUILDING PLAN
C301	MSW AND SSR TRANSFER BUILDING PLAN VIEW
C302	COMBINED BUILDING PLAN
C400	VEHICLE TRAFFIC FLOW PLAN
C401	VEHICLE TRACKING TURNING PLAN
C402	QUEING/STACKING PLAN
C403	SIGNAGE AND PAVEMENT MARKING PLAN
A1A	MSW AND SSR TRANSFER BUILDING - ELEVATION VIEWS 1
A1B	MSW AND SSR TRANSFER BUILDING - ELEVATION VIEWS 2
A2	MSW AND SSR TRANSFER BUILDING - ELEVATION VIEWS 3
A3	HYDRO EXCAVATION WASTE BUILDING - ELEVATION VIEW

ENGINEER'S CERTIFICATE

STATE OF ILLINOIS }
} S.S.
COUNTY OF DUPAGE }

I, JOHN E. HOCK, AN ILLINOIS PROFESSIONAL ENGINEER, DO HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC., ILLINOIS LICENSED PROFESSIONAL DESIGN FIRM NO. 184.004002, LICENSE EXPIRES APRIL 30, 2023, UNDER MY PERSONAL DIRECTION FOR THE EXCLUSIVE USE OF THE CLIENT NOTED HEREON. REPRODUCTION OR USE BY THIRD PARTIES IS STRICTLY PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE UNDERSIGNED.

GIVEN UNDER MY HAND AND SEAL AT NAPERVILLE, ILLINOIS, THIS 14TH DAY OF SEPTEMBER, 2022.

JOHN E. HOCK
ILLINOIS PROFESSIONAL ENGINEER NO. 062.047623
LICENSE EXPIRES NOVEMBER 30, 2023.

*HAND SIGNATURE ON FILE

Call Before You Dig
JULIE ILLINOIS ONE-CALL SYSTEM

ILLINOIS LAW REQUIRES ANYONE DIGGING TO CALL JULIE AT 1-800-892-0123 AT LEAST 48 HOURS/TWO WORKING DAYS PRIOR TO THE START OF EXCAVATION AND THE PROJECT MUST BEGIN WITHIN 14 CALENDAR DAYS FROM THE CALL.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

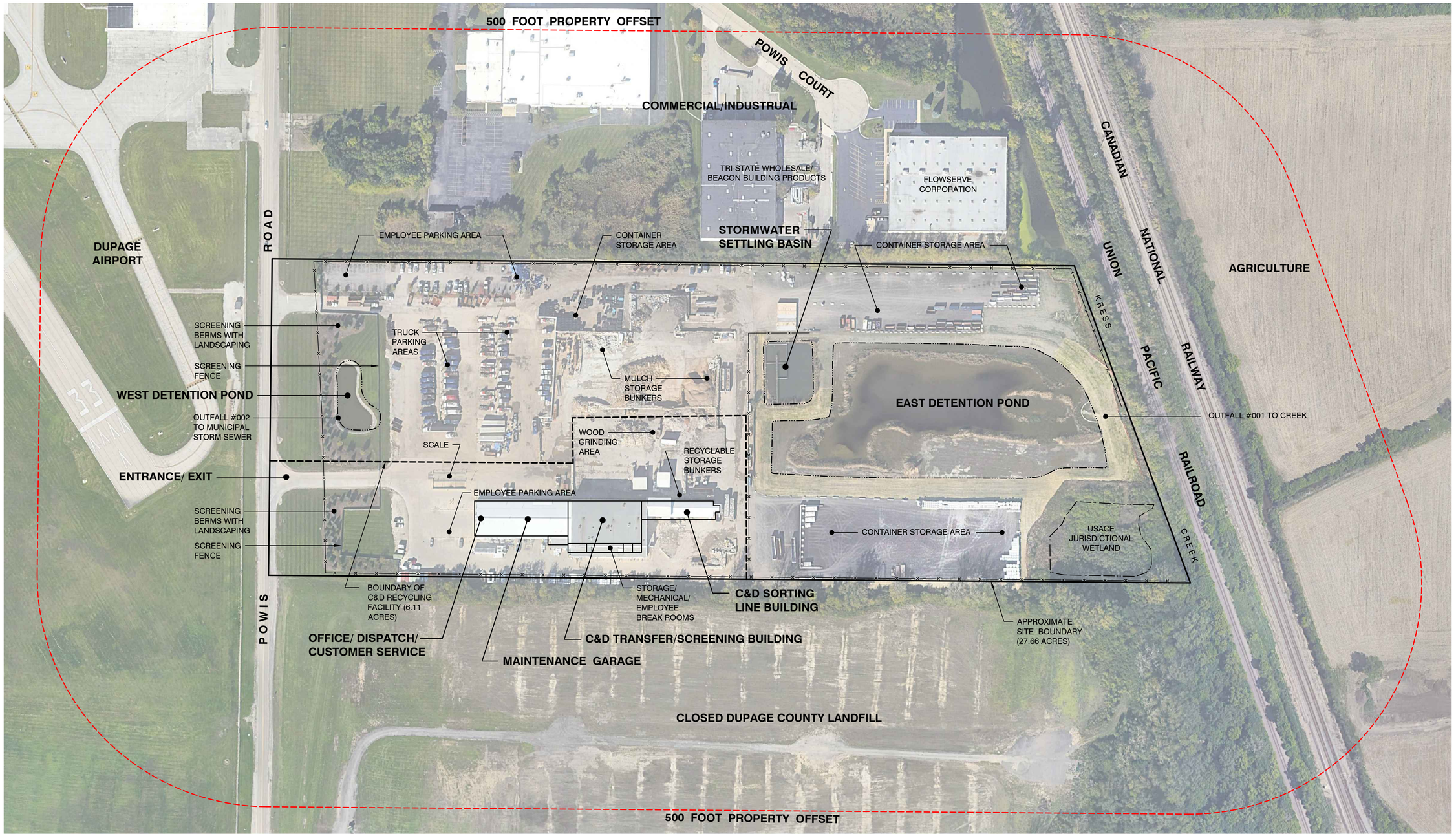
COVER SHEET

DATE:	AUGUST 2022
DWG SCALE:	AS SHOWN
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

DRAWING NO.:
C000
SHEET 1 OF 26

P:\2016\163-899\-CAD\(Dwg)\CVDS-Local Siting Application\163899-CVDS-COD-Cover Sheet.dwg(2000) LS(9/8/2022 - Hakeel) - LP, 9/8/2022 2:07 PM

NORTH



SITE MAP

LOCATION: SECTION 32, TOWNSHIP 40N, RANGE 9E

REFERENCE

1. IMAGE PROVIDED BY GOOGLE EARTH. GOOGLE MAP DATA © 2022.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 100 200

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AERIAL PHOTOGRAPH AND SURROUNDING FEATURES

DATE:	AUGUST 2022
DWG SCALE:	1"=100'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

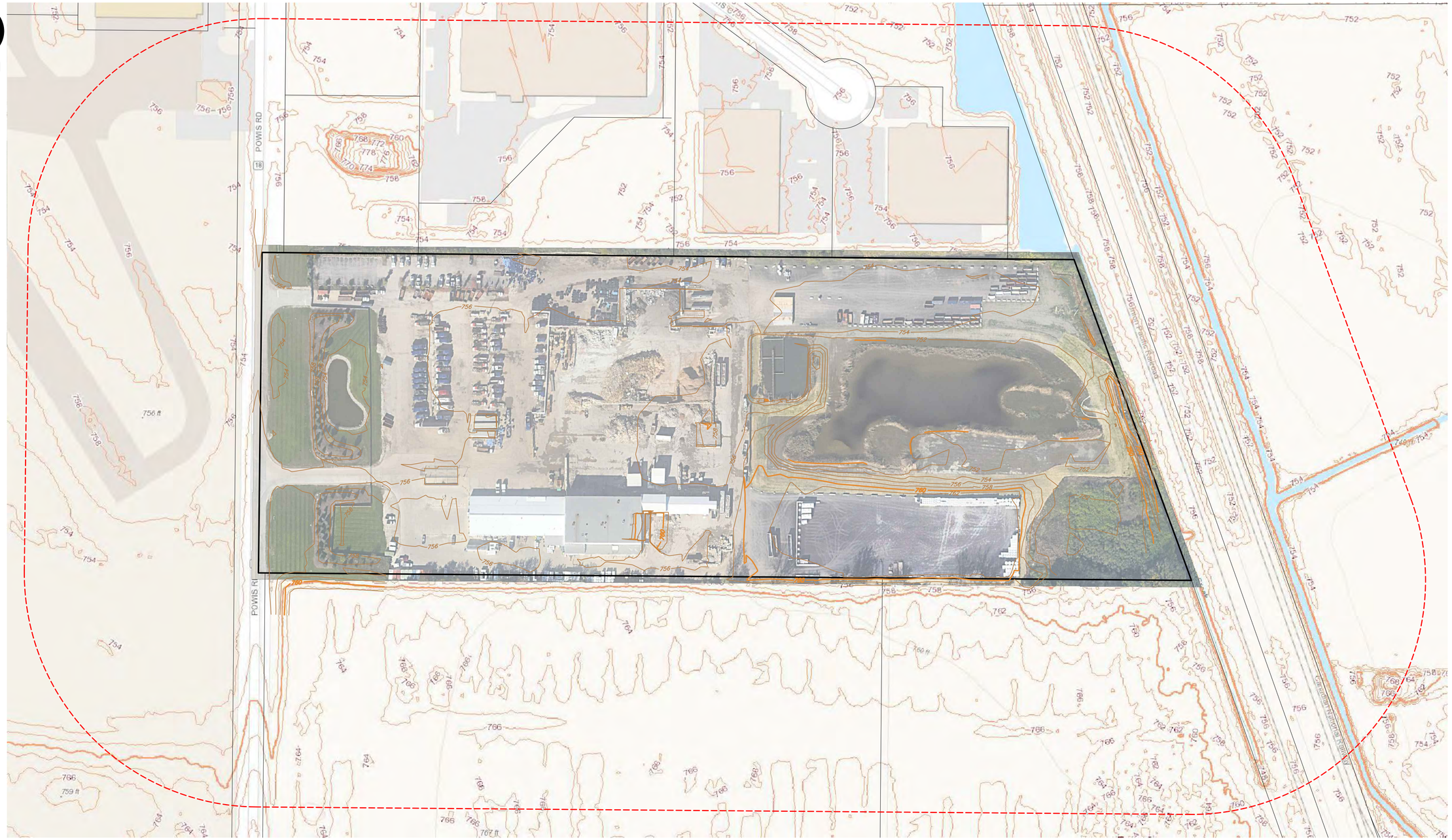
DRAWING NO.: C100

SHEET 2 OF 26

P:\2016\163-899\~CADD\Dwg\CIVIL~Local Siting Application\163899-CIV05-C100-Aerial Photograph.dwg[C100] LS:(9/8/2022 - mssp) - LP: 9/8/2022 2:04 PM

C001906

NORTH



LEGEND

- SUBJECT PROPERTY
- SURROUNDING PROPERTY
- 500 FOOT PROPERTY OFFSET

SITE MAP

LOCATION: SECTION 32, TOWNSHIP 40N, RANGE 9E

REFERENCE

1. IMAGE PROVIDED BY GOOGLE EARTH. GOOGLE MAP DATA © 2022.
2. USGS IMAGE PROVIDED THROUGH THE DUPAGE COUNTY INFORMATION TECHNOLOGY DEPARTMENT – GIS DIVISION.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 100 200

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

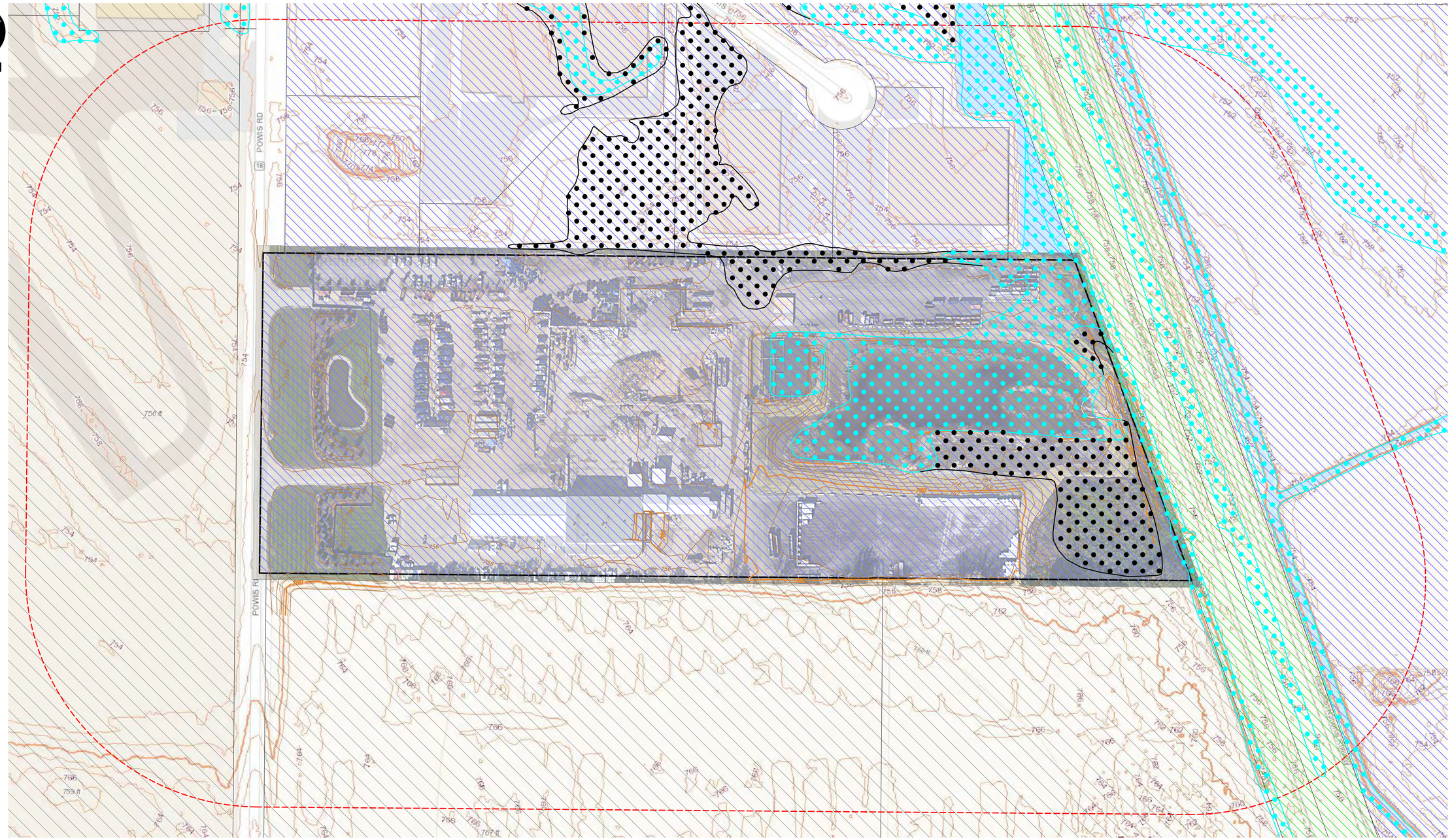
AERIAL PHOTOGRAPH WITH USGS AND SITE TOPOGRAPHY

DATE:	AUGUST 2022
DWG SCALE:	1" = 100'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

DRAWING NO.: C100A

SHEET 3 OF 26

P:\2016\163-899\~CAD\Dwg\CIVIL-Local Siting Application\163899-CIVIL-C100-Aerial Photograph.dwg[C100A] LS(9/8/2022 - mkemp) - LP: 9/9/2022 8:30 AM



LEGEND

- SUBJECT PROPERTY
- SURROUNDING PROPERTY
- 500 FOOT PROPERTY OFFSET

LEGEND - UNINCORPORATED ZONING

- UNINCORPORATED LIGHT INDUSTRIAL

LEGEND - CITY OF WEST CHICAGO ZONING

- B–3 REGIONAL SHOPPING DISTRICT
- ER–1 ESTATE RESIDENCE DISTRICT
- M MANUFACTURING DISTRICT
- AIRPORT DISTRICT

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

SITE MAP

LOCATION: SECTION 32, TOWNSHIP 40N, RANGE 9E

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 100 200

REFERENCE

1. IMAGE PROVIDED BY GOOGLE EARTH. GOOGLE MAP DATA © 2022.
2. USGS IMAGE PROVIDED THROUGH THE DUPAGE COUNTY INFORMATION TECHNOLOGY DEPARTMENT – GIS DIVISION.
3. 2021 ZONING MAP PROVIDED BY THE CITY OF WEST CHICAGO.
4. FLOOD HAZARD INFORMATION BASED ON FLOOD INSURANCE RATE MAP NUMBER 17043C0036J REVISED AUGUST 1, 2019 PROVIDED BY FEMA.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

FLOOD INFORMATION AND ZONING COMPOSITE

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=100'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C100B

SHEET 4 OF 26

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ALTA/NSPS LAND TITLE SURVEY

OF

THAT PART OF THE NORTH 1/2 OF SECTION 32, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS, TO WIT.

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 32; THENCE NORTH 88 DEGREES 56 MINUTES 37 SECONDS EAST ALONG THE NORTH LINE OF SAID SECTION 32, A D1STANCE OF 1331.65 FEET TO THE NORTH AND SOUTH DIVIDING LINE OF THE NORTHWEST 1/4 OF SAID SECTION 32; THENCE SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 500.00 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND CONVEYED TO THE DEFENSE PLANT CORPORATION BY DEED RECORDED IN BOOK 390 OF DEEDS ON PAGE 81 IN THE OFFICE OF THE DUPAGE COUNTY RECORDER; THENCE CONTINUING SOUTH 00 DEGREES 36 MINUTES 17 SECONDS WEST ALONG SAID DIVIDING LINE, A DISTANCE OF 685.0 FEET TO THE SOUTHWEST CORNER OF THE TRACT OF LAND DESCRIBED IN A SPECIAL WARRANTY DEED RECORDED FEBRUARY 6, 2001 AS DOCUMENT NO. R2001-020758; THENCE NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST ALONG THE SOUTH LINE OF SAID TRACT, A DISTANCE OF 103.80 FEET FOR THE POINT OF BEGINNING; THENCE CONTINUING NORTH 89 DEGREES 32 MINUTES 15 SECONDS EAST, ALONG SAID SOUTH LINE (SAID LINE BEING PARALLEL WITH THE SOUTH LINE OF SAID DEFENSE PLANT CORPORATION TRACT), A DISTANCE OF 1880.12 FEET TO THE WESTERLY RIGHT OF WAY LINE FOR THE CHICAGO AND NORTHWESTERN RAILWAY; THENCE NORTH 20 DEGREES 30 MINUTES 46 SECONDS WEST, ALONG SAID WESTERLY RIGHT OF WAY LINE, A DISTANCE OF 729.01 FEET TO THE SOUTHEAST CORNER OF SAID DEFENSE PLANT CORPORATION TRACT, THENCE SOUTH 89 DEGREES 32 MINUTES 15 SECONDS WEST, ALONG SAID SOUTH LINE, A DISTANCE OF 1650.66 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF POWIS ROAD PER DOCUMENT NO. R2003-146376, SAID POINT ALSO BEING 81.96 FEET EAST OF THE SOUTHWEST CORNER OF SAID DEFENSE PLANT CORPORATION; THENCE SOUTH 2 DEGREES 29 MINUTES 05 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 536.49 FEET TO A POINT OF CURVATURE; THENCE SOUTHWESTERLY, ALONG SAID EASTERLY RIGHT OF WAY LINE BEING THE ARC OF A CURVE CONCAVE WESTERLY, HAVING A RADIUS OF 739.00 FEET AND WHOSE CHORD HAS A BEARING OF SOUTH 3 DEGREES 47 MINUTES 33 SECONDS WEST, AN ARC DISTANCE OF 149.66 FEET TO THE POINT OF BEGINNING, IN DUPAGE COUNTY, ILLINOIS.

PIN: 01-32-101-004
01-32-200-001

1655 POWIS ROAD
WEST CHICAGO, IL 60185

AREA SUMMARY

GROSS AREA= 1,204,823 S.F. (27.659 ACRES)

PROFORMA SCHEDULE B ITEMS

1-7	NOT PLOTTABLE	15	RIGHTS OF WAY FOR DRAINAGE DITCHES, TILES FEEDERS, LATERALS & OTHER DRAINAGE EASEMENTS IF ANY – NOT PLOTTABLE
8	CLEAR ZONE AVIATION EASEMENT PER DOC. 916606 – NOT PLOTTABLE	16	RIGHTS OF THE OWNERS OF LANDS BORDERING ON THE KRESS CREEK TO THE UNINTERRUPTED FLOW OF WATERS – NOT PLOTTABLE
9	TERMS, PROVISIONS & CONDITIONS RELATING TO WATERMAIN & SANITARY RECAPTURE COSTS PER DOC. R93-046010 – NOT PLOTTABLE	17-18	INTENTIONALLY DELETED
(10)	SLUDGE IMPOUNDMENT AREA RESTRICTIONS PER DOC.R2001-020758 & R2002-130084 – PLOTTED	(19A)	SOUTH FENCE ENCROACHMENT – PLOTTED
11	IEPA NO FURTHER REMEDIATION LETTER PER DOC. R2004-249272 – NOT PLOTTABLE	(19B)	NORTH FENCE ENCROACHMENT – PLOTTED
12	IEPA NO FURTHER REMEDIATION LETTER PER DOC. R2007-117131 – NOT PLOTTABLE	19(C)	NORTH CHAIN LINK FENCE ENCROACHMENT – NO FENCE OBSERVED THEREFORE NOT PLOTTED
(13)	EASEMENT FOR WATERMAIN, STORMWATER MANAGEMENT & BEST MANAGEMENT PRACTICES PER DOC. R2016-144354 – PLOTTED	20	MEMORANDUM OF LEASE PER DOC. R2018-116701 – NOT PLOTTABLE
14	RIGHTS OF WAY FOR RAILROADS, SWITCH TRACKS OR SPURS – NOT PLOTTABLE		

EXISTING LEGEND:

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING EASEMENT
- EXISTING WOOD FENCE
- EXISTING CHAIN LINK FENCE
- EXISTING SANITARY SEWER LINE
- ST — EXISTING STORM SEWER LINE
- G — EXISTING GAS LINE
- W — EXISTING WATER LINE
- FO — EXISTING FIBER OPTIC LINE
- T — EXISTING TELEPHONE LINE
- UG-E — EXISTING UNDERGROUND ELEC. LINE
- OH-W — EXISTING OVERHEAD ELECTRIC

TOPOGRAPHIC SYMBOLS: MAILBOX, FLAG POLE, GROUND LIGHT, SIGN, SATELLITE DISH, LIGHT STANDARD, AC UNIT, BOLLARD, PARKING METER, ANTENNA, GRAVE, HANDICAP PARKING SYMBOL, TEST PIT

ENVIRON: MONITORING WELL @ TOP OF COVER, SOIL SAMPLE, TEST SITE

STORM UTILITIES: STORM MANHOLE, CATCH BASIN (TYPE), CURB INLET, RISER PIPE, INLET (CIRCULAR), DRAIN, BEEHIVE INLET SQUARE, INLET SQUARE, RECESSED CURB INLET

SAN. UTILITIES: SANITARY MANHOLE, CLEAN OUT, COMBINATION MANHOLE, STAND PIPE (RISER), LIFT STATION

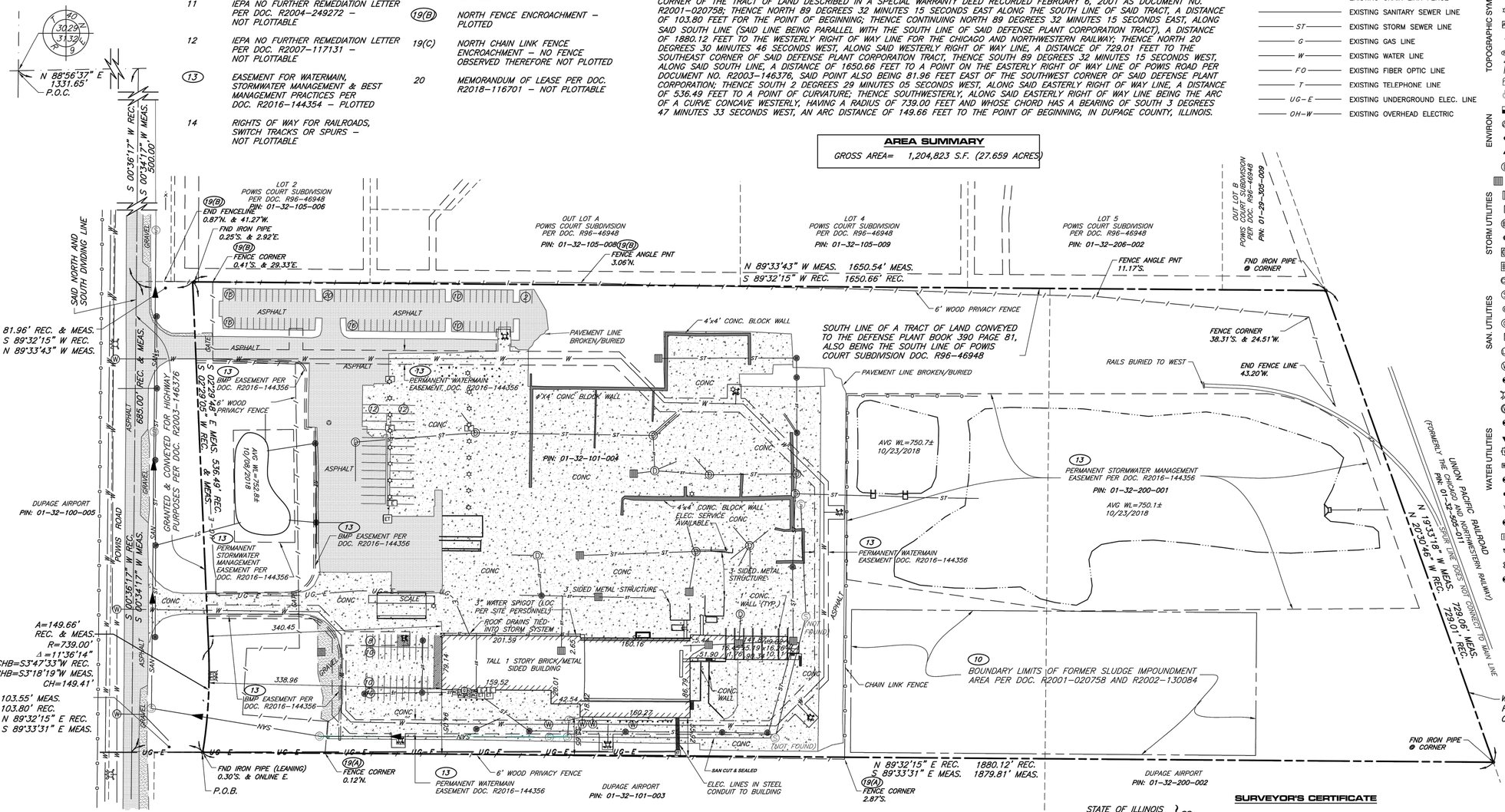
WATER UTILITIES: WATER MANHOLE, WATER BOX (WATER VALVE), FIRE HYDRANT, WATER WELL, SPRINKLER VALVE, WATERLINE MARKER, WATER METER, WATER PUMP, HOSE BIB BUILDING, PIV – POST INDICATOR VALVE, SPRINKLER HEAD, IRRIGATION VALVE, IRRIGATION CONTROL BOX, FIRE DEPT. CONNECTION, FIRE DEPT. CONNECTION (BLDG.), FARM SPIGOT

GAS UTILITIES: GAS MANHOLE, GAS LINE MARKER, GAS BOX (GAS VALVE), GAS METER, GAS TAP, PROPANE TANK, GAS WELL

VEGETATION: TREE, DECIDUOUS (800 SIZE TYPE), TREE, CONIFER (800 SIZE TYPE), BUSH/SHRUB (SIZE), STUMP

MISC. UTILITIES: POWER POLE, GUY WIRE, GUY POLE, TELEPHONE POLE, TELEPHONE PEDESTAL, TELEPHONE LINE MARKER, TELEPHONE MANHOLE, ELECTRIC MANHOLE, ELECTRIC LINE MARKER, ELECTRIC PULL BOX (FLUSH WITH GRADE), ELECTRIC CONTROL BOX (ON BUILDING), HIGH TENSION TOWER, ELECTRIC METER, FIBER OPTIC MARKER, TRAFFIC POLE, TRAFFIC MANHOLE, CABLE PEDESTAL, TRAFFIC SIGNAL BOX/CABINET (ABOVE GRADE), MANHOLE (UTILITY UNKNOWN), OIL WELL, VALVE BOX (UNKNOWN, FLUSH WITH GRADE), TELEPHONE PULL BOX (FLUSH WITH GRADE), UTILITY CABINET (UNKNOWN, ABOVE GRADE), VAULT, ELECTRIC HANDHOLE, STEAM MANHOLE, TRANSFORMER, STAND PIPE, TRAFFIC PULL BOX (FLUSH WITH GRADE), TRAFFIC DETECTOR HOUSING, FIBER OPTIC PULL BOX (FLUSH WITH GRADE), UTILITY POLE, ELECTRIC CONTROL CABINET (ABOVE GRADE), TELEPHONE BOX/CABINET (ABOVE GRADE), FIBER OPTIC BOX/CABINET (ABOVE GRADE), FIBER OPTIC MANHOLE, UTILITY PULL BOX (UNKNOWN, FLUSH W/GRADE), ELECTRIC PEDESTAL

GEOTECH: TEST BORING, PERC HOLE, SEEP



SURVEYOR'S NOTES:

1. THIS SURVEY IS BASED ON PROFORMA TITLE COMMITMENT 18000150813A REVISED DECEMBER 11, 2018, PREPARED BY STEWART TITLE GUARANTY COMPANY. THESE PROPERTIES ARE SUBJECT TO ALL COVENANTS AND RESTRICTIONS RELATING TO THE USE AND CHARACTER OF THE LAND AS ALL MATTERS APPEARING OF PUBLIC RECORD AND AS MAY BE DISCLOSED BY A MORE CURRENT TITLE COMMITMENT OR REPORT.
2. BASIS OF BEARING: ILLINOIS STATE PLANE – EAST ZONE
3. NO PZR ZONING REPORT WAS PROVIDED AT THE TIME OF THIS SURVEY. PER THE CITY OF WEST CHICAGO 2018 ZONING MAP, DATED 04/18/2018, THE SURVEYED PROPERTY IS ZONED MANUFACTURING DISTRICT PLANNED UNIT DEVELOPMENT.
4. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO GAPS OR OVERLAPS.
5. THE SURVEYED PROPERTY IS LOCATED WITHIN AREAS OF 0.2% ANNUAL CHANCE FLOOD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREA S WITHIN ZONE AE, BASE FLOOD ELEVATIONS DETERMINED, ACCORDING TO MAP NO. 17043C0036J WITH EFFECTIVE DATE OF AUGUST 1, 2019.
6. THE UNDERSIGNED DID NOT OBSERVE EVIDENCE OF CURRENT EARTH MOVING, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
7. THE UNDERSIGNED HAS OBSERVED NO EVIDENCE OF SITE USED AS A SOLID WASTE DUMP, SUMP OR SANITARY LANDFILL.
8. THE UNDERSIGNED HAS NO KNOWLEDGE OF PROPOSED CHANGES IN STREET RIGHT OF WAY LINES. THERE IS EVIDENCE OF PAVEMENT RESURFACING ON OGDEN AVENUE.
9. THE UNDERSIGNED OBSERVED PARKING AS FOLLOWS:

REGULAR SPACES	150
HANDICAP SPACES	0

10. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
11. NO WETLAND DELINEATION WAS OBSERVED AT THE TIME THIS SURVEY WAS PERFORMED.

SURVEYOR'S CERTIFICATE

STATE OF ILLINOIS } SS
COUNTY OF DUPAGE }

TO:

- OSCAR (IL) LLC, A DELAWARE LIMITED LIABILITY COMPANY
- STEWART TITLE GUARANTY COMPANY

I HEREBY CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND DOES INCLUDE ITEMS 1, 2, 3, 4, 6(a), 6(b), 7(a), 7(b1), 8, 9, 16, 17, 18 AND 19 OF TABLE A THEREOF.

FIELD WORK WAS COMPLETED ON MAY 19, 2019.

THIS PLAT HAS BEEN PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. ILLINOIS LICENSED PROFESSIONAL DESIGN FIRM NO. 184.004002, LICENSE EXPIRES APRIL 30, 2021, UNDER MY PERSONAL DIRECTION FOR JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND DOES INCLUDE ITEMS 1, 2, 3, 4, 6(a), 6(b), 7(a), 7(b1), 8, 9, 16, 17, 18 AND 19 OF TABLE A THEREOF. REPRODUCTION OR USE BY THIRD PARTIES IS STRICTLY PROHIBITED WITHOUT THE WRITTEN PERMISSION OF THE UNDERSIGNED.

DATED THIS 14TH DAY OF OCTOBER, A.D., 2020.

ILLINOIS LICENSED PROFESSIONAL LAND SURVEYOR NO. 035-002992
LICENSED VALID THROUGH NOVEMBER 30, 2020

DOUGLAS R. McCLINTIC 035-002992 PROFESSIONAL LAND SURVEYOR NAPERVILLE, IL STATE OF ILLINOIS

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
Ph: 630.963.6026 · 877.963.6026 · Fax: 630.963.6027
www.cecinc.com

ALTA/NSPS LAND TITLE SURVEY
1655 POWIS ROAD
WEST CHICAGO, IL 60185
Situate In

DUPAGE COUNTY, ILLINOIS
Made For
LAKESHORE RECYCLING SYSTEMS, INC.
6132 OAKTON STREET
MORTON GROVE, IL 60053

DATE:	OCTOBER 15, 2020	SCALE:	1"=80'
DRAWN BY:	SRH	CHECKED BY:	DRM
PROJECT NO:	163-899.0004	APPROVED BY:	DRM*

DRAWING NO.: C101
SHEET 5 OF 26

P:\2016\163-899\--DADD\Dwg\CVDS-Local Siting Application\163899-CVDS-C101-ALTA Survey.dwg[C101] LS(8/17/2022 - mkarp) - LP: 9/9/2022 6:31 AM

C001909

NORTH

20 FT SIDE YARD BUILDING SETBACK
9 FT SIDE YARD PARKING SETBACK
STRIPING FOR PARKING AREA (TYP.)
PROPERTY LINE
ASPHALT (TYP.)
LANDSCAPED AREA
LANDSCAPED AREA
EX. WM EASEMENT
TANK
TANK
MATCHLINE
MULCH STORAGE AREA
STRIPING FOR PARKING AREA (TYP.)
CONCRETE BLOCKS (TYP.)
APPROX. LOC. 2.5' WIDE INFILTRATION TRENCH ALONG EDGE OF PAVEMENT
WEST DETENTION BASIN
POWIS ROAD
LANDSCAPED AREA
ELEC. SERVICE AVAILABLE
C & D MATERIAL STORAGE AREA
OFFICE/ DISPATCH/ CUSTOMER SERVICE
SCALE
THREE-SIDED BUILDIINGS
C&D SORTING LINE BUILDING
FIRE ROVER
EQUIPMENT
EX. WM EASEMENT
ENTRANCE/EXIT
ROOF DRAINS TIED INTO STORM SYSTEM
3" WATER SPIGOT (LOC PER SITE PERSONNEL)
20 FT FRONT YARD PARKING SETBACK
40 FT FRONT YARD BUILDING SETBACK
PROPPERTY LINE
STRIPING FOR PARKING AREA (TYP.)
MAINTENANCE GARAGE
C&D TRANSFER/ SCREENING BUILDING
LANDSCAPED AREA
STORAGE/MECHANICAL/ EMPLOYEE BREAK ROOMS
MATCHLINE
20 FT SIDE YARD BUILDING SETBACK
15 FT SIDE YARD PARKING SETBACK
PROPERTY LINE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

EXISTING SITE CONDITIONS WEST

DATE:	AUGUST 2022
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*
DRAWN BY:	MMS
CHECKED BY:	DAK

DRAWING NO.: C102

SHEET 6 OF 26

P:\2016\163-899\~CADD\Dwg\C055-Local Siting Application\163899-CV05-C102 thru C103-Existing Conditions.dwg(C102) LS(8/17/2022 - mkeef) - LP: 9/9/2022 8:33 AM

NORTH

20 FT SIDE YARD BUILDING SETBACK

9 FT SIDE YARD PARKING SETBACK

PROPERTY LINE

MATCHLINE

STORMWATER SETTLING BASIN

EAST DETENTION POND

50 FT BUFFER WATERS OF THE US

JURISDICTIONAL WETLAND BOUNDARY

100-YR FIS BFE = 752.25 HYDRAULICALLY CONNECTED TO FLOODWATERS

RAILS BURIED TO WEST

KRESS CREEK (WITHOUT BOUNDARY)

PROPERTY LINE

50 FT BUFFER WATERS OF THE US

SPUR LINE DOES NOT CONNECT TO MAIN LINE

NON-JURISDICTIONAL WETLAND BOUNDARY

JURISDICTIONAL WETLAND BOUNDARY

50 FT BUFFER SETBACK BOUNDARY WETLAND

KRESS CREEK

20 FT REAR YARD BUILDING SETBACK

MATCHLINE

EX. WM EASEMENT

20 FT SIDE YARD BUILDING SETBACK

15 FT SIDE YARD PARKING SETBACK

PROPERTY LINE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 40 80

P:\2016\163-8991 - OA01\dwg\CIVIL-Local Siting Application\163899-C105-C107 thru C107-Existing Conditions.dwg[C103] 12/8/7/2022 - mkerpf - LP: 9/9/2022 6:33 AM

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

EXISTING SITE CONDITIONS EAST

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1" = 40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C103

SHEET 7 OF 26

NORTH

PROPERTY LINE

LIGHT DUTY PAVEMENT

PROPOSED PARKING ADDITION

HVAC EQUIPMENT (TYP.) DESIGN TO BE FINALIZED

MAINTENANCE FACILITY (60' X 170', 35 FT HIGH) FFE = 757.0

PARKING STOP BLOCKS (TYP. OF 6)

CONCRETE WALKWAY

RAMP TO BLDG FLOOR

HANDICAP PARKING SIGN (TYP. OF 6)

ADA ACCESSIBLE RAMP

HEAVY DUTY PAVEMENT

125 LF PROPOSED WALL MATCH EX.

MATCHLINE

VERMERR GRINDER

RED WOOD STORAGE BUNKER (10-FT HIGH)

"A" WOOD STORAGE BUNKER (10-FT HIGH)

BROWN WOOD STORAGE BUNKER (10-FT HIGH)

"B" WOOD STORAGE BUNKER (10-FT HIGH)

ROAD BASE STORAGE BUNKER (10-FT HIGH)

"B" STORAGE BUNKER

CRUMBO SHREDDER

3-SIDED STRUCTURE

CONCRETE STAIRS AND LANDING (SEE ARCH. PLANS)

COVER BUILDING

C&D SORTING LINE BUILDING

C&D EXPANSION BUILDING (112'X198', 40 FT HIGH) FFE = 756.40

LOADING PIT

CONCRETE LOADING PIT WITH RAMPS (SEE ARCH. PLANS)

WEST DETENTION POND

ROAD

POWIS

PROPOSED PARKING ADDITION

HEAVY DUTY PAVEMENT

ENTRANCE/EXIT

INSTALL PREVIOUSLY APPROVED SECOND SCALE

PARKING STOP BLOCKS (TYP. OF 6)

HANDICAP PARKING SIGN (TYP. OF 6)

ROOF DRAINS TIED INTO STORM SYSTEM

3" WATER SPIGOT (LOC PER SITE

LIGHT DUTY PAVEMENT

OFFICE/DISPATCH/ CUSTOMER SERVICE

MAINTENANCE GARAGE

C&D TRANSFER/ SCREENING BUILDING

BEGIN FENCE REMOVAL AND REPLACEMENT

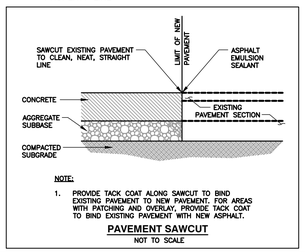
CONCRETE PAVEMENT STANDARD

PROPOSED PARKING ADDITION

END OF FENCE REMOVE/REPLACEMENT

PROPERTY LINE

HEAVY DUTY PAVEMENT



NOTE:

1. PROVIDE TACK COAT ALONG SAWCUT TO BIND EXISTING PAVEMENT TO NEW PAVEMENT. FOR AREAS WITH PATCHING AND OVERLAY, PROVIDE TACK COAT TO BIND EXISTING PAVEMENT WITH NEW ASPHALT.

PAVEMENT SAWCUT

NOT TO SCALE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 40 80

P:\2016\163-899\~CADD\Dwg\C005-Local Siting Application\163899-C105-C104 thru C105-Amended PUD Site Plan.dwg[C104] LS(8/17/2022 - mkeef) - LP: 9/9/2022 8:33 AM

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION LOCAL SITING APPLICATION 1655 POWIS ROAD WEST CHICAGO, ILLINOIS

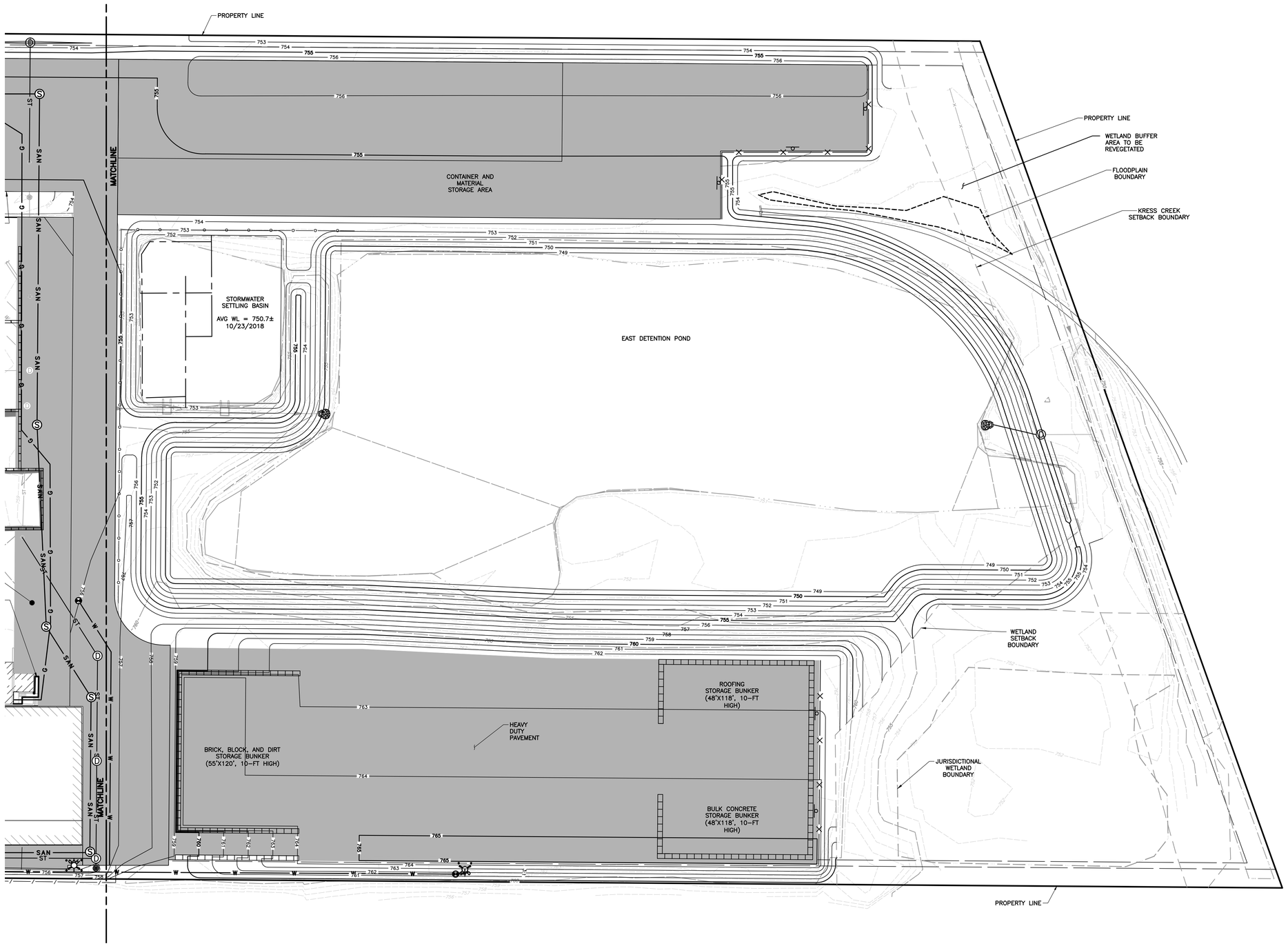
AMENDED P.U.D. SITE PLAN WEST

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: **C104**

SHEET 8 OF 26

NORTH



REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

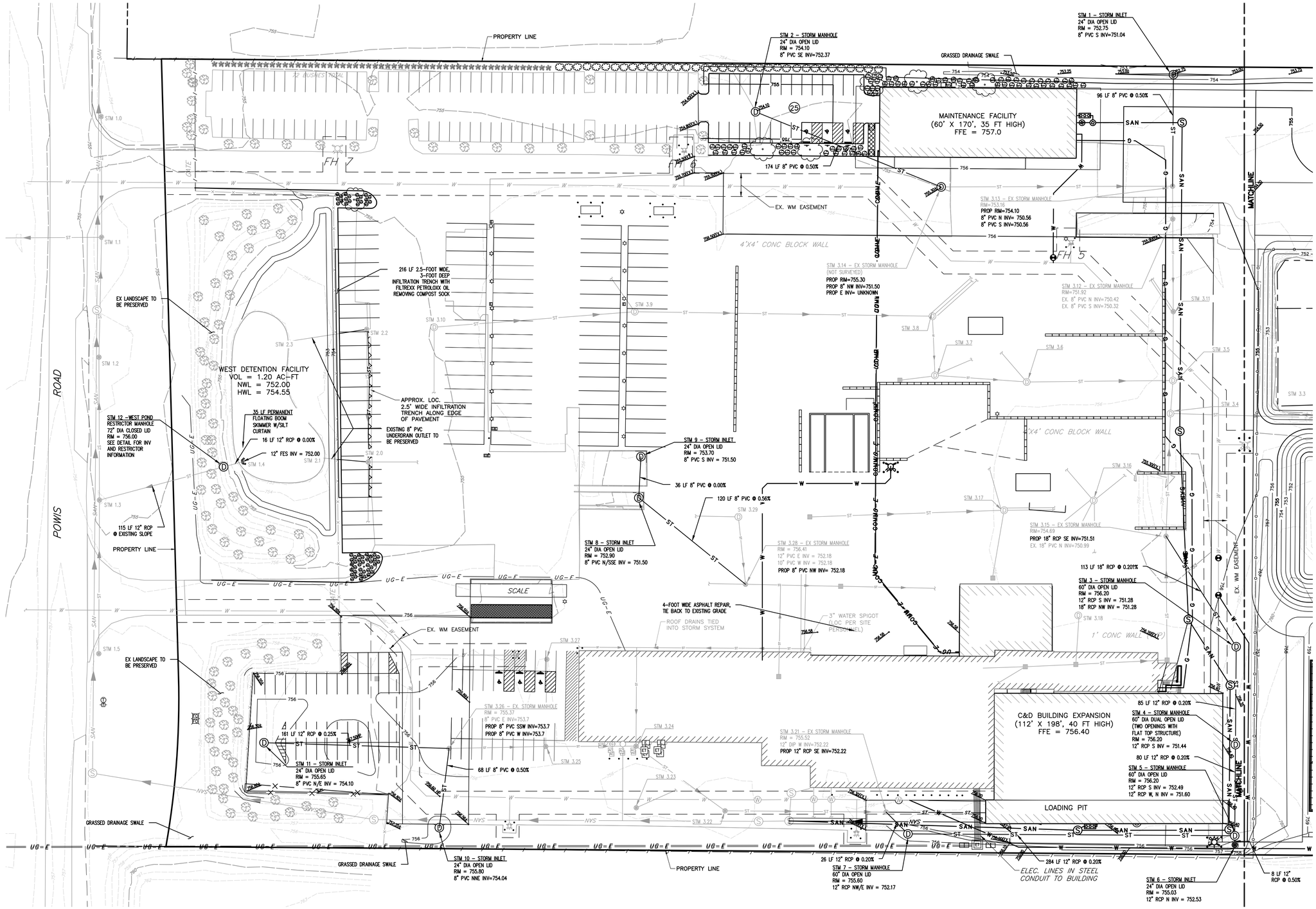
AMENDED P.U.D. SITE PLAN EAST

DATE:	AUGUST 2022
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*
DRAWN BY:	MMS
CHECKED BY:	DAK

DRAWING NO.: C105

SHEET 9 OF 26

P:\2016\163-899\-CADD\Dwg\C105-Local Siting Application\163899-CV05-C104 thru C105-Amended PUD Site Plan.dwg[C105] LS(8/17/2022 - mkeyt) - LP: 9/9/2022 6:34 AM



REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

NOTES

1. PROPOSED RIMS AND INVERTS FOR EXISTING STORM STRUCTURES THAT WERE UNABLE TO BE SURVEYED SHALL BE CONFIRMED DURING CONSTRUCTION OR REPLACED, IF NEEDED.

Stage - Storage - Discharge West Pond Table

Contour (feet)	Area (acre)	Storage Volume (acre-feet)	Cumulative Storage Volume (acre-feet)	Area (square miles)	Discharge (cfs)
752.00	0.23	0.00	0.00	0.000	0.00
753.00	0.39	0.31	0.31	0.001	0.15
754.00	0.470	0.43	0.74	0.001	0.20
754.55	0.950	0.46	1.20	0.001	0.25

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

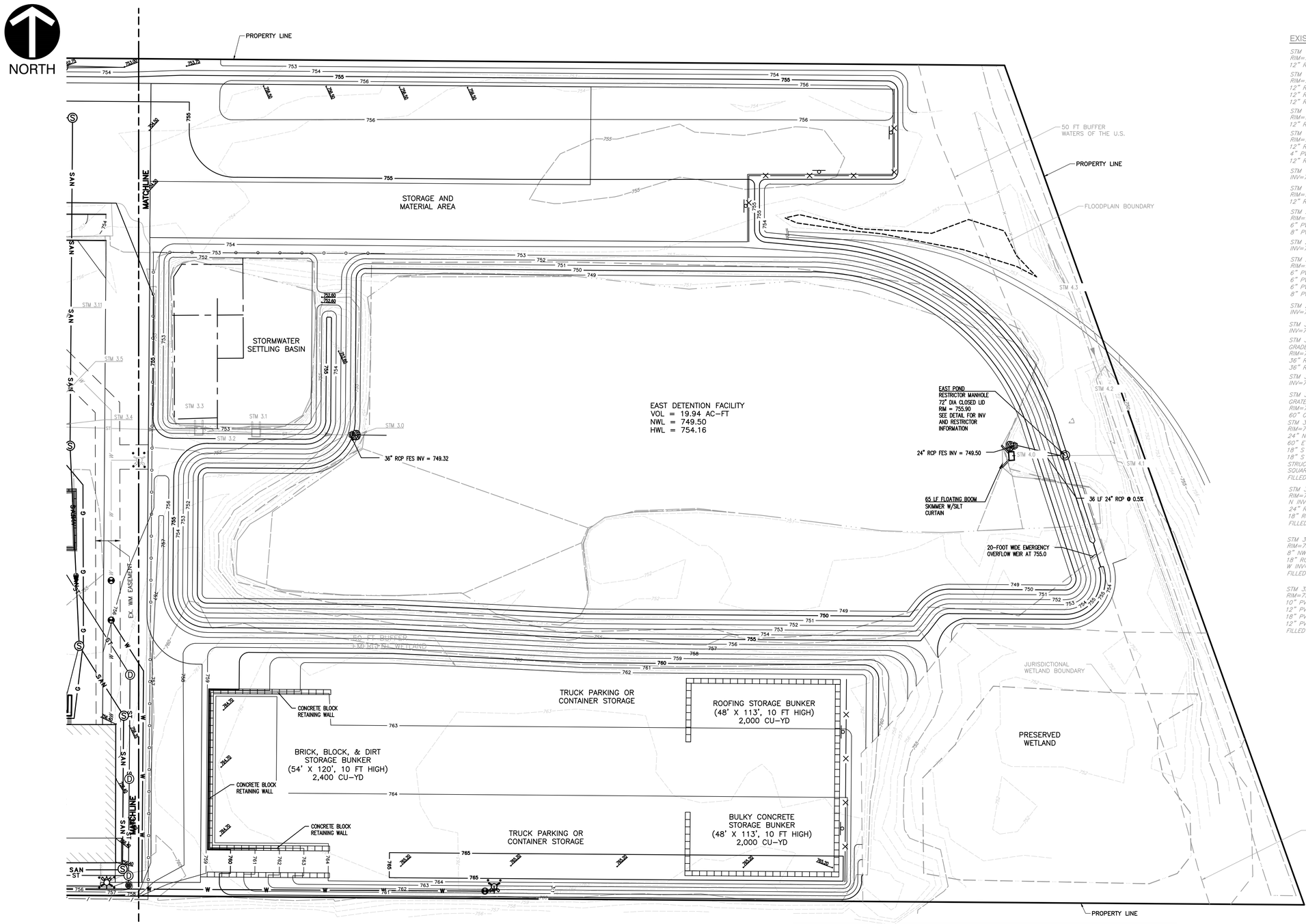
AMENDED P.U.D. GRADING AND DRAINAGE PLAN WEST

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C106

SHEET 10 OF 26

P:\2016\163-899\~CADD\Dwg\C005-Local Siting Application\163899-C005-C106 thru C107-Amended PUD Grading & Drng.dwg[C106] 10/6/2022 - mkerpf - LP: 9/9/2022 6:34 AM



EXISTING STORM STRUCTURE INFORMATION

STM 1.0 CB BEEHIVE
RIM=753.26
12" RCP S INV=750.46

STM 1.1 CB BEEHIVE
RIM=752.99
12" RCP N INV=750.09
12" RCP S INV=750.09
12" RCP W INV=749.89

STM 1.2 CB BEEHIVE
RIM=753.00
12" RCP S/N INV=750.30

STM 1.3 CB BEEHIVE
RIM=753.87
12" RCP N INV=750.97
4" PVC NE INV=751.07
12" RCP S INV=751.07

STM 1.4 8" PVC
INV=752.20

STM 1.5 CB BEEHIVE
RIM=755.09
12" RCP N INV=751.59

STM 2.0 CB BEEHIVE
RIM=753.99
6" PVC S INV=752.49
8" PVC W INV=752.49

STM 2.1 8" PVC
INV=752.23

STM 2.2 CB BEEHIVE
RIM=754.07
6" PVC N INV=752.57
6" PVC E INV=752.57
6" PVC S INV=752.87
8" PVC W INV=752.47

STM 2.3 6" PVC
INV=752.22

STM 3.0 36" RCP E
INV=749.32

STM 3.1 SQUARE METAL GRADE LID (30"X30")
RIM=754.55
36" RCP W INV=748.72
36" RCP E INV=748.72

STM 3.2 36" RCP E
INV=749.21

STM 3.3 SQUARE METAL GRATE LID (30"X30")
RIM=754.57
60" CMP W INV=747.15

STM 3.4 SQUARE STORM STRUCTURE
RIM=755.22
24" N INV=750.22
60" E INV=749.47
18" S INV=750.62
18" S INV=749.47
STRUCTURE IS APPROXIMATELY 6'X6' SQUARE CONCRETE BOX
FILLED W/WATER

STM 3.5 STORM MANHOLE
RIM=755.73
N INV=749.7±
24" RCP S INV=750.43
18" RCP W INV=750.43
FILLED W/WATER

STM 3.6 STORM MANHOLE
RIM=756.35
8" NW INV=753.85
18" RCP E INV=751.05
W INV=751.05
FILLED W/WATER

STM 3.7 STORM MANHOLE
RIM=756.34
10" PVC N INV=751.41
12" PVC NE INV=744.24
18" PVC E INV=751.94
12" PVC W INV=754.54
FILLED W/WATER

STM 3.8 STORM MANHOLE
RIM=756.54
8" RCP NE INV=751.84
8" RCP NE INV=751.84
12" RCP S INV=751.64
12" RCP W INV=751.74
6" RCP NE INV=752.94
FILLED W/WATER

STM 3.9 STORM MANHOLE
RIM=756.64
4" PVC WNW INV=753.74
10" PVC E INV=753.44
6" PVC SW INV=753.44
SAN LID ON STRUCTURE
FILLED W/WATER

STM 3.10 STORM MANHOLE
RIM=755.01
6" CLAY E INV=753.31
6" CLAY S INV=753.31
SAN LID ON STRUCTURE

STM 3.11 STORM MANHOLE
RIM=755.03
8" PVC N INV=752.23
S INV=749.6±
8" PVC NW INV=750.53 (SIDE BY SIDE)
8" PVC NW INV=750.53 (SIDE BY SIDE)
FILLED W/WATER

STM 3.16 STORM MANHOLE
RIM=755.12
NNE INV=751.22 (SEE BELOW)
10" PVC S INV=749.72
12" PVC SSW INV=751.12
4" PVC SW INV=753.52
10" PVC NW INV=749.72 (BROKEN PIPE)
FILLED W/WATER
NNE INV HAS A "BELL" HOUSING TURNED DOWNWARD UNDER WATER

STM 3.17 STORM MANHOLE
RIM=755.81
18" PVC E INV=751.81
6" PVC E INV=752.01
6" PVC S INV=752.11
10" PVC SSW INV=753.01
6" PVC NNW INV=752.01
FILLED W/WATER

STM 3.18 STORM STRUCTURE
RIM=755.85
S INV=752.5±
FILLED W/WATER

STM 3.22 STORM MANHOLE
RIM=755.46
12" PVC NE/E INV=752.26

STM 3.23 STORM MANHOLE
RIM=755.60
12" PVC NE INV=753.0

STM 3.24 STORM MANHOLE
RIM=756.20
8" PVC W INV=753.10
10" PVC N INV=753.45
12" PVC SE INV=752.90

STM 3.25 STORM MANHOLE
RIM=755.70
8" PVC W/N/E INV=753.20

STM 3.27 STORM MANHOLE
RIM=755.97
8" PVC S INV=753.27

STM 3.29 STORM MANHOLE
RIM=756.40
8" PVC S/W INV=754.20
FILLED W/WATER

STM 4.0 STORM CONTROL RELEASE CONCRETE STRUCTURE W/FLAP GATE AND WING WALLS INTO RETENTION AREA (30"X30" GRATE LID)
RIM=753.35
8" STEEL PIPE IN MOVABLE FLAP GATE-CURRENT INV=750.54
30" RCP E INV=749.06

STM 4.1 30" RCP W
INV=748.37

STM 4.2 60" CMP NW
INV=747.06

STM 4.3 60" CMP SE
INV=747.82

Stage - Storage - Discharge East Table - TAILWATER AND NO TAILWATER CONDITION FOR DETENTION SIZING

Contour (feet)	Area (acre)	Storage Volume (acre-feet)[1]	Cumulative Storage Volume (acre-feet)	Area (square miles)	Discharge - No Tailwater (cfs)	Discharge - With Tailwater (cfs)	
749.50	3.58	0.00	0.00	0.006	0.00	0.0	
750.00	3.75	1.83	1.83	0.006	0.62	0.0	
751.00	3.92	3.84	5.67	0.006	1.50	0.0	
752.00	4.10	4.01	9.68	0.006	2.02	0.0	*2.23 cfs at 752.47 elevation (no tailwater condition)
753.00	4.69	8.61	14.28	0.007	--	1.18	
754.00	4.97	4.83	19.11	0.008	--	1.81	*1.89 cfs at 754.16 (tailwater conditions)
755.00	5.25	5.11	24.22	0.008	--	--	*see note 3
755.10	5.30	5.65	24.76	0.008	--	--	*see note 3

NOTES:
1. Acre-feet of storage per contour interval approximated by multiplying the average contour acreage between the interval, times contour depth.
2. Tributary area to East Pond is 22.47 acres, therefore, allowable release shall not exceed 2.247 cfs.
3. 100-year high water level is dictated by tailwater condition model and is 754.16. There is no release above 754.16 for the 100-year tailwater model condition

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

NOTES

1. PROPOSED RIMS AND INVERTS FOR EXISTING STORM STRUCTURES THAT WERE UNABLE TO BE SURVEYED SHALL BE CONFIRMED DURING CONSTRUCTION OR REPLACED, IF NEEDED.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AMENDED P.U.D. GRADING AND DRAINAGE PLAN EAST

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.:
C107
SHEET 11 OF 26

P:\2016\163-899\~CAD\Dwg\C105-Local Siting Application\163899-C105-C108 thru C1107-Amended PUD Grading & Drng.dwg[C107] LS(8/17/2022 - mwarp) - LP: 9/9/2022 6:34 AM

NORTH

PROPERTY LINE

72 ASPHALT TOTAL

EXISTING VALVE NO. 1 (WEST SIDE OF POWIS, NOT SHOWN)

EXISTING VALVE NO. 2 (WEST SIDE OF POWIS, NOT SHOWN)

POWIS ROAD

MANHOLE 1 (FLOW N)

WEST DETENTION POND

EXISTING PUBLIC WATERMAIN

EX. WM EASEMENT

SAN 1.1 – EX SANITARY MANHOLE
RIM = 755.78
12" PVC N INV=744.28
8" PVC E INV=744.28
(FLOW N)

SAN 1.2 – EX SANITARY MANHOLE
RIM = 756.41
8" PVC E/WNW INV=745.01

SAN 1.3 – EX SANITARY MANHOLE
RIM = 756.15
BOTTOM OF STRUCTURE INV=746.50

SAN 1.4 – EX SANITARY MANHOLE
RIM = 756.13
6" PVC N INV=748.13
8" PVC W INV=746.53

SAN 1.5 – EX SANITARY MANHOLE
RIM = 756.13
6" PVC N/E INV=751.88
6" PVC S INV=750.28

WTR 1.0 – EX VALVE VAULT
RIM = 756.08
E/W T/P = 750.28
FILLED W/ WATER

WTR 1.1 – EX VALVE VAULT
RIM = 756.36
PIPE RUNS N/S & E/W T/P=750.46
FILLED W/ WATER

WTR 1.2 – EX VALVE VAULT
RIM = 756.27
PIPE RUNS N/S & E/W T/P=750.17
FILLED W/ WATER

WTR 1.3 – EX VALVE VAULT
RIM = 756.02
E/W T/P=750.32
FILLED W/ WATER

SAN 6 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 754.9
INV = 750.56

OIL-WATER SEPARATOR
RIM = 756.5
INV E= 750.96
INV W= 750.96

SAN 7 – SANITARY CLEANOUT
RIM=756.3
INV=750.85

SAN 8 – SANITARY CLEANOUT
RIM = 756.5

CITY TO CONFIRM METER REQUIREMENTS

6" GATE VALVE (MJ) IN VALVE BOX

6 LF 6" PVC @ 1.00%

27 LF 6" DIP

77 LF 8" PVC @ 0.40%

SIAMESE CONNECTION #3

6" 45° BEND (MJ)

35 LF 6" DIP

6" 45° BEND (MJ)

56 LF 6" DIP

PROPOSED PRIVATE WATERMAIN

2 LF 6" DIP

268 LF 8" PVC @ 0.40%

VALVE VAULT NO. 3
PRESSURE CONNECTION
8" TAPPING VALVE
IN 60" VAULT
RIM = 756.5±

GAS/COMM LINES TO BE INSTALLED IN THE SAME TRENCH

SANITARY SEWER CUT & SEALED

SAN 5 – SANITARY MANHOLE
RIM = 755.41
8" PVC S INV=749.47 (ASSUMED)
PROP 8" PVC N INV=749.47

6"X3" RECEIVER (MJ) AND 3" TO 2" BRASS FPT FITTING

WOODFORD MODEL V200 W/2" OUTLET (SEE NOTE #1)

6 LF 3" DIP

6 LF 3" DIP

103 LF 3" DIP

TWO (2) 3" 45° BENDS

144 LF 3" DIP

6 LF 3" DIP

TWO (2) 3" 45° BENDS

EX. 164 LF OF ASSUMED 8" PVC AT 0.40% SEE NOTE #2

164 LF 8" PVC @ 0.40%

EXISTING SANITARY SEWER AND STRUCTURES ABANDONED IN PLACE BETWEEN SAN 1.4 AND SAN 1.8

PROPOSED PRIVATE WATERMAIN

ELEC/COMM LINES TO BE IN THE SAME TRENCH

VALVE VAULT NO. 1
CUT-IN CONNECTION
8" GATE VALVE
IN 60" VAULT
RIM = 756.0

8" 45° BEND (MJ)

SAN 4 – SANITARY MANHOLE
RIM = UNKNOWN
8" PVC N INV=748.81 (ASSUMED)
PROP 8" PVC SE INV=748.81

50 LF 8" DIP

68 LF 8" PVC @ 0.40%

8" 45° BEND (MJ)

RECONFIGURE INTERNAL PLUMBING TO GO UNDERGROUND INSIDE BUILDING AND CONNECT TO EXISTING BUILDING WATER LINE ON EXTERIOR. CONFIRM EXISTING WATER LINE LOCATION IN BUILDING

ROOF DRAINS TIED INTO STORM SYSTEM

3" WATER SPIGOT (LOC PER SITE PERSONNEL)

C&D BUILDING EXPANSION
(112' X 198', 40 FT HIGH)
FFE = 756.40

CUT-IN CONNECTION

8" 45° BEND (MJ)

100 LF 8" DIP

OIL-WATER SEPARATOR
RIM = 756.55
INV E= 747.70
INV W= 747.70

SAN 1 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 756.50
8" PVC E/W INV=747.51
NE INV=747.6±

SAN 3 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 756.35
INV = 748.54

126 LF 8" PVC @ 0.40%

SIAMESE CONNECTION #2

SAN 2 – SANITARY MANHOLE
60" DIA CLOSED LID
RIM = 756.30
INV = 748.04

LOADING PIT

PROPOSED PUBLIC WATERMAIN

171 LF 8" DIP

LINE STOP 1

8" 45° BEND (MJ)

251 LF 8" PVC @ 0.40%

8" 45° BEND (MJ)

263 LF 8" CL 52 DIP (TYP.)

132 LF 8" PVC @ 0.40%

8"X8"X6" TEE (MJ)

FIRE HYDRANT #1
GRADE RING=757.4±

8"X8"X8" TEE

MATCHLINE

EX. WM EASEMENT

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

P:\2018\163-899\CADD\Dwg\CIVIL-Local Siting Application\163899-CIVIL-C108 thru C109-Amended PUD Utilities.dwg[C108] LS(8/17/2022 - mtarpl) - LP: 9/9/2022 6:34 AM

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

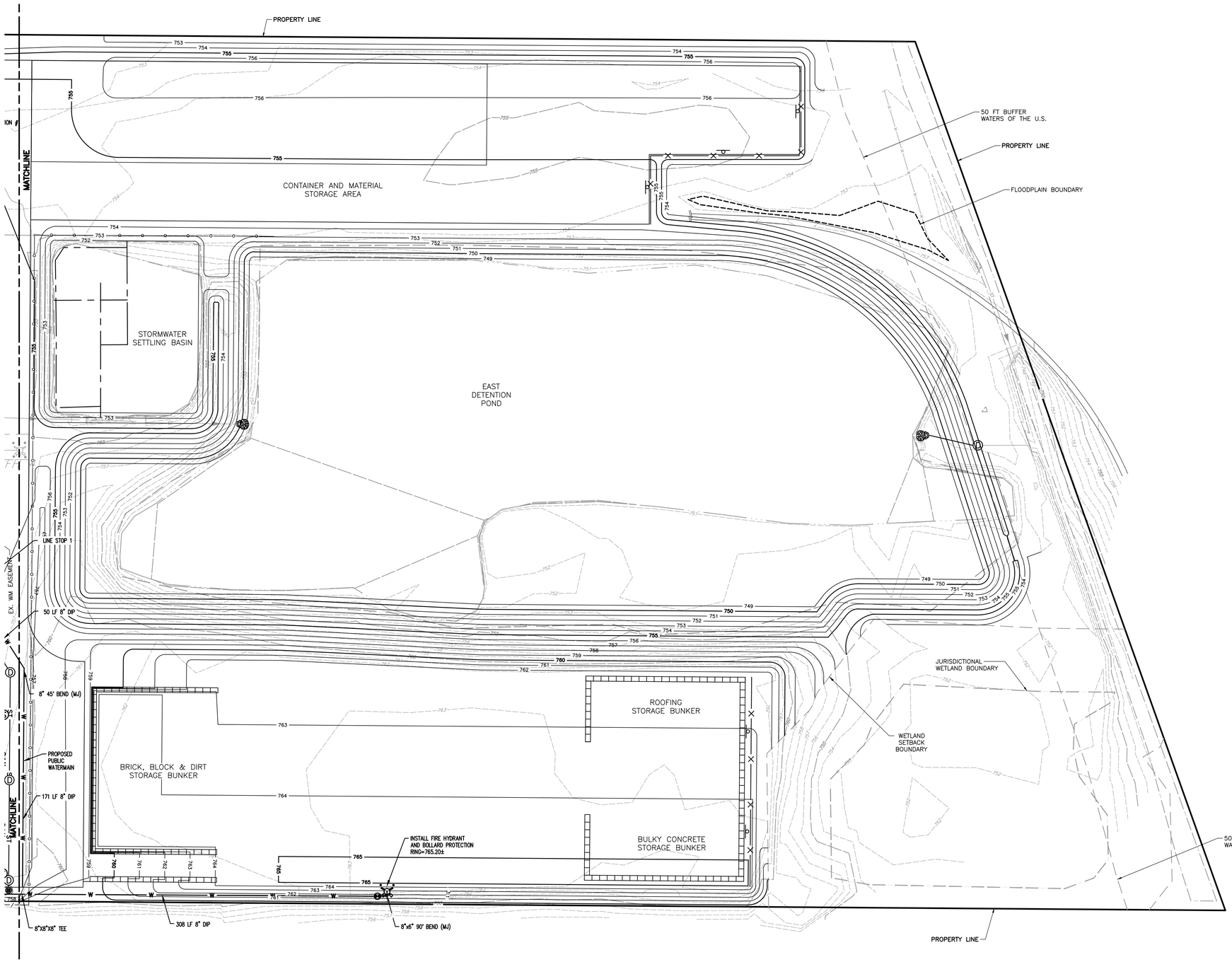
AMENDED P.U.D. UTILITIES WEST

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C108

SHEET 12 OF 26

NORTH



REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 40 80

REVISION RECORD

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Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
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www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

AMENDED P.U.D. UTILITIES EAST

DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1" = 40'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C109

SHEET 13 OF 26

P:\2016\163-899\--CADD\Dwg\CIVIL-Local Siting Application\163899-CIVIL-C108 thru C109-Amended PUD Utilities.dwg[C109] LS(8/17/2022 - mkarp) - LP: 9/9/2022 6:35 AM

NORTH

IMPERVIOUS SURFACE (TYP.)

PROPERTY LINE

72 BUSHES TOTAL

NORTH ENTRANCE (EXIT ONLY)

MAINTENANCE FACILITY

PROPOSED WATER SERVICE TO SPRINKLER ROOM AND YARD HYDRANT

184 LF 6" DIP WATERMAIN

ROAD

"A" WOOD STORAGE BUNKER (10-FT HIGH)

VERMERR GRINDER

RED-WOOD STORAGE BUNKER (10-FT HIGH)

PROPOSED SPRINKLER ROOM

ELECTRICAL CONNECTION

BROWN WOOD STORAGE BUNKER (10-FT HIGH)

72 LF 2" STEEL PIPE WATERMAIN

"B" WOOD STORAGE BUNKER (10-FT HIGH)

EAST DETENTION POND

PROPOSED HYDRO EXCAVATION WASTE BUILDING

ROAD BASE STORAGE BUNKER (10-FT HIGH)

"B" STORAGE BUNKER

PROPERTY LINE

CONTAINER FOR E-WASTE

PROPOSED E-WASTE AND RECYCLABLES DROP-OFF AREA

CONCRETE APRON

CRUMBO SHREDDER

POWIS

CARDBOARD AND MIXED RECYCLABLES HOPPERS

PARKING FOR E-WASTE AND RECYCLABLES CUSTOMERS

HANDICAPPED PARKING SPACE FOR E-WASTE CUSTOMER

WATER SERVICE LOCATION TO SOLIDIFICATION BUILDING AND YARD HYDRANT TO BE ADJUSTED AS SHOWN

PROPOSED PAVEMENT EXPANSION

SOUTH ENTRANCE (ENTRANCE ONLY)

SCALES

COVER BUILDING

PROPOSED PAVEMENT EXPANSION

OFFICE

MAINTENANCE BUILDING

C&D TIPPING BUILDING

C&D SORTING LINE

MSW & SSR TRANSFER BUILDING (CONVERSION OF C&D BUILDING EXPANSION)

IMPERVIOUS SURFACE (TYP.)

LOADING PIT

MATCHLINE

PROPERTY LINE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

LEGEND

- EXISTING PAVEMENT/PAVEMENT APPROVED IN AMENDED P.U.D.
- PROPOSED CONCRETE PAVEMENT

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

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www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

PROPOSED SITE PLAN WEST

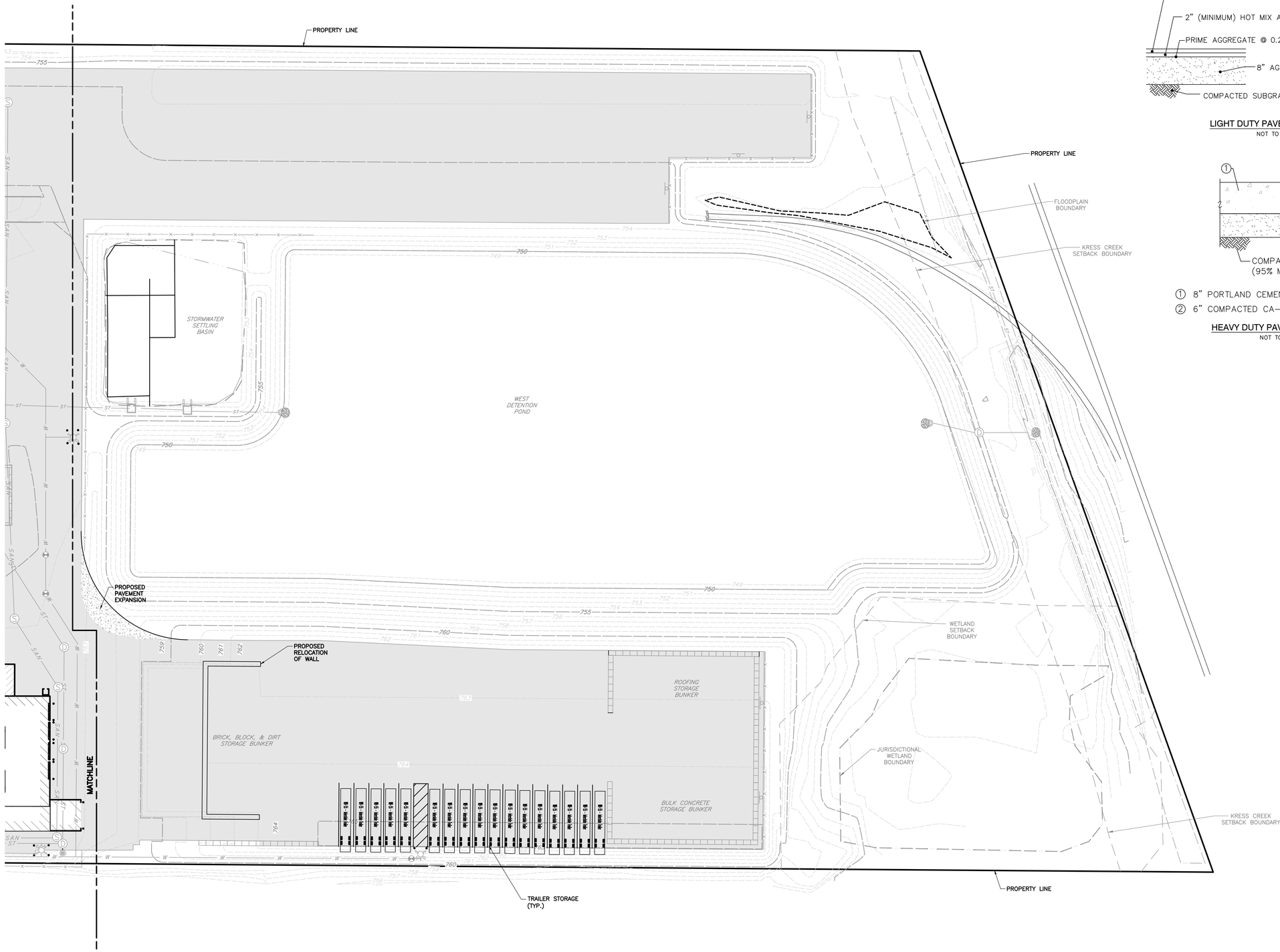
DATE:	AUGUST 2022
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

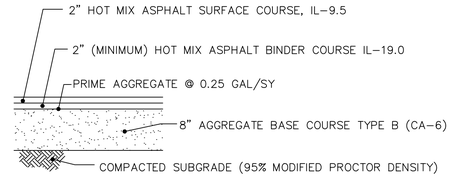
DRAWING NO.: C200

SHEET 14 OF 26

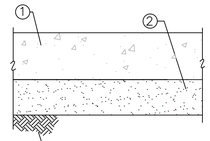
P:\2016\163-899_CADD\Dwg\CIVIL-Local Siting Application\163899-CIVIL-C200 thru C201-Proposed Site Plan.dwg[C200] LS(8/17/2022 - mikeyf) - LP: 9/9/2022 6:37 AM

NORTH





LIGHT DUTY PAVEMENT SECTION
NOT TO SCALE



① 8" PORTLAND CEMENT CONCRETE, CLASS PV
② 6" COMPACTED CA-6 AGGREGATE BASE COURSE

HEAVY DUTY PAVEMENT SECTION
NOT TO SCALE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

LEGEND

- EXISTING PAVEMENT/PAVEMENT APPROVED IN AMENDED P.U.D.
- PROPOSED CONCRETE PAVEMENT

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

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www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

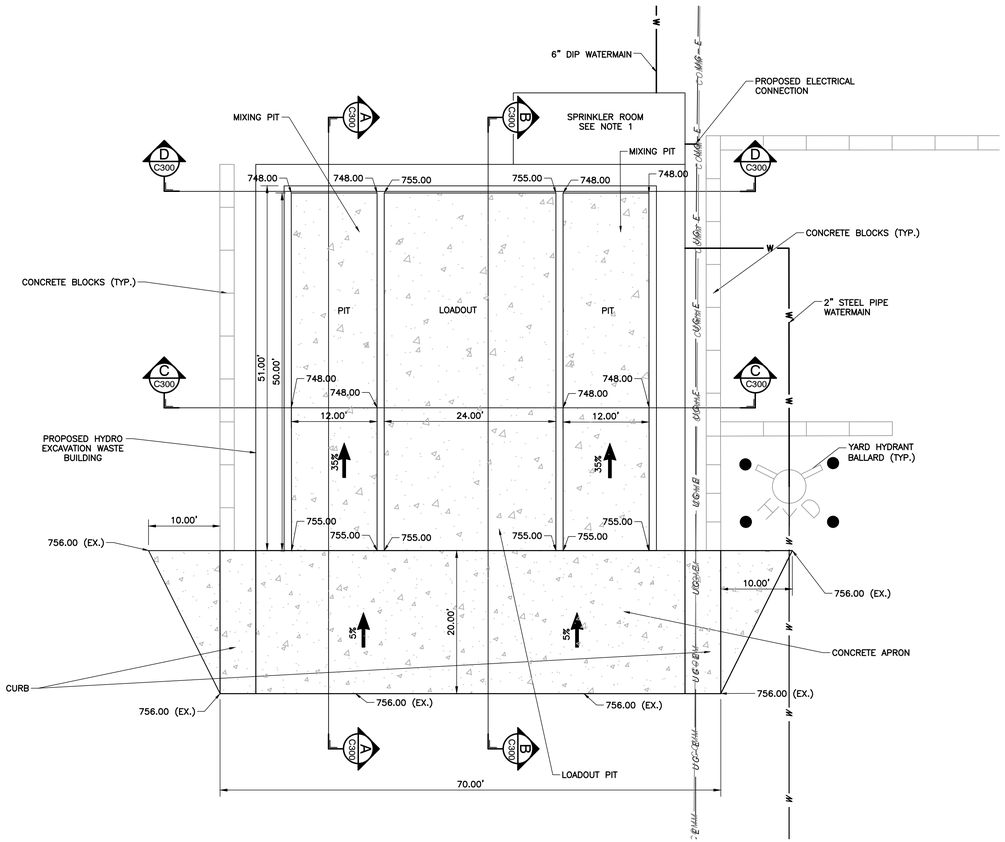
PROPOSED SITE PLAN EAST

DATE:	AUGUST 2022	DRAWN BY:	MMS
DWG SCALE:	1"=40'	CHECKED BY:	DAK
PROJECT NO:		163-899.0005	
APPROVED BY:			JEH*

DRAWING NO.:
C201
SHEET 15 OF 26

P:\2016\163-899\...C400\dwg\CX05-Local Siting Application\163899-CX05-C200 thru C201-Proposed Site Plan.dwg[C201] LS(8/17/2022 - mkropf) - LP: 9/9/2022 8:37 AM

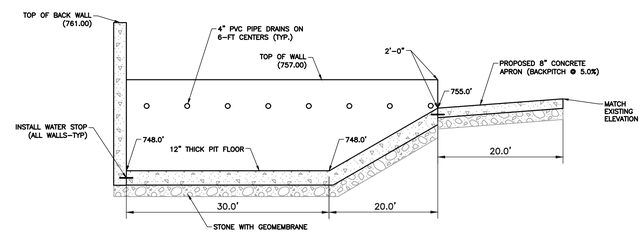
NORTH



HYDRO EXCAVATION WASTE BUILDING PLAN

1 / C300

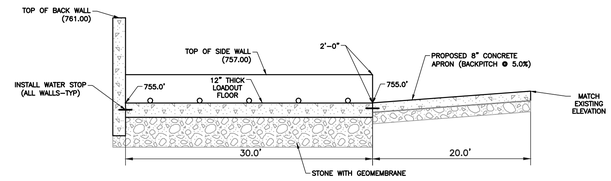
SCALE: 1" = 10'



SOLIDIFICATION PIT A-A

A / C300

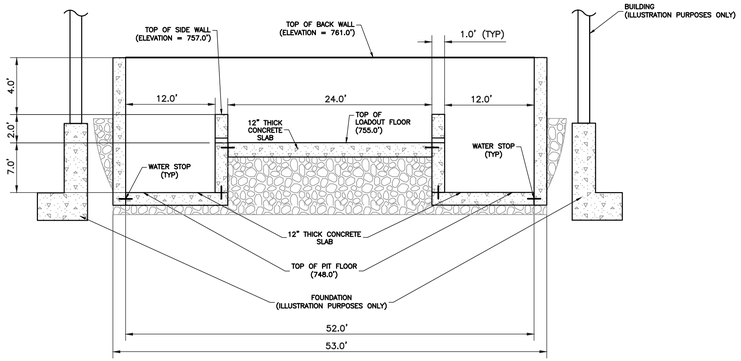
NOT TO SCALE



SOLIDIFICATION PIT B-B

B / C300

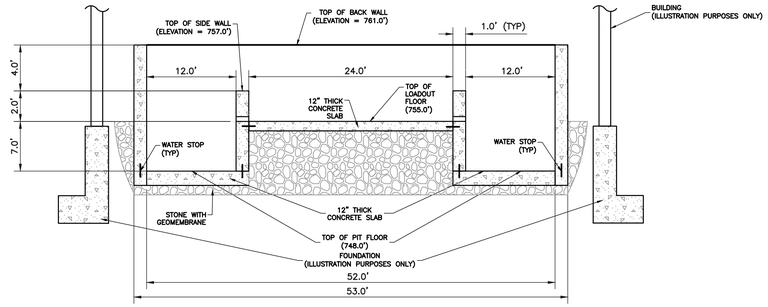
NOT TO SCALE



SOLIDIFICATION PIT C-C

C / C300

NOT TO SCALE



SOLIDIFICATION PIT D-D

D / C300

NOT TO SCALE

REFERENCE

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

NOTES:

1. WATER METER AND BACKFLOW PREVENTER WILL BE LOCATED IN THE SPRINKLER ROOM. BOTH THE SPRINKLER SYSTEM AND YARD HYDRANT LEAD SHALL BE METERED/PROTECTED.
2. ALL ELEVATIONS SHOWN ARE PAVEMENT/SLAB ELEVATIONS UNLESS OTHERWISE NOTED.
3. WATERPROOFING PROTECTION ON EXTERIOR OF SOLIDIFICATION PIT TO BE DETERMINED.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 10 20

REVISION RECORD

NO	DATE	DESCRIPTION

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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

HYDRO EXCAVATION WASTE BUILDING PLAN

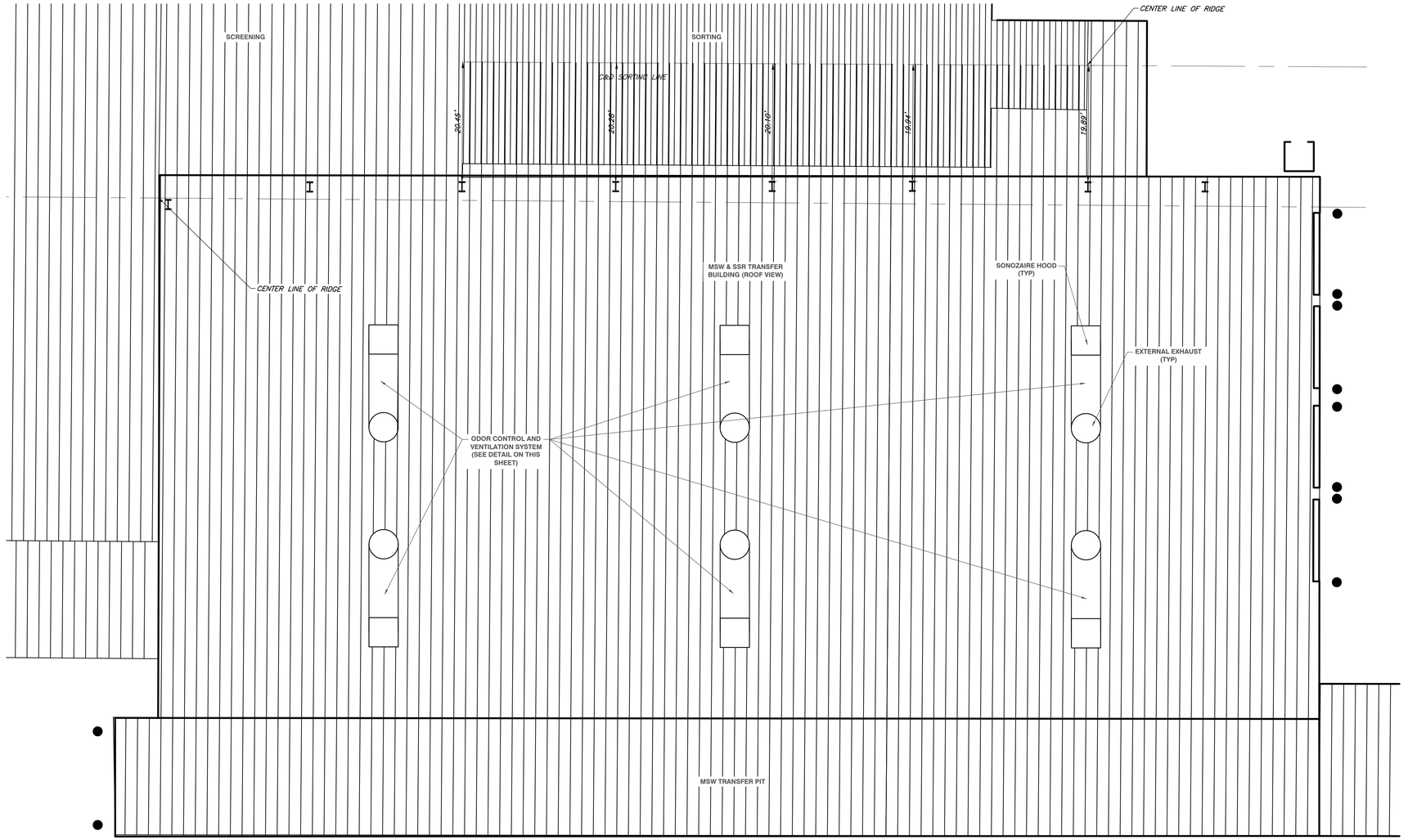
DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=10'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C300

SHEET 16 OF 26

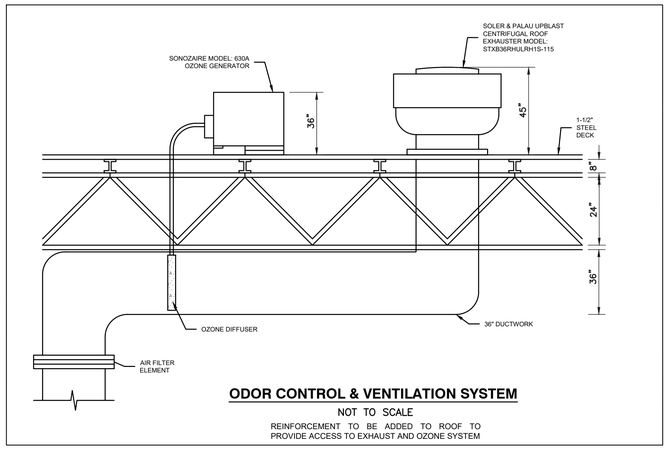
P:\2016\163-899\-CADD\Dwg\Civil\163899-Civil5-Local Siting Application\163899-Civil5-C300 thru C301-Site Plan Area Details.dwg[C300] LS(9/8/2022 - mkurpi) - LP: 9/8/2022 10:24 AM

NORTH



1/C301 MSW AND SSR TRANSFER BUILDING PLAN

SCALE: 1" = 10'



ODOR CONTROL & VENTILATION SYSTEM

NOT TO SCALE

REINFORCEMENT TO BE ADDED TO ROOF TO PROVIDE ACCESS TO EXHAUST AND OZONE SYSTEM

REFERENCE

1. ROOF PLAN VIEW TAKEN FROM DRAWINGS PROVIDED BY SANDMAN, INC., RECEIVED ON SEPTEMBER 29, 2020.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 10 20

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

MSW AND SSR TRANSFER BUILDING PLAN VIEW

DATE:	AUGUST 2022
DWG SCALE:	1" = 10'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

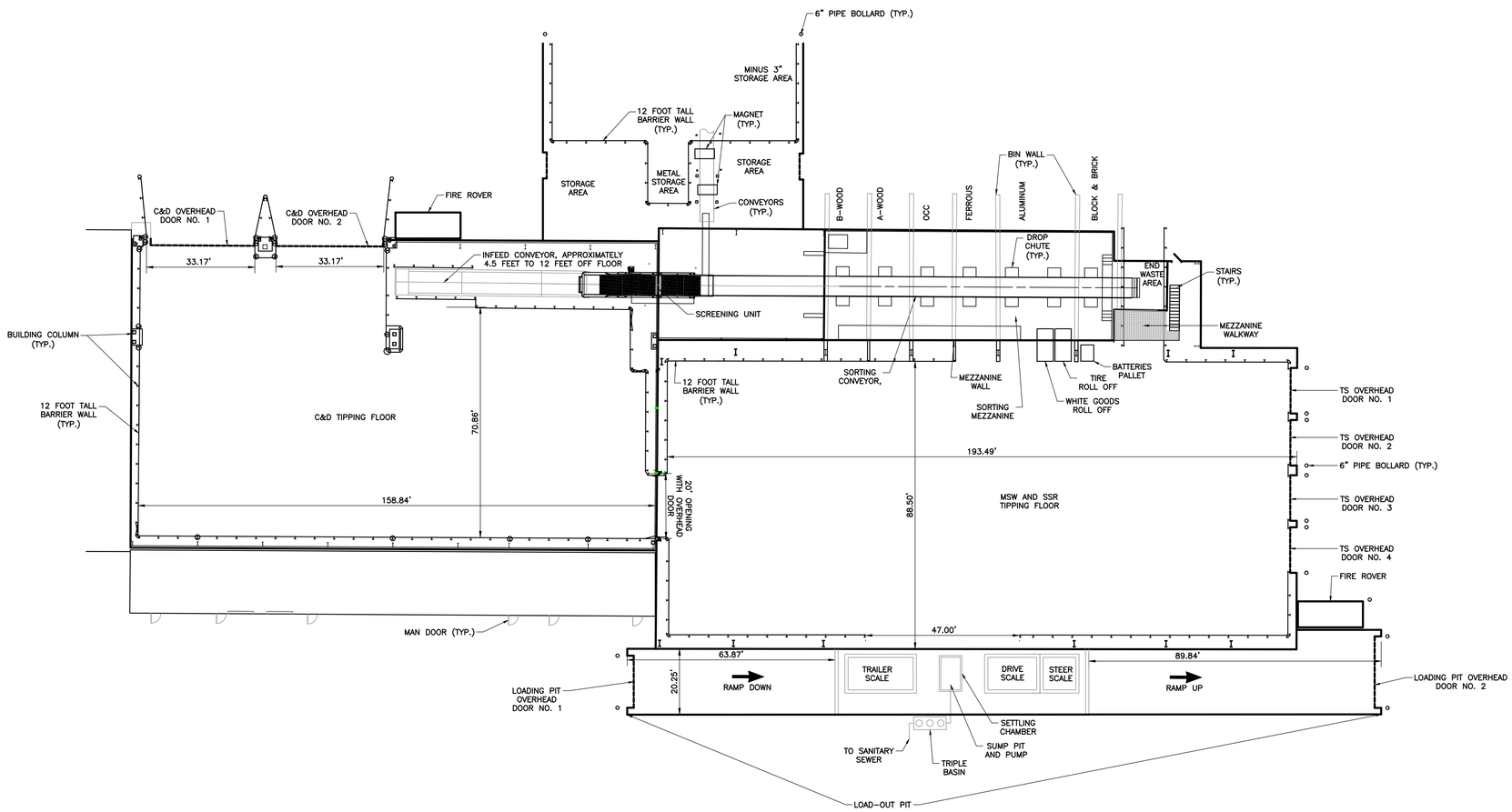
DRAWING NO.:

C301

SHEET 17 OF 26

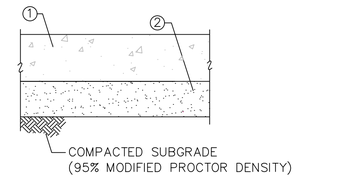
P:\2016\163-899\~CADD\Dwg\CH05-Local Siting Application\163899-CH05-C300 thru C301-Site Plan Area Details.dwg[C301] LS:10/6/2022 - mkemp0 - LP: 9/9/2022 6:17 AM

NORTH



1 C302 COMBINED BUILDING PLAN

SCALE: 1" = 20'

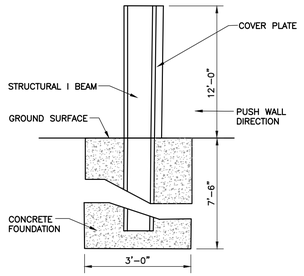


① 8" PORTLAND CEMENT CONCRETE, CLASS PV

② 6" COMPACTED CA-6 AGGREGATE BASE COURSE

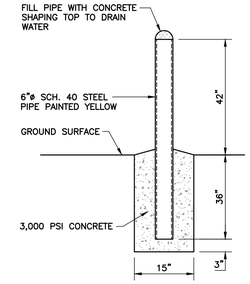
MSW AND SSR TIPPING FLOOR - HEAVY DUTY PAVEMENT SECTION

NOT TO SCALE



BARRIER WALL

NOT TO SCALE



PIPE BOLLARD

NOT TO SCALE

REFERENCE

1. DRAWING BASE IS 8/9/2019 "BARRIER WALL & BOLLARD PLAN" BY SANDMAN, INC.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 20 40

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

COMBINED BUILDING PLAN

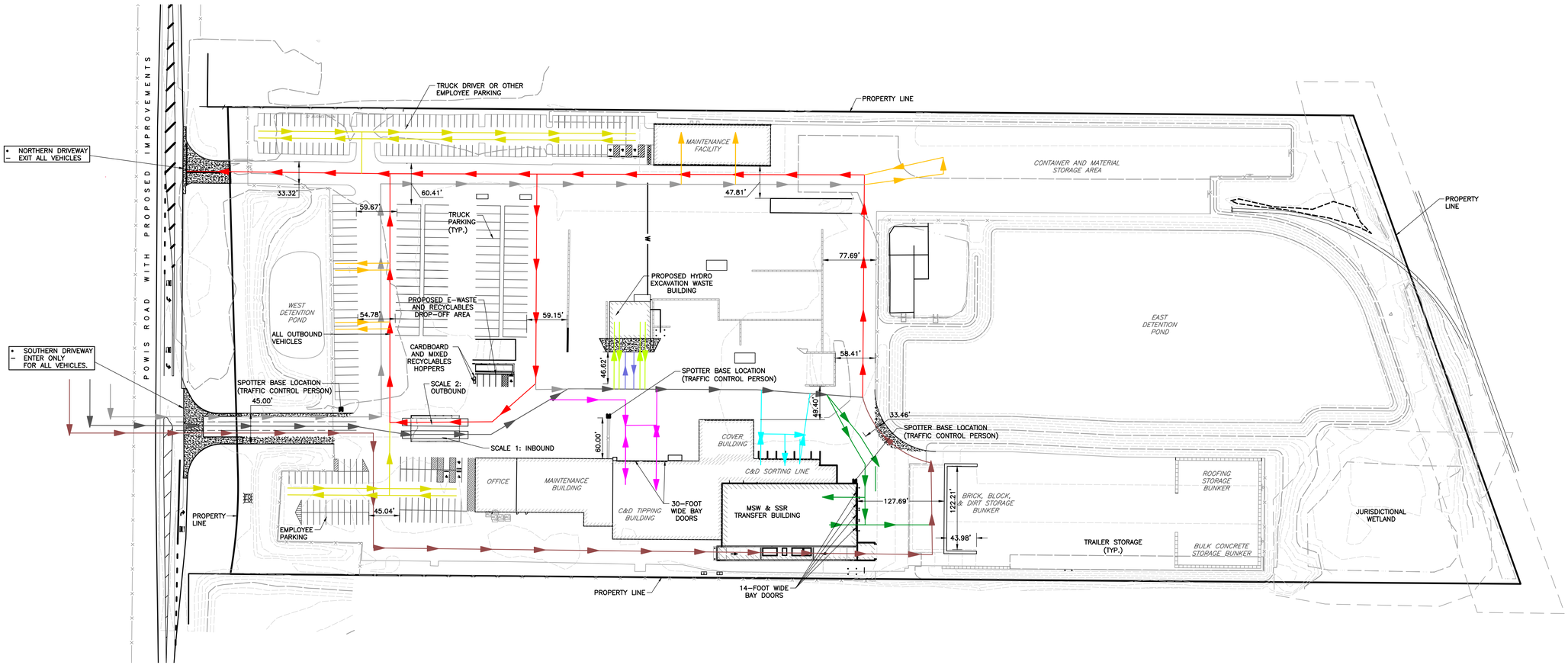
DATE:	AUGUST 2022
DRAWN BY:	MMS
DWG SCALE:	1"=20'
CHECKED BY:	DAK
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C302

SHEET 18 OF 26

P:\2018\163-899\-CAD\Dwg\CVSS-Local Siting Application\163899-CVSS-C302-MSW Transfer Station Detail Plan.dwg[C302] LS:(9/9/2022 - mtarpy) - LP: 9/8/2022 10:25 AM

NORTH



LEGEND:

1. COLLECTION TRUCKS (MSW & SSR)
2. TRANSFER TRAILER (MSW & SSR)
3. C&D COLLECTION TRUCKS
4. HYDRO EXCAVATION WASTES
5. RECYCLED C&D
6. SOLIDIFIED WASTE
7. STREET SWEEPERS & PORTABLE TOILET TRUCKS
8. PASSENGER VEHICLES
9. INBOUND VEHICLES TO CROSS SCALE
10. INBOUND VEHICLES TO TURN LEFT
11. ALL OUTBOUND VEHICLES

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 80 160

REVISION RECORD

NO	DATE	DESCRIPTION

CEC

Civil & Environmental Consultants, Inc.
1230 East Diehl Road, Suite 200 - Naperville, IL 60563
630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

VEHICLE TRAFFIC FLOW PLAN

DATE:	AUGUST 2022
DWG SCALE:	1" = 80'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

DRAWING NO.: C400

SHEET 19 OF 26

P:\2016\163-899\-CAD\Dwg\C105-Local Siting Application\163899-C105-C400-Collection & Transfer Vehicle Flow Plan.dwg[C400] LS(9/8/2022 - mkarp) - LP: 9/8/2022 12:27 PM

NORTH

PROPERTY LINE

MAINTENANCE FACILITY

NORTH DRIVE ENTRANCE

STOP BAR

W/6"

OUTBOUND TICKET LANE

WEST DETENTION POND

PROPOSED HYDRO EXCAVATION WASTE BUILDING

PROPOSED E-WASTE AND RECYCLABLES DROP-OFF AREA

EXTEND WALL

CARDBOARD AND MIXED RECYCLABLES HOPPER

ADA STALL

PROPERTY LINE

SPOTTER BASE LOCATION

SOUTH DRIVE ENTRANCE

SCALES

PAINTED HATCH AREA

SPOTTER BASE LOCATION

COVER BUILDING

SPOTTER BASE LOCATION

C&D SORTING LINE

OFFICE

MAINTENANCE BUILDING

C&D TIPPING BUILDING

MSW & SSR TRANSFER BUILDING

LOADOUT PIT

PROPERTY LINE

POWIS ROAD WITH PROPOSED IMPROVEMENTS

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2. UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON FIELD OBSERVATIONS, VERBAL INFORMATION PROVIDED BY SITE PERSONNEL, AND AS-BUILT DRAWING BY TEBRUGGE ENGINEERING DATED JULY 7, 2016. NOT ALL STORM STRUCTURES WERE ABLE TO BE VISUALLY INSPECTED DUE TO WATER/DEBRIS IN STRUCTURES.
3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 40 80

P:\2016\163-899\-CADD\Dwg\C005-Local Siting Application\163899-C005-C401 thru C404-Traffic Details.dwg[C401] LS(9/8/2022 - mkorp) - LP: 9/8/2022 12:34 PM

REVISION RECORD

NO	DATE	DESCRIPTION

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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

VEHICLE TRACKING TURNING PLAN

DATE:	AUGUST 2022
DRAWN BY:	MMS
CHECKED BY:	DAK
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*

DRAWING NO.: C401

SHEET 20 OF 26

NORTH

PROPERTY LINE

MAINTENANCE FACILITY

NORTH DRIVE ENTRANCE

STOP BAR

W/6"

POWIS ROAD WITH PROPOSED IMPROVEMENTS

ONLY

WEST DETENTION POND

OUTBOUND TICKET LANE

PROPERTY LINE

PROPOSED E-WASTE AND RECYCLABLES DROP-OFF AREA

CARDBOARD AND MIXED RECYCLABLES HOPPER

ADA STALL

EXTEND WALL

PROPOSED HYDRO EXCAVATION WASTE BUILDING

SPOTTER BASE LOCATION

SOUTH DRIVE ENTRANCE

SCALES

PAINTED HATCH AREA

SPOTTER BASE LOCATION

COVER BUILDING

SPOTTER BASE LOCATION

OFFICE

MAINTENANCE BUILDING

C&D TIPPING BUILDING

C&D SORTING LINE

MSW & SSR TRANSFER BUILDING

LOADOUT PIT

PROPERTY LINE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
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3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET

0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

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630-963-6026 · 877-963-6026
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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

QUEING/STACKING PLAN

DATE:	AUGUST 2022
DWG SCALE:	1" = 40'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

DRAWING NO.:

C402

SHEET 21 OF 26

P:\2016\163-899\1-CAD\Dwg\C405-Local Siting Application\163899-C405-C401 thru C404-Traffic Details.dwg[C402] LS(8/8/2022 - mkarpf) - LP: 9/8/2022 12:54 PM

NORTH

PROPERTY LINE

MAINTENANCE FACILITY

NORTH DRIVE ENTRANCE

STOP

STOP BAR

55.41'

W/6"

17.68'

15.82'

SIGN
TO SCALES
EXIT

OUTBOUND TICKET LANE

NO NOT ENTER

WEST DETENTION POND

POWIS ROAD WITH PROPOSED IMPROVEMENTS

15.00' 15.00' 15.00'

15' 15' 25'

197'

181'

PROPOSED HYDRO EXCAVATION WASTE BUILDING

"NO PEDESTRIAN" SIGN

EXTEND WALL

ALL TRUCKS

SIGN
E-WASTE AND RECYCLING DROP-OFF AREA

PROPOSED E-WASTE AND RECYCLABLES DROP-OFF AREA

CARDBOARD AND MIXED RECYCLABLES HOPPER

ADA STALL

SIGN
TO SCALES
EXIT

SIGN
ALL TRAFFIC

PROPERTY LINE

SPOTTER BASE LOCATION

12.50'

20.00'

SOUTH DRIVE ENTRANCE

ONLY

SCALES

PAINTED ARROWS AND TEXT (TYP.)

PAINTED HATCH AREA

70.00'

SPOTTER BASE LOCATION

COVER BUILDING

SPOTTER BASE LOCATION

MSW

SIGN
LOAD LANES
BYPASS | C&D | C&D

OFFICE

MAINTENANCE BUILDING

C&D TIPPING BUILDING

C&D SORTING LINE

MSW & SSR TRANSFER BUILDING

LOADOUT PIT

PROPERTY LINE

REFERENCE:

1. SURVEY IS BASED UPON FIELD OBSERVATIONS MADE BETWEEN 10/08/2018 AND 01/12/2019, BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
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3. SEE LEGEND ON DRAWING C000 FOR SYMBOL AND LINEWORK ELEMENTS.

*HAND SIGNATURE ON FILE

SCALE IN FEET
0 40 80

REVISION RECORD

NO	DATE	DESCRIPTION

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www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

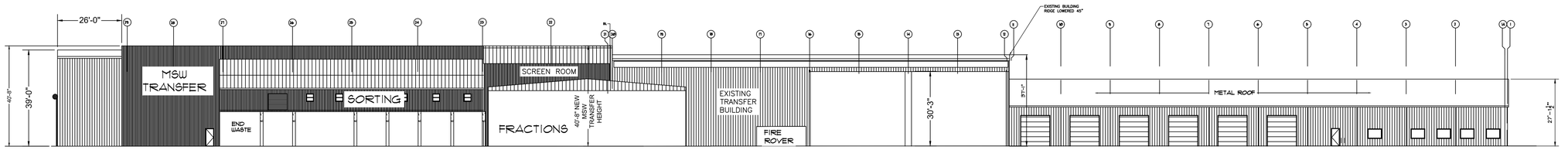
SIGNAGE AND PAVEMENT MARKING PLAN

DATE:	AUGUST 2022
DWG SCALE:	1"=40'
PROJECT NO:	163-899.0005
DRAWN BY:	MMS
CHECKED BY:	DAK
APPROVED BY:	JEH*

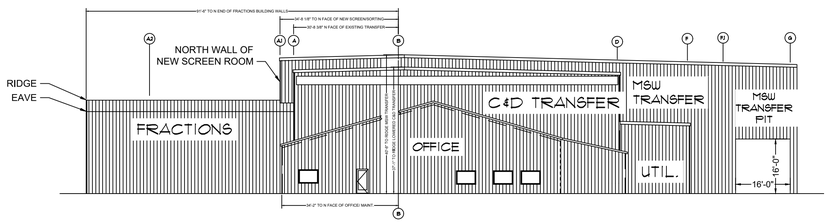
DRAWING NO.: C403

SHEET 22 OF 26

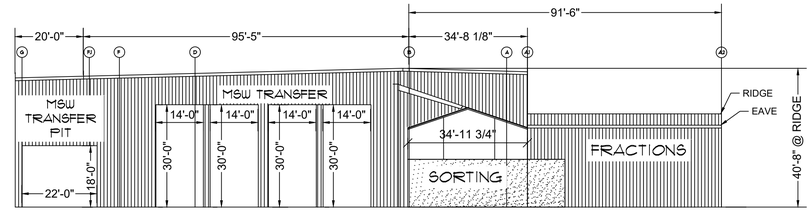
P:\2016\163-899\-CAD\Dwg\C405-Local Siting Application\163899-C405-C401 thru C404-Traffic Details.dwg[C403] 15:19:9/2022 - mkurpl - LP: 9/8/2022 12:35 PM



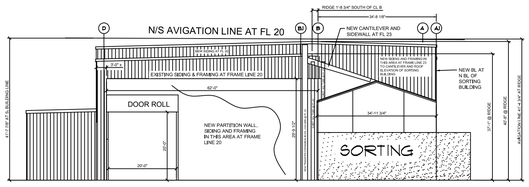
NORTH ELEVATION
NOT TO SCALE



WEST ELEVATION
NOT TO SCALE



EAST ELEVATION OPTION 1 AT FL 29
NOT TO SCALE



NEW BUILDING EAST WALL LINE AT FL 23 TO ROOF LINE OF SORTING BUILDING
NOT TO SCALE

REFERENCE

1. BUILDING ELEVATIONS SHOWN ABOVE WERE GENERATED BY SANDMAN INC. RECEIVED ON SEPTEMBER 29, 2020.

*HAND SIGNATURE ON FILE

P:\2016\163-899\~CADD\Dwg\CH55-Local Siting Application\163899-CH55-414 thru 418-Architecturals.dwg[A1A] LS:[9/8/2022 - mkerpf] - LP: 9/8/2022 10:27 AM

REVISION RECORD

NO	DATE	DESCRIPTION

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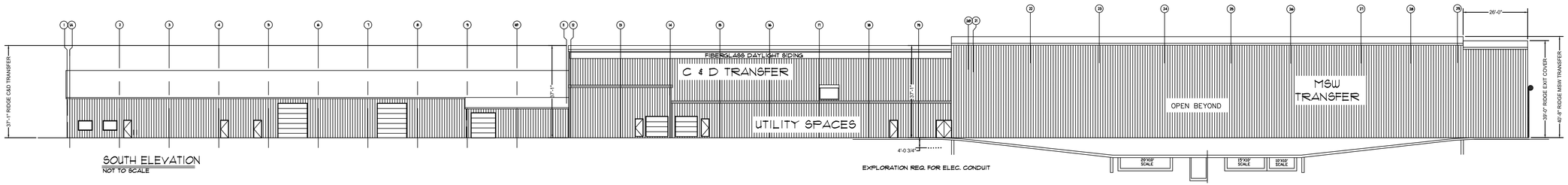
WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

MSW AND SSR TRANSFER BUILDING
ELEVATION VIEWS 1

DATE:	AUGUST 2022	DRAWN BY:	MMS
DWG SCALE:	NOT TO SCALE	CHECKED BY:	DAK
PROJECT NO:			163-899.0005
APPROVED BY:			JEH*

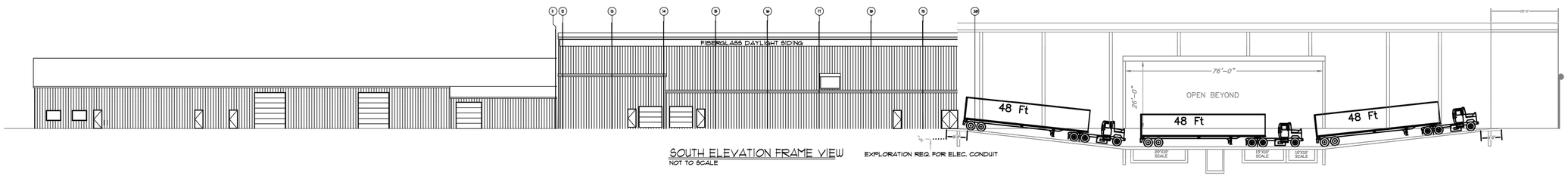
DRAWING NO.:
A1A

SHEET 23 OF 26



SOUTH ELEVATION
NOT TO SCALE

EXPLORATION REQ. FOR ELEC. CONDUIT



SOUTH ELEVATION FRAME VIEW
NOT TO SCALE

EXPLORATION REQ. FOR ELEC. CONDUIT

REFERENCE

1. BUILDING ELEVATIONS SHOWN ABOVE WERE GENERATED BY SANDMAN INC. RECEIVED ON SEPTEMBER 29, 2020.

*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
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630-963-6026 · 877-963-6026
www.cecinc.com

WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

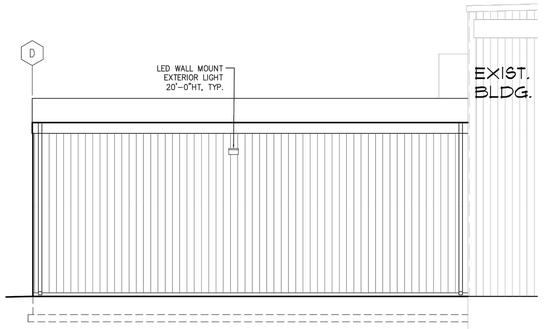
MSW AND SSR TRANSFER BUILDING
ELEVATION VIEWS 2

DATE:	AUGUST 2022	DRAWN BY:	MMS
DWG SCALE:	NOT TO SCALE	CHECKED BY:	DAK
PROJECT NO:		163-899.0005	
APPROVED BY:			JEH*

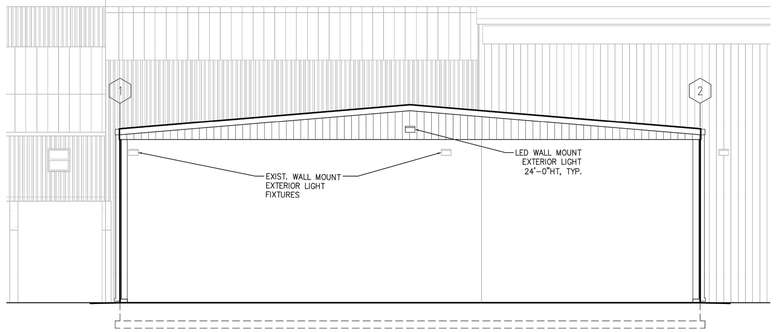
DRAWING NO.:
A1B

SHEET 24 OF 26

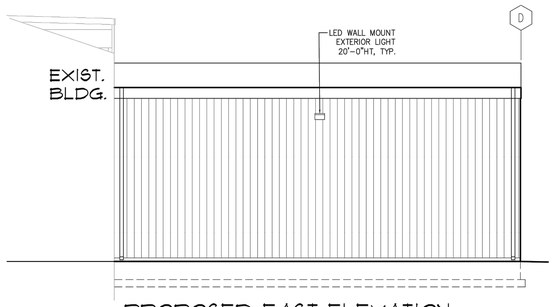
P:\2016\163-899\-CADD\Dwg\CVDS-Local Siting Application\163899-CVDS-414 thru 418-Architecturals.dwg[A1B] LS(9/9/2022 - mkurpi) - LP: 9/9/2022 10:28 AM



PROPOSED WEST ELEVATION
SCALE: 1/8" = 1'-0"



PROPOSED NORTH ELEVATION
SCALE: 1/8" = 1'-0"



PROPOSED EAST ELEVATION
SCALE: 1/8" = 1'-0"

10/4/19
11/30/20

Lakeshore Recycling Systems

FRACTIONS BUILDING

1655 POWIS RD. WEST CHICAGO, IL 60185

m.j.root • architect

324 center rd. frankfort, illinois 60423 815-464-0777

date: OCT. 4, 2019
revised:
drawing: 3 of

*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

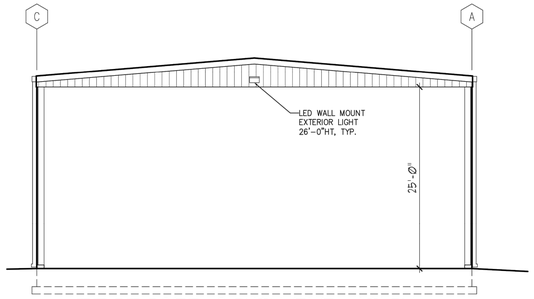
MSW AND SSR TRANSFER BUILDING
ELEVATION VIEWS 3

DATE:	AUGUST 2022
DWG SCALE:	NOT TO SCALE
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*
DRAWN BY:	MMS
CHECKED BY:	DAK

DRAWING NO.: A2

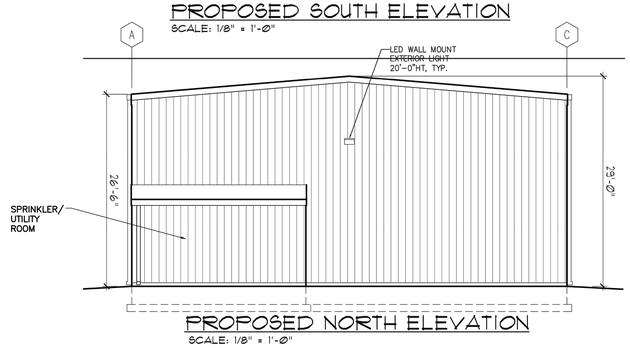
SHEET 25 OF 26

P:\2016\163-899\1-CADD\Dwg\CV05-Local Siting Application\163899-CV05-s2 thru s3-architecturals.dwg[A2] LS:10/6/2022 - mssyp1 - LP: 9/8/2022 10:30 AM



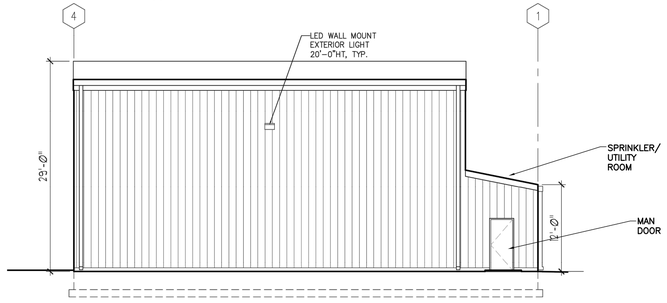
PROPOSED SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



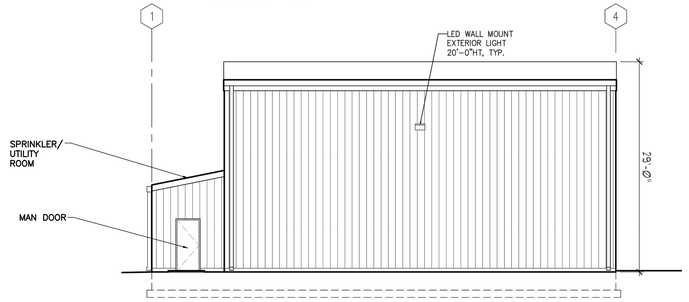
PROPOSED NORTH ELEVATION

SCALE: 1/8" = 1'-0"



PROPOSED EAST ELEVATION

SCALE: 1/8" = 1'-0"



PROPOSED WEST ELEVATION

SCALE: 1/8" = 1'-0"

10/4/19

11/30/20

Lakeshore Recycling Systems

SOLIDIFICATION BUILDING

1655 POWIS RD. WEST CHICAGO, IL 60185

m.j.root • architect

324 center rd. frankfort, illinois 60423 815-464-0777

date: OCT. 4, 2019

revised

drawing: 3 of

*HAND SIGNATURE ON FILE

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
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WEST DUPAGE RECYCLING AND TRANSFER STATION
LOCAL SITING APPLICATION
1655 POWIS ROAD
WEST CHICAGO, ILLINOIS

HYDRO EXCAVATION WASTE BUILDING
ELEVATION VIEW

DATE:	AUGUST 2022
DWG SCALE:	NOT TO SCALE
PROJECT NO:	163-899.0005
APPROVED BY:	JEH*
DRAWN BY:	MMS
CHECKED BY:	DAK

DRAWING NO.: A3

SHEET 26 OF 26

P:\2016\163-899\...CAD\Dwg\CIVIL-Local Siting Application\163899-CIVIL-A2 thru A3-Architecturals.dwg[A3] LS:(9/9/2022 - mkarpf) - LP: 9/9/2022 2:08 PM

BEFORE THE CITY COUNCIL OF THE CITY OF WEST CHICAGO SITTING AS A POLLUTION CONTROL SITING AUTHORITY

In the Matter of:)
)
APPLICATION FOR LOCAL SITING)
APPROVAL FOR LAKESHORE)
RECYCLING RECYCLING SYSTEMS,)
LLC, FOR THE WEST DU PAGE)
RECYCLING AND TRANSFER)
STATION, 1655 POWIS ROAD,)
WEST CHICAGO.)

REPORT OF PROCEEDINGS had and testimony taken at the hearing of the above-entitled matter, at 900 Prince Crossing Road, West Chicago, Illinois, on the 3rd day of January, A.D. 2023, at the hour of 6:00 p.m.

PRESENT:

MR. DERKE PRICE, Hearing Officer;

MR. DENNIS WALSH, City Council Attorney;

MR. PHILLIP A. LUETKEHANS, Attorney for Protect West Chicago;

MR. RICARDO MEZA, Attorney for Protect West Chicago;

MR. GERALD CALLAGHAN, Attorney for city staff;

MR. STEVE DeLaROSA, Representative for People Opposing DuPage Environmental Racism (PODER);

MR. GEORGE MUELLER, Attorney for Lakeshore Recycling Systems, LLC.

I N D E X

OPENING STATEMENT	PAGE
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On behalf of Protect West Chicago .... by Mr. Leutkehans	21
On behalf of PODER ..... by Mr. DeLaRosa	27

WITNESS	PAGE
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Cross-Examination By Mr. Leutkehans ...	91
Cross-Examination By Mr. Callaghan	184

E X H I B I T S

APPLICANT EXHIBIT	ID	ADMITTED
No. 1	14	
Nos. 2, 3 and 4	15	

PWC EXHIBIT	ID	ADMITTED
No. 151-A	121	
No. 23	169	

HEARING OFFICER PRICE: It is the appointed hour of 6:00 o'clock, so we're going to commence the hearing on the application for a waste transfer station in the City of West Chicago.

Good evening. My name is Derke Price. I have been appointed the hearing officer for purposes of this hearing as part of the application process. I'm a local government
06:01:25PM attorney, and I'll be serving as the hearing officer for the hearing on the application. To my right is the court reporter. I'll explain her role in a minute. And surrounding me are people who have registered as parties.

This entire process is governed by Section 39.2 of the Environmental Protection Act in the State of Illinois. It's also governed by the City of West Chicago's siting ordinance for pollution control facilities. Both of those are
06:01:58PM available on online for you to look up and have as a reference.

For the sake of the public, I want

to outline some of the procedures that will be used throughout the hearing process. The application was filed by the applicant on September 16th, 2022. The act states that this hearing must be held no sooner than 90 days and no later than 120 days after the filing. So if you do the calendar math, we're in the proper window for holding the hearing. The city council must act on the application within
06:02:31PM 180 days or the filing is deemed approved by operation of law. There is also, under the statute, a mandatory 30-day period following the conclusion of the hearing for people to submit written comment to the corporate authorities for their consideration. So we have a tight window for getting this done in a mandatory 30-day period and then time for the city council to consider it all and act. We need to be efficient and we'll move forward in that way.

06:03:03PM We are scheduled to be here tonight, tomorrow, and on Thursday. Then again on the 10th, if needed, and on the 12th at the

high school, if needed. The hearing will be adjourned from time to time to the next date until we are concluded. We will start each night at 6:00 p.m.

Now, a transfer station is a pollution control facility, as defined by the act, and whether a pollution control facility can be sited and operated is determined by the process set forth in Section 39.2. That involves notice to various parties, filing of the application with the municipality, an examination period, the 90 days, and then this hearing on the application, followed by public comment, and then the city council must determine if it meets the proposed -- if the proposed facility meets the State of Illinois criteria as set out in the act.

It is the criteria in the act that controls, not local zoning. This is an important distinction for the public. Although, we may make reference to the local zoning code, that is not what is in place. It is the

criteria of Section 39.2. And that's what we will be focused on. There are, essentially, ten criteria, but not all of them apply to this case, and it will be not uncommon to jump around from one to another, depending on timing and witness availability. We don't necessarily have to take them in order one to ten.

The city council has to make its decision based on the record that's developed here concerning application and also on the public comment and other things. We have a court reporter for this purpose, to create the record. The record includes the application, the evidence and sworn testimony we'll hear in the hearing, and also public comment. Public comment, which is not sworn, which is not subject to cross-examination or testing, is given less weight than sworn testimony and the evidence in the record, but it is nevertheless still important.

This brings us to a very important procedural aspect of this case. The city

council is essentially acting as a jury. Now, under the siting ordinance, the city council doesn't actually have to be present. They can read the transcripts. They can pay attention to the hearing. They can review the record. They don't actually have to be here for this in order to go forward. But while they are a jury, it means they are not allowed to talk to you about the case. You may be used to confronting the
06:05:44PM mayor or your alderman at the grocery store or at church or places of worship and getting their attention on matters of importance. You can't do that in this case. They are not allowed to talk to you because they are acting as a jury. Just as jurors can't talk about a criminal case in front of them, they can't talk to you about this application. Please understand they are not being rude. They are simply following the law and doing their job to have a fundamentally
06:06:09PM fair process. So, again, please respect that and do not try to talk to the elected officials during the pendency of this application.

Up here on the stage are all of the parties who have taken the steps necessary under the city's siting ordinance to be a party. A party allows them to present and test the evidence that is being put in. To my left is the applicant. They are represented by an attorney, Mr. George Mueller, who will present their case through various witnesses. To my right is the city staff that is represented by
06:06:42PM Mr. Gerald Callaghan, who is the attorney. The city has been reviewing the application, has comments and has things that are important that staff will love to recommend to city council and the mayor. Behind them are two organizations that have signed up as parties. The first is Protect West Chicago, which is represented by Mr. Leutkehans and Mr. Meza. Also, next to them is a group called PODER, People Opposing DuPage Environmental Racism, and they are represented
06:07:13PM by Mr. Steve DeLaRosa. These are the parties. They have a right to cross-examine witnesses and present evidence in due course.

Now, there are also opportunities for the public to participate that do not involve testing and cross-examination. That is the public comment period. I have 25 people who have signed up to provide public comment, when we get to that part of the hearing, and there will be a time and place to do that. I'm anticipating it will either be the 10th or the 12th, depending on how things go. I have two
06:07:45PM people who have signed up for public comment, though, who we need to squeeze in sometime this week. They will not be around on the 10th or the 12th. If there's anybody else who needs that accommodation, please see me.

Under West Chicago siting ordinance if you wish to provide oral public comment, you need to sign up by the conclusion of this evening, and the forms are down here in front. Again, there is no sign up necessary if you want
06:08:08PM to put in written comment at the conclusion of this during the 30-day period afterwards.

At present, it's my intention to

devote the 10th and the 12th to this but, again, we'll see how it goes. And, again, we will be at the high school on the evening of the 12th, but I'm not certain we are going to need that.

After the oral public comment is received and the hearing is closed, that will then begin the 30-day clock for the notice -- for people to put in their public comment. Again, no need to register for written public
06:08:39PM comment. After that time period, the parties will submit, under the siting ordinance, sort of closing briefs and proposed findings of fact to me. Under the siting ordinance, I'm supposed to point the recommendation and the report to the city council. The city council will then take all of that up and consider it at a future meeting where they will vote on whether or not to move forward with the application and approve it.

06:09:02PM A very important point often misunderstood is that the public -- by the public is, again, the city council does not need

to be here, but the city is represented by their attorney, Mr. Walsh, who is down here at this table. You may see elected officials come from time to time, confer with them, because they have the opportunity to ask questions also.

Again, there's a distinction between evidence and submittals like public comment. Evidence is tested in a formal way that public comment is not. If you want to give public comment, you're not going to get cross-examined, but that means it has a little less weight. Again, they've agreed here, these parties, to submit themselves to the same process of testing and cross-examination.

Whether something constitutes evidence or comes in is initially a matter for me to determine as the hearing officer, and it's not the strict rules of court. It's not what you have seen on TV. The standard here is fundamental fairness. We're trying to create as complete a record as possible for the city council to make their decision.

One of the main differences you'll see is in a courtroom lots of questions have to be asked of the witness so we know what's about to be said and whether or not that's objectionable or competent evidence. Here, we do it by more of a narrative form. Essentially, Mr. Mueller will ask a few questions of the witness and the witness will take over and present their testimony, and that's perfectly
06:10:28PM acceptable in these kinds of hearings. I find the West Chicago siting ordinance -- and I'll make this part of my future report -- with its opportunities for the public to participate in various ways, meets this requirement of fundamental fairness, and so we will be following those procedures.

The order of things will be the applicant will put in its case sort of one criteria at a time by one witness at a time.
06:10:51PM And so I believe we're beginning with Criteria 1, and the witness will put it in the case. The parties then will have an opportunity

to ask questions. If Mr. Mueller feels he needs to follow up with the witness, he will. Then there will be a second round or any further questions and then that's that, and we move onto the next part of the case that the applicant wants to put in. Once the applicant has concluded presenting their case, then the city staff can call witnesses if they wish, then it will be up to Protect West Chicago and PODER
06:11:24PM will have the opportunity to call witnesses, all of which can be cross-examined by the other parties and then Mr. Mueller. In every instance, the city will have the opportunity to ask questions after everybody else has gone in each round so that they can get what they need to make the decision they need to make.

That brings us to the pre-testimony administrative filings. The application was filed on September 16th, I've seen it and
06:11:55PM reviewed it. I have accepted it into evidence as Exhibit 1. It's on file with the clerk. It's also available on the city's website. So

that's Exhibit 1.

Mr. Mueller, with that, are there any other pre-testimony administrative findings that you wish to present?

(Exhibit No. 1 marked for identification.)

MR. MUELLER: Mr. Price, thank you. Prior to the commencement of the hearings, I handed out some additional exhibits. For the
06:12:24PM record, Exhibit 2 are the documents and our affidavit of compliance with the prehearing notice requirements. I would note that the proof of compliance with the pre-filing notice requirements is contained in the application, which you have admitted as Exhibit No. 1.

Exhibit No. 3, for the applicant, is the John Hock resume. And Exhibit No. 4 would be John Hock's PowerPoints, which he will use during his presentation. We'll have
06:13:10PM additional resumes and PowerPoints as additional witnesses are called.

HEARING OFFICER PRICE: At this point,

then, looking at Exhibit 2, the parties have had that.

Any objection to admitting No. 2?

MR. CALLAGHAN: Which was 2?

HEARING OFFICER PRICE: 2 was the affidavit of compliance that's in evidence. And we'll take 3 and 4 after Mr. Hock testifies.

If there are no other pre-administrative hearings, then, Mr. Mueller, 06:13:43PM I believe -- is there any desire to present a brief opening statement of any kind?

(Applicant Exhibit Nos. 2, 3 and 4 marked for identification.)

OPENING STATEMENT ON BEHALF OF THE APPLICANT

MR. MUELLER: Very briefly, Mr. Price. First of all, I want to introduce my client, who 06:14:06PM is a representative of Lakeshore Recycling Services. Lakeshore is a privately-owned company out of the Chicago suburban area. They

have been around for a while, and we hope to have their presence add to competition and the economic health of the Waste Management industry in this part of Illinois.

With that said, the first criterion that the applicant needs to prove is whether or not the facility is necessary to accommodate the waste needs of the area it is intended to serve. Our evidence will show that our service area will be most of DuPage County. The area of the county west of 355, small portions of Kane County, and small portions of Will County.

06:15:06PM

You're going to hear that there is another waste transfer station located pretty close to our proposed site. And so the question becomes: Why is this necessary? Our presentation with regard to need is based upon the competitive economic and environmental benefits that flow to the community as a result of additional competition in the service area. Mr. Hock will explain that in significant detail.

06:15:49PM

With regard to the other criteria, Mr. Hock, who is a man for all seasons, at this hearing at least, will testify as to the nature of the operation and proposal itself. You may ask: What is a transfer station? A transfer station is an enclosed facility where garbage trucks that pick up local waste at the curb discharge their loads and then those loads are transferred into a tractor-trailer, which is
06:16:37PM covered and sent to a remote landfill in western Illinois. There are no more landfills in DuPage County, nor are there any allowed. So all of the waste in this county that's generated has to move out of the county in one way or another.

Transfer stations are, as I said, enclosed. They have to be clean at the end of the day, meaning that the floor is cleaned. Waste is not allowed to sit overnight. This particular transfer station is located on a
06:17:17PM luxuriously large piece of property, from our perspective. We have a 28-acre site, and that means we have had plenty of opportunity to

design this with ample space and ample opportunity for safe movement of vehicles.

Now, I have heard, in anticipation of this hearing, a number of possible critiques, all of which we believe we will answer. The first of those is that the facility will generate odors. That's not going to be the case because the operations all take place indoors. It's located in the far northwest corner of West
06:18:04PM Chicago, across the street from the DuPage Airport. And, in fact, you're going to hear evidence that the DuPage Airport, which is our closest neighbor, has already signed off on the safety of the facility from an aviation perspective. So there are not going to be any odors from the site because the operations are enclosed.

You're going to hear that there are environmental harms. All of this takes place on
06:18:35PM a solid concrete surface. None of the waste or liquids generated with waste are going to be discharged into the community in any way, shape,

or form.

Then I have heard that this facility is going to generate large amounts of traffic. The garbage trucks that will come to the facility and discharge their loads are already on the road doing their work. They are just now going to come here to discharge. And coming to our facility, we believe, means they will drive less miles, use less fuel, put less
06:19:17PM carbon emissions in the atmosphere, and less wear and tear on the roads. Transfer trailers that will to take the waste are going to be routed in such a way that they are not going through any residential or built-up urban areas. Generally the route from the transfer station is going to be Powis Road north to Route 64 -- and, John, correct me if I make a mistake on this -- east to Kirk Road -- or west to Kirk Road -- see, I know I needed his help. And from the
06:19:58PM Kirk Road, they will then go south to the east-west tollway, thereby avoiding downtown West Chicago and avoiding downtown St. Charles.

The last criticism I have heard is that this facility is going to negatively impact property values in West Chicago. We will have an expert, who is actually here today, Dale Kleszynski, who will testify that, by his study, this is an industrial area with heavy industry; and, if anything, this facility is going to improve the character of the area and certainly is not going to be incompatible with the activities there and, therefore, he believes that this transfer station will be -- and this is a technical appraisal term -- the highest and best use of the property.

06:20:44PM

We will address all of the other criteria through our witnesses, but I think after the testimony is completed and the evidence is all in, I'll be justified and comfortable in asking the city council to approve this siting application. Thank you.

06:21:13PM

HEARING OFFICER PRICE: Thank you, Mr. Mueller. Mr Callaghan, any opening statement for the city?

MR. CALLAGHAN: I have no opening.

HEARING OFFICER PRICE: Mr. Leutkehans? Mr. Meza? Anything for Protect West Chicago.

OPENING STATEMENT ON BEHALF OF PROTECT WEST CHICAGO

MR. LEUTKEHANS: Yes. Thank you, everyone, for coming. I'd like to give a little background here. The City of West Chicago has done their job and has vetted this process, at least to a staff level, by hiring Mr. Moose to critique and provide information on the application. As many of us know, Mr. Moose has been doing this now for a number of years and has sited many landfills and waste transfer stations.

He reported the nature of the facility was done properly and safely; however, you will hear or see, not from Mr. Moose, but from his memos that he wrote to LRS throughout the process, of all of the concerns he had with their application, the problems with their

application. Some of which LRS responded and tried to solve. Many of which they said, Oh, we're just not going to talk about that in our application. We're going to remove that from our application. In essence, it's time will see. Normally we wouldn't even know that, except we were able to get a bunch of documents through FOIA that showed all these memos and this back and forth and the fact that LRS has
06:22:50PM not taken the advice of Mr. Moose in proceeding with this application.

For example, there's a question of a 1,000-foot setback. Mr. Moose questioned that, questioned the letter that was going to be the basis for that. Instead of coming up with a real solution, they -- LRS asked the city to modify the letter.

Mr. Moose brought up tipping floor and stockpiling capacity. What was in response
06:23:26PM done? It was removed -- The whole concept was removed from the final application. The storm water pollution and prevention plan, again,

removed from the application.

There was a report -- and this one is really, very interesting -- a wildlife report done by a company called Loomacres. It was in the first draft of the application, and it talked about the fact that the facility could be a wildlife attraction.

The second draft of the application -- rather the third, removed that
06:24:02PM report. And when APTIM asked about that, What are you going to do about the wildlife issues? LRS said, Oh, we're just removing it from the our application. You don't have to worry about it anymore. This was a game of hide and seek.

On at least two different occasions in their needs analysis, instead of resolving Mr. Moose's concerns, LRS just deleted the language in the section.

We heard about the service area.
06:24:38PM The service area originally included two other transfer stations. After the application, the service area was changed so it only included one

transfer station. And just for the record, that one transfer station is about a quarter of a mile away and is at less than full capacity. So the question becomes: Does West Chicago need two transfer stations within a quarter of a mile when there's no others in the entire County of DuPage, and there are other transfer stations within the service area.

We're going to talk about competition. What you'll also here is there is not one portion of the service area that does not have competition, not one. There is a transfer station that has a service area for every portion -- actually, two already existing -- two -- at least two, sometimes up to five or six transfer stations that already serve every area of the service area, every one of them.

06:25:12PM

06:25:44PM

So LRS manipulated the service area to ensure that there was only one other waste transfer station in the service area.

MR. MUELLER: Mr. Price, I've got to

make an objection now. Counsel knows it is the absolute prerogative of the applicant to designate its own service area.

HEARING OFFICER PRICE: That is true, isn't it?

MR. LEUTKEHANS: It is. I don't have any -- I don't have any doubt about it. The point is it goes to the intent of what they were trying to do with the area, but we'll move on.

06:26:20PM When you hear about Criterion 1 and the need and the competition this is going to create, you'll hear about vertical integration. LRS is already vertically integrated in the Chicago area. You'll hear vertical integration means hauling waste transfer to landfills. LRS has that. They already have three transfer stations, many of which already serve this exact same area, or portions of this exact area. What you won't hear from LRS or what is not in the

06:26:56PM application is actual data showing any of this supposed competition is needed, is not already occurring, or is in any way going to save money

to us, the consumers. It's not there. It's just a bunch of conclusory statements.

I don't know where Mr. Mueller got his critiques because you won't hear any of them from us. You will hear some of them. But the reality is this application has been modified because they couldn't answer the questions. They couldn't answer -- provide answers to those memos that Mr. Moose did and Mr. Fallon did that 06:27:46PM LRS received and they couldn't respond to. So what did they do? They deleted stuff.

They are not -- We will do our best to show you the truth of what this application is really about. And at the end, we will -- I think we will have a basis for you to say -- for the city council to say, without any doubt, that this application should be denied because it fails to meet the criteria of Section 39.2.

HEARING OFFICER PRICE: Thank you, 06:28:18PM Mr. Leutkehans.

Mr. DeLaRosa, do you have an opening statement?

OPENING STATEMENT ON BEHALF OF PODER

MR. DeLaROSA: Steve DeLaRosa from PODER in DuPage. I'll make my opening remarks very brief.

West Chicago has a working class history with a history of upper mobility of its residents. West Chicago is also a majority minority community whose residents have lived through historical episodes of waste pollution in its town.

06:28:47PM

West Chicago, though, is not the only party setting up the conditions for the permitting process for this transfer station. DuPage County has, for over 20 years, through its waste transfer -- through its waste transfer legislation, which reacts with the nine criteria to be used for the permitting process, has also done nothing to provide other options besides West Chicago.

06:29:42PM

So it's going to be an interesting

hearing, and I look forward to it. In the interest of brevity, I conclude. Thank you.

HEARING OFFICER PRICE: Thank you.

Mr. Walsh, anything for the city.

MR. WALSH: Not at this time.

HEARING OFFICER PRICE: With that, we'll turn to the applicant and the presentation of the testimony and evidence.

Mr. Mueller.

06:30:16PM MR. MUELLER: We'll call John Hock to testify.

(Witness sworn.)

WHEREUPON:

JOHN HOCK,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. MUELLER:

06:30:51PM Q. State your name, please, and spell your last name.

MR. LEUTKEHANS: Mr. Hearing Officer,

Mr. DeLaRosa didn't get a copy of the PowerPoint.

Do you have an extra copy?

MR. MUELLER: I have an extra copy for him.

BY MR. MUELLER:

Q. Let's start that again. Would you state your name, spell your last name, and tell us your profession.

06:31:36PM A. My name is John Hock. Last name spelling is H-o-c-k, and I work for Civil & Environmental Consultants as the vice president.

HEARING OFFICER PRICE: The court reporter says --

THE COURT REPORTER: It's muffled. I couldn't even hear the name of the company.

THE WITNESS: The name of the company is Civil & Environmental Consultants.

MR. MUELLER: John, if you could move

06:32:11PM the microphone closer to you.

BY MR. MUELLER:

Q. What is your role in this project,

Mr. Hock?

A. I am the principal engineer for the entire process.

Q. Have you signed various reports that are contained in the siting application?

A. I have.

Q. And you are the principal signatory on the application?

A. Yes.

06:32:46PM Q. And have you, Mr. Hock, prepared a presentation as to the areas of the application that you were responsible for?

A. Yes.

Q. Were all of these reports written either by you or under your direct supervision?

A. Yes.

Q. Mr. Hock, did you prepare a report on Criterion 1, which is whether the West DuPage Recycling and Transfer Station is necessary to

06:33:19PM accommodate the waste needs of the area it is intended to serve?

A. I did.

Q. John, why don't you tell us why we need this transfer station?

A. All right. I'm going to go ahead and stand, if that's okay.

My name is John Hock. Again, this presentation is going to be about Criterion 1, which is why the facility is necessary, and at its core, why we're here tonight.

Before we -- Before I do that overview, I'm going to give a little background on myself, a little background on the applicant, and I'm going to describe the existing operations and the proposed operations sufficiently for everyone to help you understand why this facility is necessary. We will get into more detail on the design and operation in a later presentation in this hearing.

Quickly, a little information about myself. I have worked in governance for solid waste business for over 35 years in this market, which is the Chicagoland area. I have worked for large publicly traded companies and smaller

06:34:01PM
06:34:35PM

privately owned companies, and I have also provided services on the consulting side to all of those same type of companies.

As I mentioned, I work for Civil & Environmental Consultants. We have an office right in Naperville. CEC is a growing, predominantly, Midwest Company. We are a national and local leader in providing services to the waste business. And over the years, I
06:35:23PM have developed an expertise and a focus on transfer stations and recycling facilities, as we're going to be discussing tonight.

The applicant is Lakeshore Recycling Systems. They are a relatively young, growing, midsize company. They grew up in the Chicagoland area and this is still their largest market. They are up to over 100 franchise agreements, which our agreements are with municipalities, townships, special use areas in
06:36:00PM Illinois. They have a diverse workforce right in West Chicago at the facility on Powis Road of about 125 people.

They provide a variety of services in the waste industry. They provide the full life cycle, so all the way from collection through disposal.

And they have only entered the landfill business in 2019. So historically and currently, they still have a large focus on diverting as much material from landfills as possible. And they provide other services
06:36:46PM related to the waste business or similar, I should say, with portable restroom services and street sweeping.

As George mentioned, our facility is located on Powis Road, directly across the street from the DuPage Airport. It's the northwest portion of West Chicago, and it's on the western extent of a large commercial and industrial area. It is a very unique facility due to its large size. Many facilities of this
06:37:24PM type are maybe 25 percent or a quarter of the size and that allows a nice flight of operations to occur on the property and give us space to

expand our operations like our proposal.

This is an aerial photograph of the facility. Again, you can see Powis Road to the left, you can see the runways of DuPage Airport also on the left. There is a closed landfill directly south of us. It's owned by the DuPage Airport Authority. There is railroad tracks, followed by air control tower to the east on the right side of the figure, and there is

06:38:16PM commercial and industrial property to the north for the top of the drawing. We have it color coded to give you an idea of the type of operations and where they are located.

So our main operation is recycling construction and demolition debris. We have been performing that operation since the inception of the start of the business. We recycle for unofficially reuse at least 75 percent of the material that comes in. And

06:38:51PM that, basically, happens in the central portion of the facility that's highlighted, or hatched, in that kind of light greenish color.

We do park a number of vehicles currently at the facility. Lakeshore is in the hauling business. So the exact type of trucks that we're proposing to bring waste into the facility currently park and enter and exit this facility every day. The parking all occurs just to the -- just to the west or left of our C&D recycling operation. We also stage or store a number of containers, so roll-off boxes or
06:39:32PM totes. We refer to totes as the large bins that in our households where we throw all of our waste and recyclables in. We also store portable restrooms out there as well. Those are basically on the north and south sides with the yellow highlighting.

There is a dispatch and customer service center that's in our office up front. That's highlighted with the pink rectangle on the aerial photo. And then on both the far west
06:40:03PM and the far east, there's storm water controls at the front of the property. So at the front of the property on Powis Road, you drive down

and there's a pond and there's trees. If you go to the far east, there's a very large detention pond and then there's also a buffer pond before you get to the railroad tracks.

MR. MUELLER: John, if I can interrupt. Just to be clear, you're describing activities that LRS performs on the property now?

A. Correct. These are existing operations.

06:40:35PM In terms of the proposed facility improvements, the list of activities are shown here. In essence, the physical improvements are relatively minor. We're going to build a building for the transfer of municipal solid waste and single-stream recyclables. We will build a smaller and separate building for the solidification and transfer of hydro-excavation waste. We would add a second scale. There is currently a scale out there now, which weighs

06:41:14PM vehicles coming in and, if needed, going out to establish how much is in each truck. When I say "how much," how much waste is in each truck. We

would add a second scale. We would -- Right now there is one access drive that all trucks come in from and leave. We would actually establish the second driveway that is already in place at the property that is just currently unused. We would open that driveway end up using current -- the current driveway for just vehicles entering and they would all leave in the northern improved driveway. We also establish a drop-off
06:41:56PM area for residents for both recyclables and electronic waste. Associated with all of that, we would have some utility improvements, being electric and water. This is a plan view of the improvements to the western portion of the facility. I'll show you the eastern portion in a moment. Again, the facility we're talking about, we broke it into two pieces.

So, again, you see Powis Road to the left, and the DuPage Airport would be across
06:42:27PM the street, again, off the left of the plan view. The existing entrance is labeled and shown. We add a second scale up front. We

would add a municipal solid waste single stream recyclable building over on the lower right-hand corner. That actually would be connected to the existing building where we recycle and transfer the trucks with construction and demolition debris. You can see it's kind of tucked in back there and behind it. If you were looking at Powis Road, it would be very difficult to tell that building would be there. The hydro
06:43:04PM excavation building would kind of be in the middle of the facility, again, a smaller building. And the northern driveway is labeled up by Powis Road where -- again, that's where all vehicles would exit.

The bathrooms and the resident drop-off area would be right up front, so it would be gated for residents to come in, drop off those materials without getting in the back where all the larger trucks will be moving
06:43:39PM around.

These are proposed improvements to the east, which is essentially next to nothing.

What we're showing is that large retention pond right in the middle of it. The shaded areas are, actually, paved areas. All we would be doing is converting an area on the south that is currently used to store or stage containers and such and parking trucks right there.

Before we move forward, I just want to make sure people are clear on some of the terms we're using. The materials that are coming into the facility, the first is construction and demolition debris. It should be, you know, what it kind of sounds like. It's wood, concrete, shingles, metal. It's basically materials from constructing, remodeling, demolitioning -- demolishing structures or roads, that type of thing. Again, what the facility currently does, that mixture of materials comes in and we use mechanical and physical means to make the material into component parts and send it out to the various other entities to be recycled.

Municipal solid waste, it's

garbage. It's material that you and I all throw away out of our houses, and it's the same type of material that comes from commercial facilities. So it's just garbage. It's just waste.

I'm going to jump down to the single-stream recyclables. It's a little bit of a fancy word. The recycling piece should be fairly obvious. That is paper, cardboard, bottles, cans. Again, the things we all throw into our recycling bins that are picked up and eventually, again, broken into their component parts and recycled and reused. The single stream part of the word comes from the fact we're all just putting them in the same container. So the one container, it is single-stream recyclables that are pulled apart and separated later down the road.

06:45:37PM

Hydro-excavation waste, that's basically water. It is material that is generated from a process using high-pressure water and air. Since the hydro-excavation waste

06:46:09PM

may be new to some of you, I want to spend a few more moments talking about it.

Again, it's created through using high-pressure water and an air vacuum. It is a process that's used to excavate using water around other infrastructure that we cannot damage or do not want to damage. So it's around gas lines, electric lines, communication lines. We've probably all experienced somebody doing excavating work, so the buildings in the area loses power, loses communication because a large piece of yellow equipment hit a line they weren't supposed to. This is a process where you can expose those type of lines and you can excavate without damaging the underlying structure.

What the suction does -- So the water basically cuts through the soil or materials and suctions it with the air, it moves it out of the way so you can continue to dig and see the bottom of the excavation. So on the left is a picture of hydrovac trucks. You may

06:47:05PM
06:47:35PM

have seen them around in the streets. My understanding is West Chicago has one of these trucks they use to clean their storm sewers with, which is another use for these type of vehicles. Again, you can imagine a storm sewer on all of our streets. There is sediment that ends up at the bottom of the storm sewers. They will use high-pressure water and loosen it and use the suction to remove the waste. The
06:48:14PM pictures on the right are excavations that were made using this type of process, which, to me, it's pretty amazing. You can -- You have vertical walls, very clean excavations, and as you go to the top of these utility lines, they are not damaged.

So we have talked about the physical improvements to the facility. Now we'll go through and talk about the proposed operations. The first thing to understand is
06:48:54PM the existing operations will all continue. So we'll continue to perform the C&D recycling, we will still park vehicles and stage containers.

We also have our customer service and our dispatch.

Again, what we are proposing is to start bringing in municipal solid waste with the same trucks that are parked there and take it to other facilities or simply take it back here.

As George mentioned earlier, all of the waste handling that's discharged from the trucks, loading and putting it into a larger truck is all indoors. In general, about three to four of the trucks you see on the roads, three to four of those makes up one larger load that would go to the more distant landfill.

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It's also important to know that the waste is only onsite for a short time. The waste business is basically a transportation logistics business. It is picking it up from the homes, bringing it, transferring it, and getting it to the landfill as efficiently as practical. Once it's discharged inside the building on the concrete floor, it's anywhere from, I would say, 15 minutes to 2 hours that

06:50:04PM

that waste is picked up, loaded up, and out of the facility.

Then, for all of us, there are effective controls for odor and litter, not the least of which is, again, everything is indoors.

In terms of hydro-excavation waste, which is the mud, that material is too sloppy to go directly to a landfill. What needs to happen is we need to mix it with other material that absorbs that excess water, such as woodchips. And then once it's firmer or more solidified, then we can take it. Again, we would mix it -- Again, this is an operation that Lakeshore currently performs at its facility in Forest View. So we mix it with the woodchips -- the woodchips are generated through the recycling or have been recycled already, so there's efficiency there. Generally speaking, it's about two parts of the hydro-excavation waste coming in with one part woodchips. It gives you a solidified mold to promptly take down, put in another truck, and take to the landfill. Again,

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we have been doing this for a number of years. We have well-established pre-approval acceptance.

Then the other operations that are also very important, we would have the drop-off area for electronic waste, which may have been referred to as e-waste. We would also have a similar drop off for the recyclables. For the e-waste, someone would come in, there would be
06:52:07PM an employee there that would take it. Those are carefully placed into a container called a Gaylord box where it's wrapped up, among other things, where it goes off and then haul the components off to the processing center. Recyclables would go into a larger container. At least they have a drop off in Carol Stream where you can put recyclables in a larger container and bring those back, send it off to a processing center; that would likely be
06:52:41PM Lakeshore. Lakeshore has a facility in Forest View where, again, recyclables are pulled apart, the component pieces put in bails and sent off

to recycling. It's actually a custom -- Again, we have another brand-new state-of-the-art facility in Chicago that is really quite amazing.

BY MR. MUELLER:

Q. John, with regard to the drop-off center that you're talking about for citizens, is there going to be a charge for them to drop off e-waste and recyclables?

06:53:22PM A. The short answer is no. There is a provision in the agreement that says we can charge for -- it's called CRT capital rate to -- those are old monitors, the big bulky things. Our understanding is there is very few of those left.

So this the MSW and single-stream transfer building. Off to the left is the closed landfill. It's just an open grassy area. In the background you can kind of see it as the

06:54:13PM facility entrance. That's the area right between the trees out front. So, again, this building is towards the back of the existing

buildings. The lighter shaded areas are the doors. There's four of them. What we have depicted is some trucks waiting to enter the building and discharge their load. The way it works is the truck would come into the facility, go to the scale, drive to the back of the facility here. When it's ready to enter the building, the door would open, the truck would back in, the door would then close. The truck
06:54:49PM could be in there two minutes discharging the load. When it's ready to leave, the door will open again, then he'll drive out, the door will close again.

As you see over to the left, that's one of the larger trucks. That would be, again, loaded with the material from the smaller ones. It would actually be tarped before it leaves the building. And, again, there's a specific loading area between the building where that
06:55:17PM would occur.

You may also notice some objects on the top of the building, and that's a depiction

of the ventilation and filtration system that would be installed. There are -- We're planning for six blowers or fans that would be removing air from the building. In each one of those blowers or fans would have a treatment system of ozone associated with it that would basically destroy any odors from that area exhaust. Maybe, just as a reminder, as George mentioned, inside that building would be a large concrete, what we call, tipping floor. A tipping floor simply comes from that's where the trucks tip their back end up to discharge the waste and, again, it's simply picked up by a large loader and put into the larger vehicle.

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So that was the background on the existing and proposed operations. So now we'll get into the discussion of why this facility is necessary. And just as a reminder, this is the language in the act for Criterion 1, which is the facility is necessary to accommodate the waste needs to the area we intend to serve.

As Derke had mentioned, this is a

summary overview. There is a lot of detail and calculations that go with it. It is all in the application on the City of West Chicago website if you want to go back and look.

So as we look at our evaluation of the criteria, there is really four. The first is deciding what the area is -- what area we intend to be served by this facility. We'll talk about that first. Once we define the area, 06:57:24PM we'll then look at how much waste is generated in that area, how it's currently managed, and trends associated with that; meaning, what are the trends in the amount of waste being generated, what are the trends in the waste disposal system. We'll evaluate those as well. And then we'll evaluate the benefits of our proposed facility, which, in our mind, clearly exists, with the demonstration of why this facility is needed. So the plan to the right is 06:58:05PM a depiction of our service area. You can see the counties labeled and some major roadways labeled as well. And our service area is the --

kind of the non-blue hatched area in the middle. So as George had mentioned, it is the west two-thirds of DuPage County, so, again, everything west of I-355. It is the eastern portion of Kane County, which is generally everything east of the Fox River, and it is the northern portion of Will County where there are -- it's really because there's communities in DuPage County that -- well, they overlap both
06:58:50PM counties, so we included that as well.

So in terms of the waste disposal volumes, there's plenty of data out there and in that service area. There's just under 3,000 tons of waste per day that's generated as of 2020. That is expected to increase to a little less than 3,600 tons per day by 2040, and that's essentially because of the population of the service area is predicted to increase as well and, in general, as the population
06:59:37PM increases, the amount of waste also increases.

There are no landfills in the service area, and there are two transfer

stations that can accept municipal solid waste in this area as well. One is the one that was mentioned before, DuKane Transfer Station that is also located on Powis Road, just north of our facility, and there's another one in Batavia, just across the county line into Kane County.

If you look at how much waste is currently managed by those two transfer stations, it's about 1,700 tons per day. So there is -- what we're describing as a shortfall or need of about 1,300 tons per day. That is simply the, approximate, 3,000, minus the 1,700, gives you about 1,300.

You may ask yourself -- Well, it is -- These transfer stations actually do have operate at half capacity, as such, that they would be allowed to accept the entire 3,000 tons generated in the service area and you may ask yourself, Well, why don't they --

07:00:59PM Q. John, if I can interrupt you for a second. Mr. Leutkehans, on behalf of his citizens group, said that we had changed the

service area to eliminate one transfer station and there's only one left. Is that true?

A. That's incorrect. There are two transfer stations in our service area.

MR. MUELLER: Thank you.

HEARING OFFICER PRICE: John, I couldn't hear what you said. Could you repeat what you were saying right before Mr. Mueller asked you the question about the capacity?

07:01:36PM BY THE WITNESS:

A. Sure. The two existing transfer stations in our service area, again, the DuKane Transfer Station and the Batavia Transfer Station, collectively, they are permitted to accept more than 3,000 tons per day, but they do not. They have historically, and this is a long-term trend, accepted around 1,700 tons per day between the two of them. And my somewhat rhetorical question that I'm hopefully going to

07:02:12PM answer for you as this presentation goes is: Why don't those two transfer stations already accept all of the waste from the service area if

they have the capacity? As we go on, I'm going to answer that question for you.

We'll go deeper now into how the waste in the service area is currently managed. So this is a -- On the right side is a planned view, again, of the service area, so you can see the counties labeled, and the service area is the heavier black line, and it is color coded by municipality by which company currently services or hauls the waste from that municipality. The table on the left is, again, color coded so this company and the population of the communities served by that company.

Let me be a little clearer. So Waste Connections or Groot -- Groot is the owner of the transfer station down the road, which is DuKane Transfer Station, that was Waste Connections. Waste Connections bought Groot a handful of years ago. They are the same company. For instance, Waste Connections hauls the waste from Batavia, Elgin, Aurora, Bartlett, Naperville, and West Chicago, right here, and

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Woodridge. So all of those communities are yellow and, again, if you add them all up, it's a little over 552,000 people in those communities.

Second largest provider is Waste Management. They are shown in green. Some of the communities they serve are Plainfield, Romeoville -- I may have misspoke before. Waste Management services Batavia and Elgin -- I may
07:04:46PM have misspoke and assigned them to Groot, so I apologize for that.

Anyway, their communities are in green, and it's a little over 215,000. And then Lakeshore is the third largest. The communities that they serve are shown in blue. So that includes Lisle and Wheaton and Geneva and St. Charles, for instance. And then there's a smaller number of communities in the service area serviced by the Flood Brothers, Republic
07:05:16PM Services, and SBC Waste Solutions.

The other thing that's important to note about this figure is there are the

color-coded ovals, and those generally represent the transfer stations in and around our service area. So there's the two we mentioned before and you can -- again, they are color coded the same way, so the Waste Connections are the ones highlighted in yellow and you can see there's the one in the service area and they have one to the southwest and they have a couple to the east and one -- I think that covered them. Then
07:06:00PM Waste Management has one in the service area, that's the Batavia service station. A couple to the north, couple to the south, a few to the east. And then Lakeshore Recycling, their transfer stations are shown in blue. So there's the one just outside the service area to the west, which is Elburn; and then there's four to the northeast and east. And then Republic Services they are in orange and you see their transfer stations are all east of our service
07:06:29PM area.

That was a lot of information but we tried to put it in one convenient location,

give everybody a good idea of here's who is servicing the area right now.

So now I'm going to start looking and talking to you about trends in the waste disposal system. First, the important thing to understand is about landfills. So any material that is not recycled or somehow benefits to be reused ends up in the area landfill. There is a decreasing number of landfills over time. It

07:07:20PM actually decreased by about 40 percent over the last 25 years, and there's actually -- If you think about the nine-county Chicagoland area, it includes DuPage and Kane and Cook and Will, Lake, McHenry -- I think I'm forgetting one in there -- There's only three -- Only three remaining that are active. Two are actually in Lake County, one is in Will County, and two busiest landfills in Illinois now are in Rockford -- excuse me -- they are next to

07:08:01PM Rockford. So that's where a big portion of the waste goes now, is the Rockford area. So as the landfills -- number of landfills have been

decreasing and the remaining active ones that moved farther away -- the remaining ones are farther away. The ones that are all nearby have closed. The number of transfer stations has increased.

So, as of 2020, there's actually about 14 transfer stations in the approximate area -- I'm sorry -- I should say, to go back to 1995, there's actually no transfer stations in DuPage County, Kane County had one, and there was eight, actually, in Cook County, actually, northeast of us. Over the past 25 years, there have been 14 more that have been permitted, one in DuPage, one in Kane, one in Kendall, one in McHenry County, two in Will, and then there's been several in Cook County to the north and to the east.

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The other key trend is, as the landfills have decreased in number, the remaining ones are located farther away, the owners of those landfills have been consolidated. So we're now to the point that

07:09:35PM

all of -- Think about this: All of the landfills in Illinois north of Peoria are owned by one of the three large publicly traded companies. Those three companies are: Waste Management, that's the largest; Republic Services, which is the second; and Waste Connections or Groot, which is the third.

The only ones not controlled by those three large publicly traded companies are shown in green on this figure. So one is design which is operated by -- I think they are called GFL, which is way up in the right-hand corner, right near the Wisconsin border and Lake Michigan. Number 2 was the Knox County landfill, which is a very small, just a local community landfill way out in Knox County. It really has no influence of the Chicagoland area. And then the landfill in Atkinson, which is directly west, and Atkinson, if you don't know, is about 30 miles from the Iowa border, right on I-80, and that landfill is operated by Lakeshore Recycling. Lakeshore Recycling actually bought

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that in 2019. So they only have three that are not controlled by -- If you look at regions one and two, regions one and two it's a term or an area defined by the Illinois Environmental Protection Agency. They put out reports. Region one is northeast Illinois. That's actually the nine-county area I described earlier. Region 2 -- I'm sorry. That's Region 2. Region 1 is the area to the
07:11:36PM northwest. And if you look at just those two regions, those three publicly traded companies, control 97 percent of all the landfills.

So you can see the numbers. They really have a stranglehold on landfills, which, again, all of which are potentially income. If things consolidate, you have fewer players. That's a trend that reduces competition. So as the landfills have consolidated, the same thing has happened with transfer stations. This is
07:12:20PM the same figure I showed you earlier. I probably should mention that our facility, you can see the red dot right there in the middle of

West Chicago, that's where our proposed -- that's where our facility is. And there are 23 total transfer stations on the Illinois map, 17 of them -- 17 out of 23 are owner-operated by those same three large publicly traded companies. The only other transfer station, there's one, down in Rockdale, operated by a small family-run company called Environmental Recycling and Disposal Services. The other remaining ones are owned by Waste Management. The same consolidation is a trend that reduces competition.

07:12:58PM

Phil alluded to it earlier, so I'm going to give you background on vertical integration and why it's so important. First it's important to understand how the waste collection and disposal process works. Again, it starts with the collection vehicle that will go around and collect. The vehicle is obviously parked somewhere. In the morning, it travels to its route, it goes around, whether it be businesses or homes, picks up all the waste

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until the truck is full, then it goes to a transfer station. Because, again, the landfill is too far to drive. It goes to the transfer station and deposits the load. That waste is then picked up, loaded into a larger vehicle where it travels down the road to a landfill where it is disposed.

Maybe, again, a fun fact. A traditional collection truck that goes

07:14:19PM down around the neighborhood. It fills stuff up, goes to the transfer station, goes back out to another route, fills up and goes back for more.

Most of the waste that's collected by the three large publicly traded companies -- you can go to their annual report and it will tell you -- most of the waste they pick up from the curb or businesses ends up in their landfills. Why is that? Why do they want to

07:14:52PM put the waste they pick up in their own landfills? It has a number of advantages. The first is control of the cost in the disposal

market. As a hauling contractor -- We'll use West Chicago as an example in a few minutes. If the company has to bid on a hauling contract, it has to not only include the cost of the collection, it has to include the cost of disposal in that day. Again, if you cannot control your own price, if I have to bring the waste I collect to somebody else's transfer station, a competitor of mine, who is also
07:15:40PM competing for that same contract -- hopefully things become clear. So vertical integration really is the ability to control all of the aspects of your own costs. It is also your ability to control your own operating commission. If I'm bringing waste, I'm collecting to somebody else's transfer station, they control things like the operating hours, how late they are open, and I have to modify my operations around their facility. And what
07:16:21PM fundamentally it can cause is it prohibits your competitors from using their facilities to start you out (inaudible) --

Now we're going to go all the way deeper and get even more clear about what we're talking about. As I mentioned, Lakeshore performs hauling in the service area. They currently do that and haul from certain communities right now. They do not have a transfer station in the service area. From June 2018 to the end of 2020, Lakeshore was delivering all the waste they were collecting to
07:17:09PM the transfer station in Batavia, which, at the time, was owned by Advanced Disposal. Then Advanced Disposal needs to take it from the transfer station, take it to their landfill in Rockford, and that's how Lakeshore was running their business.

What happened a couple of years ago is that Waste Management bought Advanced Disposal, so that was the largest waste company in the country buying the fourth largest. So
07:17:45PM now those same transfer stations and same landfills where everybody takes their waste changed owners. It took one of the competitors

out of the market, so Advanced Disposal is no more.

What happened is the boundary -- basically if they replace the price --

THE COURT REPORTER: I'm sorry. Can you repeat that? I'm having a lot of trouble here. Just repeat that last paragraph, please.

BY THE WITNESS:

A. Right after the merger between Waste Management and Advanced Disposal, the pricing that Lakeshore was getting at that transfer station went up 10 percent. Since that time, it's gone up another 10 percent.

Lakeshore has other transfer stations outside of the service area, so Lakeshore was also taking other waste that came into their other transfer station to that landfill called Orchard Hills near Rockford. The price at the landfill right after the merger went up to 33 percent.

Again, you would say, well, why don't you just take it down to the Groot

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transfer station.

HEARING OFFICER PRICE: Please, it's not a debate. It's a public hearing. We have to let the witness present the testimony. You wouldn't do this at a city council meeting, you wouldn't do this in the legislature. Please, let's respect the process, let the witness testify, and have public comment at the end. It's inappropriate and we're not going to condone it. If anybody wants to keep it up, I'll ask for you to be excused.

Back to you.

BY THE WITNESS:

A. The pricing that Lakeshore was quoted at the Waste Connections or Groot transfer station is actually 25 percent higher than the pricing they were receiving in Batavia. So they, essentially, made it possible here. So what happened? In the meantime, Lakeshore Recycling did acquire the Elburn transfer station. That is actually one of the reasons we changed the service area, as Phil had mentioned

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07:20:21PM

before. At the time that draft was created, Lakeshore didn't own that transfer station. Well, they do now, and it is, in some ways, a bit helpful but it doesn't solve the problem we're going to be talking about. What's happened is the waste has been diverted. So what was then going to Batavia, the majority now does go to the Elburn transfer station, some of it goes the other direction to Maywood. From
07:21:03PM Elburn, it now goes out to Lakeshore's landfill in Atkinson.

Again, think of that. The price they are getting from Groot, just down the road, is so cost prohibitive that the waste was going to a transfer station in Batavia and then traveling to Rockford, but it is more cost advantageous to private out to Elburn and then send it all the way out to Atkinson, rather than bring it to the Groot transfer station just down
07:21:45PM the road. Again, a key point. Let's hope that's -- And that's what could happen when your competitors control the pricing. And this

consolidation of these large companies has brought the transfer stations -- It's just this world of have and have nots in the waste industry. The haves want to continue to be those few that are fully vertically integrated and, ideally, keep the other folks, well, as a have not.

Again, Lakeshore, as any other not publicly-owned company, has to pay other companies to bring their waste if they are not fully vertically integrated. Just to be clear, other than those three publicly traded companies, no other company is fully vertically integrated. Not Lakeshore, not the others. Lakeshore is in other areas but not this area.

07:22:40PM

Again, think about bidding on a waste public contract if you don't control the price of the transfer station or the landfill. You have a significant cost factor that is not under your control. It's an unknown factor. So if you try to make a bid, how do we start investing? There's a number. How do you borrow

07:23:19PM

money and make capital investments? We all know that banks do not like uncertainty. The more uncertainty, the harder it is to make those investments to obtain the funds to invest. Again, the operational deficiencies that I talked about earlier. So Lakeshore had trucks, because of the closing time of the Batavia Transfer Station, they had trucks that have to leave their routes in the middle of it to get to the transfer station before they close and then go back and try to finish the route either later that day or the next morning. Again, think about the inefficiency of that.

07:24:04PM

HEARING OFFICER PRICE: Hold on a second.

BY MR. MUELLER:

Q. John, while there's a break, I think you implied this, but if Lakeshore owns the Elburn transfer station, why don't we send all of the garbage there?

07:24:47PM

A. Because it's farther away and it's less cost effective. Again, it's a

transportation logistics business. So we can send it wherever, but if you're going to be able to effectively compete in a market, you need to be fully vertically integrated in that market.

Again, everything I was just talking about was trends. Now I'm going to talk about the main benefit of the proposed facility and it is to provide additional capacity and competition in this market. Again, the

07:25:41PM landfills located closest to the service area are those two in Rockford. Those two landfills, one is owned by Waste Management, the other is owned by Waste Connections. They also have the two transfer stations in our service area. Again, the one in Kane is owned by Waste Connections, Batavia is owned by Waste Management. If you go back to that slide I showed you before, it's not surprising why they have the large majority of the hauling contracts

07:26:11PM in the service area.

As we have acknowledged before, these transfer stations do have adequate

capacity to take more waste, if you don't consider the negative economic and environmental impacts of the business. You don't consider them.

So what happens is the trends that companies that collect waste from municipalities ends up going in the general direction of their transfer station, they are going in the general direction of their landfills. The capacity of these transfer stations can vary for others from -- it can vary based on pricing, the operational approach of those companies. So there could be some and there could be nothing.

07:26:58PM

Again, just reemphasizing the same point. Really in the service area there's Waste Management and Groot that they have a sufficient control of pricing to effectively diminish the competition from other non-vertically integrated companies. Again, the non-vertically integrated companies are everybody else.

07:27:41PM

This isn't just our view. So if you go into the application, there are a number

of letters in support from other haulers that are in the same position that are looking for other options. There are four municipalities that have written letters in support, including Wheaton and Lisle. There is a whole conjuring of small contractors and demolition companies that would love to have additional options, so they provided letters of support, along with a little over 100 citizens.

07:28:18PM Maybe I'll just take a moment to talk about one specific company. So the village-run company was a waste disposal company that was highly respected, family run, had been in business for over 75 years. They actually sold to Lakeshore in December of 2020, and George Strom is the current generation main person that was running that company. I talked to him personally about it and, frankly, asked him why they sold. What he talked about -- and

07:28:53PM there's a letter, again, in the application, and I encourage you to read it if you haven't, from George that talks about the exact same factors

that I'm talking about. It was that he was being squeezed by the large publicly traded companies, and they felt like they could no longer compete, so they sold to the other company that they knew and thought they would fit in well with, so they sold to Lakeshore.

Another example so we'll talk about West Chicago's municipal contract to Groot connections held the hauling contract for many
07:29:43PM years from 2012 to 2019. It came up to bid there was two companies that bid on it west connections and Lakeshore. Lakeshore's bid was based on the anticipation of getting the facility permit, having a transfer station close where they could compete, so they, again, threw their -- threw their name in a hat for the bid. In the end, it forced Waste Connections to make concessions, lower their pricing, Waste Connections was in fact, awarded the contract,
07:30:22PM so they are still the hauler in West Chicago. To be clear, the pricing that Waste Connections -- the pricing that West Chicago

received was lower than the previous contract. Over a five-year period, the cost went down by $1.7 million. That is $300 of savings to every resident -- not every person, every single family unit in West Chicago. So $300, over that five-year span, of savings, they got increased benefits for a variety of items that are all listed here. So, again, because Lakeshore had the anticipation of this, they bid on it, and
07:31:19PM that was the result. When this contract comes up for bid again in a few years and if Lakeshore does not have this facility and is unable to bid it, you can ask the question yourself, what do you think will happen with pricing and services?

Q. So, John, are you saying that just the threat of competition can have the effect of lowering prices for the consumer and, in this case, the citizens of West Chicago?

MR. LEUTKEHANS: Objection; foundation.

07:31:59PM HEARING OFFICER PRICE: Overruled.

You can answer.

BY THE WITNESS:

A. In this case, it certainly appears so. So the same situation for West Chicago happened with Lisle, Wheaton, and St. Charles. Again, all of the details or information is in the application. Those communities all saw cost decreases in the contract that Lakeshore bid. And, again -- I'll say it again -- it's the same bullet, if Lakeshore is unable to get approval for this facility, their ability to compete on a long-term basis in this service area is significantly diminished and may disappear.

07:32:46PM

One more time to kind of drive home the point, so this slide has a table that compares our service area to suburban Cook County. So suburban Cook County -- I'll say it the other way. So our service area is about 45 percent smaller in area in suburban Cook County and the population is about 43 percent less. So it's essentially the same population density in our service area as the suburban Cook County area, since they are both proportionately

07:33:39PM

lower -- it's about the same population density. Suburban Cook County -- Well, our service area compared to suburban Cook County, we have less than 10 percent of the transfer stations they need. Suburban Cook County, being a little -- about twice our size, has ten times as many transfer stations as the service area. It's just another very clear indicator that this service area is significantly underserved and
07:34:26PM all of those transfer stations in suburban Cook County compete, they live, drive, and survive and, again, it helps the price go down and maximize those services.

I mentioned this before, but want to touch on it again. So in addition to the competition and capacity, another important benefit of our proposed facility is we'll provide operational responsibility.

I'm going to talk about the
07:35:01PM operations now again that those limited hours at the Batavia Transfer Station have caused us to use stockpiles in the middle, which seems to

pick up, which obviously causes extra driving, extra mileage, extra wear and tear on roads, and we are familiar with examples where transfer stations will remain open with their own internal collection trucks, meaning from the same company, but they will shut off trucks from other companies. Again, it's a pretty key advantage that they give themselves. And West DuPage Recycling and Transfer Station would have
07:35:48PM longer hours, so if there are other haulers out there that need that flexibility.

I'm going to now come back to hydro-excavation waste. While there's municipal solid waste, there's also a bunch of information about what transfer stations are for hydro-excavation waste. There are very few facilities out there that can manage them. The only one we know of within our service area or close to it is the Woodridge Greene Valley
07:36:31PM Wastewater Treatment Plant. As you can imagine, it's in Woodridge. The only other facility within 10 miles of the area is Lakeshore's

facility in Forest View, where we currently manage hydro-excavation waste with the exact same way we're proposing at this facility.

In terms of the Woodridge Greene Valley Wastewater Plant, I actually toured it myself, and the materials they take are primarily storm sewer caps from Woodridge, the Naperville folks go in there, so that's what they take. They close at 3:00 o'clock. And it really is just a facility that can only manage limited volumes, so they, really, are not equipped to handle a substantive amount of hydro-excavation waste.

07:37:18PM

We talked extensively with a company called Badger Daylighting. Badger Daylighting is a company, like a client or a customer of Lakeshore, and they do take waste -- hydro-excavation waste into the facility at Forest View. They are, by all appearances, the largest service supplier of hydrovac trucks in the Chicagoland area. They have a fleet around 50 of these vehicles that are staged to run them

07:37:56PM

and they are in multiple locations and they do that to try to minimize driving as they service those locations.

Again, they routinely use the facility in Forest View, and they told us they do not use the facility at Woodridge at all, primarily because of the limited operating hours. In terms of hydro-excavation waste, the demand is only increasing over time. We talked 07:38:44PM to the folks at the Underground Contractors Association and they provided a letter of support for this facility because they have seen the need for this service in the amount of waste being generated growing. Actually, they used the word growing exponentially, there's an increase in demand. Badger Excavation -- I'm sorry -- Badger Daylighting said the same thing. They are a growing company. They actually mentioned they added several trucks in the last 07:39:16PM couple of years and other customers that use the facility in Forest View, include the major utility companies like Com Ed and Nicor. They

have also said the same thing. Those companies are now mandating if there's any excavation or digs around their utilities, they mandate the hydro-excavation technique be used.

So Badger Daylighting was actually very transparent with their operations. They talked about -- They were very excited about having a facility in West Chicago, mainly because of the transportation. Again, they provide services all over northern Illinois. They actually went so far to say about 40 percent of their work is located much more convenient to West Chicago than Forest View. And if the West Chicago facility was approved, they would save about two hours of drive time per truck per day. So that's two more hours they can be providing services, instead of driving, and would result in significant cost savings because a lot of work for utility companies, those cost savings would very likely be passed onto utility companies, which should be able to be passed down to the taxpayers.

07:40:05PM
07:40:42PM

Those transportation efficiencies can be applied to Benefit No. 4, which was a reduction of environmental impacts. Trucks running around, obviously, have wear and tear on roads, they consume fuel, and fuel results in air emissions. So we just made some very conservative estimates that if this facility was approved, it would reduce truck miles by about 800,000 miles per year. 800,000 truck miles
07:41:32PM would be lessened. Over a 20-year span, that's over 16 million truck miles that would be saved or would not occur. That results in about 4.6 million gallons of diesel fuel that would not be burned and a reduction of carbon dioxide emissions of over 102 million pounds. Again, all of this, the transportation business, the results are pretty staggering. There's improvements in environmental impacts.

Q. John, are all of these calculations
07:42:12PM regarding environmental impacts and savings in the application?

A. They are.

Q. Thank you.

A. I'm going to move on and talk about another trend in the Waste Management system, which is challenges in recycling. So recycling has been going on for, obviously, a number of decades now, construction and demolition debris, landscape waste, things of that nature, are. Predominantly recycling materials, in addition to the recyclables we all separate. You have probably read or heard about challenges in commodity markets, in terms of being able to economically reuse materials. You probably heard about a lot of recycled materials were sent over to foreign countries and they are starting to be rejected or what they call contamination were basically nonrecyclable material mixed in with the recyclables and it's too much so that material can no longer be recycled.

07:42:54PM

07:43:25PM

The other thing that's happened is we have -- in terms of materials that are recycled, we pretty much got the low hanging

fruit. We got the things that are easier to recycle. We try to continue to improve the recycling number and it's just harder and harder to do. And counties are really the entities that are responsible for trying to implement the recycling plants and hit these recycling goals that Illinois has established.

Each county has a solid waste plant. If you go to the plant for DuPage
07:44:01PM County, they will talk about the same thing we all know, that there's been significant changes in the last decade with volatile markets, contamination issues with the shared end users were causing challenges. They emphasize the C&D recycling is still an important option to reduce landfill waste and we talked about how electronic products, e-waste, are now banished from landfills so they need some options for those materials for recycling.

07:44:38PM The Kane County waste station has recognized it similarly. They actually talk about how the residential suburban Lake and Kane

County has actually been slowly declining from 2015 to 2019. They, again, also talks about the importance of diverted construction debris and they made two points that I just need to read because they hit on exactly what we're talking about here, that the waste needs what competition for both waste transfer and landfilling and, as I have said, that is the greatest need. And the competition will control
07:45:17PM price increases and also maintain a high-quality service in both the residential and commercial setting. Kane County, in their plan, said the exact same thing we're talking about here.

The benefit to our facility is it will facilitate. Again, we -- our facility recycles construction and demolition debris to date. There's ongoing challenges of doing that and having these other operations will basically bring more revenue to the facility, actually,
07:46:02PM more investment in equipment and machinery to continue to do that as effectively as possible. We will have the courtesy drop-off up front for

electronic waste and there are not enough of those facilities. We will have the drop off for residential recyclables -- this is really important -- for the multiunit -- multiunit living quarters or apartments in and around West Chicago, those tend to get underserved. So that is a convenient drop-off where, again, all of this is free, it's open during normal business hours, so it would be convenient for folks, and
07:46:49PM then we would also be transferring single-stream recyclables from our facility to our other Lakeshore facilities. So those efficiencies, again, will help keep costs down and help with recycling as well.

Another benefit, to be clear, with our site is competition will be provided for hauling contracts. There is a host agreement that our facility has with West Chicago, so they will receive a fee, $2.45, for every ton of
07:47:28PM municipal solid waste and hydro-excavation material that's received.

Again, what were proposing is --

we're only proposing 600 max with a capacity of 650 tons a day. To give you a sense, permanent capacity of the DuKane Transfer Station is 3,000 tons per day. Batavia Transfer Station is 1,500 tons per day. So this is really a relatively modest facility. In the long run, again, but what's really important is our ability to compete on a level playing field with these other folks. Between municipal solid
07:48:05PM waste and hydro-excavation waste if there's just 600 tons a day accepted, which means about 450 tons of municipal solid waste and 150 of the hydro excavation, $420,000 a year would go to West Chicago.

We're also giving them historical rates for what's generated, so basically, a very favorable disposal rate. There's also free disposal for up to 2,500 tons of waste per year, so that could be from government buildings or
07:48:48PM such. We're providing -- We will be providing free use of some dumpsters and carts or totes for one-time pickup. So they can basically be

free pickup from special events that are happening around West Chicago.

As I mentioned before, about 125 folks that are employed at the West Chicago facility currently. It will probably add about another 35 jobs if this facility is approved and we would absolutely give preference to the applicants from West Chicago. Again, that courtesy drop-off for the residents of West
07:49:34PM Chicago, along with the e-waste, is another key benefit. It's all in the host agreement. Similarly, there's an agreement with DuPage County that if this facility is approved, they would also receive a host agreement. The key with DuPage County is that 70 percent -- about 70 percent of the waste generated in DuPage County goes to a transfer station outside of DuPage County.

So DuPage County gets a host fee,
07:50:14PM so does West Chicago, from the DuKane Transfer Station. The point is more waste from DuPage County will be managed in DuPage County, and the

host fees that they are just simply not getting, again, because they are missing out on 70 percent of it. They would receive additional host fees. And the same thing, it's all municipal solid waste and hydro excavation, again, those same numbers, they probably get about $100,000 a year. Basically, we as well committed the drop-off area for recyclables for DuPage County.

07:50:54PM And the other one is that DuPage County will run the hazardous waste collection programs, the rents that they get, and they need a location to have a host fee agreement. And we have a very large property and we have a lot of paved area. So we wouldn't be doing anything with waste ourselves but we would basically host the event on our property so people could bring in their household waste. It would -- DuPage County would have a company right there that 07:51:32PM would collect it, pack it up, and take it with them. That's DuPage County was actually very excited that we would be willing to do that.

Now we're on to the summary portion of the program. So, again, just hitting the highlights, in terms of benefits of this proposed facility, it would increase competition, we would able transfer actually in the service area, which has been clearly recognized, help control prices, and maintain high-quality level of service.

Our proposed facility would provide
07:52:15PM additional operational possibilities. We would provide a necessary and conveniently located facility to manage hydro-excavation waste with the result of significant transportation efficiencies. Those transportation efficiencies would reduce the environmental impact to the City of West Chicago and thereby decreasing the traveling distance of municipal solid waste and hydro-excavation collection vehicles, it would facilitate recycling by having service offerings
07:52:50PM and allowing additional investments in our infrastructure and operational improvements. We would provide direct benefits to the City of

West Chicago, as detailed in the host community benefit agreement. The facility would provide benefits to DuPage County, as detailed in the secondary host community benefit agreement. And, again, as I pointed out before, the waste and service area is expected to grow over time, so all of these benefits will only become more important.

Q. So, Mr. Hock, based upon your review of the facts and your presentation, do you have an opinion, based upon a reasonable degree of scientific and engineering certainty, as to whether or not the West DuPage Transfer and Recycling Station is necessary for the waste needs of the area it is intended to serve?

07:53:29PM

A. I do.

Q. What is that opinion, sir?

A. It is my professional opinion that the West DuPage Recycling and Transfer Station meets the requirements of Criterion 1, and it is necessary to accommodate the waste needs of the area it is intended to serve.

07:54:00PM

MR. MUELLER: Thank you. We have no further questions.

HEARING OFFICER PRICE: Thank you. Mr. Hock, we're going to give our court reporter, Ms. Landolina, a break here. We can take ten minutes. We'll reconvene at five after 8:00.

The city is up first. Are you ready to go?

07:54:28PM MR. CALLAGHAN: I think it's the opposite. Under the ordinance, the city goes last.

HEARING OFFICER PRICE: So then Protect West Chicago, you're going to be up first, followed by Mr. DeLaRosa, and then the city. And then Mr. Walsh is part of the city.

All right. We'll take a break. Five after 8:00 o'clock we'll start again

(A short break was had.)

08:07:35PM HEARING OFFICER PRICE: Let's reconvene. First will be Mr. Leutkehans for West Chicago.

Mr. Leutkehans, whenever you're ready.

CROSS-EXAMINATION

BY MR. LEUTKEHANS:

Q. Good evening, Mr. Hock. We're going to start with what has been listed as Exhibit 2, I think, your prefiling -- your affidavit, which is Appendix 2-J.

So you served the pre-filing notice
08:08:27PM in accordance with your affidavit in Appendix 2-J, correct?

A. Yes.

Q. Before determining who and where to send the brief out -- In other words, how did you actually determine what the authentic tax records were?

A. So for DuPage County there is a website that we went to, and you can look up the tax records of all of the -- excuse me -- all of
08:08:58PM the various property owners.

Q. You went to the DuPage ArcGIS website; is that what you went to?

A. Yes. I believe in the affidavit there is a reference to the website.

Q. You just say GIS, you don't say what it is. There is no link. So we're just kind of guessing and trying to understand it.

So is that what you call -- If I go to DuPage County and look at their ArcGIS website, that's what it is; is that correct?

A. I believe that's correct.

08:09:29PM Q. You did that for all of the properties that were within 250 feet?

A. Yeah. We, actually, went out to 400 feet.

Q. So you look on the DuPage County ArcGIS website. Does it actually give you any information for the railroads?

A. In terms of addresses, it did not. It provided owners.

Q. Where did you determine what address

08:10:07PM that the entity should be served at?

MR. MUELLER: Mr. Price, this is beyond the scope.

MR. LEUTKEHANS: Sometime I have to ask about this affidavit.

HEARING OFFICER PRICE: We did set the groundwork, Mr. Mueller, for the basis of the application, the facility, were the part of this testimony, and the document was put in at the beginning. So I'm going to allow Mr. Leutkehans a little freedom here to keep going.

Overruled.

08:10:36PM BY MR. LEUTKEHANS:

Q. What did you do to determine the proper entities to receive notice? How did you do that?

A. Now you're speaking specifically to the railroads?

Q. No. All of them first. Let's start with all of them.

A. So we went to the website to determine the owners of the properties.

08:10:53PM Q. Okay.

A. And for most of them, it had the addresses. There were -- So for, like, the

general assembly and folks like that, we went to a different website that listed those folks.

Q. I'm going to interrupt you, because I'm not going ask you about the general assembly people. I won't waste your time. I'm just talking about the property owners. I apologize if you misunderstood.

A. Understood.

Q. So if you can tell me how you did it for the property owners? How do you determine what entities to serve?

08:11:21PM

A. So, again, for all of them other than the railroads, my recollection is that -- that there were addresses provided.

Q. Okay. So that is the only information -- The only place you went to determine was non-railroad addresses; is that correct?

A. There were -- If there was a post office box listed, then we also sent one to a physical address as well.

08:11:47PM

Q. So if there was no post office box

address, you just used the ArcGIS website, correct?

A. Yes.

Q. Okay. And you said that -- your affidavit says this is the, quote, computer equivalent of information available on hard copies and plat books and section maps, correct?

A. Yes.

Q. How did you make that determination?

08:12:14PM A. Well, the -- So we have a survey group in our office that does this type of work regularly and I talked with them and what -- what was a manual effort of going to courthouses and looking at -- looking at hard copy records, it's my understanding that the current standard of care is that you can use these electronic websites that provides the same information and that is what is normally done now.

Q. Okay. So you learned that from your

08:12:55PM survey work is what you're saying?

A. Yeah. That's how we have done it in the past and that's how we have --

Q. I'm not trying to be rude. I don't really care about how you did it in the past. I only care about how you did it here.

A. Okay.

Q. Is that how you learned that that was where the computer -- the hard copies affected -- The computer equivalent of information available in hard copies is plat books and section maps; is that what you learned from your survey group?

08:13:25PM

A. I guess I'll also say that my own experience of having done this before that that is an acceptable approach.

Q. Have you ever done this in DuPage County before?

A. I have not been involved in a local siting application in DuPage County in the past.

Q. You're talking generally, you're not talking specifically DuPage County?

08:13:52PM

A. Yes.

Q. When you talk about your prior experience?

A. Yes.

Q. The information, just so I'm clear, available in the plat books and section maps, does that tell you where to send the tax bills?

A. Well, again, my understanding of the intent and our job is to send the notice to the place where the owner of the property and we do it to the same place the tax records are sent.

Q. Okay. So it's -- really your job is to determine -- is to send it to the place where the authentic tax records are sent, correct?

A. Yes.

Q. Okay. Did you cross-check the DuPage County ArcGIS website with any other records?

A. For the properties other than railroads, no.

Q. We'll talk about that -- Okay. Let's talk about the railroads.

What did you do differently for the railroad parcels?

A. So for the railroads, since there was not an address listed, I actually had staff look

at a number of different sources to try to determine the most appropriate address.

Q. What sources?

A. We went to a variety of Internet sources. We made some phone calls to try to get confirmation of the most appropriate address to send those notices.

Q. Who did you call?

A. We started with corporate offices, for
08:15:43PM instance, and I don't recall, as I sit here, but I know we had conversations and they suggested that -- they confirmed that that was an appropriate address.

Q. I'm sorry. You lost me. Who confirmed -- Let's be specific.

You sent one to the Union Pacific, right?

A. We did.

Q. Who at the Union Pacific confirmed
08:16:03PM that was a proper address?

A. As I sit here, I do not recall.

Q. Would that be the same answer for the

Canadian National you served?

A. Yes.

Q. Would that be the same address for the Chicago specific -- Chicago Central and Pacific railroads you sited?

A. Yes. That was -- That was, actually, an attempt to be overconservative. We did not have any information that indicated that they have a railroad within the 400-foot setback but 08:16:39PM there was information that they had railroads in DuPage County. So we just wanted to be conservative and make sure we didn't miss anybody.

Q. There are six railroads in DuPage County, aren't there? Do you know?

A. As I sit here, I do not.

Q. Okay. We'll get to that. I promise you.

So you served Chicago Central 08:17:09PM because you wanted to be overly inclusive. How did you determine that the Canadian National owned -- or that Canadian National was the

proper party to serve, specifically, and where to send that specific notice?

A. Again, my recollection is that -- that that was the owner listed on the website and we called their offices -- and I would have to go back and look at notes to see who we talked to -- and described what we were doing and received confirmation that that was an appropriate address.

08:17:55PM Q. You said the website, you found Canadian National on the website. I think we just decided there are no names on the website for railroads. I thought you just -- Or did I mishear you?

A. My recollection is there was no addresses.

Q. Okay. So you -- Your firm and you made the determination the CN Railroad actually owned one of the parcels with the railroads next

08:18:22PM to the LRS property; is that correct?

A. Yes.

Q. What address did you serve the CN

Railroad at, the Canadian National Railroad at? You can look --

A. I apologize. The first binder stops. So I don't have 2-J in front of me.

Q. Your counsel handed out copies, so I think we all have it here. We don't have that one. Okay. We'll put it on the screen for you.

Would you disagree with me if I told you that the Chicago National Railway was served at United Parcel Express -- UPS express at 935 Rue, R-u-e, De La Gauchetière Quest in Montreal, Quebec, Canada?

08:20:03PM

A. If that's the address that's in the affidavit, that's the address we used.

Q. For the Central -- Chicago Central and Pacific Railroad, would you agree or would you dispute the fact that it was served at the business development at Real Estate -- or N. Real Estate at 1 Administration Road, Concord, Ontario, Canada, via UPS express?

08:20:45PM

A. Again, if that's the address listed on that table and on the information that's

attached to the affidavit, then that is the address we used.

Q. Can you see it from where you are on the monitor? You can stand up.

A. I cannot.

Q. Is that your table from your chart?

A. It is.

Q. That's the table of services where you served, who you served, and what pin number,

08:21:18PM correct?

A. Yes.

Q. So does that confirm that the Chicago Central and Pacific Railroad was served at Business Development North Real Estate, 1 Administration Road in Concord, Ontario, Canada for you?

A. Yes. And that should also match the information that should be in a subsequent appendix that contains the tracking information.

08:21:40PM Q. Yeah, it does. Look at -- And you served the CN, Chicago -- the Canadian National -- That confirms that you served it at

935 Rue De La Gauchetière Quest, Montreal, Quebec, Canada?

A. Yes.

Q. Both of those parcels have the same pin number, correct?

A. As listed on that table, they do. Yes.

Q. That's because you were being overly inclusive and you served two of them for the same property, correct?

08:22:15PM

A. Yes.

Q. And that pin, for the record, is 01-32-506-001, correct?

A. Yes.

Q. So, for the record, you didn't serve the CN, Canadian National Railroad, via personal service, did you?

A. Well, we described it as personal service because we used an overnight delivery service where they bring it in and personally hand it to the folks. So, in our mind, that was personal service.

08:22:38PM

Q. But you also didn't serve -- You also didn't serve the Canadian National Railroad via registered mail return receipt requested, did you?

A. We did not.

Q. You also didn't serve them via certified mail return receipt requested, did you?

A. No. All of the Canadian -- The two Canadian addresses were served via personal service.

Q. The rest were all served via certified mail, correct?

A. Yes.

Q. You can probably have a seat now, if you want.

And you served the Canadian Central the exact same way you served the Canadian National, correct -- the Chicago Central, the way you served the Canadian National, correct?

A. If you're referring to the two Canadian addresses, that is correct.

Q. Are you aware that the City of West Chicago annexed both -- annexed the 01-32-506-001 parcel, we just discussed, into the city back in 2003?

A. I am aware that the zoning map shows that both of those -- that the railroads are in West Chicago.

Q. Okay. So you wouldn't dispute they were annexed in 2003 to the City of West Chicago, would you?

08:24:12PM

A. I don't know when they were annexed.

Q. So you don't disagree with me; you just don't know?

A. I don't -- Correct.

Q. Let me ask you a question. Did you or anyone in your office go to the DuPage County Treasurer's Office to check the tax bills and where they were sent?

A. No.

08:24:28PM

Q. No one in your office called the treasurer's office and asked that question, did they?

A. I did have help putting that list together, so I don't -- I don't know if anybody called.

Q. Okay. Did you -- You didn't see the actual railroad tax bills on the DuPage County Treasurer's website as they related to this pin number, did you?

A. I do not believe so but, again, I had help putting the list together.

08:25:11PM Q. Okay. So you don't know whether the actual tax bill was sent to the EJ&E, do you?

A. I'm sorry. Could you repeat the question?

Q. You don't know whether the actual tax bill was sent to the EJ&E Railroad for that pin, do you?

You don't know one way or the other?

A. Again, the EJ&E Railroad, that was the

08:25:47PM extra one we sent; is that what you're referring to?

Q. No. You sent it to Chicago Central.

The EJ&E did not receive one, at least according to your list.

A. We sent notices to the entities on the list. If it's not on the list, we did not send a notice.

Q. My question, though, was: You don't know whether the actual -- you can't -- You don't disagree or don't know whether the actual tax bill was sent to the EJ&E Railroad, do you, for this particular pin, 01-32-506-001? You don't know one way or another?

08:26:20PM

A. I don't know where tax bills for the EJ&E railroad are sent.

Q. That wasn't my question. My question was: The tax bill for this parcel, 01-32-506-001, you do not know whether or not that tax bill was actually sent to the EJ&E and not the Canadian National, do you?

If you did, you would have sent it to the EJ&E, correct?

08:27:04PM

A. Well, again, that's what we determined, and that's where we sent the

bills -- or sent the notices. I'm sorry.

Q. Okay. So you did not review the actual bills that were sent by the treasurer's office, correct, for this particular pin or any other railroad pin?

A. Well --

Q. As you sit here, you don't know who the actual tax bills were sent to by the treasurer's office, do you, for this particular pin?

08:27:54PM

A. Again, we look for the addresses and we made the phone calls and that's the information that we had, so that's where we sent the notices.

Q. And you didn't go -- You did not or no one in your staff physically went to the DuPage County Clerk's Office either, did you?

A. I don't recall anybody going physically to the clerk's office.

08:28:19PM

Q. You don't recall anyone actually calling the DuPage County Clerk's Office and asking what entity was responsible for that

particular bill for pin 01-32-506-001, do you?

A. As I sit here, I do not recall if someone called or not.

Q. Okay. You didn't -- No one went to the local township assessor's office or called them, did they?

A. I do not recall that specifically, as I sit here.

Q. Okay. And you don't -- You did not call the Illinois State Department of Revenue and ask who was taxed for pin 01-32-506-001 either, did you?

A. Again, I don't recall exactly who we called for each of those.

Q. You didn't personally go to the Illinois Department of Revenue. You know that, correct?

A. I did not.

Q. You don't recall ever pulling the certification of assessments of railroad property for DuPage County from either the state or DuPage County, do you?

A. I do not recall that.

Q. Instead, you served the Canadian National Railroad at an address in Canada via United Parcel Service for pin 01-32-506-001, correct?

A. We did.

Q. And your affidavit does not state that you actually served the EJ&E Railroad at 17641 South Ashland Avenue, Homewood, Illinois, with the pre-filing notice, does it?

08:29:56PM

A. It does not.

Q. That's because you never served the EJ&E Railroad at 17641 South Ashland Avenue in Homewood with the pre-filing notice, did you?

A. We did not.

MR. LEUTKEHANS: Can I have a moment, Mr. Hearing Officer?

HEARING OFFICER PRICE: Yes.

(Discussion off the record.)

08:31:00PM

MR. LEUTKEHANS: Mr. Hearing Officer, at this point -- at this point, I am going to serve on counsel and yourself a motion to

dismiss the complaint for lack of pre-filing -- serving proper parties with pre-filing notice, and attached to that the motion will be certified copies from the County Clerk's Office, the DuPage County Treasurer's Office, which are the authentic tax records of DuPage County, which is who you have to get the tax records from, that the proper notice is to go to the EJ&E Railroad, and that's where the tax bills go, at 17641 South Ashland Avenue, Homewood, Illinois.

08:31:37PM

HEARING OFFICER PRICE: I'll take that under advisement. I'll give the applicant an opportunity to respond. Meanwhile, we'll continue with the hearing.

MR. LEUTKEHANS: If I could just have a second to hand them out.

HEARING OFFICER PRICE: We're not going to decide it here in the next few minutes, Mr. Leutkehans.

08:32:09PM

Do you have other questions?

MR. LEUTKEHANS: Yeah, we do. We're

going to be here a little while. I promise.

HEARING OFFICER PRICE: I don't want to take the time we have for paper. I'm not going to decide it right now.

MR. LEUTKEHANS: I'm just handing them out.

HEARING OFFICER PRICE: But you're not asking questions, which you could be doing while someone does that.

08:33:09PM BY MR. LEUTKEHANS:

Q. To continue, regarding Criterion 1, you're not saying, are you, that there is not enough capacity in the proposed service area to support the amount of waste currently being generated in the service area, are you?

A. I believe that that is correct. If I understood your question correctly, we do acknowledge that if you look at the permitted capacity of the two other transfer stations in

08:33:42PM the service area, that they add up to about 4,500 tons per day.

Q. Actually -- Okay. The amount of --

Let me ask this question: Have you looked at the fact that other transfer stations actually service the service area, other than just those two?

A. We did not look at the permitted capacities. But, again, we acknowledge that waste from within the service area is leaving the service area and going to transfer stations outside the service area.

08:34:23PM Q. But there are also transfer stations that include your service area and part of their service area, correct, even though they are not located in it?

Let me back up. Service areas overlap, even if you're not in it, right? I mean, your service area overlaps with Bluff City's service area, for example, correct?

A. I don't know what Bluff City's service area is.

08:35:02PM Q. So you haven't look at that?

A. No.

Q. You don't know that, approximately,

over 6,500 tons of capacity exist in your service area from transfer stations serving your service area?

A. We did not add up the capacity of transfer stations outside our service area. Again, we acknowledge that the waste outside our service area is going to those transfer stations.

Q. Many of which include DuPage County or other parts of your service area as part of their service area, correct?

08:35:37PM

A. They could, sure.

Q. And the Groot facility down the street is permitted for 3,000 tons per day of municipal solid waste; is that right?

A. Yes.

Q. The report stated the Groot facility is only utilizing, approximately, 1,000 of those 3,000 tons per day capacity; is that correct?

08:36:04PM

A. Yes.

Q. You're not aware of any overflow of waste on the tipping floor at the Groot facility

within the operation, are you?

A. I wouldn't know.

Q. You also have never seen the Groot facility cutting off trucks waiting in line at the end of the day, have you?

A. No. Again, I wouldn't know.

Q. Okay. But you don't have any evidence of that, either personally or any -- you don't have any anecdotal evidence of that occurring either, correct?

08:36:34PM

A. No, not at the Groot transfer station.

Q. Okay. And you also have never seen trucks or been told that trucks at the end of the day not being allowed to dump their load because the Groot facility was closed, have you?

A. I have not.

Q. In fact, you have submitted no evidence whatsoever in your report that the Groot facility or any other facility serving your proposed service area is proposed to have overflow waste on the tipping floor at the beginning of the operations, do you?

08:37:01PM

A. No. I don't think we said anything about that.

Q. Okay. Your report doesn't mention anything of -- about waste transfer stations in your service area or serving your service area that are operating beyond operational capacity, does it?

A. No.

Q. Is your group putting over in your needs analysis of about 600 to 650 tons a day a proposed cap on the out throughput or is it more of a current estimate?

A. It's proposed as a maximum capacity or a cap.

Q. Do you present in your application a request for a cap of 650 tons per day?

A. Well, I guess I thought it was pretty clearly stated that -- you know, the amount we're proposing in a breakdown by the type of material we're planning to accept.

Q. So you have no problem with West Chicago putting that cap on it is what you're

saying?

A. No.

Q. You were the engineer on the ERGS Will County facility that's cited in here, correct?

A. Yes.

Q. The original capacity approved at the siting hearing for that ERGS facility was how much per day?

A. Could you clarify your question?

08:38:38PM Q. Yes. The original daily capacity approved at the original siting hearing -- by Rockdale, right?

A. It was Rockdale.

Q. What was the capacity approved at that siting hearing?

A. I don't recall the exact number as I sit here, but my recollection is that there was an amount that was approved and then there was an additional amount that could be approved at a

08:39:10PM later date by Rockdale.

Q. Would those amounts be 300 tons originally approved and 600 tons approved --

that it could be added up to 600 at some later date?

A. I'm not arguing that those numbers are incorrect.

Q. At some point, then, the EPA had modified that capacity to 1,080 tons a day a couple years later, correct?

A. I don't know.

Q. You don't know that it didn't happen.

08:39:46PM Do you recall at all that the EPA, a few years later, increased the capacity and the permit for that? Were you involved in that?

A. I was aware of it, but I was not involved with it.

Q. Okay. So you're aware it did happen, you just don't know the exact tonnage?

A. When I say -- You know, the waste business is a small industry, and so I did hear of it; but I was not involved and didn't see the

08:40:10PM decision or anything like that.

Q. So you're not aware that both the IEPA and ERDS took the position in the siting hearing

that it was not necessary, even though the daily Groot amount went from 300 or 600 to 1,080 tons per day again; you're not aware of that?

A. Again, I was generally aware but I didn't see the numbers and I didn't see the decision.

Q. Okay. And you're aware that the public never had the opportunity to have a siting hearing from the increase from 600 tons per day to 1080, correct?

08:40:42PM

A. Again, I wasn't involved with the process, so I don't know exactly what occurred or didn't occur.

Q. But you know there was no second siting hearing, correct? You remember that?

A. I do understand that there was not a second siting hearing.

Q. Okay. And without a second siting hearing, there's no public hearing to determine whether the increased traffic or increased pollution is problematic to the public, correct? Would you agree with me?

08:41:05PM

A. I don't know what the IEPA considered to make their decision.

Q. Okay. But you know there was no siting hearing?

A. I'm pretty certain I would have heard of that if it occurred.

Q. Okay. One of the things you make a point of throughout your report and your testimony is that the Groot facility down the
08:41:35PM street is the only transfer waste station in DuPage County, correct?

A. That can accept municipal solid waste?

Q. Yes.

A. Then, yes.

Q. Okay. There are only -- There are two current municipal waste -- or MSW transfer stations in the service area, correct, you said that?

A. Yes.

08:41:53PM Q. I'm going to show you what we've marked as PWC Exhibit 151-A.

Mr. Hock, do you recognize PWC

151-A?

(PWC Exhibit No. 151-A marked for identification.)

BY THE WITNESS:

A. Yes.

Q. And this was -- Just for the record, you had presented sections or all of the preliminary applications to the city and APTIM over the years, correct, before this final application?

08:43:23PM

A. We did.

Q. And one of the prior versions of the preliminary application used this as the service area, correct?

A. Yes. This was a draft version, as its noted on the bottom.

Q. Yes. And that draft version included four additional townships in Kane County, correct?

08:43:45PM

A. Yes.

Q. And the -- it included two in Cook County that have now been removed, one where the

Bluff City Transfer Station is, correct?

A. Yes.

Q. And that report -- Your preliminary report you gave to APTIM back in September 2020 was based on a much larger service area, correct?

A. Yes.

Q. The four townships in the original proposed service area in Kane County also

08:44:28PM included the third waste transfer station, which is now the Elburn LRS station, correct?

A. Yes.

Q. Your current service area and proposed service area goes all the way down to Shorewood in Will County, correct?

A. Well, it includes the two townships in Will County.

Q. If you look at your map, it says Shorewood down in the -- farther in the DuPage

08:45:04PM Township? Or do you not know whether Shorewood is in DuPage Township?

A. Shorewood is in Will County and it's

much farther -- it's farther south than the township shown on this map.

Q. Okay. So let's go to DuPage Township. The DuPage Township in Will County, do you know what the travel time is between your proposed facility and that portion of your proposed service area?

A. I'm sorry. Could you ask the question again?

08:45:36PM Q. So that proposed -- That township in Will County, which is part of your proposed service area, which is DuPage Township, do you know the travel time between that part of the proposed service area and the proposed waste transfer station?

A. Well, I mean, the travel times, obviously, are dependent on the time of day and a number of factors --

Q. Would you agree with me that the

08:46:05PM travel time between DuPage Township and the -- sorry -- my eyesight is awful -- and the township where the Bluff City -- the Cook County

Township, where the Bluff City Transfer Station was, that the Bluff City Transfer Station township is much closer to the proposed waste transfer station?

A. If what you're asking is, you know -- I think it's Hanover Township is closer to the proposed facility than DuPage Township in Will County, yes, that's obvious.

Q. Okay. But you cut that township out of your service area, correct?

08:46:44PM

A. Yes.

Q. So your original service area had a total of four other -- had four other waste transfer stations in it, but now you're down to two; is that fair to say?

A. Correct.

Q. Would you agree with me that a waste transfer station does not have to be in your proposed service area to actually serve a part of that service area?

08:47:19PM

A. Yes.

Q. In fact, there are 21 waste transfer

stations, according to a report, within, approximately, 15 miles of the proposed service area, correct?

A. Yes.

Q. Also, do you know -- Isn't it true that there are also 10 waste transfer stations that service your proposed service area?

A. Again, we didn't look at it because we didn't consider that relevant to our argument or demonstration.

08:47:49PM

Q. Would you be surprised if there were 10 transfer stations that service your service area?

A. No.

Q. Only two of them are actually in the service area, though, correct?

A. Yes.

Q. In fact, you believe that the Bluff City Transfer Station accepts waste from the service area, don't you?

08:48:19PM

A. I believe that it does.

Q. It's just a few miles north of the

DuPage County border, correct?

A. Yes.

Q. And it's just a few miles north of your proposed service area, correct?

A. Yes.

Q. In fact, as you said earlier, 21 waste transfer stations are within 15 miles. Those are operated by four different companies, correct?

08:48:41PM A. Yes.

Q. Those companies are Waste Management; Waste Connections, also known as Groot; Republic Services; and LRS?

A. Yes.

Q. In fact, LRS operates 3 of those 21 waste transfer stations in Illinois, correct?

A. I'm sorry. Can you ask that again?

Q. LRS operates 3 of those 21 waste transfer stations that you list as being located

08:49:10PM within 15 miles of the service area, correct?

A. Yes.

Q. That 15 miles was something you

determined was important enough to put in your application, correct?

A. We were trying to portray a fair depiction of what is around the service area. So there's -- I mean, we know that there's some that -- We believe that there's some that do not serve the service area. We've discussed that in the report. So we actually go through the report and describe which ones we believe do and which ones we believe do not.

08:49:47PM

Q. Okay. But that 15 miles you said was a fair -- you thought it was a fair estimate of ones to look at, correct?

A. Again, we just wanted to -- it wasn't as much based on what serves the service area. It's giving a reasonable depiction of the Waste Management system proximate to our service area.

Q. You thought 15 miles was a reasonable depiction, correct?

08:50:10PM

A. Yes.

Q. One of the main basis in your Criterion 1 analysis is a lack of competition

and lack of vertical integration; is that fair to say?

A. There's clearly a lack of competition and it's a lack of vertical integration by companies in the service area, yes.

Q. And would you disagree with me that there are no areas within your proposed service area that are not already in the service area with at least two separate -- separately owned

08:50:44PM waste transfer stations?

A. Could you repeat that again?

Q. Yeah. There's not one area -- not one household in your service area, to your knowledge, that is not currently served by at least two other separately owned waste transfer stations?

A. So certainly Waste Connections and Waste Management are both vertically integrated within the service area. Whether they serve the

08:51:20PM entirety of that service area or whether those transfer stations do, I don't know, but they could be serviced by, you know, other transfer

stations outside. So, yes, I do believe that the entire service area that Waste Management and Waste Connections are vertically integrated in the service area.

Q. I guess that wasn't my question.

A. Oh.

Q. My question is: There is no other -- no area in your proposed service area who is not already served by at least two waste transfer

08:51:53PM stations, correct, to your knowledge?

A. Not to my knowledge.

Q. In fact, some of them -- Would you be surprised if some of those have five or six different waste transfer stations that serve those areas?

A. It's possible. I'd have to look more closely at it. That sounds like a large number.

Q. It be correct, wouldn't it, that no single company has any area in your proposed

08:52:27PM service area that does not compete with another waster transfer station? You don't know of any area, correct, where there is no competition

between waste transfer stations in your service area?

A. I am not. Again, our argument is that there is --

Q. We have all heard your argument. I don't mean to cut you off, but -- Isn't it true that -- You're not saying, are you, that the large haulers are colluding to setting the prices or colluding to ensure that other haulers are not able to use their waste transfer station or compete? There's no collusion going on, is there, to your knowledge?

08:53:03PM

A. We're not accusing anybody of collusion.

Q. In fact, you agree that the federal government, in particular the DOJ, keeps an eye on the waste hauling industry in this area for the purpose of ensuring that no one is obtaining an unfair advantage in this industry, correct?

08:53:25PM

A. I'm aware that collusion is illegal.

Q. And you're aware that the DOJ -- you talked about it before -- made Waste Management

divest certain assets to make sure that there was still competition in the area, correct?

A. After Waste Management and Advanced Disposal merged, they did make the combined companies divest some of their assets in this area.

Q. So the DOJ got involved?

A. Yes.

Q. To ensure competition and ensure -- ensure there was no monopoly, correct?

08:53:56PM

A. Well, they were involved. What they were able to accomplish is, I guess, another question.

Q. But it's clear that that would signify the Department of Justice has not ignored the waste industry of northern Illinois, has it?

A. I don't know what -- I mean, I know the DOJ was involved. Whether it's characterized as ignoring or not ignoring, you know --

08:54:30PM

Q. You spent a couple of pages talking about the Department of Justice's involvement in

your report, correct?

A. We did talk about it.

Q. Yeah. GFL received significant assets or some assets, at least, in that divestiture, correct?

A. They did.

Q. One of those was Zion; is that correct?

A. If you're referring to the Zion landfill, that is correct.

08:55:03PM

Q. And, LRS, do they have an agreement with GFL for that landfill to give them so much of the capacity on an annual basis, to your knowledge?

A. I have a general awareness that there is an agreement between the two companies.

Q. Okay. Just -- Let's be clear. LRS does have vertical integration, correct, just not in your new service area; is that correct?

08:55:31PM

A. They do have vertical integration in other locations.

Q. In fact, LRS has vertical integration

in the original proposed service area that is in PWC Exhibit 151-A, correct?

A. They do in Kane County, which is honestly why we moved it from the original draft because when we -- when we had prepared this originally, Lakeshore did not own those transfer stations.

Q. My question is: LRS has vertical integration in the original proposed service area, correct?

08:56:16PM

A. In portions.

Q. Okay. When you talk about vertical integration in DuPage County, Waste Management doesn't have vertical integration in DuPage County, does it?

A. I think it does.

Q. Do they have a waste transfer station in DuPage County?

A. Let me, actually, clarify my statement. So they, obviously, have the Batavia Transfer Station, which is just outside the DuPage County border with Kane County. So they

08:56:48PM

certainly have some vertical integration in DuPage County.

Q. Okay. But they don't have a -- They don't have a waste transfer station in DuPage County, correct?

A. They do not.

Q. Do you know how much of the DuPage County waste goes to a Waste Management transfer station?

08:57:18PM A. The best way to estimate it would be simply to just look at the population of the communities that they serve and you can come up with an estimate. But if you're asking -- That would be a good way to estimate it.

Q. You don't know that answer as you sit here?

A. No.

Q. In fact, Republic doesn't have vertical integration in your proposed service

08:57:54PM area, does it?

A. I would say it definitely does not.

Q. Despite this lack of vertical

integration in DuPage County that LRS is complaining about in the service area, LRS still has obtained numerous municipal contracts in the service area, correct?

A. They do currently have the contracts that I listed. So, yes, there are municipalities that they currently haul in the service area.

Q. In fact, they have eight of those municipalities that they are servicing directly, correct?

08:58:30PM

A. I'd have to look it back up and add up the number.

Q. Would you disagree that they have eight?

A. I don't know. I just simply have to look back at the same map.

Q. Well, I counted them up in the report -- unless I can't count, which is possible -- and I got eight. It might be seven, might be nine, I might wrong, but about eight sounds about right, correct?

08:58:55PM

A. I'm not disagreeing with you. If that's what we listed in the report, that's correct.

Q. Can you go to Page 1-21 of your application, the LRS application?

A. Sorry. What page?

Q. 1-21. I'm sorry. Tell me when you're there.

A. I'm there.

08:59:37PM Q. I see about the middle of the second full paragraph, The active landfills in regions to and from, 1995 through 2020, are listed on Table 1-6.

Do you see that?

A. Yes.

Q. Can you find Table 1-6 for me?

A. I'm there.

Q. Where is it, because I couldn't find it?

09:00:20PM A. It's in the tables section.

Q. Okay. It's not in the actual section of the report; is that fair to say?

A. It's not in the narrative portion, no. It's behind it.

Q. Okay. Going back to vertical integration, LRS has three transfer stations surrounding the proposed service area, correct?

A. Well, they have the one in Elburn and then they have others in Cook County.

Q. Okay. LRS also has -- they also have two others in Cook County, correct?

09:00:57PM A. Are you referring to Forest View and Maywood?

Q. I'm referring to the two you mentioned -- you had in Cook County in the report. I don't remember the name.

A. Yeah. They actually -- There's two others shown on the map in Cook County. There's one in Northbrook and one in Rolling Meadows. They don't really -- I mean, they don't -- Those four don't take substantive waste from the

09:01:28PM service area. There is some that goes to Maywood.

Q. Are you saying there's five waste

transfer stations between Cook and Kane County currently that LRS has?

A. Yes.

Q. Okay. LRS is not at small player in this industry -- the municipal waste industry, are they?

A. I described them as a midsized company. They are, obviously, much smaller than a large publicly traded company, but they are a substantial company.

09:02:03PM

Q. In fact, they are the largest private waste company in Illinois, aren't they?

A. I wouldn't argue that point.

Q. They are amongst the largest private waste companies in this country; isn't that correct?

A. I would guess they are on the larger size.

Q. Would you disagree with me that during the several years prior to 2021, LRS companies have been newly awarded and transitioned more municipal contracted services than any other

09:02:26PM

waste provider throughout the Chicago and metropolitan area?

A. I don't know.

Q. As of March 2021, would you disagree they held franchise agreements with 35 municipalities?

A. I wouldn't disagree with that.

Q. So even without this fifth waste transfer station or sixth waste transfer station in the area, LRS has still been competitive in the industry, hasn't it? They still get contracts, right?

09:03:08PM

A. They have won contracts.

Q. Most of the Lakeshore recycling and MSW, the municipal solid waste, is now going to -- at least that serve this area, DuPage County and Kane, is going to LRS's own facility in Elburn, isn't it?

A. Yes. I think we, actually, described it in the application. So the communities that are on the far western extent are going to Elburn. Give me just a moment to go to the map.

09:03:46PM

Wheaton is currently going to Batavia and Lisle, the first -- The first round that gets picked up, actually, goes to their transfer station in Maywood, and then the second round goes back to the transfer station in Batavia and for parking again back at the West DuPage facility.

Q. So the determination was made that the trucking costs, I assume, were higher than the
09:04:39PM difference in tipping -- or hauling rate at the Batavia facility for Wheaton waste, that's why it goes to Batavia and not Elburn, correct?

A. I'm sorry. I kind of lost you.

Q. That was an awful question, so I apologize. There's, obviously, a differential in transportation costs between Wheaton to Elburn versus Wheaton to Batavia, correct?

A. Yes.

Q. You have to say yes. She can't take
09:05:09PM down a nod.

LRS isn't in the business of having to pay more to haul waste and have it collected

by someone else or given to someone else. That's not their goal. Their goal is to do it as cheaply as possible, correct, it's every company's goal?

A. Sure. Just to be clear, price is obviously an important factor. There are some operational considerations that go into that calculus as to where they send waste and why, but cost is certainly a major factor.

09:05:47PM Q. Those calculations are nowhere in your report that you just mentioned?

A. Well, they are not because what happens today may not be the situation tomorrow.

Q. Okay. But today -- All we have is today, right? We have today. We have yesterday. I agree we don't know tomorrow.

But today's calculations of fees that you have to pay to the transportation -- to the transfer stations that LRS does not own

09:06:16PM versus the transportation costs, that calculation is nowhere in the report, is it?

A. No. What we provide is, for instance,

an affidavit from a Lakeshore representative that confirms that the information in here is accurate.

Q. We don't know the actual -- We have no breakdown of the costs there, correct? We can't do that calculations with the information we have here in front of us, correct?

A. The calculations aren't in here because they are, again, a business decision

09:06:56PM that's based on a lot of different factors; although, I agree with you, they are trying to do what is most economical. That's the whole point of this whole discussion is that the pricing that they have received has caused them to do things that aren't the most efficient.

Q. The desire for this transfer station is also a business decision, correct?

A. Yes.

Q. Okay. So you're not an economist, are

09:07:26PM you?

A. I am not.

Q. Nowhere in your report does it

actually provide any data or dollar amounts as to what, if any, dollar savings the customer is going to obtain by the addition of this new waste transfer station down the street from the current facility, does it?

A. When you say "customer," do you mean a municipality?

Q. Either one. Pick one. It's not in there for either one, is it?

09:07:55PM A. Again, these are determinations made on a number of factors. That's why we provided all of the examples of things that have occurred and made the point of, yes, they need to be fully vertically integrated if they are going to be able to be efficient going forward and hopefully they continue to provide these benefits.

Q. You have given us a lot of examples. No doubt about it. What I don't see in here

09:08:28PM anywhere is data. Am I missing it?

A. No. That's why we demonstrated what's going on today.

Q. Anecdotally. Okay. At no point in this entire report does anyone try to do an actual economic dollar and cents analysis of the effect of this, quote, increased competition, does it?

A. No. You're going into the future, which is difficult to predict, other than it clearly positions them much better to continue to compete. Now, to be able to predict how they might bid on a contract or how anybody else might bid on a contract, you know, a year or two years from now is not -- it's not something that can be done.

09:09:09PM

Q. Are you telling me Lakeshore Recycling hasn't done any projections as to the change in costs based on a new waste transfer station, they are going to spend all this money and they have never done that projection?

A. The problem is we don't know the comparative costs. So they do know what they would spend to build this facility and my belief is that if they could avoid spending millions of

09:09:33PM

dollars to do this, they would. But the problem is that others have control of major cost items that could be driven so high that, again, they are not able to compete on a fair level.

Q. I know. You keep saying that, but I still haven't seen any data on this competition. That's what I'm trying to get into.

Is their data -- I assume they had projections. They had assumptions, like we all do when we do projections. They are not dumb. They are smarter than I am. And nowhere in this report does it have those assumptions and those projections of savings to the consumer, to the municipality, does it, correct, in dollars and cents?

09:10:13PM

MR. MUELLER: Asked and answered.

HEARING OFFICER PRICE: You can answer.

BY THE WITNESS:

A. No. Because I don't think it would be reasonably possible to provide.

09:10:37PM

Q. Okay. Another thing you talk about in your report on Page 1-32, the electronics

products recycling and reuse act.

Do you recall that? Do you recall talking about the fact you're going to have electronic recycling?

A. Yes.

Q. The page number, I just gave it to you. I don't think it matters much.

Down the street, Groot provides free electronic disposal, doesn't it?

09:11:09PM A. I don't what exact services they provide for electronic waste.

Q. Okay. And nothing in your report says the Groot facility is somehow at capacity as it relates to electronic disposal, does it?

A. I'm sorry. Could you ask that again.

Q. Nowhere in your report does it state that the Groot facility is somehow at capacity as it relates to electronic disposal, does it?

A. No.

09:11:33PM Q. Let's go to Section 1.71 of your report. I think it's titled "Increased Competition and Transfer Capacity," Page 1-38.

A. I'm sorry. 1-30?
Q. 38. I'm sorry. That section talks about -- Strike that.
You mentioned it earlier in your report, and I think you mentioned earlier for George Strom, which is actually attached to Appendix 1-B2.
Do you recall that letter?
A. Yes.
09:12:22PM Q. In fact, Mr. Strom is now vice president of Lakeshore Recycling, correct?
A. Yes. Again, they sold to Lakeshore, and George stayed on.
Q. In fact, he has been going to political fundraisers in DuPage and Kane over the last year or so on behalf of LRS, correct?
A. I don't know what George does day in and day out.
Q. Okay. You state in your report that,
09:12:44PM quote, A key reason Roy Strom sold to LRS is the exact reason discussed above: Diminishing ability to compete in the market, due to rising

disposal costs caused by a lack of competition.
Do you recall that?
A. Yes.
Q. In fact, however, in his letter, Mr. Strom actually says, doesn't he, that, quote, The biggest challenge to Greenwood Transfer in the longer term would have been the reduced options for the competitive price at the landfill. Isn't that what he says?
09:13:35PM A. I'm just trying to find where you're reading from.
Q. Do you have the letter?
A. I do now.
Q. He said -- I think it's the second page, if I remember correct, towards the bottom.
He says, quote, The biggest challenge for Greenwood Transfer in the longer term would have been the reduced options for a competitive price at the landfill, end quote.
09:13:55PM Do you see that?
A. Yes.
Q. Okay. He doesn't say that the biggest

challenge was a lack of independent waste transfer stations, does he?

A. Well, the point is it was the same concept. I mean, Strom has a transfer station in Maywood. They have control of their own pricing there. What they didn't have control of was the pricing at the landfills.

Q. We're not trying to site a landfill. We're trying to site a waste transfer station.

09:14:34PM So I'm asking the question: Did he say anything in that letter about a problem with competition in the waste transfer station industry?

A. Well, in the last sentence he says, To be more specific as to why this should be approved is it will increase the disposal competition in the DuPage County market, which will drive disposal prices down and allow for lower prices to communities and business and

09:14:59PM bring a lifeline to the few nonnational waste haulers that are left.

Q. That's from the LRS vice president,

correct, that sales pitch?

A. That's what the letter says.

Q. Yeah. He's an LRS vice president, correct, when he wrote the letter? It's on LRS letterhead, correct?

A. Well, he is now, since they sold.

Q. At the time he writes the letter, he is an LRS vice president, is he not?

A. He is. And he was writing about why

09:15:31PM the company sold.

Q. And the biggest challenge was the competitive pricing of the landfill is what he says, right? That's what he says, the exact words.

Let's discuss the letters from municipal governments. Okay. And that's attached to Appendix 1-B4. And you provided, I think, four of them; is that right?

Let me know when you're there.

09:16:13PM There's five.

A. There are five letters in Appendix 1-B4.

Q. Right. The first is from the City of Wheaton, correct?
A. Yes.
Q. That's an LRS customer, correct?
A. Yes.
Q. And the next two are from the Village of Forest View and the Village of Hinckley, correct?
A. Yes.
09:16:37PM Q. And neither Forest View or Hinckley is in the service area, is it?
A. No.
Q. In fact Hinckley is in DeKalb, which is on the other side -- which is by the Elburn Transfer Station, correct -- in fact, it's further west, actually, or maybe north -- or south. Sorry.
A. I'd have to look at a map again.
Q. Trust me. Hinckley is south. The
09:17:11PM fourth one you state is a letter of support for approving the local siting and it's a letter from the Village of Lisle.

Do you see that?

A. Yes.

Q. However, this letter never even mentioned the LRS proposed waste station, does it?

A. The point of this letter was simply that Lisle is a community that we see benefits by, you know, including lower prices from Lakeshore bidding on it and, yeah, this is a letter of support of Lakeshore.

09:17:58PM

Q. Of Lakeshore, but not of the transfer station, which is what the report says. It's of Lakeshore, correct?

In fact, the words "transfer station proposed" is not anywhere in the letter, is it?

A. Not this letter.

Q. Okay. But this is the letter you submitted, so I can only go with that. There's a fifth letter from the Village of Atkinson, which you don't mention in your report, but it's attached in this section, correct?

09:18:28PM

A. It is.
Q. For the record, Atkinson is where LRS has its landfill, correct?
A. Yes.
Q. Does LRS paid host fees to Atkinson?
A. Yes.
Q. Atkinson is not anywhere near the service area, correct?
A. No. As I mentioned, it's the location
09:18:56PM where the landfill is located.
Q. It's about 120 to 130 miles from here, correct?
A. Yeah, it's a long way.
Q. In fact, this letter from Atkinson doesn't even mention the words "waste transfer station," does it?
A. No.
Q. Okay. Let's talk about the letters of support from the waste haulers in Appendix 1B-3.
09:19:17PM Were these letters drafted initially by the waste haulers or were they provided by you or LRS to the waste haulers?

A. These were obtained by others, so I don't know the exact process in terms of how -- exactly how this letter was obtained.

Q. Do you know that 9 of the 11 letters say that LRS should be commended for trying to get this waste transfer station, they used the word "commended"?

A. I do see that word and -- in most of these.

09:20:26PM Q. For your citizen's correspondence in Appendix 1B-6, have you heard it said from anybody at the City of West Chicago or anybody at LRS that the citizen's letters or e-mails that went in didn't mean a lot to the City of West Chicago because they were all form e-mails? Did you ever hear anybody talk about that?

A. Well, it is a form letter.

Q. I'm not talking about this letter. The e-mails -- You heard a bunch of e-mails went

09:20:59PM to the city council at West Chicago regarding this project, correct?

You never heard that?

A. We weren't -- We weren't involved with that.

Q. Okay. But you are aware that each one of these letters is a form letter people just sign and -- there's nothing different about any of these 113 letters than the others, other than the name and address, correct?

A. Correct, they are a form letter.

Q. Okay. Do you know that only three of these people actually live in the City of West Chicago of those 113?

09:21:30PM

A. I don't. I don't know that -- I don't know that it matters, but ...

Q. One of them is actually Mesa, Arizona. Did you see that?

A. I'm not arguing that it's not there. If you point me to it.

Q. You're not arguing that it's also part of your service area, correct, Mesa?

09:22:06PM

A. Obviously, it's not.

Q. Fair enough. Do you know that eight of the addresses listed are actually the LRS

Powis Road facility?

A. Sure. I mean, there's a number of, you know, people that work who are citizens as well, and if they want to express their support, we weren't going to stop them.

Q. Okay. But there's more people from LRS -- I think it's 1665 Powis Road -- signed letters than residents of West Chicago; is that fair to say?

09:22:42PM Eight is more than three, right?

A. I agree that eight is more than three.

Q. Okay. Beginning on Page 1-42 and on the next page of your report, you mention the fact that Cook County has a greater waste transfer station presence, don't you?

A. Yes.

Q. As part of your presentation?

A. Yeah. Again, it's -- We were talking about suburban Cook County.

09:23:06PM Q. Yeah, suburban Cook County. How many waste transfer stations are there in the City of Chicago?

A. I don't know exactly.
Q. Do you know if you included those from the City of Chicago, whether Cook County's dispersion rate or whatever population numbers would be similar to DuPage County or your service area, as far as transfer stations -- number of transfer stations per population? You don't know that calculation, do you?
A. No. I guess -- We were trying to pick
09:23:45PM an area of similar population density. And, obviously, as you get into the City of Chicago, it's a different population density and it becomes -- it becomes different enough because we were trying to come up with a similar analogy.
Q. Let's be honest, a lot of these transfer stations serve City of Chicago, correct? A lot of these suburban transfer stations, they get waste from the City of
09:24:13PM Chicago?
A. I'm sure some number of them do.
Q. In fact, LRS has a contract with the

City of Chicago, right?

A. They do.

Q. Do they take that waste to their own transfer station, do you know?

A. I mean, they have multiple facilities in Chicago. So as with the rest of the haulers, I'm sure that their preference is to take it to their own transfer stations.

Q. Okay. You don't consider the density in suburban Cook County to be similar to that in Aurora Township, do you?

09:24:45PM

A. Aurora Township -- Which one are you referring to?

Q. That's the one in the bottom left of your service area, southwest corner.

A. Oh, yeah. Of course there's going to be differences in population density across the township to the service area. Again, the point was to just try and provide a similar analogy that DuPage County is underserved.

09:25:27PM

Q. Even though it's served by at least ten transfer stations. Okay.

Do any of these suburban towns in Cook County have two waste transfer stations in them?

A. I believe that Cook does.

Q. Other than in Cook, all these other waste transfer stations, there's only one, correct, in each suburban county?

A. Yeah. I mean, the location of the closest of the two are the one you mentioned before, the one in Rockdale that's just down the street from the Waste Management facility.

09:26:04PM

Q. Your report does not provide any actual economic data, as it's shown, that the greater density of waste transfer stations has provided any cost savings to the customer, does it?

A. It's not. I'm not sure that that would even be possible to calculate. Again, the simple point was: There's areas of similar population density that have a hole -- a dramatically greater number of transfer stations.

09:26:32PM

Q. Your point is competition. That's the ultimate -- I mean, your needs analysis is based on additional competition, correct?

A. That is one of the key benefits.

Q. Okay. If the public were to come in down the street from you -- The Lakeshore facility is permanent. And you're the Groot facility, and Republic was to come in another quarter of a mile away, they would also be creating competition, would they not? 09:27:15PM

A. They would.

Q. Okay.

A. Because they backed out of the area when they did an asset swap with Groot a while back.

Q. But that would create -- Any new transfer station creates competition; isn't that fair to say?

A. It would certainly help. Again, the degree of how much it helps would depend on if and how much that entity is vertically integrated in other factors. 09:27:40PM

Q. But we don't know the degree that this transfer station economically -- from an economic standpoint is going to create that competition. We have no percentage, no dollar amount, no data whatsoever, do we? We just have your anecdotal statements?

A. I think we have more than anecdotal statements. We gave a number of examples of trying to explain our rationale and reasons, but

09:28:15PM to put a dollar amount to it is, I think, impossible to put together.

Q. I think that's what economists do on a daily basis.

Your report talks about additional recycling and additional hydro-waste the facility is going to take in, correct?

A. Yes.

Q. I apologize. I don't know this answer.

09:28:34PM Can LRS transfer hydro-waste excavation without increasing its municipal waste number?

A. I'm sorry. Can you ask that again.
Q. Can LRS transfer hydro-waste excavation without a siting plan?
A. No. Let me maybe clarify. To start that operation at a facility, we have clarified this with the IEPA, but they consider it a pollution control facility. So for a facility to do it, they would need local siting. Again, assuming it's not in the City of Chicago and all
09:29:11PM the rest of the applicable rules.
Q. But you don't know need hydro-waste excavation to do a municipal waste -- MSW station, those are two separate things?
A. They are separate operations.
Q. And LRS can provide recycling at the Powis Road site, even without the need for permitting use at the facility, correct, they can do that today?
A. Recyclables, in general, are not
09:29:38PM subject to local siting.
Q. So they could say we're going to build a larger recycling center today without having

to go get a site -- without a siting hearing, correct?

A. They could. For a variety of reasons, it wouldn't make economical sense.

Q. Okay. But they wouldn't need a siting hearing, correct?

A. You are correct, you don't need a local siting hearing to receive recyclables.

Q. On Page 1-48 of your report it says, quote, "As evidenced by letters in support of multiple other haulers servicing the service area, the West DuPage RTS is anticipated to be used by other haulers providing services to the service area."

Did I read that correctly?

A. Yes.

Q. However, when I look at the letters in Appendix 1-B3, none of those waste hauler letters actually say they are planning or even consider using this facility, do they?

A. What the letters all talk about is the importance of having alternatives in creating

competition, which is what we're talking about, that people are looking for alternatives and recognizing that they would like options.

Q. Some of these haulers are nowhere near the service area, are they?

A. Well, again, they might not be today, but they might have an opportunity to compete in the market tomorrow if there was an option for them.

09:31:42PM Q. So the answer is yes. Okay.

On Page 1-49 of your report, I think it says that the LRS waste transfer station will reduce the emissions and carbon footprint in the area.

Do you see that?

A. I'm sorry. What page?

Q. I think it was 1-49. Let me make sure I didn't cite that wrong.

A. I'm to the section. If you can ask

09:32:24PM the question again.

Q. I think it's, like, 1-48 to 1-49, if I remember correctly. You say -- Yeah. Reduce --

the above -- I'm sorry.

You say the above reductions -- It's the last paragraph on 1-48, The above reductions in truck miles will save fuel and reduce wear on roads.

Do you see that?

A. Yes.

Q. You're not saying that this will reduce wear on roads in West Chicago, are you? You're saying a more general area?

09:33:13PM

A. I believe some would be in West Chicago and some would be in other areas, but we don't categorize exactly where.

Q. Okay. Your report does not say that it will reduce emissions and the carbon footprint in the City of West Chicago, does it?

A. Well, I mean, emissions don't have municipal boundaries. Obviously, they will go where they go.

09:33:54PM

Again, this is -- This is associated with trucks that go around and through the area; but exactly where the

reductions would occur is impossible to say.

Q. Your report produces no data that showed the emissions in the City of West Chicago will not be increased by the LRS waste transfer station, does it? I don't see any analysis of emissions before versus after, do I? I didn't miss that anywhere, did I?

A. The specific comparison you're talking about, no. Again, the point is it would be more efficient for the trucks going in and out, they would be driving less miles going around. But, again, we didn't evaluate exactly where the reduced miles or reduced emissions would occur.

09:34:53PM

Q. So you didn't do that for West Chicago, you didn't do it for Batavia, you didn't do it for St. Charles, correct?

A. No, we did not do it for particular areas.

Q. Okay. Including Aurora, correct?

09:35:18PM

A. Again, we didn't do it for any particular area.

Q. How many transfer stations and/or

landfills have you been the principal engineer on that have been sited in Illinois?

A. This is my fourth.

Q. How many of those did you present the needs criteria analysis?

A. All of the other ones.

Q. In those, did you provide the capacity before and after the need of -- in a capacity analysis?

09:36:04PM A. Well, for each one we did look at the amount of waste generated in the service area, again, how it's being managed and -- I'm not clear on your question, I guess.

Q. Did you discuss the shortfall in capacity?

A. Yes.

Q. In August of 2020, Devin provided you, approximately, a 25-page report where he provided his thoughts about how to make the

09:36:36PM facility and your application better, didn't he?

A. I don't remember the length, but if you're referring to a response that APTIM

provided about our draft application, we did receive one. Again, I'm not sure if that's what you're referring to.

Q. I am. And it's about August of 2021; would you disagree with that?

A. Sounds about right.

Q. Did you take his comments as an attempt of good faith to make the application stronger?

09:37:07PM A. Well, in general. I mean, some of them were constructive and helpful, some we disagreed with, but --

Q. But, I mean, did you think it was an attempt at good faith to make it a stronger application, or did you think he was trying to beat it up or something?

I'm trying to understand. Did you see his role as trying to make the application stronger?

09:37:34PM A. Yeah, we took it that way.

Q. You responded to that memo in writing, correct?

A. I don't recall providing a formal response.

Q. Let's hand you what's been marked as PWC Exhibit 23. Showing you what has been marked PWC Exhibit 23.

Do you recognize this document?

(PWC Deposition Exhibit No. 23 marked for identification.)

BY THE WITNESS:

09:38:49PM A. Yes.

Q. Would you agree with me that the things in black were APTIM and the city's comments about your August 2020 draft application or -- given to them, approximately, in that time period?

A. Yes.

Q. The comments in red, those are -- who wrote those?

A. CEC.

09:39:12PM Q. So your office?

A. Correct.

Q. And mostly you, I assume? You kind of

oversaw it or responded to Shaw?

A. Yes.

Q. Would it be fair to say that you and LRS's response on some of the issues was to make changes in the language of the application?

A. Yes.

Q. And some of the comments you decided not to respond to or thought were not worth responding to, correct?

09:39:42PM A. Yes. I mean, we considered some -- We considered them all, and some we made changes, and some we did not.

Q. And a lot of them you disagreed with the comments or stated they were not applicable; isn't that correct?

A. I'm sure those types of comments are in here.

Q. To your knowledge, is any engineer in the State of Illinois ever successfully --

09:40:07PM THE COURT REPORTER: Can you repeat that?

MR. MUELLER: What's the relevance of

that?

MR. LEUTKEHANS: Let me ask the question again so she can get it.

BY MR. LEUTKEHANS:

Q. To your knowledge, has any engineer in the State of Illinois ever successfully sited more pollution control facilities than Mr. Moose?

MR. MUELLER: Objection; relevance.

MR. LEUTKEHANS: The relevance is: Here is an engineer who sited 50 pollution control facilities, who has given his advice and his opinion -- who was hired by the city to give his opinion, and I want to know whether Mr. Hock took it or why he didn't?

09:40:29PM

HEARING OFFICER PRICE: That question is allowable. The other question is not. You can answer the last one.

MR. LEUTKEHANS: I need the first one to get to the second one.

09:40:54PM

HEARING OFFICER PRICE: It doesn't matter if he knows how many Mr. Moose sited. You can ask him if he took the advice from the

engineer hired by the city or not.

MR. LEUTKEHANS: I think it's relevant.

HEARING OFFICER PRICE: Then you can put Mr. Moose on in your case.

MR. LEUTKEHANS: I can't do that. I think it's relevant as to what he knows versus what he decides. It's different to have someone like Mr. Moose give a comment than someone like Phil Leutkehans, who knows close to nothing.

09:41:18PM HEARING OFFICER PRICE: Would you say Mr. Moose was the engineering authority on giving advice? I don't care how many he cited.

THE WITNESS: Yes.

HEARING OFFICER PRICE: Onward.

BY MR. LEUTKEHANS:

Q. I apologize. I'm going to jump around a little. I'm going back to your PowerPoint, and I had some comments on that. Go to Page 25 of your PowerPoint.

09:42:09PM HEARING OFFICER PRICE: Slide 25, Mr. Leutkehans?

MR. LEUTKEHANS: Yeah. The only

numbers on it is the slide numbers. Sorry. There's only 1s and 2s, but 25 is the only one identified.

BY THE WITNESS:

A. I'm looking at Slide 25.

Q. That slide talks about landfills and other landfills in the Chicagoland area, correct?

A. It does.

09:42:30PM Q. There's also landfills just on the other side in Newton, Indiana, correct? Do you have that -- Do you know that?

A. Yes.

Q. These are all landfills, correct?

A. Yes. It actually shows active landfills and it shows closed landfills.

Q. We're not asking to site a landfill, correct?

A. We are not. Again, the point was just

09:42:57PM to talk about trends in the industry, and landfills are an important piece of it.

Q. Let's go to page -- I'll call it

Slide 37, so we're a little clearer. Tell me when you're there, please.

A. I'm there.

Q. On the second bullet point you say, "Based on just the potential development of the West DuPage RTS, LRS submitted a proposal for the residential waste," correct?

A. Yes.

Q. Just based on that proposal and on that -- even with the possibility or the thought you were going to have a waste transfer station here, LRS still didn't get the contract, correct?

09:43:44PM

A. That's correct.

Q. Even with the possibility of vertical integration, correct?

A. That's correct.

Q. Go to the next slide.

A. Just because we're vertically integrated doesn't guarantee us winning certain contracts going forward. It's still a bidding process.

09:44:06PM

Q. Yeah. Vertical integration only does so much, correct, it doesn't guarantee anything?

So let's go to the next one. Examples of benefits, you said -- On Slide 37 and 38, you talked about Groot was awarded the new waste hauling contract and you talked about the fact that the price was lower because of LRS.

Do you recall that?

09:44:37PM A. Yes.

Q. And you said -- I think you said, It appears that that was the reason why the price went lower.

Do you recall that?

A. Yeah. I think I used that word because, you know, Lakeshore participated in the process. This was the result -- you know, it seems obvious that their involvement made Waste Connections sharpen their pencil. But I guess I 09:45:06PM used the word "appears" because I'm not a mind reader.

Q. Correct. You have no idea what's in

Waste Connections' mind, Groot's mind, when they put that in there, right?

A. I'm not a mind reader of Waste Connections.

Q. Okay. Good. The City of St. Charles, at least certain parts of the City of St. Charles, the western edge, is just as close to the Elburn facility as it is the proposed West Chicago facility, correct?

09:45:43PM A. Yes.

Q. In fact, Atkinson is closer to Elburn than it is to the West Chicago facility, correct?

A. Well, yes. I mean, Atkinson is west and Elburn is west. Exact driving distance, relatively speaking, is probably very similar.

Q. Go to Slide 47, please.

A. Okay.

Q. Where in your report can I find the

09:47:03PM backup for the reduced emissions?

A. Are you talking about the reduced emissions column or all of -- Which ones are you

referring to?

Q. They all kind of -- The point of them all is to reduce emissions, correct?

A. Yeah. It's -- There's, I guess, a known or a standard amount of emissions for per gallon of fuel usage.

Q. Is that set forth anywhere in your report?

A. I don't remember if we listed it. It's the same across. And I think it's 20 -- I can quickly calculate the numbers for you, but it's a standard number.

09:47:42PM

Q. Let's go to Slide 51. In the waste transfer stations you cited in Illinois, did any of them not have to pay a host fee to the municipality or the county?

A. One did not. One did not.

Q. Would you agree with me that it's more prevalent for waste transfer stations to pay a host fee than not to pay a host fee?

09:48:40PM

A. Yes. Certainly for newer ones.

Q. You talked about over $420,000 per

year of revenues to the City of West Chicago. That's a gross calculation, not a net calculation, correct?

A. That is, again, simply the 600 tons times the $2.45.

Q. It doesn't take into account any reduction in tipping fees received by the City of West Chicago because the Groot facility is taking in even less capacity, correct?

09:49:18PM A. Correct.

Q. Let's go to the next slide. You mentioned that there are 35 jobs associated with this project?

A. That's what we're estimating.

Q. What jobs? I mean, they are not all in the waste transfer facility, correct?

A. No. Some would be in the transfer facility, some would be spotters and laborers, and some would be drivers.

09:49:55PM Q. You agree with me that the amount of capacity -- the amount of waste coming out of DuPage County and that portion of Kane County is

a closed number, I mean, there's only so much, correct?

A. Well, yeah. I mean, there's a current amount that's being generated. It's going to grow some amount in the future.

Q. The fact that LRS has a transfer station isn't going to increase the capacity or the amount of waste that comes out of that area, correct?

09:50:25PM A. The presence of a transfer station does not impact the amount of waste being generated, if that's what you're asking.

Q. That's a much better way of asking the question.

Again, you don't know whether this is a net job calculation or a gross -- I mean, this is a gross calculation of jobs. It doesn't take into account how many jobs may be lost due to this additional transfer station, correct?

09:51:01PM A. We couldn't know that.

Q. Okay. I'm right, though, right? It's not a net calculation again?

A. No. We're not estimating what is going on in the rest of the waste hauling world.

Q. Let's go to the next slide, 53. How many spotters -- We talked about jobs. How many of those jobs are spotters, do you know?

A. The way we have the facility laid out, we probably have three spotters out there.

Q. Three spotters throughout the time it's open?

09:51:45PM A. I'm sorry. Could you say it again?

Q. I'm sorry. Throughout the normal business operation hours, three spotters?

A. About there.

Q. What are the normal business operation hours?

A. Well, at the West DuPage facility currently the C&D operation is open 24 hours. I think -- We have it listed in here. I'd have to look again, but we have the operating hours

09:52:18PM listed in the application for what's current and there are -- again, the operating hours are listed in Criterion 2 for the proposed facility.

Q. We can talk about that when we get to that section. Let's talk about accepting certain waste -- on Page 53 -- of DuPage County, which is not going to a DuPage County waste transfer station; there are lost fees.

Do you see that?

A. Yes.

Q. That's 70 percent of the entire DuPage County?

09:52:48PM A. It is.

Q. So over a third of the population of DuPage County is not in your service area, correct?

A. You know, certainly it's a significant portion. It is -- You know, our service area is about two-thirds of it.

Q. Yeah. The eastern portion of the county is the most densely populated part of DuPage County, isn't it, or don't you know?

09:53:16PM A. It would intuitively make sense. Certainly the more you get towards Cook County and you move east, the density will increase a

bit. Again, the point of it is there's money that DuPage County is losing because there's transfer stations in other locations that are hauling the waste, and there would be some amount of waste that we believe that's generated in DuPage County and would stay in DuPage County.

Q. Okay. And that $100,000, again, that's not a net calculation, correct, that's a
09:53:45PM gross? We don't know how much DuPage County is going to lose because Groot may or may not have as much waste, correct?

A. Again, that type of estimate is almost impossible because you're trying to predict the future now, who is going to win contracts, exactly what is going to happen. That's beyond the point of this slide.

Q. Let's go to Slide 55. You said, The West DuPage RTS will increase competition and
09:54:16PM will increase the capacity in the service area, which has been, quote, clearly recognized, end control, to help control price increases.

What's the study that you have for that support? Or is it just your anecdotal?

A. Well, we're referencing, for instance, back to the solid waste management plans. If you reference the language from Kane County, they said exactly that.

Q. I'm trying to understand. Is there a study -- any independent study that you can base that statement on as being "clearly recognized"?

09:54:49PM A. Well, it's based on my professional opinion of years of doing this and the evidence you know, that we see, including references like the plan.

Q. So it's based on your opinion; is that what you're saying?

A. Partially my opinion and partially the references in the information that we reviewed as part of this evaluation.

Q. Other than the DuKane County Solid

09:55:21PM Waste Management Plan, what else goes into this statement that you reviewed?

A. Some component of everything that's in

here, you know, the letters of support, talking to the other folks.

Q. Nothing that's not in your report is what you're saying?

A. The only thing that would not be in the report, again, is my experience of having done this for many, many years.

MR. LEUTKEHANS: Okay. Thank you. No further questions.

09:55:55PM HEARING OFFICER PRICE: Anybody have five minutes' worth of questions?

MR. CALLAGHAN: Me. Very, very short.

HEARING OFFICER PRICE: Oh. Mr. DeLaRosa, how many minutes -- how long will your examination be?

MR. DeLaROSA: I'm going to defer from further questions, so go right ahead.

HEARING OFFICER PRICE: Thank you.

MR. CALLAGHAN: My questions are really

09:56:24PM clarifications. I think Mr. Leutkehans went over most of the need issues.

CROSS-EXAMINATION

BY MR. CALLAGHAN:

Q. I just want to make sure, the operational testimony that you gave on the operations of the facility, that was just a summary, you're going to be providing more detail and subsequent testimony; is that correct?

A. That is correct. Again, the purpose of this was just to give an overview to help understand our need evaluation.

09:56:45PM

Q. I also -- You also mention that the volume caps that are stated in the application, those being 650 tons per day of MSW, 300 tons per day of hydro-excavation waste, 250 tons per day of single stream recyclables are actual caps that will not be exceeded; is that correct?

A. Yes.

Q. The company would be willing to accept a condition with those caps?

09:57:22PM

A. Yes.

MR. CALLAGHAN: We have nothing else.

HEARING OFFICER PRICE: All right. Anything from Mr. Walsh?

MR. WALSH: No questions.

HEARING OFFICER PRICE: No questions from Mr. Walsh.

All right. Well, then with the 2 minutes and 45 seconds remaining tonight, I'm going to call for the conclusion this evening. We'll meet back tomorrow at 6:00 with

09:57:56PM Mr. Mueller asking any remaining questions for clarification. I have a motion from Protect West Chicago.

Mr. Mueller, how much time would you like to respond to that?

MR. MUELLER: I would like to address that next week.

HEARING OFFICER PRICE: That's fine. We'll make use of the time as much as we can. Ultimately, it will be a jurisdictional issue

09:58:27PM that's not waivable in any way. Let's make use of the time. That's fine. I'd like your response on Monday, then, so then on Tuesday,

you can make some progress on the --

MR. MUELLER: Fair enough, Mr. Price.

HEARING OFFICER PRICE: Anything else from anybody this evening? I understand the tables are going to be left this way. To the extent you want to leave anything here, you can. I don't think they are in school tomorrow; otherwise, everybody be back here at 6:00 o'clock tomorrow.

09:59:16PM Tomorrow will be redirect. And who is next, Mr. Mueller?

MR. MUELLER: We'll call Mr. Kleszynski next and then probably Michael Werthmann.

HEARING OFFICER PRICE: Anything else?

MR. LEUTKEHANS: That's it. Thank you.

HEARING OFFICER PRICE: Thank you, all. See you all tomorrow at 6:00.

(WHEREUPON, the proceedings were continued until January 4th, 2023 at 6:00 p.m.)

STATE OF ILLINOIS)
) ss:
COUNTY OF DU PAGE)

I, KRISTI LANDOLINA, Certified Shorthand Reporter, Notary Public in and for the County DuPage, State of Illinois, do hereby certify that previous to the commencement of the examination and testimony of the various witnesses herein, they were duly sworn by me to testify the truth in relation to the matters pertaining hereto; that the testimony given by said witnesses was reduced to writing by means of shorthand and thereafter transcribed into typewritten form; and that the foregoing is a true, correct and complete transcript of my shorthand notes so taken aforesaid.

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my electronic signature this 20th day of January, A.D. 2023.

/s/ Kristi Landolina
KRISTI LANDOLINA
C.S.R. No. 84-4611
Notary Public, DuPage County

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$100,000 [2] - 87:7, 182:8
$2.45 [2] - 84:19, 178:5
$300 [2] - 73:3, 73:5
$420,000 [2] - 85:13, 177:22

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BEFORE THE CITY COUNCIL OF THE CITY OF WEST CHICAGO SITTING AS A POLLUTION CONTROL SITING AUTHORITY

In the Matter of:)
)
APPLICATION FOR LOCAL SITING)
APPROVAL FOR LAKESHORE)
RECYCLING RECYCLING SYSTEMS,)
LLC, FOR THE WEST DU PAGE)
RECYCLING AND TRANSFER)
STATION, 1655 POWIS ROAD,)
WEST CHICAGO.)

CONTINUED REPORT OF PROCEEDINGS had and testimony taken at the hearing of the above-entitled matter, at 900 Prince Crossing Road, West Chicago, Illinois, on the 4th day of January, A.D. 2023, at the hour of 6:00 p.m.

PRESENT:

MR. DERKE PRICE, Hearing Officer;

MR. DENNIS WALSH, City Council Attorney;

MR. PHILLIP A. LUETKEHANS, Attorney for Protect West Chicago;

MR. RICARDO MEZA, Attorney for Protect West Chicago;

MR. GERALD CALLAGHAN, Attorney for city staff;

MR. STEVE DeLaROSA, Representative for People Opposing DuPage Environmental Racism (PODER);

MR. GEORGE MUELLER, Attorney for Lakeshore Recycling Systems, LLC.

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E X H I B I T S

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No. 1	237	
No. 5	217	
No. 6	221	

PWC'S EXHIBIT	I.D.	ADMITTED
No. 1	327	
No. 301	345	
No. 302	348	
No. 604	406	

HEARING OFFICER PRICE: Good evening. We are at the appointed hour of 6:00 o'clock. I'll invite Mr. Hock to resume his place here at the witness stand. He was in the middle of his testimony. We've gone through direct and initial round of cross so we would be at redirect.

One preliminary note, unless there are any other housekeeping matters, there's been
05:58:53PM a request from some in the audience if we could put the exhibits that people are asking the witnesses about up on the screen. Unfortunately, the way this auditorium works, that's not possible. The -- Everything that Mr. Hock testified to that was on the screen was preloaded and is handled in the back.

And so Mr. Meza has done amazing work to be able to even have a screen to help the witness, but there's no way to throw that to
05:59:21PM this screen behind me. So we apologize for that. We'll do the best we can to try an keep everybody informed as we go along.

That being said, unless there are any other preliminary matters from anybody, Mr. Mueller, we will resume.

Mr. Hock, you're still under oath.

And back to you, Mr. Mueller.

MR. MUELLER: Thank you.

WHEREUPON:

JOHN HOCK,

called as a witness herein, having been previously duly sworn, was examined and testified as follows:

REDIRECT EXAMINATION

BY MR. MUELLER:

Q. Mr. Hock, there was some discussion yesterday about authentic tax records of DuPage County.

HEARING OFFICER PRICE: Mr. Mueller, I'm going to remind you to keep the microphone in front of you. The people in the audience, although we can hear you clearly, they couldn't.

05:59:56PM

MR. MUELLER: Okay. Can everybody hear me?

UNIDENTIFIED SPEAKER: Yes.

BY MR. MUELLER:

Q. So there was some discussion yesterday about the authentic tax records of DuPage County.

Do you recall that?

A. Yes.

Q. You indicated that you had located records on the DuPage County website and the

06:00:16PM treasurer's website?

A. Yes.

Q. Do those websites contain links to authentic tax records of the County?

A. They do.

Q. Specifically, which records are easily found?

A. The real estate tax assessment maps.

Q. Those of what we'd call the plat books?

06:00:37PM A. Yes.

Q. And what else is easily found?

A. The -- The ownership of those parcels.

Q. Are tax bills available online?
A. Yes.
Q. Okay. Now, did you go back and look at the authentic DuPage County tax records to see whether or not the Canadian National Railway is listed as an owner of property adjacent to the site?
A. I did.
Q. Is it so listed?
06:01:19PM A. Yes, it is.
(Brief pause.)
MR. DELAROSA: Excuse me. You don't have another one?
MR. LUETKEHANS: We'll share.
MR. DELAROSA: Okay.
BY MR. MUELLER:
Q. Mr. Hock, I've handed you -- Let me do that again. I've handed you what we're going to call Applicant's Exhibit 5 and 6.
06:02:55PM Do you have those in front of you?
A. I do.
Q. Can you take a look at Exhibit 5 and

tell us what it is?

(Applicant Exhibit No. 5 marked for identification.)

BY THE WITNESS:

A. It is a half-quarter section map of the eastern portion of the site, and it includes the two railroads that are directly adjacent to the east portion of the site.

Q. And what is the title of this half-quarter section map?

06:03:20PM

A. It is the real estate tax assessment parcels, again, for Section 32 northeast corner west half.

Q. And who maintains these maps?

A. The DuPage County clerk.

Q. And is her name and identification on the bottom?

A. It is.

Q. Can you read what it says after her name and address?

06:03:52PM

A. It says: This map created for assessment purposes only, refer to the recorded

plats and deeds for legal descriptions and property dimensions, copyright 2022, County of DuPage.

Q. Mr hock, can you look at the map -- By the way, do you deem this to be an authentic tax records of DuPage County?

A. Yes.

Q. When you look at the -- the map in front of you, are there owners listed for the two railroad properties east of the site?

06:04:25PM

A. Yes.

Q. Who is the owner listed for the first property to the east?

A. Union Pacific Railroad.

Q. And who is the owner listed for the second property to the east?

A. Canadian National Railway.

Q. And does it say anything else with the listing of that ownership?

06:04:44PM

A. It does.

So in parentheses, after Canadian National Railway, it lists EJ&E, space, RR.

Q. And do you deem that to be the EJ&E Railroad?

A. Yes.

Q. Did you do some research as to whether or not the EJ&E Railroad even still exists anymore?

A. I did.

Q. And what did you learn?

A. So the Canadian National Railway purchased the EJ&E Railroad a couple decades ago. And as of about ten years ago, the EJ&E Railroad is no longer an existing entity.

Q. Now, Mr. Hock, counsel handed out a motion in which he said, among other things, that the Canadian National Railroad -- and I'll go to paragraph 20 of his motion -- where he said there is no indication in the authentic tax records of DuPage County that the entity owns the property identified by PIN 01-32-505-001.

Is that a true statement?

A. That is blatantly incorrect.

Q. Further, the motion states the DuPage

County clerk's certified records also confirmed that the Elgin Joliet & Eastern Railway Company and not Canadian National Railway is the entity entitled to notice.

Is that a correct statement?

A. That is an incorrect statement.

Q. In fact, to the extent that there even is a vestigial entity known as EJ&E Railroad, it is owned by Canadian National?

06:07:19PM A. Correct. Although, as I mentioned, our understanding is that that entity is -- no longer exists.

Q. The motion handed out by -- by counsel also indicated that they thought we should have sent notice to EJ&E at an address in Homewood, Illinois on South Ashland Avenue.

Do you recall that?

A. I do.

Q. And have you had a chance to look up

06:07:55PM that address?

A. I have.

Q. And is that Exhibit 6 that we handed

out?

(Applicant Exhibit No. 6 marked for identification.)

BY THE WITNESS:

A. It is. That is -- Exhibit 6 is a street view of -- from Google Earth of that address.

Q. And what do you see that's of note on the picture of the building at that address?

06:08:20PM A. The letters CN in two locations in kind of big red letters on top of the building.

Q. What do you interpret those letters to mean?

A. Those letters and colors are the logo for Canadian National Railway.

Q. So at this point, does it continue to be your position that we gave appropriate notice to all entities entitled to notice under the statute?

06:08:56PM A. Yes.

Q. And, once again, where did you get your information about the ownership interest in

the railroad of Canadian National?

A. From the authentic tax map from DuPage County.

Q. All right. Thank you.

Mr. Hock, let's move on then to the remainder of your cross-examination.

Six years ago, how many public entities were competitors in our service area?

A. There were four.

06:09:36PM Q. And how many are there now?

A. Two.

Q. What happened to the other two?

A. So maybe I'll go back to start from the beginning.

So Waste Management, which is the largest publicly traded company, was one of the four, as was Republic Services were the second largest publicly traded company at that time, Waste Connections being the third largest

06:10:05PM publicly traded company, and then Advanced Disposal being the fourth.

In -- In 2017, actually, Waste

Connections did an asset swap with Republic Services. And an asset swap is basically where employees, trucks, equipment, and customers are agreed to be exchanged. And the general border for that was Interstate 355.

So Waste Connections that Republic's access west of Interstate 355, which is basically the heart of our service area, and Republic took Waste Connection's access east of I-355.

06:10:53PM

Q. Okay. That reduced the playing field to three?

A. It did. It -- Republic Services basically exited the market as you -- And Republic Services does not even list its communities west of I-355 as communities it serves on their website anymore.

Q. Has Republic bid on any contracts -- hauling contracts west of 355 in our service area since the access swap?

06:11:22PM

A. I'm not aware of them bidding on any municipal hauling contracts since that time west

of I-355.

Q. How did the other major player leave the field?

A. So the other major player left was Advanced Disposal. So in October of 2020, as I mentioned yesterday, Waste Management and Advanced Disposal merged. Waste Management, again, being the largest publicly traded company, and Advanced Disposal was fourth at the time.

06:11:53PM

So one bought four, and that eliminated Advanced Disposal from the market and basically created the duopoly or the two companies we have left.

Q. What has been, based upon your research, the effect on competition in the service area since we've gotten down to two publicly-traded companies?

A. Well, price increases, and it's reduction of bidders and competition.

06:12:23PM

Q. Now, do the two -- or do the larger companies often cooperate in terms of something

called volume swaps?

A. Yes.

Q. What is a volume swap?

A. So a volume swap -- are sometimes called a swap agreement -- is where two companies with similar access, such as transfer stations, basically agree to allow each other to dispose of waste at each other's facilities in a mutually beneficial arrangement.

06:13:02PM Q. And what's the purpose of doing that, Mr. Hock?

A. Well, it's primarily transportation efficiencies, which leads to cost reductions.

Q. Transfer -- Transportation efficiencies is one of the things that LRS is seeking here; isn't that true?

A. Yes.

Q. Now, when did Waste Connections actually come into this area?

06:13:34PM A. So interestingly enough, it was basically right before the access swap with Republic Services.

So Waste Connections really entered in November of 2015 when they bought a family business called Rock River Environmental, and the main asset that they acquired is part of that -- that deal was the Winnebago Landfill, which is, again, out near Rockford and one of the two busiest landfills in Illinois today.

They then, just a little over a year later, bought Groot, which is another family owned business that had been around many years. And with that acquisition, they purchased multiple transfer stations and hauling routes and completed, really, which was -- was their vertical integration.

So once they bought Groot, they had the hauling, they that had multiple transfer stations, and they had a conveniently located landfill near Rockford.

06:14:16PM

06:14:45PM

Q. So if I understand this, before the entry of Waste Connections into the market, Rock River, which owned Winnebago Landfill, were they vertically integrated?

A. Not in our service area.
Q. Okay. And was Groot vertically integrated? Did it own any landfills?
A. They did not.
Q. So Waste Connections now, in fact, is integrated?
A. Absolutely.
Q. Returning for a second -- I apologize for skipping around -- to the concept of volume
06:15:23PM swaps, you were asked, I think, yesterday about possible collusion.
Do you consider volume swaps between big players in the market to be collusive?
A. Well, it's a -- it's a commonly used approach, and those agreements are -- are common. So it's -- I do not believe it's collusion, but it is -- I'll express -- it's highly cooperative.
06:15:55PM Q. Cooperation is good.
Now, to your knowledge, is Waste Connections in the process of working on

development of a new transfer station in Aurora?

A. I understand that they are, and it's -- it's in Kane County.

Q. That's a project that actually started when Republic was still in the service area, right?

A. Yes. Republic was seeking a transfer station in Aurora a number of years ago before they -- they exited to the east.

06:16:37PM Q. Okay. And what is going to be, in your opinion, the effect of an Aurora transfer station on waste hauling to the DuKane transfer stain, which is owned by Waste Connections?

A. Well -- So Waste Connections currently hauls both Aurora and Naperville, and a transfer station in that area would be very conveniently located. So it would seem inherently obvious that they would divert that waste to a new transfer station.

06:17:13PM Q. Now, if -- if Waste Connections already has a transfer station in the area, why would they want another one?

A. Again, transportation efficiencies, which leads to cost control.

Q. By the way, has LRS -- Lake Shore -- ever used the DuKane transfer station?

A. No.

Q. Why not?

A. Because if they were able to get a price quote, that price -- that price quote was always significantly higher than market -- 06:17:57PM market prices. And they were able to -- They were always getting significantly better pricing at other locations.

Q. And lastly, Mr. Hock, you had talked yesterday about Lake Shore's existing hauling contract, and I think Mr. Luetkehans asked you about those also.

Is there concern on Lake Shore's part about losing existing contracts if they don't get the transfer station that we're 06:18:34PM seeking now?

A. Absolutely. And, again, that goes to the -- the core of why we're here. And it's,

first, important to understand that the -- the contracts that Lake Shore currently has for places like Wheaton and Lisle and the other communities were all won and obtained prior to October 2020 when the merger between Waste Management and Advanced Disposal occurred. And, again, they were relying upon using the assets of Advanced Disposal.

Q. Now, you use the word duopoly.

06:19:14PM What does that mean?

A. Well, that's -- it's one more than a monopoly. So a monopoly is where one controls primarily everything; a duopoly would be where two control the market.

MR. MUELLER: Mr. Hock, that's all I have. Thank you.

HEARING OFFICER PRICE: Okay. Thank you, Mr. Mueller.

Mr. Luetkehans, you would be next.

06:19:40PM MR. LUETKEHANS: One second, if I may.

CROSS-EXAMINATION

BY MR. LUETKEHANS:

Q. Mr. Hock, let's start with the notice issue, if we may.

You said you looked at the -- You looked, in between last night and today, what you said were the authentic DuPage County tax records.

Do you recall that?

06:20:24PM A. Yes.

Q. Who told you those were the authentic DuPage County tax records? Did someone at the treasurer's office tell you that?

A. It seems inherently obvious it's --

Q. No.

A. -- the tax --

Q. My question is: Did someone tell you that?

A. (No verbal response.)

06:20:37PM Q. Did anyone at the County tell you that this -- this website was somehow the authentic tax records for DuPage County?

A. I did not talk to anyone at the County between yesterday and today.

Q. Okay. So you didn't bother to make that phone call to the treasurer's office and ask if this was the authentic tax record, did you?

A. Not today.

Q. Okay. And you didn't do it before, at least you haven't said you don't know of anybody doing it before today either, correct?

06:21:03PM

A. Well, again, it seems obvious to me that this is the tax records. It came right off the website.

Q. Yeah.

And on the website, it says: This is for assessment purposes only, correct?

A. It does.

Q. Okay. It doesn't say the tax bills were issued on the basis of this, does it?

06:21:32PM

MR. MUELLER: I'm going to object. He's now parsing words. The document authenticates itself, and assessment is clearly

for the purpose of assessing taxes.

MR. LUETKEHANS: If Mr. Mueller wants to argue, that's one thing, but right now I'm asking questions.

HEARING OFFICER PRICE: Yeah.

And so I understand the objection, Mr. Mueller. I'm going to overrule the objection. Mr. Hock can testify.

BY MR. LUETKEHANS:

06:21:56PM Q. This document does not say anything about authentic tax records, does it?

A. Well, it's a tax map.

Q. Well, it's in tax -- it says it's a -- for tax -- for assessment purposes only, correct?

A. In my opinion, it's an authentic tax record.

Q. Okay. Your opinion.

But nobody at the treasurer's

06:22:20PM office told you it was an authentic tax record, did they?

A. Again, I didn't talk to anybody at

the --

Q. Okay. And you didn't talk to anybody at the County Clerk's Office either, did you?

A. I did not talk to anyone at the County Clerk's Office.

Q. So you didn't bother to call either of the two entities that the statute says and case law says are the places you should talk to about what the authentic tax record is --

06:22:39PM MR. MUELLER: I'm going to object.

BY MR. LUETKEHANS:

Q. -- correct?

HEARING OFFICER PRICE: That one's sustained.

MR. LUETKEHANS: Fair enough. Thank you.

BY MR. LUETKEHANS:

Q. You went to the treasurer's website, you said?

06:22:53PM A. So to get to this, you go to the DuPage County website and it takes you to a GIS website and then there's a nice link and a nice

page. And down in the right-hand corner, it says tax maps, and you click on it, and you can zoom in and get these maps.

Q. Okay. So you got a map.

My question is: Did you go to the DuPage County Treasurer's Office and click on the line that says railroad tax bills?

A. (No verbal response.)

MR. MUELLER: Beyond the scope of redirect.

06:23:29PM

HEARING OFFICER PRICE: Overruled.

BY THE WITNESS:

A. I'm not sure where that link is or what you're --

Q. Okay. Well, let's talk about it.

This is a copy, for the record, a motion filed yesterday?

A. Mm-hmm.

Q. You've seen that, correct? I gave you a copy last night?

06:23:50PM

A. Yes.

Q. Okay. Go to the back towards the end

of that document, would you, please.

If you go to the third page from the back -- third page from the back, it's got a website. It says DuPage County Treasurer's Office and it's got a picture of Gwen Henry. Do you see that?

A. Yes.

Q. Okay. And you see the left, there's a column of things you can click on, correct?

06:24:29PM A. Yes.

Q. And one of them says the railroad tax bills. Do you see that?

A. Yes.

Q. You didn't bother to check on that, did you?

A. I did not click on that link.

Q. Okay. If you would have clicked on that link, you would have seen the next page?

MR. MUELLER: Object, calls for him to

06:24:50PM speculate.

HEARING OFFICER PRICE: Sustained.

BY MR. LUETKEHANS:

Q. Okay. So let's go to Exhibit 1 after the motion. It's about ten pages in, if that.

In fact, it's tabbed -- I think it's the first tab, the first big tab. I think I got that far before we started.

A. The Exhibit 2? I'm sorry.

Okay. I see --

Q. It's Exhibit 1.

06:25:43PM A. I see Exhibit 1.

Q. Okay. And that, as you can see -- you saw this last night and today, correct, you looked at this?

A. Yes.

Q. And this is an ordinance annexing property under the City of West Chicago, correct?

MR. MUELLER: I'm going to object. The West Chicago ordinance is not a DuPage County

06:26:00PM tax record.

HEARING OFFICER PRICE: You asked him about the -- the motion, Mr. Mueller. So I'm

going to give Mr. Luetkehans a little leeway here.

Overruled.

BY MR. LUETKEHANS:

Q. The City ordinance say it's annexing property of the City of West Chicago, Elgin, Joliet & Eastern Railway rights way.

Do you see that?

A. I do. I see this was in 2003.

06:26:21PM Q. Yep.

And you go two pages -- three pages further and you will see that the property with the PIN we're discussing is there, correct?

A. (No verbal response.)

Q. 01-32-506-001, I believe?

A. Yes.

Q. Okay. So we know in 2003 it was owned by EJ&E Railroad, correct?

A. Yes.

06:26:51PM Q. Okay. So now, let's go to the next exhibit, and that is a Group Exhibit 2.

And if you go back probably about

eight pages -- I'm guessing again -- there's a page that has assessee, Elgin Joliet & Eastern Railway Company. Do you see that?

A. Yes.

Q. Okay. And that's a cert- -- certified copy of the next page, which is a bill to the Elgin Joliet & Eastern Railway Company issued in 2022, correct?

A. Yeah. It appears to be a bill to a company that doesn't exist.

06:27:50PM

Q. Well, we'll get into that because the Elgin Joliet -- the EJ&E does still exist. You may not think it does, but we'll talk about that.

But that is the EJ&E with an address in Homewood, Illinois, correct?

A. That's correct. That's the --

Q. That's the place where you saw a picture of the CN --

06:28:10PM

A. Yes.

Q. -- but the reality of it is, the authentic tax records for DuPage County in this

bill is sent to EJ&E at Homewood, Illinois, correct?

MR. MUELLER: I'm going to object that he doesn't have enough foundation for that.

HEARING OFFICER PRICE: Overruled.

You could answer.

MR. MUELLER: Maybe I'll make a further objection. There are no -- no parcel numbers listed on that tax bill.

06:28:36PM HEARING OFFICER PRICE: Overruled.

BY THE WITNESS:

A. Sorry. Could you repeat the question?

Q. The EJ&E receives a tax -- receives the tax bills on behalf of the railroad at Home- -- in Homewood, Illinois, correct?

A. (No verbal response.)

Q. That's where it's sent?

A. That- -- That's what this information suggests.

06:29:04PM Q. And this a certified copy of a tax bill from the DuPage County Treasurer's Office, correct?

A. This is saying it is the original tax bill for that entity at the address you had mentioned, and there's a tax bill attached.

Q. Okay. And that tax bill, if you go down underneath the tax bill, it's got logos. And one of the districts that receives -- that it gets taxed for is West Chicago.

Do you see that?

A. It says West Chicago Park.

06:29:47PM Q. Okay. It also says West Chicago Fire District, West Chicago Steel (indiscernible) District, West Chicago Library District, correct?

A. Yes.

Q. Okay. Now, if we go to the next exhibit, Exhibit 3, that's an affidavit from Jean Kaczmarek.

Do you see that, a certified copy of, again, tax records pertain- -- excuse me --

06:30:25PM keeper of the records pertaining to taxes, and she certifies the following is -- are certified copies of those -- of the railroad assessment

certification, correct?

MR. MUELLER: The document speaks for itself. You don't have to agree or disagree with it.

HEARING OFFICER PRICE: I agree with that, but, again, you opened the door to ask him about this report.

Mr. Luetkehans, we -- the document does say what it says. We don't need Mr. --

06:30:54PM MR. LUETKEHANS: Okay.

HEARING OFFICER PRICE: -- Hock to confirm what it says. Read the records allowed.

BY MR. LUETKEHANS:

Q. Okay. In here, anywhere, can you find a bill or the Canadian National name listed as an entity in Illinois that is on the certification assessments of railroad property for DuPage County?

MR. MUELLER: I'm going to object

06:31:14PM because the records that he's referencing are Illinois Department of Revenue records not authentic DuPage County tax records.

HEARING OFFICER PRICE: I look forward to seeing an argument in your brief.

So overruled.

BY THE WITNESS:

A. Can you ask the question again?

Q. Yeah.

Anywhere in this property tax certification, which is in the DuPage County -- strike -- Clerk's Office, do you see a bill for a railroad assessed property going to the Canadian National?

06:31:40PM

Take your time.

A. Are you referring to Exhibit 2 now or somewhere else in this document?

Q. No, Exhibit 3. You just had it a minute ago. I haven't left it.

MR. MUELLER: You know, Mr. Price, to speed this up, we would be willing to stipulate that DuPage County does not send any tax bills to an entity they call Canadian National Railway if counsel will stipulate to the fact that Canadian National Railway actually owns the

06:32:17PM

entity that DuPage County incorrectly identifies as EJ&E.

MR. LUETKEHANS: No thank you.

HEARING OFFICER PRICE: All right. Thank you, Mr. Mueller.

The question remains, Mr. Hock: Do you see a bill to the Canadian National?

(Witness perusing document.)

BY THE WITNESS:

06:34:22PM A. So in Exhibit -- Excuse me. In Exhibit 3, I do not see the words Canadian National Railway.

Q. Okay. Would you agree with me that also none of the tax bills in Exhibit 2 go to the Canadian National Railway either? In fact, if they did, we would have heard about it, I assume, from Mr. Mueller or you earlier.

A. In Exhibit 2 of this document, I do not see any -- any bills labeled to Chicago

06:35:07PM [sic] National Railway.

Q. Okay. You said earlier that EJ&E Railroad no longer existed; is that correct?

A. That's my understanding.
Q. And how did you get that understanding?
A. Through the internet.
Q. Where?
A. Did some Google searchs on EJ&E, couple of different pages came up with old articles describing what I just mentioned --
Q. Okay. Are you --
06:35:28PM A. -- that they no longer exist.
Q. -- familiar with the fact that the Secretary of State is the people who decide -- that there's a corporate Secretary of State division in the State of Illinois, corporate division of the Secretary of State's Office?
A. I'm generally aware.
Q. And that all of us who have corporations and LLCs, we file every year to keep it going, correct?
06:35:46PM A. (No verbal response.)
Q. Do you know that?
A. I'm not a corporate tax person.

Q. Okay. But let me ask this question: Have you ever used that Secretary of State business record search to determine if someone -- some company is an active company in Illinois?

A. I have not personally.

Q. Okay. Well, I kind of have.

And would you disagree with me that if we looked on that site, we would find that the EJ&E Railroad is currently in existence?

06:36:14PM

A. I don't -- I wouldn't know.

Q. One moment, please.

Okay. Let's go to Criterion One.

You said there were only two competitors in the service area. Is that -- I think, two competitive waste transfer stations, is that what you meant?

A. What I meant is that there's two full vertically integrated companies in the service area.

06:37:05PM

Q. Okay. But you would agree with me, as we decided yesterday, there's approximately

nine, ten waste transfer stations that the service area overlaps with your proposed service area, correct?

A. Well, I do agree that there's transfer stations outside our service area that waste is taken to from the service area --

Q. And --

A. -- absolutely.

Q. And when they did their siting

06:37:26PM application, they listed those -- this part -- parts of your service area as part of their service area?

A. Well, I didn't look at those siting applications. It's not relevant to our -- to our argument.

Q. Okay. Well --

A. Again, we -- we acknowledge that there are transfer stations outside our service area that are taking waste.

06:37:42PM Q. Okay. And we're going to -- We'll talk -- We'll show you that later. We'll show the hearing in that later, we'll do that.

You said you understand that Waste Connections is in the process of a new way to try and site a new waste transfer in Aurora; is that correct?

THE COURT REPORTER: I'm sorry. Can you repeat that?

MR. LUETKEHANS: Yeah. That was awful. I apologize.

BY MR. LUETKEHANS:

06:38:06PM Q. You said you understand that Waste Connections is in the process of trying to site a new waste -- waste transfer station in Aurora, correct?

A. Yes.

Q. Have they filed an application yet?

A. Not that I'm aware of.

Q. Okay. And so we don't know if it will be granted even -- So one, you're not sure if they're going to file an application, are you?

06:38:26PM You don't know for sure?

A. I can't predict the future. I acknowledge that.

Q. Okay. And you can't predict the further, whether Aurora would actually approve that proposed waste transfer station if it's ever filed, correct?

A. That is, of course, their prerogative.

Q. Okay. And you said that waste from -- if it's sited, which is a big if from what I can tell -- that the waste from --

MR. MUELLER: I'm going to object to the editorial comment.

06:38:50PM

MR. LUETKEHANS: I'll withdraw it.

HEARING OFFICER PRICE: Sustained.

MR. LUETKEHANS: I'll withdraw it.

BY MR. LUETKEHANS:

Q. That the Waste -- That Waste Connections collects from Naperville and Aurora would go to Aurora, is that what you said?

A. I -- I think I said that if they site a transfer station there, it -- it would be obvious that there would be significant transportation efficiencies and they would absolutely be motivated to bring the waste

06:39:13PM

there.

Q. Instead of bringing it to West Chicago, is that what you said?

A. Yes, I believe that would occur.

Q. Do you know for a fact whether that waste in the southern end of Naperville is going to the Groot transfer facility?

A. Which Groot transfer --

Q. The one in West Chicago?

06:39:43PM A. I mean, Waste Connections own mult- -- owns multiple transfer stations. It could be going to the one in Plano.

Q. Okay. As could -- And the waste in Aurora, you have no idea whether that is currently going to the Groot transfer station in West Chicago either, do you?

A. Again, they own multiple transfer stations. They could be taking it to Plano. That -- Again, it could shift based on a variety

06:40:08PM of factors.

What -- What I was trying to make a point of -- and, again, we talked about it

extensively yesterday, that if you look at the map, the -- the company tends to win contracts in locations that are in rel- -- in proximity to their transfer stations because it gives them a competitive advantage transportation-wise. And it intuitively makes sense that they would bring the waste to those nearby transfer stations.

Q. Okay. But my --

A. So my -- my simple point was if they have a closer transfer station, it's just common sense that they would bring the waste there.

06:40:35PM

Q. Okay. I would agree with that.

I guess my point is: They already won those two contracts, correct? They've won West -- They've won Aurora, they've won Naperville, according to you. They've already taken the waste from there.

A. And, again, my point is --

Q. No. Just answer my question, please.

06:41:00PM

Have they won those two municipalities so far?

A. Yes.

Q. Are they currently collecting there?
A. Yes.
Q. Okay. So they were able to succeed without the Aurora transfer station, correct?
A. Yes.
Q. Okay. So I guess I was getting lost in with your point because you're talking about the Groot facility in West Chicago. And we don't know that they're getting any of that
06:41:26PM waste now, do we?
A. Well, again, obviously Groot is incentivized to take the waste to their own transfer stations; maybe some is coming to West Chicago, maybe some is going to Plano. They have that discretion as to where they take it.
So in -- where they're taking it today, they could decide to change their operations tomorrow. And my simple point was that even though they own the contracts, if they
06:41:58PM end up with a closer, more convenient option that saves them money, they will do it; and that seems to be part of the obvious reason that they

would want a transfer station in Aurora.

Q. Okay. And how does that affect -- I guess I'm -- I guess I'm at the wrong transfer station here, so ...

Okay. Nothing further. Thank you.

HEARING OFFICER PRICE: Mr. DeLaRosa...

MR. DELAROSA: I have no follow-up questions at this point.

HEARING OFFICER PRICE: Thank you.

06:42:30PM Did you hear that, Madam Court Reporter?

THE COURT REPORTER: Mm-hmm.

HEARING OFFICER PRICE: All right. Then to the City, Mr. Callaghan.

MR. CALLAGHAN: No questions.

HEARING OFFICER PRICE: All right. Then to the corporate authorities of the City, Mr. Walsh.

MR. WALSH: No questions, Mr. Hearing

06:42:38PM Officer.

HEARING OFFICER PRICE: All right. Then that concludes Criterion 1 and your

testimony, Mr. Hock. Thank you.

(Witness excused.)

HEARING OFFICER PRICE: Mr. Mueller, your next witness.

MR. MUELLER: We'll call Dale Kleszynski.

HEARING OFFICER PRICE: And for all of us following along, Mr. Kleszynski is going to testify about which Criterion, sir?

06:43:04PM MR. MUELLER: Criterion 3.

HEARING OFFICER PRICE: And is there a PowerPoint presentation that should be --

There it is.

Thank you. Thank you, Joe.

MR. DELAROSA: Excuse me. Mr. Price ...

HEARING OFFICER PRICE: Yes.

MR. DELAROSA: I'm right here.

I have a -- I have a question about

06:43:41PM the proceedings from yesterday and today. I'm wondering if we have any notice or recollection of whether or not we have representatives --

elected representatives from the City of West Chicago here at this hearing tonight or yesterday.

HEARING OFFICER PRICE: As I stated in my opening comments, under the siting ordinance and under the law of the State of Illinois, it is not required that any elected official attend the hearing. They are allowed to rely on the record as it is produced by the court reporter and it is submitted by the evidence.

06:44:14PM

So I don't take attendance. We don't need to do that, and it's not required by law.

MR. DELAROSA: Okay. But I'm asking if we know if any of them are here tonight.

HEARING OFFICER PRICE: Again, I do not take attendance. It is not required.

MR. DELAROSA: I'm just wanting to establish that the representatives -- the elected representatives from the City of West Chicago are not here tonight.

06:44:40PM

HEARING OFFICER PRICE: That's not a

true statement. I know that there have been elected officials here, but we're not taking attendance. We don't have to do it and we're not going to do it.

MR. DELAROSA: Okay. I'm just reviewing the comments.

HEARING OFFICER PRICE: You're making a point, but it's not relevant. All right?

MR. WALSH: Nor is it accurate,

06:45:05PM Mr. Hearing Officer.

HEARING OFFICER PRICE: And as Mr. Walsh pointed out tonight, elected officials have been here. To state that they are not here is not true, but I'm not taking attendance. It's not required by law, and we're not going to do it.

MR. DELAROSA: That's fair.

Okay. Thank you.

HEARING OFFICER PRICE: Back to you,

06:45:21PM Mr. Mueller.

MR. MUELLER: The record should reflect that we've handed out as Exhibits 7 and 8 the

curriculum vitae of Mr. Kleszynski and the PowerPoint that he will use for his presentation.

MR. MUELLER: With that, would you state your full name and spell your last name, please.

MR. KLESZYNSKI: Should I be sworn?

HEARING OFFICER PRICE: Yes, you should. One moment, please.

(Witness sworn.)

HEARING OFFICER PRICE: Again, Mr. Mueller ...

WHEREUPON:

DALE KLESZYNSKI,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MUELLER:

06:46:02PM Q. Now, Mr. Kleszynski, would you state your full name and spell your last name?

A. My name is Dale Kleszynski,

K L E S Z Y N S K I.

Q. And I keep wanting to call you Kluszewski because of the famous White Sox slugger.

A. And I was happy to accept that, actually.

Q. Sir, what is your profession?

A. I'm the -- I'm the president of Associated Property Counselors. I'm a professional real estate appraiser and consultant in the area of valuation and real estate.

06:46:34PM

Q. And what was your assignment on this project?

A. In this particular instance, I was to prepare a land use compatibility and real estate impact study to determine whether or not the subject property met the conditions of Criterion 3, which ...

06:47:07PM

Q. Okay. And have you done that?

A. I have.

Q. And have you prepared a PowerPoint

presentation which summarizes your report in the siting application?

A. I have.

Q. Then without further interruption, I'll let you proceed with that, sir.

A. Okay. So in Power -- I have to move this. Is this ...

(Discussion off the record.)

BY THE WITNESS:

06:47:39PM A. Just by way of background, I'm an MAI and an SRA-designated real estate appraiser. Those are designations that are awarded by the Appraisal Institute.

In the -- In addition, I'm an Illinois certified real estate appraiser with consulting and real estate appraisal experience since 1979. I'm a qualified instructor for the Appraisal Institute and have served in a number of service offices for that professional

06:48:11PM organization.

As indicated initially, our function in this particular instance was to --

to basically answer the question, if the facility is located so as to minimize incompatibility with the character of surrounding area and to minimize the effect on the value of surrounding property.

And this is actually a two-prong question. The first question deals with the issue of incompatibility and a comparison of the subject property to the surrounding area. And

06:48:49PM the second prong of the question -- second part of the question really deals with whether or not the -- the intended use of the property will have a deleterious impact on the value of surrounding real estate. So it's a two -- It's basically a two-prong study.

In this particular instance, for us, the evaluation of any particular or any individual piece of property is not part of it. What we're really studying here is the impact of

06:49:19PM the use that exists.

The -- The study begins with a survey or an inspection of the subject property

which, in this slide, you can see is outlined in red. Just in a short -- for the short version, the subject property is approximately 27.66 acres of land. It has about 686 feet of frontage along the east side of Powis Road.

Within the total of the 27.66 acres of land that are located at this site, approximately 6.11 acres are used for the construction and demoli- -- and for the

06:50:06PM recycling operation that exist there as part of the ongoing operation.

What's significant about this particular slide is the location of the buildings. And if you take a look at the slide, what you'll notice is that the -- the existing building as well as the intended building, is located on the southern portion of the site basically adjacent to a -- to a vacant parcel of land which indicated to me that the owners of

06:50:38PM the property had taken great steps so as to isolate this particular application along the southern -- along the southern portion of their

property.

What's also significant about this site, if you look at -- you can see that along the frontage, there's a buffer area that separates the staging areas for the ongoing operation. And then if you look towards the railroad right-of-way, you'll see that there's also significant portions of the site which are used for the water management of the property.

06:51:14PM So the site, just by way of example, is generally level, and that street grade, it is consistent with the uses in the general vicinity of the subject property.

Just by way of history for the area, what our study found was that since 1988, the consistent airport manufacturing activity in the subject area has existed, and in this area, DuPage County airport's located to the west. There's closed landfill and industrial

06:51:53PM facilities that are located to the south. The railroad rights-of-way are located to the east, and there are industrial facilities that are

located to the north of the -- north of the subject property.

The airport use and the intensity of the manufacturing activity in this area has remained consistent or increased over the years by -- And by the intensity, when you basically -- what we'll see on further slides is that the area that's located to the south of the subject property is what I would consider to be more generalized industrial application where the areas to the north of the subject property are more -- I would call them more intensive applications that are -- that have a tendency to be owner-occupied facilities.

06:52:29PM

The -- So just to take you through the aerial history of the subject -- of the subject property in the subject area, this is a 1988 aerial photograph of the subject property. It's outlined in red. If you fast forward to the aerial history of the property, in 1993, you'll notice that there's an area identified as new construction in which an industrial building

06:53:09PM

was constructed after -- along that cul-de-sac and adjacent to the railroad right-of-way.

You then fast forward to 1998, a new development that is outside the study area but adjacent to the -- adjacent to the study area is new development that is located in the Conte property that's located on the east side of the railroad right-of-way south of North Avenue.

06:53:51PM If you then fast forward to 2005, you can, again, see that the area activity included new construction as well as the expansion of the contractor's yard that is located to the east of the railroad right-of-way.

What's significant about this particular aerial is that the -- despite the existence of vacant land in this area, the development was located -- the new development

06:54:27PM of industrial buildings was located adjacent to the subject property indicating a lack of -- or indicating that there was no resistance to the

use that was -- that is located on the subject property.

Fast forward to 2012, again, it's just an aerial showing the overall development in the subject area. And I would say that it demonstrates, again, a consistency of development patterns indicating that the Conte property located to the east of the railroad right-of-way has expanded and indicating what
06:55:14PM the uses are that are located along Powis Road south of North Avenue.

In this instance, we defined the study area based on basic manmade boundaries that are located in the area. The mapping that you see on this particular slide indicates a 405-acre study area that is bounded by North Avenue on the north, Hawthorne Lane on the south, Powis Road on the west, and the railroad rights-of-way on the east.

06:55:54PM And what's, again, significant about this -- this overhead is that the -- the intensity of the uses has basically remained the

same, but it would be most fair to say that if you look at about halfway down to the -- of this study area, the area to the south of what is vacant land identified in white or cream color on the slide is what I would consider to be more generalized industrial; whereas, the applications that are located to the north of it, have a tendency to be owner-occupied and a little bit more intense.

06:56:41PM As part of the -- As part of the study, we reviewed the zoning map, which indicated that the subject property is located in an M-manufacturing district and that the surrounding districts are, generally speaking, manufacturing airport district and there are some areas of -- there are some areas of residential that are located in the County but there are also areas of light industrial that are located in the County.

06:57:17PM Based on our analysis of the area, and in -- we found that in the study locations, the uses included recycling facilities, numerous

outside storage yards and truck farms, railroad rights-of-way, open land that's part of the airport district, general industrial manufacturing and warehouse building, as well as vacant land.

We were able to conclude from what would -- in appraisal parlance is a location study that the subject property met first prong of the -- of the -- of Criterion 3 and was

06:57:59PM located in such a manner so as to minimize the effect on surrounding property.

What's significant about that is that candidly, the municipality has done a very good job of keeping conformity of uses in the industrial district. And this conformity is a real estate appraisal principle that strengthens value and minimizes the impact of the property. In other words, the property does not become a form of obsolescence that would impact any of

06:58:36PM the surrounding -- surrounding properties.

The second prong of the tests are related to the issue of highest and best use.

And what highest and best use is as far as appraisal parlance is concerned, is that when the property meets the four tests that are identified on this slide of being legally permissible, physically possible, financially feasible, and maximally productive, the property will yield the greatest net return to the land for the longest period of time.

When property yields the greatest net return to the land for the longest period of time, it -- it does not become a form of obsolescence that would have an impact on surrounding properties.

So in order to examine the issue of legal permissibility, as I said, the subject property is located in an M-manufacturing district and has a plan use development classification. The surrounding uses are compatible and similarly zoned. In this instance, the -- the subject property has received some special use approvals in order to continue their operations over the last several

06:59:17PM

06:59:53PM

years which, again, is an -- is an indication that there's an acceptance of the -- the current application or the current use at the subject property.

When we examined the issue of physical possibility, there was no indication, based on our inspection of the property, the buildings have been there for a reasonable period of time with no identification of
07:00:31PM settlement or deterioration of the property. The property appeared to be well-maintained. The set back of the property on the site was an indication that great pains have been taken so as to complete the use -- the recycling use that is ongoing there in a manner so as not to be a disturbance to surrounding properties.

We -- And we -- Our search indicated that there's adequate infrastructure in the area as well as servicing the subject
07:01:05PM property, and there are no obvious issues which would prevent the property from being developed in accordance with the proposed plan.

The examination of financial feasibility really related to our basic study of what the industrial market was in the subject area and in attempt to compare it to see whether or not its value patterns in the area were consistent with other locations throughout DuPage County. So we found that the subject area or the study area was really divided between two types of users. There were some
07:01:46PM investors -- investor uses meaning that people had purchased properties so they could lease them in order to gain a return, you know, on their investment.

We also found that there was a very high number of owner-occupied properties that are located in that area and that the -- our determination was, is that the mixture of these applications was sufficient to demonstrate that there was balance in the marketplace.

07:02:14PM Our overall survey of the industrial market in West Chicago indicated that there's been approximately 17 million square

feet of industrial space and, in general, industrial -- in general, industrial market in West Chicago, and that's been consistent over the past five years. And that market conditions for general industrial space had remained strong in the subject area.

The strength of that -- The strength of that market is indicated by increases in pricing that had occurred for properties that have sold as well as increases in rents that the ten- -- the third-party tenants would pay. We found that -- We looked at approximately 300 transactions that had occurred since 2013 to the present. And we found the pattern to basically be the same.

07:02:54PM

Now, what's significant about that is that in the subject study area, you already have a transfer station and you have a recycling application in the subject property. So what we were able to do was use the subject location as basically the -- a study point to see what had occurred over the past -- over -- over a

07:03:32PM

significant number of years. And the data that we looked at went back between ten and even in some -- in some instances 20 years from the database sources that we had.

Obviously, the greatest activity was found in the light industrial district portion of the subject -- of the study area. And that would be typical because there are few sales of heavy industrial and owner-occupied properties where somewhat specialized applications occur. Because of the difficult -- I call it difficulties -- or process associated with going through the process of becoming permitted, for example, or seeking certain application for uses in any municipality, once these -- once these per- -- once these permissions are granted, the owners have a tendency to stay put at those locations in order to avoid -- and because it is so difficult and time consuming -- in order to -- in order to relocate or start all over again.

Q. Mr kleszynski, I think you're one

slide behind.

A. Oh, I'm sorry. Okay. I'm sorry.

Okay. So this indicates that we did -- we looked at the 300 transactions and found that the greatest activity was in the light industrial area, and that the -- that there was limited sales activity for somewhat specialized properties or specialized uses, and we find this to be typical. We also find it to be an indication that the greatest value comes from those sorts of consistency.

07:05:22PM

The next issue was identified as maximum productivity. We found that improved properties such as the subject have -- are -- they have a greater value than the land that is vacant, that when a property achieves the status of -- or the -- the label of being a somewhat specialized property or special use property that this enhances the highest value of that real estate because of not only the specialty physical characteristics of the property but the -- the need -- the regulations that are

07:06:01PM

associated with their operations.

So we -- And we found that the proposed uses located also with good access to transportation amenities. And as you could see from the slides, the subject is only access -- able to be accessed from Powis Road. The primary roadway in that area as far as transportation of material for both the specialized uses as well as the general

07:06:41PM industrial uses is North Avenue and the State of Illinois, Illinois Department of Transportation has taken great pains to improve that roadway with the -- with several projects that have increased the ability of accessibility and control of the traffic volume that exists there.

So what were are conclusions that the -- Our conclusions were that the west DuPage -- that the west DuPage recycling transportation facility or trans- -- recycling

07:07:21PM facility transfer station is located in an area of historic and industrial use and development, that the manmade boundaries that were identified

in the overall 405-acre study area isolated and buffered not only the subject use but the area to effectively minimize any influences on the outside area.

We found that the City of West Chicago and DuPage County both encouraged development to occur in a consistent pattern in defined areas, and the proposed -- and the proposed use is consistent with the zoning classification in this area. 07:08:07PM

Our further conclusions were, is that the proposed use will have a minimal impact on adjacent and nearby properties. And the west DuPage transfer station will include significant infrastructure and improvements that will not only enhance the subject property; and when -- when the property is enhanced and continues along with its highest and best use, it's a source of strength for the area, in general.

We think that the west DuPage transfer station will be a long-term and stable use of the subject property. And that ... 07:08:39PM

Q. Mr. Kleszynski, based upon your investigation, your report, and testimony, do you have an opinion within a reasonable degree of scientific and appraisal certainty as to whether or not the west DuPage recycling and transfer station is located so as to minimize incompatibility with the surrounding area and to minimize the effect on the value of surrounding property.

07:09:25PM A. Yes, we formulated an opinion.

Q. And what is this opinion?

A. It is the -- It is our opinion that the subject property, as proposed, meets the standard of minimizing incompatibility with the character of sounding area and minimizes the effect on value of surrounding property and meets the standard -- the criterions -- I'm sorry -- the standards of Criterion 3.

MR. MUELLER: Thank you,

07:09:55PM Mr. Kleszynski.

Your witness, Counsel.

HEARING OFFICER PRICE: All right.

Thank you.

Protect of West Chicago group, Mr. Luetkehans.

CROSS-EXAMINATION

BY MR. LUETKEHANS:

Q. Okay. Mr Kleszynski, you have a couple professional certifications after your name you mentioned. One of them is MAI, correct?

07:10:08PM A. Yes.

Q. And that stands for Member of the Appraisal Institute, correct?

A. Well, that's, generally speaking, correct.

Q. The second designation is SRA?

A. That's correct.

Q. And that stands for Senior Residential Appraiser; is that correct?

A. That is correct.

07:10:21PM Q. I also see you held many offices at the Appraisal Institute, didn't you?

A. Yes.

Q. And you've taught classes there?
A. Yes.
Q. In fact, all of your education and jobs as a real estate appraiser are related to valuation of real estate; is that correct?
A. No, that's not correct.
Q. Okay. What was your undergraduate degree in?
A. My undergraduate degree was a bachelor of arts degree in history and education.
07:10:41PM
Q. So you don't have a degree in urban planning or regional planning, do you?
A. I do not.
Q. You're not a landscape architect either, are you?
A. I am not.
Q. And let's be clear, you're not a land planner, correct?
A. I'm not a land planner.
07:10:56PM
Q. And you don't have the designation of AICP, do you?
A. I do not.

Q. And you know that AICP is the national certification of land planners --

A. Yes.

Q. -- that's given by the American Institute of Certified Planners, correct?

A. Yes.

Q. In fact, that's the organization responsible for independent verification of planners qualification?

07:11:15PM A. Yes.

Q. And you've never testified as an expert from a land planning capacity in court, have you?

A. I have not.

Q. You've never worked for any governmental body in a community development planning department, have you?

A. No.

Q. You've never held a job as a planner,

07:11:31PM correct?

A. I'm sorry?

Q. You've never held a job as a planner,

correct?

A. I have not.

Q. And you've never taught class strict- -- strictly classes or seminars strictly on land planning, have you?

A. No. That's part of our general appraisal curriculum in which the -- the selection of sites and the character -- the character of sites for different uses is taught in the various text material with the primary text material being The Appraisal of Real Estate.

Q. So the primary text material is in the appraisal of real estate?

THE COURT REPORTER: I'm sorry? I didn't --

MR. LUETKEHANS: I'm sorry.

BY MR. LUETKEHANS:

Q. The primary -- and I forget the words you used, but it's -- the primary part of those classes were for appraisals, correct?

A. The text material -- The text material, The Appraisal of Real Estate,

basically covers all aspects of real estate appraisal and site selection as part of the basic education that an appraiser would have in order to complete not only valuations of property but to complete what I would call a consulting study such as this. And that's called The Appraisal of Real Estate. I believe we are currently 15th edition of that document.

Q. Yeah. We'll get to that.

07:13:01PM You've never drafted a zoning ordinance, have you?

A. I beg your pardon?

Q. You've never drafted a zoning ordinance, have you?

A. That -- That would be correct. I have never drafted a zoning ordinance.

Q. You've never drafted a comprehensive plan, have you?

A. That would also be correct.

07:13:14PM Q. And you -- it's also correct you've never drafted a land use plan, have you?

A. That would also be correct.

Q. Okay. As it relates to the subject property, you did not evaluate the subject property or any adjacent properties as part of your study, did you?

A. No. The study was not designed in order to estimate the value of the fee simple interest in any property in the study area.

Q. In your study, how far did you review the surrounding properties to determine

07:13:45PM compatibility with proposed use?

A. I don't understand what you mean by "how far."

Q. Yeah.

How far away did you review the -- the surrounding properties?

A. It's identified -- The study areas identified in one of the slides that shows the 405-acre study area as beginning on North Avenue to the north, Hawthorne Lane to the south, the

07:14:10PM railroad rights-of-way to the east, and Powis Road to the west.

In addition to examining value

patterns for that, so I -- I did specifically complete the study of the properties in that area.

As part of the due diligence associated with this, I expanded that search to the areas that go all the way to the residential locations that are located to the east of the subject property. I forget which roadway that is that it ended, but basically there were two
07:14:50PM subdivisions that I looked at over there. I additionally looked at, to the north of -- of North Avenue on the east side of Powis Road, for the applications that are located there. I did that as part of this study as well as part of eminent domain cases that I had with the Illinois Depart- -- against the Illinois Department of Transportation on North Avenue.

So I familiarized -- refamiliarized myself with those locations. And I -- well, I
07:15:24PM guess I -- I would have to say that I obviously took into consideration the DuPage County Airport, which has been in -- which has been

there forever.

Q. Okay. So, in essence, your study area was the 405 acres to get you back when you started, correct?

A. Yes. The study -- The -- The identified study area was 405 acres, but you need to be clear that I did not limit my -- my review of data to only that 405 acres. I expanded it to the areas that I've described.

07:15:55PM Q. You testified to Section 39.2 siting hearing before, correct?

A. Yes.

Q. At each of those hearings, you testified about the impact of the waste transfer station on value surrounding properties, correct?

A. Yes.

Q. Ever testified on behalf of the objector at any of those siting hearings?

07:16:13PM A. No.

Q. How many siting hearings have you testified at?

A. I think this is the third one.
Q. Okay. Did you ever testify that a waste transfer station would actually impact surrounding property values?
A. No. I -- I never came to that conclusion.
Q. Have you ever testified at any Section 39.2 siting hearing as to the incompatibility with the character of the
07:16:35PM sounding area before this hearing?
A. No, because none of the ones that I testified in either had an impact or were inconsistent with the characters of the area in which they were located.
Q. I'm sorry. Maybe I misstated my question wrong.
At those hearings that you test- -- There's two parts of this Criterion 3, correct?
There's an impact on uses,
07:16:56PM surrounding uses and an impact on property values, correct?
A. Well, I think what you just said was

basic -- is my understanding, was basically the same thing. Their two parts to it are whether or not is consistent -- is that use consistent with what is ongoing in the study area and the surrounding area. And the second is, does the will -- will the use or does the use have a deleterious impact on the values in the study area as well as surrounding property.

Q. So you took the first part of the criterion to mean it was consistent with the properties in the area -- 07:17:30PM

A. Yes.

Q. -- is that what you said?

Okay. And -- One second.

Your report never mentioned anything about any possible effect of additional traffic on the surrounding area, does it?

A. No. I -- We have a traffic -- We have a traffic study that deals with that particular issue as part of this application. And so that would be outside my area of expertise when I -- when there is an expert in that area. 07:18:08PM

Q. Okay. Would you agree, though, that if there are a thousand trucks coming in and out of the site every day, that's something that could have effect the surrounding uses?

I'm not saying there's a thousand trucks coming in and out of the site every day, but --

MR. MUELLER: I'm going to object. That assumes facts not in evidence.

07:18:32PM HEARING OFFICER PRICE: Sustained.

MR. LUETKEHANS: Well, it's a hypothetical.

HEARING OFFICER PRICE: It is.

Yeah. He didn't testify to traffic. He said it's outside of his discipline. So ask a different question.

BY MR. LUETKEHANS:

Q. So you never looked at traffic in a case like this?

07:18:43PM A. No, I didn't say I didn't look at traffic. What I said was, is that there is a traffic expert in this particular instance who

will be testifying and has completed a report. And I would rely on that expertise as part of -- as part of my analysis.

Q. But the traffic can affect property value and use -- surrounding uses, would you agree?

A. It will -- That depends on the uses that you're discussing.

For example, in many instances, if you were to go to a place like Illinois where there's a -- where there's a large shipping -- a number of shipping facilities -- I'm sorry -- south of Joliet --

07:19:09PM

Q. You're talking about the rail port?

A. I'm sorry?

Q. The rail port?

A. Yes.

Q. Okay. Go on.

A. So if you -- if the -- the answer is, is that the traffic is an integral part of those operations. And so consequently -- consequently, traffic may or may not have an

07:19:28PM

impact on value. There would be a whole laundry list of assumptions that I would have to ask you about in order to answer that question reasonably.

Q. And did you look at all those assumptions in your analysis here, I guess, is my question?

A. Sure. That is -- Well, the assumptions -- the assumptions here are, is that 07:19:57PM continued use of the subject property as well as the already existing use of a transfer station -- transfer station down the street as well as I -- I looked at -- In the times that I was out there, I looked at the amount of traffic that was there. It did not seem to be unreasonable, and it was my opinion that the Department of -- Illinois Department of Transportation's activity located at the corner of Powis Road and North Avenue and the -- and 07:20:28PM the work that was done along North Avenue really went a long way to in order to satisfy any -- satisfy any issues that would be created by

traffic.

Q. Your report does not provide any analysis, does it, of the location of the proposed waste transfer station building and traffic within the subject property as it relates to incompatibility of the surrounding parcels? Because you don't about the location of the building inside the parcel in your report, do you?

07:20:59PM A. I guess I would have to disagree with that. I think if I understood your question correctly, what you just asked me was, did I do any study associated with the traffic that would be on-site -- the on-site circulation patterns? Is that what you're referring to?

Q. Mm-hmm.

A. Oh, I -- I think that the on-site circulation pattern on that site is terrific. I think that the location of the existing building

07:21:24PM on the eastern -- I'm sorry -- on the southern portion of the building and the location of the new building to the rear of that existing

building is almost ideal in terms of avoiding any issues associated with neighborhood -- neighborhood impact or value impact because of the fact that it's located -- it almost appears that it was set up specifically in order to avoid that because the adjacent property is vacant, and the uses of the subject site to the north of there is to do outside storage and staging with what I think is a very good
07:22:10PM disbursement of the type of items that they do store there.

Q. Okay. We'll -- We'll get to that property to the south in a minute, I promise you.

But your report doesn't mention anything about the possibility of screening the facility, does it?

A. The property is already screened. The property is screened on the -- along Powis Road
07:22:29PM by the berm and the landscaping that exists there. The prop- -- The northern property line, my recollection is, has a serious of trees both

natural and, I believe, some of which were planted as part of the landscaping.

The -- The southern portion of the property appears to have predominant- -- I think, predominantly natural screening to the adjacent property.

And then to the south, the property is screened by the railroad right-of-way and the natural -- the natural screening of the vegetation that's there.

07:23:06PM

Q. Excuse me. Is there trees to the south between your property -- between the Illinois (phonetic) property and the property to the south? Are there trees or berm that I missed?

A. No, I don't think that there's a berm, and maybe I'm wrong.

My -- My -- My take on it was that was natural growth. I guess, I -- you know, you could -- I'm not positive as to the nature of the trees that exist there, but I -- my recollection was, is that there was natural

07:23:29PM

growth that is located along that property line.

Q. And how high is that natural growth, a couple feet?

A. I -- I don't recall.

Q. Okay. Your report doesn't mention or analyze the effect any odor might have on the surrounding user or property values, do you?

A. No.

Q. Your report doesn't analyze what steps might be taken to minimize wildlife attraction, does it?

07:23:56PM

A. No.

Q. Your report doesn't discuss what is or could be done to minimize bird attraction to the storm water parcels, correct?

A. I'm sorry. I didn't --

Q. Your report doesn't discuss what is or could be done to minimize bird attractions to the storm water detention areas, does it?

07:24:15PM

A. I -- I missed a word in there.

Q. Okay. I'll try again, and I'll try and be slower.

Your report does not discuss what -- what is or could be done to minimize bird at tractions at the storm water detention areas on the parcels, does it?

A. No.

Q. And we don't know from your testimony whether the waste transfer station location or the screening on the subject property could be modified in a way to further minimize the effect on the surrounding users, correct?

07:24:44PM

A. My -- My review of the plans that were associated with this indicated to me that -- that those things were still a work in progress, and indicated to me that the property loc- -- or the building location was set back far enough from the -- from Powis Road and was isolated sufficiently in order to -- in order to minimize any impact.

Q. Okay. It's -- It is almost on the south property line, correct?

07:25:30PM

A. Well, my suspi- -- I didn't measure it, but my suspicion is, is that it meets the

appropriate setback requirements, but it is -- it is loaded to the south -- the southern portion of the subject site.

Q. And you're, as we discussed, primarily an appraiser, correct?

A. You're going way too fast.

Q. I'm sorry.

As we discussed earlier, you a primarily an appraiser, correct?

07:25:59PM A. No, I would disagree with you completely. I'm an expert in real estate who's involved on -- on a constant basis not only with the evaluation of real estate, but the estimate of damages and the -- and testimony associated with detrimental conditions that are associated with property in eminent domain cases and any number of cases that come across my desk.

So I would say that my time is basically split more than -- approximately, 07:26:34PM 50/50 between real estate appraisal issues and consulting issues in the area of items such as this.

Q. 50 percent of your time is spent in Section 39.2 siting hearings?

A. No. My --

Q. Let's --

A. My --

Q. Let's --

A. My --

Q. Let's back up.

A. Well, then let's -- let's really be clear about it.

07:26:56PM

50 percent of my time is probably spent in the area of real estate appraisal in -- for various -- for various reasons. The other 50 percent of my time is spent as acting as a consultant in terms of things like eminent domain cases where damages issues often come up.

In addition to that, I am asked, on a regular basis, to testify at -- or to examine issues that go in front of zoning boards that

07:27:23PM

deal with things like, for example, the siting of CILA properties and the impact that bringing -- bringing a group home into a

specific neighborhood might have on surrounding properties.

I, in fact, completed a study for the Cook County State's Attorney's Office on the impact of adult uses in the industrial zone districts a number of years ago and testified at trial on those issues. So those are the sorts of issues.

And recently, I've had about three or four of these types of applications in which I was asked a similar question about damages and impact.

07:27:56PM

Q. Okay. And you're talking about in every domain case they're talking about damages to property values, correct? Let's be clear.

A. Yeah. You are talking about damages. You are talking about specific damages to -- or damages to a specific property and the impact of the overall project on -- on more than one property.

07:28:24PM

Q. And the impact on value, correct?

A. Yes.

Q. Okay. I'm just -- I'm trying to be clear here.

And when you testify in a zoning case, you're, again, talking about the impact, one of the -- one of those, which is an impact on property values, correct?

A. Yes.

Q. And that's what you're testifying to in those cases, correct?

07:28:44PM A. Yes.

Q. Okay. West Chicago zoning ordinance requires screening in certain circumstances --

THE COURT REPORTER: I'm sorry. It requires --

MR. LUETKEHANS: I'm sorry.

BY MR. LUETKEHANS:

Q. Would you agree with the general statement that well-designed screening can protect values?

07:29:02PM A. Well-designed screening?

Q. Yes.

A. Yes. I think well-designed screening

is part of -- is part of the municipal responsibility to -- to cause the property to conform to the specific location and -- and use.

Q. And one of the reasons for that is to protect the property values of the surrounding property, correct?

A. That might be part of it, sure.

Q. And West Chicago requires screening in certain circumstances for this reason, correct?

07:29:33PM A. Yes.

Q. And the property directly to the south of the subject property is currently vacant, correct?

A. It is.

Q. And it's owned by the DuPage Airport Authority, not the DuPage County Airport, correct?

A. Yes.

Q. And it's not owned by the Fox Valley

07:29:49PM Authority, is it?

A. No.

Q. Okay. Your report kind of

interchanges, so I want to make sure. There's no such thing as the Fox Valley Authority, is there?

A. (No verbal response.)

HEARING OFFICER PRICE: Do you understand the question?

MR. MUELLER: Was that a question?

BY THE WITNESS:

A. I didn't -- I didn't know that was a question.

07:30:07PM

Q. Do you know that there's no such thing as the Fox Valley Authority?

A. I -- I'm -- I'm not actually positive of that.

Q. Okay. Have you spoken with anyone at the DuPage Airport Authority or at the City of West Chicago regarding possible future uses for the property to the south?

A. I have not.

07:30:23PM

Q. So you don't know what, if any, uses that parcel could be utilized for, do you?

A. Not as I sit here.

Q. And you're not aware if there are any plans to utilize that parcel, are you?

A. I am not aware of any plans to utilize that parcel.

Q. And you also don't know whether there are any plans by the DuPage Airport Authority to use or lease that property, correct?

A. That is correct.

Q. Have you ever looked at the -- what's called the airport layout plan for the DuPage Airport?

07:30:46PM

A. My recollection is that I looked at it early on in this process, but haven't really looked at it recently.

Q. Any idea how old that was, the one that you looked at?

A. I -- I really don't.

Q. Okay. What does the airport layout plan include? What's -- What's the point of it, do you know, since you saw it?

07:31:03PM

A. I -- I -- I guess I would have to answer that question by saying that the airport

plan would be -- was generally, and from my interpretation of what I looked at -- was generally designed to identify uses in future activity that would be related to the use of the airport as well as possible buildings and relocations of parking areas and things like that as well as -- I -- I believe, there was portions of that document that deal with navigation easements.

07:31:45PM Q. Would you agree that the trend in development is important in determining the highest investors?

A. Would I agree that the ...

Q. Trend in development is important in determining the highest investors?

A. It's part -- It's part of the consideration, sure.

Q. It's not unimportant, is it?

A. No, it's not. It's equally important, 07:32:12PM but it's not listed as one of the four tests of highest and best use. It would be lumped in with area analysis, I think.

Q. And 2019, you did a Criterion 3 report dated December 15th, 2019 that was provided to the City of West Chicago for their analysis; is that correct?

A. In this matter?

Q. Yes.

A. I would have to go back and look. That might be true, yes.

Q. Okay. Showing you what's been marked as PWC Exhibit 301.

07:32:41PM

We'll skip that. Sorry.

Do you recall that the two -- the report between 2019 and 2021 is approximately -- it's very, very similar; there were very few changes, correct?

A. That- -- That's probably true.

Q. In fact, you really didn't do a lot more analysis of the actual uses other than to know if more sales were in your 405-acre manmade area between the two reports, correct?

07:33:12PM

A. I would have to go and look at both of them next to each other in order to determine

that, but that wouldn't surprise me.

Q. Would you agree with your study area, the 405-acre area is not far from the boundaries of incorporated DuPage County?

A. There are portions of incorporated DuPage County near the study area, yes.

Q. And your study area is also near the boundary of St. Charles, correct?

A. My study area is also ...

07:33:40PM Q. Near the boundary of the City of St. Charles?

A. Yes.

Q. And in the report, you provide -- you provide a zoning map for just the City of West Chicago and you put it on the screen area already, correct?

A. Yes.

Q. You didn't provide any zoning map or analysis for property in incorporated DuPage

07:33:59PM County, did you?

A. Well, I think that -- No, I didn't provide a specific zoning map for that, but I

believe the zoning map that I have in there, I have to look at -- or one of that maps that I have in there identifies portions of the DuPage County area as -- for their -- for their zoning district.

Q. Okay. And you didn't provide any zoning map or land use map for the property in St. Charles, did you?

A. No.

07:34:26PM Q. Does your -- Does your report mention any of the larger developments that's going on along North Avenue to the west?

A. No, it doesn't specifically identify that.

Q. In fact, your report does not mention the fact that the old Pheasant Run Golf Course is now in the process of redeveloping as an 84-acre industrial use, correct?

A. It does not say that specifically.

07:34:51PM Q. And, again, it doesn't mention anything about the Honda dealership that has been developed since your 2019 report, correct?

A. No, it doesn't deal with that specifically.

Q. Okay. In fact, your report has aerials on pages 320 to 330, and I think you showed some of them here on the screen, from 1988 to 2012.

Do you remember that?

A. Yes.

Q. That report has no aerials from after 2012, correct?

07:35:17PM

A. I don't believe it does.

Q. And you have an aerial that you showed earlier from 2005. And I think the point you made when looking at that was to show that it demonstrated the people with who -- if someone would move in next to the parcel back in 2005, correct?

A. Well, I think demonstrated that someone did construct at that -- based on that aerial did construct an industrial building adjacent to the subject property to the north.

07:35:45PM

Q. And at the time the subject property

was not utilized as a municipal waste transfer station, was it?

A. That is also correct.

Q. Can some --

MR. LUETKEHANS: Can we put up, if you don't mind, slide number 11? It would be easier, I think, for everybody to see so that we're looking at the same thing. Is that possible?

07:36:18PM HEARING OFFICER PRICE: Joe, can you do that?

MR. LUETKEHANS: Thank you, Joe.

BY THE WITNESS:

A. Is that slide 11?

Q. Yeah.

A. Okay.

Q. And that's the study area, correct?

A. Yes, that's the identified study area.

Q. And you say that there are manmade

07:36:34PM boundaries that, quote, define the area and effectively isolate and buffers this 405 acre, I guess -- 405 acres from all adjacent

applications?

A. Correct.

Q. And you mentioned it buffers the railroad to the east, right?

A. Yes.

Q. North Avenue to the north, right?

A. Yes.

Q. The DuPage County Airport to the west, correct?

07:36:53PM A. Yes.

Q. And Powis -- And Powis Road on the west, and Hawthorne Lane on the south; is that correct?

A. Yes.

Q. And Powis is currently just a two-lane road, correct?

A. That is correct.

Q. And would you agree that Powis is not the same strength of buffer as North Avenue?

07:37:07PM A. I would have to agree with you that the road itself is not as strong a buffer as North Avenue.

Q. And that's because North Avenue is a seven-lane highway versus --

A. And it shows at that --

Q. -- Powis?

A. -- particular location, it rises in order to go over the railroad tracks. So there's a grade issue associated with North Avenue there also.

Q. And, in fact, the width of Powis Road is very similar to the width of the other roads in your study area, correct?

07:37:35PM

A. I would say yes.

Q. However, there's an area on the southwest of your parcel, do you see that, just south of the subject property and, actually, really close that you decided to leave out of the study area; is that correct, that industrial area?

A. To the south?

Q. Just north of -- Just south of the word subject?

07:37:55PM

A. (No verbal response.)

Q. Yeah. South and below is the same thing.

A. South of the word subject?

Q. Yeah. What's that area?

A. Are you talking about the area that's west of Po- -- west side of Powis Road?

Q. Yeah.

A. Yeah, that's an industrial location. That's an -- That's an area of industrial development.

07:38:21PM

Q. Okay. And that area of industrial development is -- a large part of it is closer to the subject parcel than the far southeast corner of your project area, correct?

A. I would agree with that.

Q. Okay. But you didn't include that in your subject area?

A. Well, as I said, I didn't include it specifically in the defined subject area, but it's part of the due diligence associated with that. Part of the sales analysis or the analysis of the sales that had transpired over

07:38:42PM

there were included in formulating my opinion.

Q. Okay. The sales that were included in formulating your opinion, how far did they go?

A. I would have to go back and look at that, but I think I started out with about a two- or three-mile radius of -- of the subject property, but then used the database service that we have in order to just identify the West Chicago -- the West Chicago industrial market.

07:39:22PM Q. Okay. So --

A. So it was --

Q. I'm sorry.

A. It was both near and far to understand the global nature of the industrial market in -- in West Chicago.

Q. Okay. So what you're trying to do is describe the entire industrial market of West Chicago, was that the point?

A. That's one of the points, sure.

07:39:44PM Q. Okay. And that would also include the DuPage business park?

A. Yes.

Q. Which is south of the DuPage Prairie Landing, correct?
A. Which is south of ...
Q. Prairie Landing Golf Course?
A. Yes.
Q. Okay. Directly to the east of the subject property, are two railroad parcels, correct?
A. Yes.
07:40:06PM Q. In fact, those are residentially zoned, correct?
A. Yes, they are -- they are definitely residentially zoned --
Q. And --
A. -- but unusable as -- for that application because of the configuration of those sites.
Q. Trust me, we could spend a lot of time on that with the people who were -- who put that
07:40:24PM in the report, but that -- that part is not in your report.
A. I guess I dis- -- I mean, I disagree.

I identified the zoning area because I think it shows up on one of the maps as being a residential, an -- I think it's E-1 zoning district.

Q. Okay. But my point is: You -- This whole thing about it not residentially -- it cannot be residentially developed, that's not in your section of your report, correct? You don't discuss that in your analysis?

07:40:52PM A. No.

Q. Okay. Good.

A. No. That's not a specific point.

Q. Okay. How far is it between the subject property to the east edge of the railroad property; do you know?

A. Subject property to the east edge of the railroad? The subject property basically abuts the railroad right of way.

Q. Okay. So how far to the east edge of

07:41:13PM that?

A. I don't understand the question.

Q. Well, here, the railroad is on the

east edge of the subject property, right?

A. Yes.

Q. How far away is the east edge of the railroad from the east edge of the subject property? How -- How wide is the railroad there?

A. What's the railroad right of way width?

Q. Yeah.

07:41:29PM A. I -- I don't know specifically, but they're, typically, at least 100 feet.

Q. Okay. So would you say they're probably a couple hundred feet or so?

A. I would have to go back and look at the Sidwell Maps, but my experience with railroad rights of way indicates that they would -- you know, they should be right around 100 feet, but I would -- that would be subject to my looking at those maps.

07:41:53PM Q. Okay. In this case, those railroad -- there's two railroad lines, correct?

A. Right.

Q. Okay. That's, I guess, why I was guessing 200 feet. I'm not trying to ...

A. It -- My -- If I -- I mean, if I had to guess, I would guess it at 200 feet or so.

Q. Okay. And directly east of that railroad property appears to be a farmhouse, correct?

A. Yes.

Q. And other than farm, that's a vacant parcel, correct?

07:42:17PM

A. Yes.

Q. Now, you mentioned a property just to the north of that farm, there's the southeast intersection of the railroad and North Avenue as a material handling yard.

Do you see that? I think you talked about it on page 3-32.

A. Yes. That would be the Conte property.

07:42:33PM

Q. Yeah.

However, you never mentioned this farm directly to the east, which is on your

report, do you?

A. No. I think that -- I think that in the overhead it indicated that there was areas of vacant land that surrounded -- you know, that surrounded the subject property. That would be part of that vacant land.

Q. Okay. But you specifically pointed out in your presentation in your report the Conte property, right?

07:42:54PM A. I did.

Q. And that's further away from the parcel than this -- than this farmland we're talking about, isn't it?

A. It -- It is further away and it was pointed out specifically to demonstrate the type of application that was going in, in the area and the consistency with that type of industrial application.

Q. Your report doesn't mention any

07:43:17PM possible effect the waste transfer station could have on this farm property, does it?

A. (No verbal response.)

Q. I'm talking about your report. Does it mention any possible effect on the farm property?

A. No. No, it does not deal with the specific impact. It -- It globally indicates that the -- in my opinion, there will be no deleterious impact on value.

Q. Okay. Your report also doesn't mention any possible effect on the future development of this farm either, in specific matter, correct?

07:43:49PM

A. No, it does not.

Q. And it doesn't mention any possible future issue -- future uses of this farm, does it?

A. It does not.

Q. The traffic will go much beyond this manmade 405-acre boundary, correct?

A. I'm sorry?

Q. I'm sorry.

07:44:07PM

The traffic from the waste transfer station will go far beyond this manmade boundary

that you use as your study area, correct?

A. The traffic?

Q. Yes.

A. I don't know how to answer that question. I would presume that the -- if you're talking about the trucks that will bring product -- I call it product -- to the site and remove product from the site, they will come from areas beyond the 405 acres.

07:44:38PM Q. Okay. That's -- I guess that's my point. This -- This project would generate traffic outside of your 405 acres, correct?

A. Yes.

Q. And the traffic will be coming from both the north and the south -- north and south on Powis Road; isn't that correct?

A. That's possible, yes.

Q. And if it goes -- if it goes outside of -- if the traffic goes outside of the study

07:45:02PM area, one of those areas it will go is North Avenue, correct?

A. Again, I'm sorry. It was --

Q. Sorry.
A. It was muffled.
Q. Let me -- I'm sorry. Let me clean it up.
The traffic that will go to the north will -- much of it will -- would you agree, will go onto North Avenue?
A. I would presume that that will be one of the primary roadways that will be used.
07:45:27PM Q. Okay. And that traffic will proc- -- some of that traffic will proceed west, correct?
A. Yes.
Q. And some of that traffic will go in front of this new industrial development area and the new Honda dealer we were talking about, correct?
A. Yes.
Q. And traffic related to the waste transfer station will also be using the roads
07:45:47PM just south of Hawthorne, this manmade area you came up with, correct?
A. I didn't come up with it. The road

was actually there. I didn't make it up.

Q. Okay. But the traffic is -- is -- That traffic going down Powis isn't going to stop at Hawthorne, is it?

A. The traffic going down Powis is not going to stop at ...

Q. Hawthorne Lane?

A. No. It may -- Whatever traffic goes south on -- south on Powis could turn onto Hawthorne Lane, yes.

07:46:19PM

Q. Okay. And then from there, a lot of that traffic will go further south on Route 38, would you agree?

A. It -- It might or, you know -- and it may go -- it may go east of there into the industrial district that's located east of the railroad right of way.

Q. On page 3-34 of your report, you mention that there are numerous outside storage yards and truck farms in the 405-acre area.

07:46:39PM

Do you recall that?

A. Yes.

Q. Where are those uses? Can you point them out to me on the map or somehow show me where those are?

A. Well, the outside storage areas include the subject property's current use. The Conte property has outside storage areas. There's, I believe, a liquid -- I forget the name of the company -- that are located in that more generalized industrial area that has

07:47:07PM outside -- some outside storage. So those would be part- -- parts of it.

It's my recollection that one of the sites that's located to the south of the subject property may be used for -- one of the vacant sites may be used for outside storage additionally.

Q. How about truck farms?

A. How about truck farms?

Q. What are truck farms to do?

07:47:29PM A. I -- I consider those terms to be somewhat interchangeable. So I would have to say that those are the same things.

Q. Okay. So you do know that the City of West Chicago staff has been discouraging properties of being developed with just truck and car marking on them, correct?

A. I am aware that that is a common practice. I'm not specifically aware.

Q. And it doesn't surprise you that that's a practice of the City of West Chicago, correct?

07:47:53PM A. Doesn't surprise me at all.

Q. Okay. You also mention on page 3-34 there's open land that's part of an airport district.

Other than the airport, the property directly to the south, were you talking about any other parcel?

A. No. I mean, there is -- for lack of a better term, there is open space on -- on the airport property itself, some of which is used

07:48:17PM for plane, you know, tie downs; but the other section of open land is this farm that's located to the east.

Q. Okay. But -- So the open land, you're talking about the one -- beside the one south of the parcel, is all that land inside the fence?

A. Yes.

Q. Okay. That's inside the airport fence, for lack of a better term?

A. Yes.

Q. Okay. And that's not inside your study area, correct?

07:48:43PM A. Was not inside the identified study area. I'll repeat again, that I -- as part of this analysis, I additionally did due diligence associated with property values and uses that are outside of the -- of the 405 acres.

Q. Okay. Let- -- Let's -- You said that a number of times. You have the right to say it, but I'm using your term "study area" --

A. Yes.

Q. -- it's the 405 acres. Let's say the

07:49:04PM study area. Let's stay --

A. Sure.

Q. -- with that so you don't have to keep

explaining the same thing. We're talking about the same thing. Okay?

A. Okay. Sure.

Q. I'm trying to use your term so we don't have to go down that road.

You say in the second paragraph on page 3-34 [sic], you, quote, conclude that appropriate planning and zoning exists to maximize the value of area property and to minimize negative impacts on surrounding uses.

07:49:30PM

A. What page are you looking at?

Q. 3-45, it's the second paragraph.

A. Okay. Go ahead.

Q. And you say in there, don't you, you "conclude that appropriate planning and zoning exists to maximize the value of area property and to minimize negative impacts on surrounding uses"?

A. Yes.

07:49:55PM

Q. So is it your opinion that any type of industrial use, no matter how large or the type, could not have any negative effect on property

values or the uses of the nearby properties here?

A. Globally?

Q. Yeah.

A. If you -- You just used the term any type of --

Q. Yeah.

A. -- industrial development.

No, it's not my opinion at all. That's not the question I was asked in this instance.

Q. Okay. You also discuss the legal permissibility of a waste transfer station in this area, correct?

A. Yes.

Q. And that's always a highest and best use analysis; is that correct?

A. Yes.

Q. You would agree with me the waste transfer station is not currently permitted in this district, correct?

A. I would agree.

MR. MUELLER: I've got to offer an objection here in that whose (phonetic) control of the facility siting is exempt from local land use.

MR. LUETKEHANS: I understand that. It was your witness who brought -- who put it in his report. I'm just making sure everybody understands it.

BY MR. LUETKEHANS:

07:50:59PM Q. The waste -- Okay.

HEARING OFFICER PRICE: If we're moving along, the objection is overruled.

BY MR. LUETKEHANS:

Q. Isn't it true that the City of West Chicago has permitted -- prohibited any property owned by the DuPage Airport Authority from being utilized as a waste transfer station?

A. I don't know the answer to that question.

07:51:11PM (Brief pause.)

BY MR. LUETKEHANS:

Q. Showing you what has been marked as

PWC Exhibit 1.

(PWC Exhibit No. 1 marked for identification.)

BY MR. LUETKEHANS:

Q. Before you -- Before you talked -- Sorry about that.

You're familiar with the -- with the fact, aren't you, that the DuPage Airport Authority (indiscernible) --

07:51:54PM THE COURT REPORTER: I'm sorry.

BY MR. LUETKEHANS:

Q. You're familiar, are you not, with the fact that the DuPage Airport Authority has an intergovernmental agreement with the City of West Chicago that handles or that deals with all of the zoning own- -- on property owned by the DuPage Airport Authority, correct?

A. I -- I believe I'm aware of the existence of such a document, but I'm not

07:52:18PM familiar with all of the terms with it.

Q. Okay. But you're familiar with the fact that all the parcels in the DuPage -- owned

by the DuPage Airport Authority are zoned airport district, correct? You looked at the West Chicago zoning --

A. Yes.

Q. Okay. And this document that's been handed to you, PWC Exhibit 1, is that original governmental agreement.

Okay. So I'm going to bring your attention to the bottom of page 10.

07:52:48PM A. Okay.

Q. And it says C. Prohibitions: The parties -- which in this case, are the Airport Authority and West Chicago -- expressly agree that no portion of the property -- which is the airport property -- shall be used for any of the following purposes.

Do you see that?

A. I do.

Q. And No. 1: A regional or non-regional

07:53:07PM pollution control -- pollution control facility as those terms are presently or will in the future be defined and [sic] discussed in

414 ILCS 5/3.32 or any other statute making provisions for such facilities.

Are you aware of that?

MR. MUELLER: Object to relevance. This is not the subject property, nor is it owned by the Airport Authority.

MR. LUETKEHANS: The relevance is this is a zoning ord- -- zoning matter decided the City of West Chicago that said that a pollution 07:53:39PM control facility should not be in this particular area.

HEARING OFFICER PRICE: No, not this area. It's defined property, and it's not this property. That is not his opinion.

BY MR. LUETKEHANS:

Q. Well, let me ask the question --

HEARING OFFICER PRICE: I will sustain the objection.

BY MR. LUETKEHANS:

07:53:53PM Q. The City of West Chicago, their decisions -- Well, let me ask: One of the things you looked at, correct, are allowed uses

in a particular area?

A. Yes.

Q. Okay. And you also look at those things prohibited by the zoning authority in a particular area, correct?

A. In part.

Q. Okay. And one of the things that are prohibited in this particular area, ten feet away, is a pollution control facility, correct?

07:54:24PM A. That's what I believe this says, yes.

Q. Okay.

A. But it's not the subject property.

Q. I understand that.

A. And the -- And the existence -- The agreement that the airport made with the municipality is a whole separate kettle of fish in terms of -- in terms of the impact of this -- the impact of the question that I was asked.

The fact that they have made this

07:54:50PM arrangement is, in my opinion -- had no relevance whatsoever to the -- to the opinion in the study that I did.

Q. That's fair enough. You're entitled to your opinion.

Paragraph 4 on page 3-45, under Discussion of Legal Permissibility, says, In addition, the subject property also received approval for an amended preliminary and final PUD from West Chicago for additional site improvements.

A. Yes.

07:55:14PM Q. Do you see that?

A. Which page are you on?

Q. 3-45, paragraph 4.

A. Okay.

Q. It says: In addition, the subject also received approval for [sic] an amended preliminary and final PUD from West Chicago for additional site improvements.

Do you see that?

A. Yes.

07:55:32PM Q. The PUD did not approve a waste transfer station, correct?

A. I agree.

Q. Okay. If we go to page 3-48, the last paragraph, first sentence says: My search for sales data this study area.

Is that the same 405-acre study area or is that something broader?

A. Broader.

Q. Okay. So there aren't 300 transactions since 2013 --

A. I would have to go back and count the exact transactions in the 405 acres, but it is not 300.

07:55:56PM

Q. That's fine. That's my question. I'm not asking you to tell me how many transactions.

Later on in that same paragraph, you talk about the limited sales activity in the study area.

And I guess my question here is: Are you talking about the 300 transactions in the two sentences above or are you talking about just the 405?

07:56:16PM

A. I'm talking about the 405 acres that there are -- there are -- I would call limited

transfers of properties in the -- of the heavy industrial zoned applications. I believe that that's what it says.

Q. So what you're saying is this particular 405 acres has limited sales activity since 2013?

A. Yes.

Q. You said that the limited sales activity in the study area is conductive to -- 07:56:51PM conducive -- excuse me -- to long-term occupancy by users like LRS, the DuPage Airport, et cetera, correct?

A. Yes.

Q. Okay. On page 30-49 in your sum- -- 3-49 in your summary, you state that this proposed waste transfer station will not have a negative effect on property values in the area. And you're relying heavily on the highest and best use analysis, correct?

07:57:20PM A. I'm relying on both, the two -- I'm relying on both prongs of the test.

Q. The second prong of the test relies

heavily on the highest and best use analysis?

A. That is correct.

Q. And you didn't provide any data or any reported property sales before a waste transfer station was built versus after a waste transfer station was built, did you, in your analysis?

A. (No verbal response.)

Q. You didn't do a before-and-after analysis or a match-pair analysis?

07:57:49PM A. No. Actually, that was one of the neat things about this particular location. It already had a transfer station.

So by going back 20 years -- 15 or 20 years in terms of sales data, I was able to -- I was able to study what actually happens in an area where one exists. And in this particular instance, what -- what we really have here is an expansion of an existing facility as opposed to something that is brand-spanking new

07:58:17PM that is coming in. So as far as I was concerned, it was almost an ideal set of circumstances to complete a study.

Q. So you didn't -- But you still didn't provide any data from before versus after of any waste transfer station, correct, just so we're clear?

A. I -- I didn't provide any study of competitive waste transfer stations outside of this area.

Q. And you didn't provide a before-and-after of this area, correct?

07:58:45PM A. (No verbal response.)

Q. I mean, we don't know what the sales were in this area before Groot came in or before that whole transfer station site, correct?

A. Well, I would have to go back and look at the -- at the dates on sales transactions that we looked at. My suspicion is, is that some of them precede the -- I don't -- As I sit here, I don't know the exact data that Groot -- you know, Groot coming into the -- to that

07:59:10PM location. So I would have to go back and look at -- I'd have to go back and look at the dates on sales that we have as well as the dates --

the date that Groot took possession.

Q. So we don't know because we don't have --

A. I just don't know right now, as I sit here.

Q. Okay. So it's not in your report, correct?

A. That is correct.

Q. That's really what I'm trying to figure out.

07:59:30PM

HEARING OFFICER PRICE: All right. Mr. Luetkehans, how much longer do you have?

MR. LUETKEHANS: Probably about 20 or so minutes, if you want to take a break.

HEARING OFFICER PRICE: Yeah. Let's take ten minutes. Give the court reporter a break.

So we'll reconvene at ten after and take a break.

08:09:11PM

(A short break was had.)

HEARING OFFICER PRICE: Back to you, sir.

BY MR. LUETKEHANS:

Q. Mr. Kleszynski, you base the fact that the -- that part of your analysis that property values or -- there's a minimal effect of the property values because waste transfer station is the highest and best use, correct?

A. No. I actually think that it's a little different than that.

Q. Okay.

08:09:43PM A. What I concluded was, is that current use of the property as well as the expansion of the property to include the waste transfer station is, in fact, the highest and best use of that property.

And that when the property is, in fact, at its highest and best use, it does not become any form of obsolescence that would impact its own value or the value of surrounding properties.

08:10:09PM Q. So you're basing it on the fact that it will be obsolete?

A. No. Obsolescence, in terms of

appraisal, really comes out to be, like, for example, there's things like locational obsolescence, there's functional obsolescence. Those are all things that are taught in appraisal school.

And the form of obsolescence is really the measure of diminution in value associated with the impact of whatever that quote/unquote detrimental condition might be.

08:10:41PM So what I'm saying is, is that, the property will not be in -- once the -- once it is approve- -- or if it is approved and completed, it will not be functionally obsolete, and that it will, in fact, be the highest and best use of the property and so, therefore, will not become part or become a form of locational obsolescence for the properties next-door or nearby.

Q. Okay. And where does that come from?

08:11:10PM What treatise or article does that come from?

A. That comes from The Appraisal of Real Estate 15 -- actually, from all of the editions

of The Appraisal of Real Estate under the topic of functional obsolescence, locational obsolescence, and economic obsolescence.

Q. Does it talk about the definition of highest and best use of it, treatise?

A. Does that treatise talk about highest and best use?

Q. No. It's the highest and best use section on treatise. And all I'm talking about is the functional obsolescence.

08:11:38PM

A. I think it's a different section of the text material, but it's all intertwined.

Q. Okay. Isn't it true that the definition of highest and best use goes to value? All the definitions of highest and best use go to value, correct?

A. No.

Q. Okay. When you determine highest and best use, what you're trying to determine is the highest value for the property, correct?

08:11:59PM

A. No. What you're trying to determine is all the legally permissible, physically

possible, and -- I want to make sure that I read them directly off of the material.

What you're really trying to do, when you estimate highest and best use, is you're trying to determine whether the legally permissible -- what's legally permissible, physically possible, financially feasible, and maximally productive application is appropriate for the subject property so that if you were, in
08:12:32PM fact, going to complete an analysis of the value of that property, what you would then do is that would allow you -- that would assist in selecting the comparable sales that you would do.

In this particular instance, it's slightly different. All I'm suggesting here or all I'm concluding here is that when the subject meets those four tests, it is unlikely or it won't become part of the economic or locational
08:13:01PM obsolescence that might have an adverse impact on the value of surrounding real estate.

Q. Okay. But you're not -- I mean, to

get to the highest and best use, what you're trying to determine is the highest value --

A. No.

Q. -- the highest value?

A. No.

Q. Okay.

A. I mean, if -- ultimately, if you were doing an evaluation of the property, if you were -- if you were doing -- and if I was -- if

08:13:24PM my function in this instance was to come up with the estimated market value of that particular piece of real estate, that would be -- that would be part of the steps or that would be something that I would end up doing, but in this particular instance, that's not the case.

Q. Okay. So let's talk about the definition of highest and best use.

You got that definition that you put in your report from the Dictionary of Real

08:13:48PM Estate Appraisal Fifth Edition, correct?

A. Yes.

Q. And what year was that published?

A. Oh, I don't know, but we're now, I think, up to the sixth edition. So ...

Q. Actually, we're up to the seventh.

A. I'm sorry. Seventh edition.

Q. 2022, right?

A. Yes.

Q. Okay.

A. And that then -- If that's the case, in the -- in the report, it should have said seventh edition. I must have missed it on the proofreading.

08:14:03PM

Q. Well, I don't think your report said. I had to go find it. So I don't --

A. Okay.

Q. -- think your report said.

But going to your report, let's read the reasonable -- the definition of highest and best use: The reasonable, probable, and legal use of vacant land or improved property, which is physically possible, appropriately supported, financial feasible, and that results in the highest value. Correct?

08:14:21PM

A. Yes.
Q. So that's -- that's the purpose of the definition of highest and best use?
A. No. That is the definition of highest and best use --
Q. And it --
A. -- as applied in the evaluation of real estate.
Q. Okay. And so that's the definition of
08:14:41PM highest -- the definition of highest and best use includes something that results in the highest value, correct?
A. Ultimately, I suspect that it would be true, that if -- that if a property represents its highest and best use is determined to be the highest and best use. Contemporaneously with that conclusion, the likelihood is, is that would give it its highest value, which is exactly what I said in this particular instance,
08:15:10PM that as a specialized piece of real estate, it not only gets its -- it not only is the highest and best use, but it will -- it will have the

highest value -- I suspect it will have -- would have the highest value. And that if those two things are true, it will not have a negative impact on the real estate that's nearby.

Q. Nowhere in that definition does it mention the words "minimize the effect on the value of the surrounding property"?

A. You're absolutely correct.

Q. And nowhere in there does it talk about minimization of incompatibility or minimizing incompatibility, does it? 08:15:41PM

A. You are absolutely correct.

Q. And none -- The seventh edition also has the language highest and best use -- or has the language highest value or highest and best use?

A. Those things are intertwined depending on the assignment that's given to -- it's dependent on the assignment that's given to the appraisal and the scope of work that's developed in order to come up with a reasonable conclusion -- 08:16:08PM

Q. Okay.
A. -- under the guidelines that we follow.
Q. Showing you what has been marked as PWC Exhibit 301, we're going to give you both -- you're going to receive 301 and 302 so you have them.
(PWC Exhibit No. 301 marked for identification.)
08:16:32PM BY MR. LUETKEHANS:
Q. So PWC Exhibit 301 is the seventh edition, right, of the highest and best use valuation -- or highest -- it includes the highest and best use definition, correct?
A. This is a cover of the -- This is a cover of the Dictionary of Real Estate Appraisal Seventh Edition, which is correct. And then what you have highlighted is highest and best use, and it gives the defin- -- it gives the
08:17:20PM definition of highest and best use.
Q. And it gives four different definitions, is that fair to say?

A. No. Actually, I think that what this is, is this is a summary of the four -- I believe, it's a summary of the four tests of highest and best use, but --

Q. Okay.

A. -- if you want me to read them to be sure, I'll be glad to do that.

Q. I'll take your understanding.

Number 1 says: The reasonable property, use of property that results in the highest value, correct?

08:17:45PM

A. Sure.

Q. And number 2 talks about the use of an asset that maximizes its potential, correct?

A. Yes.

Q. And 3, the highest and most profitable use, correct?

A. Yes.

Q. And number 4 talks about maximizing the value of the asset or group of assets, correct?

08:18:00PM

A. Yes.

Q. And highest and best use is what you -- this highest -- The definition of highest and best use is the -- is the only -- is what you cite in your report, correct?

A. Yes.

Q. You talked about obsolescence, but there's no section from the Appraisal Institute, either the dictionary or The Appraisal of Real Estate that talk about -- that's in your report that mentions the word "obsolescence," does it?

08:18:22PM

A. No. The word "obsolescence" is not mentioned.

Q. Okay. So first, it's not anywhere in your report?

A. Yes, that's correct.

Q. Okay. So we spend a number of pages and we saw on the thing, a number of pages just on highest and best use, correct?

A. Yes.

08:18:42PM

Q. Okay. And let's go to PWC Exhibit 302.

(PWC Exhibit No. 302 marked for identification.)

BY THE WITNESS:

A. Okay.

Q. And this is The Appraisal of Real Estate?

A. Yes.

Q. 15th edition?

A. Well, this is a very small section.

08:19:06PM Q. Yeah. Correct.

A. It's The Appraisal of Real Estate.

Q. The Appraisal of Real Estate is hundreds of pages, correct?

A. Hundreds of pages.

Q. So I just took -- I really just took the -- tried to get to the highest and best use, which is about the eighth page in.

A. Sure.

Q. Sec- -- Chapter 17, correct?

08:19:21PM A. Yes.

Q. Okay. And this has a slightly different version of the definition of highest

and best use, correct?

A. That is correct.

Q. And it says the definition is a reasonably probable use of property that results in the highest value, correct?

A. Yes.

Q. And then it goes on to say the reasonable probable use with the highest value is the highest and best use?

08:19:45PM A. Yes.

Q. Okay. So there we go again with the highest value, right?

A. Once again, this definition is related to the exam- -- or to the examination of the issue of real estate valuation theoretically of the fee simple interest of a piece of property. But go ahead.

Q. Yeah.

But this is the only section from

08:20:04PM The Appraisal Institute that you put in your -- that you put in your report, correct?

A. That is correct.

Q. Okay. Nowhere in this analysis of highest and best use, again, does it say that the property will -- that the highest and best use of a property will minimize the effect of value surrounding property?

A. The term minimize the effect of value is part of a -- of the criterion that was part of the -- I presume, it's part of the law. And so it would not be in The Appraisal Institute text material.

08:20:36PM

Q. Okay.

A. It's related to the specific law that we have come here to dis- -- you know, the criterion that we've come here to discuss. And so it's the application of the concept of highest and best use that becomes critical in deter- -- or at least partially critical to determine whether or not there will be an impact on value or if the subject meets the tests of the Criterion 3.

08:21:05PM

Q. Are you saying that there are no negative effects caused by this proposed waste

transfer station?

A. I'm saying that, in my opinion, there are no negative effects on value or to the other -- to the properties located in that area based on the study that I completed.

Q. Okay. You don't cite any studies, treatises, or other scholarly articles to support this finding, do you?

A. You -- Are you referring to the text material?

08:21:35PM

Q. In your report, you don't cite any studies, treatises, or other scholarly articles other than the highest and best use definitions to support this finding, do you?

A. No. That was my job, to -- to create the -- or to create or come up with a finding. Based on my knowledge of real estate appraisal and my expertise in that area and my understanding of the concepts of real estate appraisal and consulting, it was my job to come up with the scholarly treatise in this matter and make a determination.

08:22:02PM

Q. Okay. But, again, you did that on your own, you didn't rely on any other studies, correct?

A. No. That's what I was -- I was hired to complete a study in this instance, and that's what I did.

Q. In any of your study, you don't have a paired analysis, you don't have a before-and-after analysis, correct?

08:22:31PM A. I do not have a paired sales analysis in this study.

Q. Nor do you cite any?

A. Nor -- Nor a before and after analysis because those are not applicable in the location and use that we have here.

Q. You do not propose any mitigation or minimization of any -- anything to minimize incompatibility to this waste transfer station because you don't see no negative effects since

08:23:00PM it's not highest and best use?

A. I didn't understand that question.

Q. Let me -- You're not proposing any

mitigation on this property to this waste transfer station because you do not see any negative effects since its the highest and best use, correct?

A. I didn't propose any mitigations on this property because that wasn't part of my scope of work or function, nor would it be within the area of my expertise.

What I did was I es- -- I

08:23:30PM determined, based on the sales data that I reviewed and trends of -- of value in the area over an extended period of time, that the use that's proposed, based on the drawings that I've seen and what I know at this exact date and time, that this property will not -- the use of this property will not have a deleterious impact on any property in that area. And that it is, in fact, the highest and best use of that property.

08:24:02PM Q. Again, we don't have any data that you relied upon, correct?

A. No. All that -- All that data, as it

says in -- I believe it says in the report, is retained in my file as required under the Uniform Standards of Professional Appraisal Practice.

Q. None of which you which brought here in front of us, correct?

A. Not at this particular point in time.

Q. Okay. Do you think it's important to look at West Chicago's opinion of incompatibility in this general area of a waste transfer station with the area?

08:24:34PM

MR. MUELLER: I'm going to object to relevance.

HEARING OFFICER PRICE: We've got six lines of this. So I'm going to overrule the objection.

Go ahead.

BY THE WITNESS:

A. Are you referring to this document that you've identified as PWC 1?

08:24:50PM

Q. No. I'm just asking generally.

A. My suspicion is that the municipality

will act in its own best interest to further itself on the appropriate way, as it appears that they've done in this entire area -- in this entire area in their -- in their zoning ordinances, and that they'll go through the appropriate process in order to come up with a solution to the problems that are -- that are set.

So all I'm doing in this instance
08:25:22PM is I am saying, based on the work that I did, the data that I looked at, my expertise as an appraiser, and my understanding of the appropriate appraisal and consulting concepts, that this property does not -- will not be a source of economic or locational obsolescence to other properties in this area; and that is, the use is, in fact, the highest and best use of that property. The intended use is the highest and best use of that property. That is my
08:25:59PM opinion.

Q. So I guess my question -- back to my question is: Would it then be fair to say the

City of West Chicago's prior opinions about compatibility or incompatibility with a waste transfer station with a particular area, doesn't mean anything to you?

A. Well, certainly when you say it doesn't mean anything, I think that that's just a cheap shot, candidly. And what I think, basically, it boils down to is that -- is that certainly the municipality's entitled to its opinion. That may or may not -- That may or may not coincide with what the data tells me as trained appraiser.

08:26:29PM

Q. Okay. So whatever their prior opinion is, may or may not coincide with your opinions, is that --

A. Sure. That's absolutely correct.

Q. Okay. And your opinion is the only -- is what matters, correct?

A. My opinion --

08:26:52PM

MR. MUELLER: I'll object.

HEARING OFFICER PRICE: Sustained.

MR. LUETKEHANS: Nothing further.

HEARING OFFICER PRICE: Mr. DeLaRosa?
MR. DELAROSA: No further comments.
HEARING OFFICER PRICE: Mr. Callaghan?
MR. CALLAGHAN: I have a couple follow-up questions.

CROSS-EXAMINATION

BY MR. CALLAGHAN:

Q. You had a slide. I don't know which one it is. It's 12, if we could put it up.

08:27:13PM A. Which one?

Q. 12, it's the zoning map?

A. This one?

Q. Let's see.

A. Okay. Go ahead.

Q. The -- the property that's shaded in purple is manufacturing?

A. Yes.

Q. Okay. And that would characterize the types of uses that are permitted in this area,

08:27:43PM correct?

A. Yes.

Q. And would -- would you -- would it be

your opinion predominant permitted use in this area is manufacturing industrial, and you provided a list of uses, correct?

A. Yes.

Q. Okay. And the uses that you've identified, other than vacant land, is also consistent with that zoning?

A. That would be my opinion, yes.

Q. So would that characterize this area?

08:28:12PM A. It would.

Q. What is the -- If you know, what is the closest residential use in West Chicago to the subject property?

A. Are we talking -- There's a couple to the east. There's a couple of what I would consider to be county locations that are on -- that are older homes on larger lots. Okay?

But then if you go east of that, there's two subdivisions. I believe one is

08:28:42PM called Prestonfield (phonetic) and the other is called Willow Creek, that are located to the east of that.

And when I measured them, it was -- it was between 6- and 7,000 feet from the center point of the subject property.

Q. And those are the closest West Chicago residential properties?

A. Yes.

Q. Now, the airport agreement that you were shown, Exhibit PWC-1 --

A. Yes.

08:29:17PM Q. -- do you have that in front of you?

A. I do.

Q. If you could go to page 5, paragraph F?

A. Okay.

Q. It provides for expiration of the agreement?

A. Yes.

Q. Okay. Could you take a look at that and tell me if this agreement will expire or can

08:29:45PM expire if the party -- either party determines that it should, in less than three years?

A. That is correct.

Q. The property to the south, I think you said, of the subject property -- I think you said -- is a closed landfill?

A. Yes.

Q. Do you know what limitations are on that property for development?

A. I -- I just don't recall as I sit here today.

Q. And an appraiser and somebody who analyzes the use of real estate, are there typically limitations on the use of closed landfills?

08:30:13PM

A. Yes.

Q. But you don't happen to know what they --

A. I don't know what they -- the specific ones are in this instance.

Q. Okay. There was also -- Mr. Luetkehans mentioned the Pheasant Run property that apparently is being redeveloped?

08:30:41PM

A. Yes.

Q. It is an industrial development?

A. Yes.

Q. Would that use be incompatible with the use of the subject property for a waste transfer station?

A. No. Actually, in my opinion, because of the proximity of that particular property, of the golf course there --

Q. Yes.

A. -- I think that it shows a trend of development toward industrial application. The likelihood -- I mean, I haven't looked at that what will go on that site specifically, but my suspicion is, is it's going to be similar to what you see along North Avenue in terms of distribution centers and things of that character would be my guess.

But in my opinion, again, to my it's demonstrable evidence that the area has -- has a strong inclination towards industrial applications.

Q. Okay. Going back to slide 12, which is the zoning map, I think you had made

reference in your testimony to the fact that the City of West Chicago has done a good job in allocating the area -- the various areas within the city for land uses that are compat- -- internally compatible with each area?

A. That's correct, and that is my opinion.

Q. And -- And this slide 12 would show that?

08:32:02PM A. Yes, it would. Not only on this area, but if you go north of North Avenue in the area that's on the east side of Powis Road, all the way to the point there, there are various, again, similar applications that are consistent at uses here.

Q. I think you may have said this, but the site is currently being used for a construction and demolition debris recycling?

A. That is correct.

08:32:33PM Q. So the site currently has traffic?

A. Yes.

Q. And so it's not like -- we're not

starting with a greenfield, right?

A. Well, I think that's exactly -- that's exactly what made this, from my perspective, such an interesting assignment, because it was an instance where the transfer -- transfer station already existed and has existed for an extended period of time.

Now, what's happening here as far as the subject property is concerned is, you have something that's handling recyclables in the construction and demolition portion of it. Now what you're doing is you're taking a logical expansion of that -- of that use to the use that's intended.

08:32:59PM

Q. And, again, looking at slide 12 and the uses that we discussed -- manufacturing, industrial -- do those generate traffic?

A. Sure.

Q. And the subject site is zoned for manufacturing and industrial?

08:33:24PM

A. Yes, that's correct.

Q. So it's anticipated, presumably by the

city and zoning department of that way, that traffic will be generated on the property?

A. Yes.

Q. Now, in the course of your work as an appraiser, do you study the character of areas?

A. Sure.

Q. From a real estate perspective --

A. That's correct.

Q. -- and land use perspective?

08:33:52PM Do you study zoning?

A. Yes.

Q. And in connection with your study of this property, you looked at all of those things that would typically be part of any study that you do?

A. Yes.

Q. So you do this in the course of your daily work?

A. That's correct.

08:34:12PM Q. And I think you said the fact that there is a Groot transfer station down the street provides almost, like, a laboratory for

the area in that you have this out there already?

A. That is correct.

MR. CALLAGHAN: That's all we have. Thank you.

HEARING OFFICER PRICE: Mr. Walsh ...

MR. WALSH: No questions, Mr. Hearing Officer.

HEARING OFFICER PRICE: Thank you, Mr. Walsh.

08:34:43PM

Mr. Mueller, any redirect?

MR. MUELLER: No thank you.

You are excused, Mr. White Sox.

THE WITNESS: Let's do this again real soon.

(Witness excused.)

HEARING OFFICER PRICE: Mr. Mueller, will you please call your next witness and let us know what criterion they are talking about.

08:35:04PM

MR. MUELLER: The applicant will call Michael Werthmann with regard to the traffic criterion, Criterion 6.

HEARING OFFICER PRICE: Raise your right hand to be sworn in, please.

(Witness sworn.)

HEARING OFFICER PRICE: Mr werthmann, there's a microphone before you. I ask you to use that.

(Brief pause.)

MR. MUELLER: I think we're waiting for the PowerPoint to load.

08:37:39PM HEARING OFFICER PRICE: Joseph, I've only received two PowerPoint presentations unless one was very recently e-mailed to me.

(Discussion off the record.)

HEARING OFFICER PRICE: All right. Well, we will take five minutes while we get the PowerPoint to Joe.

(A short break was had.)

HEARING OFFICER PRICE: Mr. Mueller, to you.

08:43:09PM MR. MUELLER: First of all, the record should reflect that we have handed out, as Exhibits 9 and 10, a CV for Michael Werthmann

and his PowerPoint presentation.

WHEREUPON:

MICHAEL WERTHMANN,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MUELLER:

Q. Mr. Werthmann, could you state your full name and spell your last name, please.

08:43:28PM

A. Yes.

Michael Alan Werthmann,

W E R T H M A N N.

Q. What is your profession, sir?

A. I'm a traffic engineer with the firm of Kenig, Lindgren, O'Hara, Aboona, Inc.

Q. And what was your assignment in this case?

A. My assignment was to address Criterion 6.

08:43:49PM

Q. Which is the traffic criterion?

A. Traffic criterion, correct.

Q. And did you conduct a study and prepare a report?
A. Yes, I did.
Q. And those are in the application, correct?
A. Correct.
Q. Did you then also prepare a PowerPoint presentation which summarizes the report that you have in the application?
08:44:10PM A. Yes, I did.
Q. Would you like to proceed with that, please.
A. Please.
Once again, good evening. My name is Michael Werthmann. I'm a principal at the firm of Kenig, Lindgren, O'Hara, Aboona, Inc. We are a traffic and transportation firm out of Rosemont, Illinois.
I've have been in practice now for
08:44:32PM 27 years. I have been practicing traffic engineering now for 33 years since graduating from Michigan State University with a bachelor's

of science in civil engineering. I'm a registered professional engineer in the State of Illinois and also a certified professional traffic operations engineer.

I've worked on many Waste Management facilities over the years and have provided testimony on over 25 solid waste projects.

As I indicated, my role in this project was to address Criterion 6, which states that the traffic patterns to and from the facility are so designed as to minimize the impact on the existing traffic flow. This was accomplished by performing a traffic study for the improved facility.

A traffic study was based on the methodology accepted within the industry and with transportation and planning officials. It basically consists of a three-stage, three-phase study.

The first study thoroughly examines the existing physical and operating

characteristics of the roadway system. That's how we develop our base condition.

The second phase looks at the facility traffic characteristics, including the type and volume of traffic that will be generated and the travel routes that will be used to travel to and from the facility.

The third phase is the evaluation phase, which evaluates the impact of the facility generated traffic, what impact it will have on the existing roadway system.

So once again, it's a three-phase study. We look at the existing conditions, look at the additional traffic that will be generated, and then add that to the roadway system and see what impact we have on the roadway system.

As we all know, the site -- the existing facility is located on the east side of Powis Road, approximately one-half mile south of Illinois 64. As we've heard, the land uses in the area consist primary -- primarily of

08:46:16PM

08:46:48PM

industrial warehouse and construction-type uses including the DuPage Airport to the west and the existing Groot Waste Connection transfer station to the north.

The existing facility contains several existing operations. These include: One, a construction and demolition recycling and transfer facility that is permitted to process 1,250 tons of material per day; two, is a processing operation that converts wood into mulch and other products; three, is the maintenance and storage of up to 95 vehicles made up of street sweepers, portable restroom trucks, packer and roll-off and single-unit trucks and transfer trailers; and four, the maintenance and storage of portable restrooms, containers, roll-off containers, and carts.

So there's four basic operations on the existing site, a C&D facility, a wood processing facility, a storage for containers and carts as well as parking for various trucks that are used by Lake Shore Recycling.

08:47:37PM

08:48:09PM

Access to the current facility is provided via two access drives on Powis Road. The south access drive provides both inbound and outbound access to the facility. The north access drive is currently gated and not in use.

So let's go into the first page of the study, which is the existing condition. Some of the tasks that were completed as part of this was to examine the existing area of traffic
08:48:49PM and roadway conditions. This included collecting various information and reviewing the data -- transportation-related data, and then the third thing was to conduct traffic counts at critical intersections in the study area.

I'd first like to talk about the roadways within the study area. Let's first talk about Illinois 64 or North Avenue. As I indicated, this is located one-half mile north of the facility. It's an east-west major road,
08:49:22PM a high-capacity road that has three lanes in each direction. It has a high-capacity signalized intersection with Powis Road. This

intersection provides dual left turn lanes and separate right turn lanes, a very high-capacity intersection that can accommodate turning truck traffic. North Avenue or Illinois 64 is classified as a Class II truck route in a strategic arterial route by IDOT, and it's under the jurisdiction of IDOT, and it carries a daily volume of over -- over 30,000 vehicles a day.

As we've heard in the previous testimony, North Avenue has been improved several times over the past two decades to get it to the high-capacity roadway that it is currently.

08:50:02PM

The next road we'd like to talk about is Powis Road. This road extends along the west side of the subject facility. It's a north-south industrial collector road. It provides one lane in each direction. It has an at-grade railroad crossing just north of Hawthorne Lane. As I indicated, it's got a signalized intersection with Illinois 64, and it's under all-way stop sign control at

08:50:35PM

Hawthorne Lane. It's also classified as a Class II truck route. It has a daily traffic volume of approximately 5,500 vehicles.

The last road we would like to talk about is Hawthorne Lane. This is east-west local road, one lane in each direction. It also has an at-grade railroad crossing that's just west of Carolina Drive. It's under all-way stop sign control at its intersection with Powis

08:51:16PM Road. It's also classified as a Class II truck route between Kress Road and Atlantic Drive, and it has a daily traffic volume of around 3,500 vehicles per day.

This slide shows the existing roadway characteristics within the study area and along the Powis Road corridor. It shows the traffic control and the lane configuration at each of the intersections as well as the speed limit on the roadway system.

08:51:52PM In order to determine the traffic volumes on the roadway system, traffic counts were conducted at several intersections along

the Powis Road corridor. These counts were conducted at the intersection of Powis Road with Illinois 64, Powis Road with Hawthorne Lane, Powis Road with the subject facility access drive -- that south access drive I just described, as well as Powis Road, with the two access drives to the Groot Waste Connections transfer station located just north of the site.

These counts were conducted during
08:52:28PM the morning commuter peak period from 6:00 a.m. to 9:00 a.m., and the weekday evening commuter peak period from 3:00 p.m. to 6:00 p.m. In addition, daily traffic counts were conducted along Powis Road south of Illinois 64.

Traffic counts were performed in 2019 pre-COVID pandemic as well as in 2022 post-COVID pandemic. In order to determine the impact that the COVID pandemic had on the area of traffic conditions, the 2019 and the
08:53:09PM 2022 traffic count at the two primary intersections of Powis Road with Illinois 64 and Powis Road with Hawthorne Lane were compared.

So we looked at each of volumes to determine which ones were higher.

Based on that review, it was determined that the 2019 traffic counts were anywhere between 20 to 40 percent higher than the 2022 traffic volumes. So those 2019 pr-COVID traffic volume were significantly higher that 2022 count. As such, to provide a worst-case analysis, a study was based on the 2019 traffic counts.

08:53:49PM

It's important to note that when the 2019 traffic counts were conducted, the C&D facility -- the existing C&D facility processed approximately 750 tons of material on the day of the traffic counts were done. So we -- Fortunately, when we did the traffic count, we also got a peak day at the existing C&D facility where it processed 750 tons of material.

This slide, which is difficult for everyone to see, shows the existing peak hour volumes on the roadway system, plus the morning peak hour volume. Those highest volumes in a

08:54:22PM

one-hour period between 6:00 to 9:00 morning peak period as well as the hourly highest volume during the evening peak hour at the five intersections along the Powis Road corridor.

Next, I would like to talk about the second phase of the study, which is the traffic characteristics of the improved facility.

Excuse me. Some of the tasks we completed under this phase was to determine the characteristics at both improved facility -- excuse me -- the directional distribution analysis -- which way the vehicles will be traveling to and from the facility -- the volume of traffic that will be generated by the improved facility, and then the future total traffic assignment.

The improved facility is proposed to accept a maximum of 1,950 tons of material per day; once again, a maximum of 1,950 tons of material per day. This will be made up of up to 650 tons of municipal solid waste, up to

300 tons per day of hydro-excavation waste, up to 750 tons per day of C&D material, and up to 250 tons per day of recyclables. So we'll have a maximum of 1,950 tons of materials per day, maximum, that will be distributed over four different types of material or waste.

Access to the improved facility is to be provided via the two existing access drives on Powis Road. A south access drive will converted to an inbound-only access drive serving the facility. In addition, Powis Road will be widened in order to provide a separate southbound left-turn lane and a separate northbound right-turn lane serving the southbound access drive. So once again, we'll provide a separate left-turn lane and a separate right-turn lane serving that access drive.

All outbound access will be provided via the north access drive. As I indicated, this drive is not currently being used. It will be reactivated. The drive will provide two outbound lanes and will provide

wider radiuses to accommodate the turning truck traffic.

Next, I would like to talk about the hauling characteristics of the improved facility. The majority of the inbound waste will be delivered to the facility via collection trucks and other single-unit-type trucks. It's anticipated that approximately 60 percent of the inbound traffic will be traveling from the north on Powis Road, and approximately 40 percent will be traveling from the south on Powis Road; so more to the north, lesser to the south.

08:57:38PM

It's important to note -- and this is pretty critical -- that many or most of the trucks and containers that will support the operation of the improved facility are currently stored or parked at the existing facility and will continue to be parked at the existing facility or the improved facility. As such, a large percentage of the traffic generated by the improved facility will consist of Lake Shore Recycling trucks and containers that are already

08:58:09PM

traversing the area roadway system.

Currently, these trucks travel to an off-site transfer station before returning to the subject site to be parked or stored overnight. With the improved facility, these trucks will be able to directly return to the site, not have to go to another transfer station to dispose of their waste or their materials at the improved facility and then not leave.

08:58:49PM They'll dispose of their materials and then be parked for an evening.

This is significant, as it will result in a reduction in the traffic generated by the improved facility and also reduce the miles traveled on the external roadway system, as we do not have to travel to a distant transfer station.

So once again, that inbound traffic that will be generated by the improved facility

08:59:16PM will be significantly reduced given that we have a maintenance and storage yard of the existing trucks on the improved facility.

The outbound waste will be transported from the facility to a landfill via transfer trailer that will be similar in size to the trucks currently serving the facility.

The route that these transfer trailers will use will be -- I'll show you here -- northbound on Powis Road to westbound on North Avenue to southbound on Kirk Road to westbound on I-88. And the trucks coming back
08:59:59PM will use the same route but in a reverse direction. So all of the transfer trailers, the larger trucks will travel north to Illinois 64, west to Kirk Road, south to I-88.

This slide shows the traffic that is estimated to be generated by the improved facility. The volume of traffic to be generated was based on the existing and projected operation of the facility.

This table shows the existing
09:00:36PM traffic generated by the facility, the additional traffic that will be generated by the improved facility, and the total traffic. And

it shows it for the morning peak hour and the evening peak hour. These numbers represent one hour out of the day.

The middle column -- the two columns are for the morning peak hour, the two columns on the far right -- excuse me -- represent the evening peak hour. It's important to note that this table represents a worst-case analysis. As we just indicated, we expect the
09:01:11PM volume of traffic, particularly in the evening peak hour, to be reduced in the fact that a lot of the traffic will be those trucks that are returning back to be parked at the proposed facility and will be disposing of their waste at the facility. As such, they will not be leaving the facility at night.

However, to provide this conservative analysis, we assume all of the traffic would be new inbound and outbound
09:01:40PM traffic. So we really provided a very conservative analysis and assumed all new traffic would be generated by the improved

facility.

Future growth: In addition to the traffic that will be generated by the improved facility, we also looked at additional growth in the area. Even though the criteria says we only have to look at the impact on the existing traffic flows, we understand that there will be some growth in the area. As such, based on projections in the area, all of the existing
09:02:18PM traffic in our study area were increased by 10 percent to account for future growth in the area.

In addition, the future assignment take into account the changes in the site access system using both access drives as one-way drives and also included the proposed improvements along Powis Road.

This slide shows the total projected traffic volumes. We projected out to
09:02:49PM the year 2029, five years after the opening -- projected opening of the improved facility. These volumes include the existing traffic plus

a 10 percent background growth plus the additional traffic to be generated by the improved facility. So it's a very conservative analysis.

Next, I would like to talk about the proposed access system. As I indicated, access to the site will be provided via the two existing access drives on Powis Road. The south drive will be converted to an inbound-only access drive. As I indicated previously, Powis Road will be widened to provide a southbound separate left-turn lane and a northbound separate right-turn lane. This is significant as it pulls that slower traffic that's decelerating to turn into the site out of the through lanes on Powis Road.

09:03:30PM

This will be one of only several developments along the whole Powis Road corridor that actually provides both a separate left-turn lane and a separate right-turn lane. It does a lot to mitigate our impact on the existing roadway system.

09:03:59PM

Outbound access will be provided via the north access drive. Once again, this will be reactivated as an access drive. It will provided two outbound lanes, a separate right-turn lane, and a separate left-turn lane. It will provide an increased radius in that north corner in order to accommodate that turning truck traffic that will be traveling to the north to Illinois 64.

09:04:33PM It's important to note that the plan for Powis Road, the access drive, the improvements to Powis Road have been conceptually approved by the DuPage County Division of Transportation which has jurisdiction over Powis Road. In fact, the engineer has submitted final engineering plans to the County and we've already received their initial comments on those final engineering plans. The County has reviewed the report, the

09:05:04PM plans, and conceptually approved the traffic study as well as the proposed plans.

This picture illustrates the

proposed improvements to Powis Road. Unfortunately, south is to the top of the screen and north is to the bottom of the screen, but the bottom drive would be the outbound-only drive. You can see the two outbound lanes, both the separate left and the separate right. The drive to the top would be the inbound-only access drive. You can see the separate left-turn lane on Powis Road.

09:05:42PM This is a location that if the traffic has to stop to wait for a gap in traffic, it will not be blocking the traffic on Powis Road. We're also providing a separate southbound or northbound right-turn lane on Powis Road.

As I indicated, we take a look at the existing conditions and look at the projected conditions to the determine the impact on the roadway system. This is done by

09:06:13PM conducting traffic analysis, which will -- which will perform using the highway capacity software. This is how traffic engineers

evaluate how an intersection operates.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter grade from A to F based on the average control delay at the intersection.

So what we look at is whatever the average delay is at that intersection, how much time you're waiting, there's a certain letter

09:06:46PM grade that is assigned to that. And the letter grade is similar to the grading scale at a school. It extends from A to F, with A being really no congestion at the intersection, and F being, you know, a lot of congestion at the intersection.

However, unlike the grading scale at school, a level of service D is considered acceptable within urban areas like the Chicagoland area. So if you have a level of

09:07:15PM service D or better, you're typically considered acceptable, and it's reasonable to have a level of service D.

Based on that, we conducted our capacity analysis to see how the existing roadway system operates and how it will operate given the additional traffic to be generated by the improved facility.

Under existing conditions, the signalized intersection of North Avenue and Powis, in the critical movements at the stop sign-controlled intersection, all currently
09:07:49PM operate at a good level of service B or C.

Assuming those year 2029 total volume, which include that 10 percent growth as well as the additional traffic to be generated by the improved facility, all of these intersections in the critical movement are projected to continue to operate at a level of service B or C.

This would indicate that the existing roadway system has sufficient reserve
09:08:19PM capacity to accommodate the additional traffic to be generated by the improved facility. Once again, this was the conservative analysis where

we added the 10 percent growth and we assumed all new traffic being generated by the improved facility.

In addition, the results of the gap study -- We performed a gap study on Powis Road so that there's more than sufficient gaps in the Powis Road traffic stream to accommodate that traffic that will be turning to and from the proposed facility. What a gap study does, it determines the gaps in the roadway to -- to ensure that there's sufficient gaps in the traffic for the vehicles to turn out of the facility or turn into the facility. This gap study shows that there's more than sufficient gaps.

09:08:54PM

As such, other than the improvements at the access drives, no additional roadway improvements or traffic control modifications are required to accommodate the improved facility.

09:09:23PM

Q. Mr. Werthmann, based upon your study, your analysis, and your expertise, do you have

an opinion as to whether or not traffic patterns to and from facilities are so designed as to minimize the impact on existing traffic flows?

A. Yes. It's my opinion that the traffic pattern two and from the facility are so designed as to minimize the impact on the existing traffic flow, satisfying Criterion 6.

Q. And is that opinion within a reasonable degree of scientific and engineering certainty?

09:10:04PM

A. Yes.

Q. And what is the basis for that opinion?

A. The basis of the opinion is based on the results of the traffic study that was submitted and my summary of it. In addition, it's based on a number of points which I'll go over now; the first is the facility near the site contains an existing recycling and transfer facility that is permitted to process 1,250 tons of C&D material today. It's an existing facility that's already out there. Two, the

09:10:28PM

existing facility is located in an industrial area where the roadway system has been designed to accommodate the type of traffic that will be generated by the facility.

As we indicated, all of the roads in the study area are all Class II truck routes that have been designed to accommodate the truck traffic that will be generated by the facility.

As we indicated, given that the

09:11:07PM trucks and the -- and the containers that will be supporting the facility will be stored at the same facility. This will greatly reduce the volume of traffic that is generated by the expanded facility.

Four, the proposed improvements that we have along Powis Road will significantly reduce our impact on the roadway system. Five, the roadway system has sufficient reserve capacity to accommodate the traffic to be

09:11:38PM generated by the improved facility. Six, no additional roadway improvements are required in order to accommodate the improved facility.

And, seven, and lastly, as I indicated, the DuPage County Division of Transportation as well as an independent traffic consultant that was retained by the City of West Chicago have both reviewed the traffic study and both have generally concurred with the findings of the traffic study.

That is my ...

Q. Thank you, Mr. Werthmann.

09:12:14PM No further questions.

HEARING OFFICER PRICE: Thank you, Mr. Mueller.

Protect West Chicago ...

CROSS-EXAMINATION

BY MR. LUETKEHANS:

Q. Bottom of page 11 of your report, you mentioned that, quote, the proposed transfer station is anticipated to typically receive a transfer waste from 4:00 a.m. to midnight on

09:12:30PM weekdays.

Do you recall that?

A. Yes.

Q. Were you advised what percentage of that waste, what percentage of the trucking will occur between 5:00 p.m. and midnight?

A. I'm sorry. It's hard to hear you.

Q. Sorry.

Were you advised what percentage of that waste, what percentage of the trucking will actually occur between 5:00 p.m. and midnight?

A. Yes. We project the report based on
09:12:55PM information provided by the project team. The majority of it will be -- I think it's between 6:00 a.m. and 6:00 p.m., in about a 12-hour period.

Q. Okay. But you don't know, as you sit here, what percentage is after that 6:00 p.m.?

A. It's so hard to hear you.

Q. I know.

You don't know, as you sit here, the percentage of waste after 6:00 p.m.?

09:13:19PM A. I could calculate it for you, but it -- it's a small percentage.

Q. Okay. That's fine.

You talked and I think you actually showed a slide with the transfer trailer.

Do you recall that?

A. Yeah.

Q. So the transfer trailer would start in West Chicago, right?

A. Right.

Q. Then it will proceed through the eastern part or eastern edge of St. Charles, correct?

09:13:41PM

A. Correct.

Q. Then they'll proceed south to the far western edge of Geneva, correct?

A. They will go south on Kirk Road.

Q. And that's kind of like --

A. Yes.

Q. -- the Geneva borderline?

A. Right. No problem.

Q. And then they'll just head down Kirk and proceed to Batavia, correct?

09:14:00PM

A. Correct.

Q. And then they'll get parts of Aurora

before they get to Route 80, correct?

A. Correct.

Q. Okay. You wouldn't disagree with me, would you, that three of those five towns, being Batavia, West Chicago, and Aurora, have a large percentage of minority population than the average DuPage and Kane County towns?

MR. MUELLER: Relevance.

HEARING OFFICER PRICE: Yeah. I'm with him on this one.

09:14:23PM

How is that relevant, Mr. Luetkehans?

MR. LUETKEHANS: Because it goes with the justice issues which are part of what the I- -- the EPA says should be looked at when you do a waste transfer station.

HEARING OFFICER PRICE: Yeah, but it's not part this. Sustained.

Next question.

09:14:35PM

BY MR. LUETKEHANS:

Q. In the full paragraph of page 14 of your report, you talk about LRS will hire up to

35 additional employees.

Do you remember that?

A. Correct.

Q. And you also stated in 2019 the LRS facility had approximately 150 when you performed your original traffic counts; is that correct?

A. Correct.

Q. And then you said in 2019 number employees was approximately 25 more employees than currently work with the LRS facility.

Do you see that?

A. Yes.

Q. So just so I'm understanding the numbers, I assume that means that the current number of employees at the site is 125?

A. Correct, approximately.

Q. And then if I add 35 jobs, we're going to have a total of 160 employees?

A. Roughly, yes.

Q. Okay. So the increase in employees between 2019 and the -- proposed is ten?

A. Correct.
Q. Or 15, I guess? Sorry.
A. Yeah.
Q. But if I go to page 15 of your report, it says ten new employee. I guess I'm confused.
A. Page 15, that just shows the volume of employee traffic coming in and going out during one hour. It doesn't include all of them.
Q. Oh, okay. Thanks.
09:15:45PM A. Okay.
Q. On page 16 of your report, as well as the attachments to your report, you provided CMAP, C M A P, numbers and projections for 2019, correct?
A. Correct.
Q. And CMAP has now run a 2022 projection, right?
A. Correct.
Q. And actually, that report you talked
09:16:03PM about that West Chicago mentioned -- they mention the same thing?
A. Yes. And can I answer?

Q. Let's just -- I just want to clarify first.

The tables 5 through 7 are based on the 2019 CMAP projections, correct?

A. The tables -- The future conditions are based on 2029 traffic volumes that included existing traffic plus the 10 percent growth that was based on CMAP projections plus the traffic that is generated by the facility -- the improved facility; however, we went above and beyond Criterion 6, which says to look at the existing traffic flows.

09:16:39PM

So in theory, we didn't even need to project out 10 percent.

Q. Okay. But you did, right?

A. I did.

Q. And you used 2019 and then 2022?

A. Yes.

Q. Okay. And let's talk for a moment about the traffic light at Powis and Route 64. Okay?

09:16:59PM

A. No problem.

Q. Your analysis is based on the timing of the traffic light, correct?
A. Correct.
Q. And your timing for the traffic light, that was based on observation in the field, correct?
A. That was based on actual timings that we obtained from the State of Illinois.
Q. Oh, so you actually got the timing studies?
09:17:19PM
A. Yeah.
Q. Okay. Several of the Powis Road movements are at level of service E according to your report, correct?
A. Correct.
Q. E, as in Edward.
And you also would agree that level of -- level of service E is said to be unfavorable, is that kind of how it's leveled, how it's --
09:17:45PM
A. We try to strive for a level of service D, particularly at the overall level of

service, but at, you know, major arterial roads such as North Avenue, what happens is the State gives the majority of the time to major road in order to progress that traffic. It's got the majority of the traffic. As such, the side street here Powis Road can only receive a certain amount of green time -- limited amount of green time. It operates at a level of ser- -- a lower level of service, in this case, a level of service E. However, the capacity of the intersection is more than sufficient.

09:18:21PM

Q. I'm just trying to talk about these movements right now.

And one of the things -- you have a chart that says level of service criteria and interpretation, right?

A. Correct.

Q. The level of service criteria for E and interpretation is progression is unfavorable, correct?

09:18:42PM

A. That's what the table says, yes.

Q. Okay. And you prepared a report --

And just as you mentioned earlier, F is the worst?

A. F is the worst.

Q. And E is just one above that, right?

A. Correct.

Q. And you prepared a report in July of 2020, correct?

A. (No verbal response.)

Q. Your first report -- the draft report?

09:19:10PM A. I'm not sure. The final report was September 12th, 2022.

Q. 2022?

A. Yeah.

Q. I cut you off, so I just want to make sure.

A. Yeah, 2022.

Q. But you did provide a preliminary report that was analyzed by the City of West Chicago back in 2020.

09:19:28PM Do you recall that?

A. Yes. I think it was a pre-application review.

Q. And the changes in the text between 2020 and your current report, there are not (indiscernible) are they?

THE COURT REPORTER: They're not what?

MR. LUETKEHANS: Sorry.

Mandatory.

BY THE WITNESS:

A. No, I -- I can't recall, but no, it was --

09:19:43PM Q. I mean, would you agree with me that most of your changes concerned different volumes because the (indiscernible) exchanged in the underlying analysis? That's one of the things, right?

A. I can't remember what the 2020 report is. Sorry.

Q. Okay. And in between 2020 and 2022, do you remember that you added do not enter signs?

09:20:02PM A. Yeah, I may have added do not enter signs at the access drive.

Q. Okay. And you used the 2019 traffic

counts, you say, because they're the higher ones and they're the more conservative ones, correct?

A. Correct.

Q. Hence, your timing counts and your level of service did not change between the preliminary report in 2020 and 2022 report?

A. Correct.

Q. In this case, the significant amount of traffic to and from the site will proceed along North Avenue, correct?

09:20:30PM

A. Once again, I didn't hear you.

Q. I'm sorry.

In this case, the significant amount of traffic to and from the site will proceed along North Avenue; is that correct?

A. You know, we got a 60/40 split on the collection trucks. So a portion of it will be going south. All of the transfer trailers will be going to North Avenue.

09:20:54PM

Q. And going to the west from there, right?

A. Going west from there.

Q. Okay. And going to the west, is a new dealership -- a new Honda dealership that's been put in operation between your 2019 counts and your 20- -- 2019 -- or after your 2019 counts, right?

A. Correct.

Q. And it was also put in operation after your 2022 counts, correct?

A. Correct.

09:21:16PM Q. And there's also another development that's been approved and is currently under construction at the old Pheasant Run property and that's an 80-plus acre development industrial being undertaken by Greco, correct?

A. That's my understanding.

Q. And you're very familiar with that site, though, correct?

A. We worked on that project.

Q. You did the traffic analysis?

09:21:37PM A. I didn't do it, but, yes, our firm.

Q. KLOA did it, correct?

A. Correct.

Q. Okay. And most of the traffic for both these developments, the Honda and Greco, will come out on North Avenue, correct?

A. I can't tell -- I don't know the plan for the industrial development.

Q. Okay. Well, the Honda dealer only has access onto --

A. Correct. Yes. The -- I'm not sure of the industrial plan.

09:22:04PM Q. Okay. Would you disagree that the industrial plan has two access points on North Avenue and one onto Powis (phonetic)?

A. I don't know. I can't agree or disagree. I don't know.

Q. The study that KLOA did in 20- -- October of 2021 for that Greco industrial project was not mentioned in your current study, correct?

A. Correct.

09:22:34PM Q. And the counts wouldn't be counts included because your counts were before the thing was put into place?

A. Correct.

Q. The weekday morning counts -- Well, it's not a fair question if you don't recall. So I'm just going to move on to PWC 604. I have it here.

(Brief pause.)

(PWC Exhibit No. 604 marked for identification.)

BY MR. LUETKEHANS:

09:23:51PM Q. Okay. Mr. Werthmann, you have in front of you PWC Exhibit 604.

Does that appear to be a traffic count that KLOA did or a traffic analysis that KLOA did for the Greco industrial development that we talked about?

A. It appears to be. Did a quick review of it, yes.

Q. Okay. And it's, I think, dated 2021, correct, October 12th?

09:24:14PM A. Yes.

Q. And the weekday morning counts for just the Greco development, not including the

Honda, are approximately 2- -- add approximately 275 motor vehicles to North Avenue, correct?

A. Yeah, but that's in two different directions. And I don't know if it's 275. I mean, I can go through the numbers.

It is adding -- I wouldn't say 200, but it's adding some traffic to North Avenue.

Q. Where are you looking for? Where are you looking at?

09:25:11PM A. I'm looking at, I guess, page 16, Figure 5 and Figure 6.

Q. Sorry. I don't have a page number on mine. That's the morning peak?

A. The morning peak, and there's the afternoon peak, too.

Q. And what's the afternoon peak?

A. At what -- At what location?

Q. Just on North Avenue or just --

A. Well --

09:25:52PM Q. What's -- What's the -- What's the morning peak coming -- that this site is generating? Let's start there.

A. So coming from the east, it's generating -- 63 plus 56 -- about 120 vehicles traveling from the east to this facility.

Q. Okay. And that's the morning peak?

A. Yes.

Q. And how about the afternoon peak, what's that?

A. The afternoon is -- 56 and 29 -- less than 100.

09:26:24PM Q. Going eastbound on North Avenue?

A. Going to and from the east on North Avenue.

Q. Okay. And one of the things that this study does not analyze, does is, is it the intersection at Powis and North Avenue or -- excuse me -- Powis and North Avenue, correct?

A. This study -- Which study when you say --

Q. I'm sorry. PWC Exhibit 604, there's

09:26:47PM no actual analysis of that intersection, correct?

A. No.

Q. And as we said earlier, this additional traffic was not taken into account in the study you did for the subject property, correct?

A. I disagree.

Q. Where was it taken into account?

A. My 10 percent growth represented an addition of 350 to 400 vehicles at the intersection of Powis Road and Illinois 64.

09:27:19PM Q. That's in ten years, correct?

A. Correct. This is not going to be here tomorrow either.

Q. This is going to be here -- I mean, it's being built now, correct?

A. Right, but it takes a while for it to build up.

Q. Well --

A. And this represents the small fraction of that 400 vehicles that we increased at the

09:27:40PM intersection.

Q. And -- And that increase at that intersection also increased -- also includes

other development in the future not just development that's already started, correct?

A. Yes, but once again, Criterion 6 says we just need to evaluate the existing traffic flows.

Q. So you don't think it's important to evaluate the traffic flow that's already been approved but not currently started?

A. We have. I have increased the volumes by 10 percent.

09:28:06PM

Q. Okay. Did you include the Honda dealership in your analysis?

A. I didn't include any specific development. I used the background growth based on the Chicago metropolitan plan.

Q. But the Honda development is already in place, right? It's already being operated?

A. If you say so. I -- I haven't seen it.

09:28:27PM

Q. So you haven't been to the site in the area recently?

A. I have. I just didn't look for that

when I was driving the area roadway.

Q. Okay.

MR. LUETKEHANS: Nothing further.

THE WITNESS: Thank you.

HEARING OFFICER PRICE: PODER, anything from you, sir?

MR. DELAROSA: I actually do have a couple questions.

CROSS-EXAMINATION

09:28:45PM BY MR. DELAROSA:

Q. I'm interested in finding out if -- when you did the traffic flow studies, if you had a tonnage value for the transportation vehicles that were used coming and going to the present site.

What is the weight limit for each of those vehicles that is used to transport waste at this time and what is the weight limit of the trailers that's going to be used to

09:29:23PM transport waste to dump sites?

A. Do you want to know how much tonnage they can carry?

Q. Yes. What's the legal limit and what's the --

A. Well, the legal limit is -- for any truck route, is 80,000 pounds.

Q. 80,000 pounds?

A. Yeah.

Now, for a single unit, it gets to a smaller number, but for a transfer trailer fully-loaded, you can have up to 80,000 pounds.

09:29:53PM Q. Okay. Are all of the roads as -- classed as Class II highways?

A. The ones that the transfer trailers, the larger ones that will be delivering the waste to the landfill, the routes that they will use will be Class II truck routes.

Q. Which allow for an 80,000 truck [sic] to be used on those roadways?

A. Correct.

Q. Okay. So when you were talking about

09:30:32PM the proposed roadway improvements to the entrance of the proposed improvement area, you were saying that these improvements would be

done to the site. Is that part of the development costs that will be absorbed by LRS --

A. Yes.

Q. -- for the roadway improvements?

A. It's part of the application.

Q. Okay. So was there any additional funding coming from County or State entities to go into the improvements that are going to be used at these -- at the site?

09:31:21PM

A. It's my understanding that the roadway improvements on Powis Road, as part of the application, is to be funded by the applicant.

MR. DELAROSA: Okay. Thank you for the answer.

THE WITNESS: Thank you.

HEARING OFFICER PRICE: Mr. Callahan?

MR. CALLAGHAN: Just a couple.

CROSS-EXAMINATION

09:31:38PM

BY MR. CALLAGHAN:

Q. Do you know if LRS owns all of the transfers -- transfer trailers that it will be

using?

A. I do not know.

Q. The -- One of your slides 24, which is kind of the --

A. I know which one.

That one?

Q. No. It's the one -- one with the depiction; you know, the drawing.

A. Oh.

09:32:11PM Q. This one.

A. Sorry.

Q. All right. Is this drawn to scale?

A. I didn't draw it.

Q. The reason I ask is that you have drawing C200 and -- which is somewhat different than the -- and which is an engineering drawing?

A. Right.

Q. This is not.

And the reason I ask is that the

09:32:38PM left turn -- the truck turning left out of here would cross the taper for the left -- northbound left turn or southbound left turn truck into the

site at the south entrance, and that's not consistent with C200. I just want to make sure that --

A. Yeah. Yeah.

Q. C200 governs, right?

A. C- -- Yeah. This is just to provide an illustration.

Q. That's what I thought. Okay.

A. Thank you for the clarification.

09:33:08PM Q. And then finally, I think you mentioned that you double counted the traffic volume that will be generated by the site because you assumed that every truck on the site coming and going from the site will be new traffic not existing traffic, correct?

A. Correct.

Q. And we know that there are -- about 50 percent of the truck traffic that you're projecting for the future is existing traffic

09:33:38PM from the site?

A. Yeah. Double is probably the wrong term, but there's a certain volume --

Q. Certain volume?
A. -- that's already out there, and it's on the roadway system, but we assumed all new traffic to provide that worst-case scenario.
Q. And that's reflected in your --
A. Right.
Q. -- report?
A. Yeah.
Q. You're familiar with -- or are you
09:33:59PM familiar with the hydro waste solidification?
A. I'm dangerous.
Q. You know -- All right. So you know a little bit about it?
A. Yeah.
Q. Okay. Are you familiar with the kinds of trucks that carry that hydro waste?
A. I will let Mr. Hock discuss those, but what I understand is there are more single-unit trucks that come -- Are you talking about the
09:34:25PM inbound?
Q. Yeah.
A. When they deliver it?

Q. When they deliver it, yeah.
A. Yeah.
Q. They're going to be -- They're going to have liquids in them?
A. Right. And I understand they're a single-unit type truck.
Q. Are they watertight?
A. I will let Mr. Hock answer that.
MR. CALLAGHAN: That's it.
09:34:42PM Thank you.
HEARING OFFICER PRICE: Thank you.
Mr. Walsh ...
MR. WALSH: City Counsel has no questions of this witness.
HEARING OFFICER PRICE: Thank you, Mr. Walsh.
Mr. Mueller, any redistrict?
MR. MUELLER: We have no redirect.
HEARING OFFICER PRICE: All right.
09:34:57PM Thank you, Mr. Werthmann.
THE WITNESS: Thank you, appreciate it.
(Witness excused.)

HEARING OFFICER PRICE: Is your next witness here, Mr. Mueller?

MR. MUELLER: Our next witness is Mr. Hock, but we don't have his PowerPoint, nor were we ready to put him on tonight.

HEARING OFFICER PRICE: So your next witness is Mr. Hock and will be testifying about which criterion?

MR. MUELLER: Criteria -- Criterions 2, 4, 5, 7, and 8, and 9.

09:35:19PM

HEARING OFFICER PRICE: So he's your next --

MR. MUELLER: He's our last witness.

HEARING OFFICER PRICE: Last witness.

Okay. All right. Well, to make use of the time, I -- I have been told by a couple people that they are unable to attend next week for public comment, and so I am able to do that now. I don't know if they're prepared to go tonight or -- they're not.

09:35:44PM

So I will try and squeeze you in tomorrow.

But is that -- So that's -- If there's anybody else who needs to provide their public comment orally that's signed up to do so, and is unavailable to it next week, is there anybody here who wants to do that?

(No verbal response.)

HEARING OFFICER PRICE: All right. Well, then we will adjourn for the evening until tomorrow at 6:00 p.m., in which Mr. Hock will begin his marathon testimony.

09:36:18PM

But, again, we're going to do Criterion 2 tomorrow, to be clear, correct?

MR. MUELLER: Yes.

HEARING OFFICER PRICE: All right. Then is there anything else for the good of the order? If not, we stand adjourned until 6:00 p.m. tomorrow.

Thank you.

MR. CALLAGHAN: I do have a question. We're going to be doing one criterion at a time and then cross or is it going to be everything?

09:36:39PM

HEARING OFFICER PRICE: Yes. It would

be my preference to do one criterion at a time, Mr. Mueller.

MR. MUELLER: Understood.

MR. CALLAGHAN: Okay. Thank you.

(WHEREUPON, the hearing of the above-entitled cause was adjourned until 6:00 p.m., January 5, 2023.)

Kim A. Kocimski, being first duly sworn, on oath says that she is a Certified Shorthand Reporter and Notary Public doing business in the City of Chicago, County of Cook and the State of Illinois;

That she reported in shorthand the proceedings had at the foregoing public hearing;

And that the foregoing is a true and correct transcript of her shorthand notes so taken as aforesaid and contains all the proceedings had at the said public hearing.

I set my hand and affix my electronic signature this 23rd day of January, 2023.

/s/ Kim A. Kocimski
KIM A. KOCIMSKI, CSR

CSR No. 084-004610

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BEFORE THE CITY COUNCIL OF THE CITY OF WEST CHICAGO SITTING AS A POLLUTION CONTROL SITING AUTHORITY

In the Matter of:)
)
APPLICATION FOR LOCAL SITING)
APPROVAL FOR LAKESHORE)
RECYCLING RECYCLING SYSTEMS,)
LLC, FOR THE WEST DU PAGE)
RECYCLING AND TRANSFER)
STATION, 1655 POWIS ROAD,)
WEST CHICAGO.)

CONTINUED REPORT OF PROCEEDINGS had and testimony taken at the hearing of the above-entitled matter, at 900 Prince Crossing Road, West Chicago, Illinois, on the 5th day of January, A.D. 2023, at the hour of 6:00 p.m.

PRESENT:

MR. DERKE PRICE, Hearing Officer;

MR. DENNIS WALSH, City Council Attorney;

MR. PHILLIP A. LUETKEHANS, Attorney for Protect West Chicago;

MR. RICARDO MEZA, Attorney for Protect West Chicago;

MR. GERALD CALLAGHAN, Attorney for city staff;

MR. STEVE DeLaROSA, Representative for People Opposing DuPage Environmental Racism (PODER);

MR. GEORGE MUELLER, Attorney for Lakeshore Recycling Systems, LLC.

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HEARING OFFICER PRICE: Good evening. The appointed hour of 6:00 is here. A couple preliminary announcements before we get going this evening.

First of all, out of caution for time, trying to make sure we have enough time for presentation of the testimony and then also public comment, be advised that we have reserved two days at city hall in case we have to go past next week, that being the 16th from 1:00 to 5:00 at city hall. There's a council meeting. And then on the 19th, Thursday, from 1:00 to 5:00 at city hall in the chambers. That might be the opportunity for oral public comment. I'm reluctant to have to do it during the day, but this is what we have come down to in terms of how this is progressing.

We have, again, next week, Tuesday night is here, Thursday night is at the high school. And I'm hoping that public comment can happen Thursday night at the high school, and that gives everybody an opportunity to come

after work and give their oral comment. Out of precaution, to make sure we get this done and so the city council has the opportunity not only to get the 30 days of written comment but to deliberate over what it is they want to do and consider the whole record, I have scheduled, with the city's help, those two days at city hall. Just be advised of that.

One other change this evening. At the conclusion last night we discussed about how the next bit of criteria would come in and the lawyers conferred, along with the witness, and we're going to do more than one criteria here initially before there's cross-examination, but then the lawyers have all agreed the criteria either don't apply in this case or make logical sense to do together. So there will be a series of criteria Mr. Hock does, cross-examination as usual, and then the last criteria will be 8, and then cross-examination as usual. So that's a little bit of a change. We're going to start with 2, 4, 5, 7, and 9, I think that's right,

and then 8.

With that, any other preliminary matters?

(No response.)

All right. We're set. Mr. Hock, I'll remind you, you're still under oath. And with that, Mr. Mueller, the floor is yours.

WHEREUPON:

JOHN HOCK,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MUELLER:

Q. Mr. Hock, you previously testified on Tuesday, correct?

A. Yes.

Q. Tonight you are going to testify about some different criteria; is that correct?

06:04:11PM

A. Yes.

Q. Again, these reports are all contained in the siting application?

A. Yes.
Q. They were prepared under your direction or by you personally; is that correct?
A. Yes.
Q. Are you the lead engineer on this project?
A. Yes, I am.
Q. With regard to Criterion 2 why, don't you go ahead and proceed.
06:04:37PM A. Okay. Everyone can hear me just fine?
As George mentioned, my name is John Hock. I'm with Civil and Environmental Consultants, and I'll be stepping through a number of the criteria tonight. Before I jump into it, just a quick reminder that this process, meaning the application for local approval, is just the first step in the process. Assuming we get approval here, we still have to submit an application to the IEPA to develop the
06:05:14PM facility. Once that approval would be received, we would still then have to apply demonstrating that we, in fact, constructed the facility

consistent with our development permit. And only, at that point, would they give us an operating permit. Also, along the way, before we would construct any buildings or other infrastructure-type items at the site, we would still need to get the typical local building permits from West Chicago.

So we'll start with Criterion 2, which is that the facility is still designed, located, and proposed to be operated that the 06:05:56PM public health, safety, and welfare will be protected. The first item we'll be discussing is location standards. And this slide is a general listing of those key criteria.

The first three would be archaeological, architectural, and historic pieces, the threatened or endangered species, and the Wild and Scenic River Act. Those -- Just in simple summary, there are none at the 06:06:30PM site. It has a long history of industrial use. So there's no concerns about historic or archaeological-type things. There are no

threaten -- you know, concerns that threaten or endanger species, and there are no wild or scenic rivers at the site either.

The other five that are listed below that we're going to step through one at a time.

The first one is the residential setback. In the basic requirement is that we are at least a thousand feet from a residentially zoned property or a dwelling. The nearest residence is actually over 3,000 feet, which is about six-tenths of a mile to the east of us, along Atlantic Drive. So past the railroad tracks, past the agricultural area, even past the large electrical tower easement is where the residence is.

06:07:05PM

06:07:42PM

In terms of residentially zoned property, what you can see up on the screen is a composite of the zoning map of both West Chicago and unincorporated DuPage County, because there are pieces of both within this area. There's actually a circle around the site. The site is

shown with a darker line, and that perimeter line is the 1,000-foot setback.

I'll talk about the railroad tracks to the east for a moment, but in terms of residentially zoned property, it really is about 2,000 feet to the east is the yellow hatching that you see up there, again, to the east of the site. And the other would be the green hatching northeast of the site across North Avenue.

06:08:22PM The two railroad tracks that are located, again, directly east of our site, again, the one is owned by Canadian National Railway and one by Union Pacific. Those have an ER-1 zoning associated with them, which is a Estate Residential. It's really a remnant zoning and -- Well, it's railroad tracks. So the Estate Residential Zoning actually requires they are, approximately, one acre lots. It's used for larger properties that might have

06:09:01PM horses or things like that. And it should be inherently obvious that it is impossible to construct an estate residential house on those

railroad tracks, so we believe, and West Chicago actually provided a letter also with their determination that the 1,000-foot setback does not apply to those railroad properties.

The second location standard, that bullet item, is wetlands. We did perform a study to determine if there were any jurisdictional wetlands on site. There is a small area in the very southeast corner. It's
06:09:48PM hatched in blue on the aerial photograph that you see. The study we performed was actually submitted to DuPage County and West Chicago as part of a planned use development amendment that we received a couple of years ago and that determination was approved as part of that process. Those wetlands are well-buffered from our operations and there's no building proposed of that area, so those wetlands would be adequately protected.

06:10:28PM The third item I wanted to click through is floodplain. And floodplain is inherent to Criterion 4, which states that for a

facility other than a sanitary landfill or a waste disposal site, the facility is located outside the boundary of the 100-year floodplain or the site is flood proofed.

When normally determining if you are potentially within a floodplain, you go to what's called a flood insurance rate map. Those are based on somewhat historical general information, and that will give you a general idea of whether you may be in a floodplain or not. Up on the screen is an excerpt -- excuse me -- is a portion of the floodplain map for our facility. You can see the rectangular boundary that is our site. This map suggests that that eastern portion of the property may be within the floodplain.

06:11:15PM

If you are potentially within a floodplain, there are flood insurance studies that may have been conducted. And in this case, there was. A flood insurance study will determine an actual base flood elevation, meaning an elevation below which that portion of

06:12:00PM

the property may flood. If that portion of the property is higher than that elevation, then that's the demonstration that that portion of your property would not flood. When you consider the flood insurance study, there's actually only five one-hundredths of our property that is actually within the 100-year floodplain. It's marked on the map. What you see is a planned view of the eastern portion of
06:12:41PM the site with the railroad tracks to the right, our large detention pond in the middle, and our paved areas to the south and north of that.

This determination of the floodplain was, again, confirmed as part of our planned use development amendment. It's confirmed by DuPage County with their approval. And, to be clear, our buildings that we're proposing are actually about four feet higher than this base flood elevation. And, again, the
06:13:18PM base flood elevation is the elevation the water would rise to during a hundred-year storm.

So because our activities are well

above the 100-year floodplain, it is my professional opinion that the West DuPage Recycling and Transfer Station is located outside the boundary of the 100-year floodplain, or is flood proof.

So the next location standard is regulated recharge area, which is really part of Criterion 9, which states that if the facility will be located within a regulated recharge area, any applicable requirements specified by the board for such areas have been met. This is a pretty simple one. Regulated recharge area means a geographic area with geology which renders a potable resource groundwater particularly susceptible to contamination. There's actually only one designated in Illinois. It's down near Peoria, which is obviously over a hundred miles from our facility. So, as such, it is my professional opinion that the West DuPage Recycling and Transfer Station is not located within or near a regulated recharge area.

06:14:08PM

06:14:47PM

Then the last bullet item as part of location standards was airports. DuPage Airport is, obviously, located directly west of the site. To be clear, transfer stations are not prohibited from being located nearby to airports. There is an advisory circular that the Federal Aviation Administration put out that provides guidance on a variety of land uses, including transfer stations, that have a
06:15:34PM potential to attract hazardous wildlife on or near airports.

For this project we executed an agreement with the DuPage Airport Authority, which requires the following: That we will comply with certain design and operational features, and those design and operational features are the same exact items that we'll be discussing as part of the facility, so we basically incorporated these same design and
06:16:10PM operational requirements into that agreement, again, if this facility is approved. So we would do those. And then we would also execute

and grant the DuPage Airport Authority a new avigation easement. The avigation easement is -- I'll call it -- a two-dimensional surface of where the planes basically take off and land. What they would be interested in -- So there is an avigation easement over our property right now, which is basically a height limitation on how high we can construct, whether it be a building or a light pole or similar. They would like us to lower that easement. And right now there is -- one of our existing buildings that is slightly into or above that easement boundary. So we would not only give them a new easement, but we would reduce the roof height of this existing building to stay below the elevations in this new easement.

06:16:57PM

We would also, then, pay the DuPage Airport Authority 15 cents for each pound of municipal solid waste and hydro-excavation waste that is received.

06:17:32PM

As part of that the agreement, the DuPage Airport Authority agreed that our

proposed facility will not pose a threat to safe operation of the DuPage Airport, that they have no objection and will not object to the siting approval of this facility, and they are not currently aware of any violations of or contradictions with the guidance set forth by the Federal Aviation Authority in their advisory circular.

Next, we're going to talk about the existing operations. And for those who may have been here Tuesday, a portion of this will be a little bit of a review, but we'll talk in more detail now, since these are part of Criterion 2 now.

This is just a reminder of the existing operations at the facility. Again, this is an aerial photograph listing the different operations that are currently occurring. The areas on the aerial photo are color coded and hatched to provide a general indication of where those activities are occurring.

06:18:19PM

06:18:47PM

Our main operation is recycling and transfer of construction and demolition debris, which is occurring in the majority of the center portion of the site that is highlighted in light blue. In front of that, towards Powis Road, the parking and maintenance of vehicles, again, the various trucks that LRS is currently using for hauling operations that are going in and out of the site. Again, the same type of trucks that would be coming in and out if we're able to accept municipal solid waste. Again, they simply would be bringing the contents of the waste here, instead of bringing it to a different transfer station.

06:19:25PM

On the north and south perimeters is where the site currently stages and maintains containers, such as roll-off boxes, extra totes. Again, totes are the large bins typically on wheels that we all use at residences to put our waste and recyclables in and roll out to the curb.

06:19:59PM

Lakeshore Recycling is also in the

portable restroom business, so off-season they will store portable restrooms on the property as well. There is a dispatch and customer service center that is performed out of this site. That is shown in the pink rectangle. So it's, basically, the office portion of the building and the employee parking or customer parking as well right out front. On the west and east perimeters, it's highlighted or hatched in the
06:20:39PM darker blue, there are storm water detention ponds, on the west there's a berm and fencing and trees that form a buffer, and on the east there's the larger, what we call, the east detention pond, there's the wetland area that I mentioned before on the southeast, and other vegetated area to form a buffer along that perimeter.

I was hearing a mention -- I know there was a question yesterday about potential
06:21:10PM development on the closed landfill to the south. Again, you can see on this picture the runways from DuPage Airport to the west. Constructing

on a closed landfill is very challenging. I'm familiar with multiple projects where people have tried. Generally, they have not -- Well, they have had very limited success or it really has not gone well.

Regarding the recycling activities that are currently performed, I just want to spend a moment. This is a list of the main materials that are recycled. Again, the
06:22:00PM construction and demolition debris is bought in and through a series of mechanical and manual means, it's separated into the component parts, meaning the wood, the shingles, the metal, and the other materials you see there. And then those component parts are shipped off to various sources for recycling.

The one that I wanted to spend just another moment on is what we call the A-wood. A-wood is basically clean wood that is, for
06:22:31PM instance, not painted, it's not stained with oil, and that's actually processed into mulch, so you may see that out there. They color it.

For instance, an unused pallet or unused lumber from new construction is considered A-wood. It's really an excellent product. It's sold to wholesalers. So it will actually end up at Lowe's or places like that in bags. I have it at my house. It actually has worked amazingly well. The nice part about it is it's a dryer material than mulch from trees or natural wood, so it doesn't have the -- you
06:23:12PM don't get the mold kind of growing up and it, frankly, lasts longer.

This is a slide of the proposed facility improvements along the west portion of the site. Again, this is a little bit of a review for those who may have been here on Tuesday. It shows the key features that are proposed to be installed or constructed. The main item is the municipal solid waste and single-stream recycle building in the lower
06:23:49PM right hand corner. I should note that all the area you see that's kind of shaded in the gray, that's basically all paved area -- pavement or

concrete. We would have the additional scale up front. There is currently one scale already. With the additional activities, we would put a second scale in to just facilitate the movement of vehicles. We would have our resident drop-off area in front. That would include both recyclables and electronic waste. To improve the traffic circulation within the property, we would open up the northern driveway for vehicles
06:24:29PM to exit. Currently all of the vehicles both enter and exit from the southern driveway. And opening up the northern one would just create a better flow of traffic. That driveway is already there. It's just gated. So we would make improvements of both driveways, again, to facility the traffic. And we would construct a hydro-excavation waste building that I'll talk more about in a moment. That's a smaller, shorter building. It would be more right in the
06:25:02PM center of the western portion of the property.

This slide is a view of the eastern portion of the property, which, again, shows the

large detention pond right in the middle and, again, there's the railroad tracks to the right. And it's, really, again, just a paved area on the north and south sides of the pond, and alls we would do is convert a portion of the paved area on the south from material or equipment storage to parking for trucks.

So that was a quick summary of the physical improvements. In terms of the
06:25:56PM operations, again, to be clear, all of the existing operations at the site would continue. So the C&D recycling, parking, customer service all would continue as is. What we would be doing is, again, instead of the same collection vehicles leaving the site, collecting waste from residences and businesses and taking it to a different transfer station, it would simply bring it back here.

The hydro-excavation waste would be
06:26:29PM solidified in the building that I referenced before and then that would be transported off site to a landfill. We would have the

electronic waste drop-off up front that I mentioned where, again, local residents can bring in their e-waste. It would be packaged up, placed into -- the term is a Gaylor box, which is just simply a container, where it's wrapped where it can then be sent off to a facility where portions can be pulled out, recycled, and then the rest processed.

Then the recyclables -- We would also pick up recyclables from, again, residents and homes. Just like the waste is picked up like your current hauler does, we do that from various communities. We bring that back to the same building the municipal waste would go into and, again, we consolidate into the larger loads and transport it to a material recovery facility. Lakeshore has one of these facilities in Forest View currently. They are actually just going to be opening a brand new great big beautiful facility in Chicago and what that facility does is it will take the recyclables, again, pull it apart into its components, so the

06:27:09PM

06:27:43PM

cardboard with the cardboard and paper with the paper and cans with the cans and glass with the glass so that those materials can be sent off to recycle -- for recycling.

Again, just a quick reminder about the terminology and materials that we are talking about. Construction and demolition debris is what you would typically think of, it's wood, concrete, shingles, metal, things like that that comes from constructing, remodeling, repairing, or demolishing some sort of structure, utility, or road.

06:28:25PM

Municipal solid waste is what you just generally might think of as garbage, so from households and commercial buildings. It's the things we all throw away every day.

The single stream recyclables are just what I described, the paper, the cardboard, the bottles, the cans. And the term "single stream" simply comes from the fact that we all tend to put them in the same container, so it's collected as a single stream. It's mixed

06:28:59PM

together and, again, pulled apart later at a recovery facility.

And then the hydro-excavation waste I'm going to talk about more in a moment, but that is basically mud. It is -- The material is generated through pressurized water and air and used as part of excavation around critical infrastructure.

To clarify, I just told you what we
06:29:39PM will accept. This is the list of what we will not accept. There's no hazardous waste. That, I'll mention it later, is intrinsic to what is Criterion 7, so no potentially infectious medical waste, no asbestos, no PCPs, no, you know, motor oil, sludges, white goods, batteries, used tires, landscape waste. Landscape waste is somewhat of an important one. That is -- It's banned from landfills. There are transfer stations that do accept landscape
06:30:20PM waste, but we are not proposing to do that here.

So let's first talk about the construction and demolition activities. Again,

these activities are currently occurring on the property. We are currently permitted to accept up to 1,250 tons per day of construction and demolition debris. The site actually averages more around 300 tons per day. In our peaks we will hit around 750 tons per day. Regardless of what happens with municipal solid waste, we don't expect those tonnages to change. What we are proposing is actually just to reduce the
06:31:08PM limit from the 1,250 to the 750, which should accommodate our existing volume, and again provide kind of a contingency for a peak day is what we're seeing right now.

In terms of municipal solid waste and recyclables, as I mentioned, Lakeshore is currently hauling and has hauling operations in the area. They haul, approximately, 250 tons per day of municipal solid waste and 90 tons of single stream recyclables from our service area.
06:31:46PM The limit we're proposing here is 650 tons per day of municipal solid waste and 250 tons per day of single stream recyclables. The simple

logic is that would accommodate our existing volume, a similar amount of volume from other privately-owned companies that we think would be very excited to use our facility, some growth, and, again, some contingency for a peak day.

This slide is, again, one you may have seen before from a previous presentation. This is a rendering of the municipal solid waste and single stream transfer building. This view
06:32:36PM is looking from the east to the west, so the open grassy area on the left of the photo would be the closed landfill to the south of the property. The entrance to the facility would be in the background. And you can kind of see it between the trees along the roadway. That's Powis Road out beyond the trees. And this building is really tucked right in behind our existing -- existing buildings. The lighter shaded areas you see four -- there are actually
06:33:13PM four bay doors, and those are the doors that the collection vehicles would enter and exit the building from. What we have shown is what would

be a condition on a very busy hour where there's trucks waiting to get into the building and what would happen is, as space is available, one of the doors would open, the truck would pull forward and then back into the building. The door would then close. The collection vehicle would discharge its contents out onto a concrete, what we call a tipping floor. The term -- The origin of the term should be pretty
06:33:54PM obvious. It's simply where the truck tips its back end and discharges the load onto the floor. That takes a few minutes. Once that occurs and the truck is ready to leave the building, the door would open again and the truck would leave.

The tipping floor is where, then, the waste is picked up and consolidated into a larger vehicle. There's the loading areas along the south end of the building. There's actually a little area that sticks out, and you can --
06:34:29PM what we depict on the drawing is one of the larger vehicles leaving the building. We have it set up where the larger truck would already

be covered and tarped before it ever exits the building. And that operation works the same way that while a truck is in the loading area waiting to be loaded or in the process of being loaded, the doors will be closed. Once it's filled, it moves forward, and it tarps the back end. Then the door would open and it would drive out and leave the site.

A few more details about this

06:35:12PM building are listed on this slide. It's a substantial building. It's about 20,000 square feet, which is almost half an acre, about 40 feet tall. These are pre-engineered metal building, so they have steel columns that rise from the sides that span across the top and has metal siding that form the structure of the building. As I mentioned, the floor is all concrete, at least eight inches thick. It's all sloped to collect any water that may be

06:35:45PM associated with the waste itself or will be routinely -- we routinely washed down the floor with a pressure washer in there. So you spray

the floor and the walls just to keep it clean. We also put a steel plate, about 12 feet tall, we call a barrier wall around the perimeter of the interior. Really, it's just to protect the building. Primarily -- Again, the term "barrier wall" simply comes from the fact that it's a barrier to prevent any equipment or operations from damaging the building.

Those barrier walls also actually facilitate loading and provide temporary storage. As the waste is placed on the floor, maybe picture trying to pick up a load of dirt and debris with a dustpan. If you just scoop at it without anything on the backside trying to help hold those contents in place, it's hard to get all of that material off the floor if you're just kind of scooping at it with a dustpan. So the barrier walls provide that boundary within which a front-end loader can help pick up all of the waste and then get all of it off the floor and load it out. Those walls then also provide some additional temporary storage. As the waste

06:36:28PM

06:37:03PM

is placed, you just set the waste up against the wall and just add more capacity.

So this is a very large building for the proposed operations, and it has -- it's been sized to handle the amount of waste that would be anticipated to be accepted at a peak hour of a maximum volume. So, really, at our busiest time of both municipal solid waste and single streams, we would have more than adequate capacity. Again, the building is set back 800 feet from Powis Road, it's 600 feet from the northern property boundary, and 900 feet from the eastern property boundary. So it's well buffered even within the property. And as I mentioned before, it's kind of tucked back behind the other building such that if you're driving down the road, you would not even know that the building is there.

06:37:50PM

Just some additional features, that I have shown on that picture. There's four bay doors. What that just simply allows is for multiple trucks to unload simultaneously. The

06:38:25PM

loading area for the larger truck is actually below floor level so that it just lessens the time it takes to load that larger vehicle. Again, as a reminder, it's usually three to four -- The amount of waste in three to four incoming collection vehicles can be put into one of the larger vehicles that heads farther down the road to the landfill.

The doors, as I mentioned, are fast opening and closing doors. So basically it just -- Again, it helps keep the building completely sealed, everything completely indoors, which not only would help control odors, but just helps control litter and keeps everything nice and neat and clean, keeps everything indoors all the time.

Then we also would have a ventilation and filtration system installed in the building, which would be state of the art. There's -- The system we're talking about would be significantly better than any similar system at any transfer station that I'm certainly aware

06:39:11PM
06:39:38PM

of. So it is -- It's unique and very effective. It would include multiple blowers or fans that remove air from the building. There would be a duct system associated with each of those blowers or fans and then we would be using an air treatment system using Ozone within each of those duct systems, which doesn't mask the odor, it actually destroys any odor-causing compounds and eliminates any odor from the air. We have
06:40:27PM actually been talking with venders who make this Ozone equipment. It's used -- It's being used more and more.

My most recent conversation with a gentleman who was describing a warehouse in New Jersey that accepts spices and he just made a comment that -- and they use it there. That facility is, he said, 50 feet from the nearest residence. He says the odors from that facility are way beyond anything we could imagine, and
06:41:05PM it's effective at controlling the odors from there. We have all the confidence that this will be an excellent system I can see becoming a

standard in other transfer stations down the road.

A few more key features. There would be walls between our C&D transfer and screening building and the MSW and recyclable part to basically separate the operations. Although, we would have an access opening between the two to basically facilitate the appropriate movement of materials. As we bring
06:41:55PM construction and demolition material in, I mentioned before, we recycle about 75 percent of it. Well, that also means 25 percent is not recyclable. You get -- You'll get some large bulky items in there. You'll get a couch or just other things you just can't recycle. That just facilitates the movement of that from the C&D part into the municipal solid waste part.

The other thing that may happen is there may actually be -- We do get loads that
06:42:31PM are considered municipal solid waste that are predominantly recyclable. A large load of cardboard, for instance, some people will send

that off as waste. So it would allow, in those instances, for us to actually, you know, move the material from the MSW side -- That was actually a bad example. It's more like a rock or something like that. Something we would send to the other side where it would be recycled, maybe there's a bunch of metal in the load, for instance. So it would actually help us improve the amount we recycle out there. There would be
06:43:10PM a door on that access opening, and that door would be closed when it's not used.

Some other key features in terms of the operations, we were very of cognizant of litter control. One of the primary things is any waste coming into the site is in an enclosed vehicle, so the collection trucks you see; and if it's something not enclosed, meaning like a dump truck, it needs to be tarped so that there's no material blowing off of those trucks.

06:43:53PM As I described all of the unloading, transferring, and reloading is all indoors, that the loaded transfer trailers or

the larger vehicles are tarped and we use what's called an auto tarper, so it's more of a mechanical means so it's pretty straightforward to cover that load, and that would happen prior to exiting the loading ramp.

The site is, again, set far away from the property boundaries but also surrounded by fencing, and we do have folks that would patrol to collect any small amounts of litter

06:44:30PM that may get out. And as I also indicated before, this site has a street sweeping business that's run out of here, so there are street sweepers that are parked already. And the site has agreed, as part of our host agreement with West Chicago, we would sweep Powis Road as needed. Those street sweepers would also actually help keep the site clean. We actually use them inside the building at the end of the day to help clean that as well.

06:45:06PM In terms of cleaning procedures, so the waste that's brought into that building is typically on the concrete floor anywhere from,

say, 15 minutes to 2 hours. The waste business is transportation logistics, so it is all about how efficiently and quickly can we get it from our customer, meaning us, our residences and businesses, into the transfer station, get that the truck back out on the road, and get the contents put into a larger truck so that can -- that truck can head down the road to the landfill and be disposed. It's all designed to
06:45:47PM be as quick and efficient as practical.

We have a requirement that we will not leave waste on the floor for anything more than 24 hours. As I mentioned, we would be cleaning it with one of the mechanical street sweepers. Those all have water sprays and vacuum systems. We would be doing that at least once a day as well. We have the pressure washer that will be in the building. Again, that's basically a heavy duty -- well, spray wash. And
06:46:23PM we would be using that on the tipping the floor and barrier walls to remove any residues as well. We have, at times, put a disinfectant

into that to help cleans things and control any odors. Over time some dust and some dirt can get behind those barrier walls. So those are routinely inspected and we'll clean behind those, and we have it set up where it's, actually, very easy to do. And any of those excess wash water potentially can be drained and that would go through an oil and water separator before going into the sanitary sewer system.

06:47:10PM In terms of odor control -- because, again, I can't emphasize it enough, all the waste handling activities, the loading, transferring, unloading, all indoors. As I mentioned, that waste is only on site for a short time. It's going to be a first-in/first-out approach, meaning as waste comes in, that's the first waste that goes out. It's not like it really backs up, so it's, again, only there a short time. The cleaning

06:47:40PM procedures I mentioned are key to controlling odors.

And then, as I mentioned before,

the ventilation and filtration system, the fast opening and closing doors basically keep everything enclosed as much as practical. And then it is important to know -- I think I mentioned -- that these odor-control procedures, including that ventilation and filtration system, all of this information was previously provided to DuPage Airport Authority, and they have agreed with all of these approaches and
06:48:17PM that these are the features that make us compatible with the safe airport operations.

Turning back to the hydro-excavation waste, again, this is a little bit of review for those who may have been here Tuesday, but this is a material that is created with pressurized water. So it is a technique that was actually developed in Canada. It's use has been growing dramatically here, and it's used primarily around utilities so that the
06:49:06PM traditional method of using a small excavator or such happens less and less. Excavator buckets, as they dig, and they hit a pipe, well, they

break the pipe. So, then, whether it be natural gas or water or electric or communications, then, you know, everything stops and people are without that service for a period of time in the area while those repairs are made. So this is used for trenching. Potholing is just simply a term for exposing a utility. It's, again, kind of an interesting term. It just means to create a pot or a hole where you can look down and see
06:49:47PM where the utility actually is. People always believe they know where they are, but sometimes they are a little wrong. You can install utility poles. You can make a very pretty cylindrical hole to put a utility pole in. It's also used to clean out storm sewers. My understanding is that the City of West Chicago has one of these hydrovac trucks. They use it for just that purpose. And I'll show you a picture here in a moment and, hopefully, it will
06:50:16PM make a little more sense.

The system, what it does is it just cuts through the soils and materials, breaks it

up, and then there's a suction that lifts it up and puts it in a debris tank where then it's hauled down the road. The storm sewers -- Again, these are storm sewers that are up and down all of our streets. You know, debris and silt or sediment, you know, that gets into storm sewers over time, so the jet will just simply break that material up and then the vac will suck that material up into the debris tank.

06:50:52PM Here are some pictures. So the picture on the left is a typical hydrovac truck. The thing you see kind of sticking out of the top, the green, there's a Kanaflex hose that's attached to a large tube. That's the vacuum portion of the system. That's connected to what they call a debris tank because it holds debris. It's sucked up in the back of the vehicle. These trucks will typically hold anywhere from, say, 500 to a thousand gallons of water, and it

06:51:32PM has a generator on it to create the pressure. So there's a narrower wand-looking apparatus that the person would use, so they'll kind of

jet, again, break up the soil and, you know, have that excavation hose right next to it so as it's breaking the material up, it's also sucking it up into the hose so you can keep the excavation clean and see what you're doing.

Those pictures on the right are excavations that were created using that technique. So it's really pretty amazing. You can make clean vertical walls. You can see that they have been able to dig down underneath pipes without damaging them. There's no way you can do that with the traditional mechanical means.

06:52:14PM

In terms of the processing of this material, it would be very similar to what we're -- what Lakeshore Recycling is currently doing at their Heartland Recycling Facility in Forest View. The mud, it's basically, again, just picture a mixture of water and dirt, and it's sloppy. It is -- because it's got -- It's too sloppy to actually go directly to a landfill. What happens or what needs to happen is that that excess water needs to be absorbed

06:52:54PM

with some other solid material. What we typically use is woodchips. You know, woodchips we actually have at the site through the C&D recycling operations. That would typically be the B-wood. So the wood that is painted or stained or just dilapidated, but we grind it up, increase the surface area, and absorbs that excess water very nicely. It's simply mixed with -- mechanically with, like, a hydraulic
06:53:35PM excavator or a wheel loader and just -- I'm an engineer, so I like math. So it's really two parts hydro excavation material with one part woodchips equals your properly solidified material that can be taken to a landfill.

As I said, there are various purposes for this technique. The primary one is digging around utility structures in a sense of infrastructure but it is used for storm sewer clean outs and other materials as well.

06:54:11PM As I mentioned, we do this at Forest View, so we have well-established procedures for preapproval so we know exactly

what we're getting and it's just, you know, mud or similar like we talked about, acceptance, inspection, you know, where we're looking at it to, again, make sure it's the same thing, and then recordkeeping so we know who it is what it is and where it came from.

In terms of the volumes we're requesting, so right now in our Forest View facility we accept anywhere from, say, 100 to 400 tons per day of this type of material. We have talked extensively with our customers, and they have indicated that there is a significant percentage that's generated much more conveniently located to West Chicago than Forest View and they would love to bring it to a closer location. Well, why? Because it's closer, so it would reduce transportation costs. So instead of driving, they could be working. The limit we're proposing is 300 tons per day, which would accommodate the diversion of, say, 100 to 150 tons per day. And, again, some reasonable growth and a contingency for a busy day.

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The building we're talking about is much smaller, so, again, the other building for the municipal solid waste and single-stream recyclables was over 20,000 feet in area -- this is about 2500 feet. It's about 29 feet tall, and we would have two areas where we could unload the material, mix it, and reload it. And it's -- It's all sloped and designed and made of concrete so that any -- any liquids would stay
06:56:23PM within the area. We actually put a geomembrane under the concrete. And a geomembrane is a fancy term for a thick, durable plastic that is used very commonly for waste containment throughout the industry. So it's just -- We haven't had any issues with any material, you know, with the concrete cracking but the geomembrane is just a belts-and-suspenders approach to be extra careful. And, again, the facility we're talking about is sized more than
06:56:57PM adequately for the peak hours at a maximum volume.

So this is a very large property.

It's about 28 acres, which provides lots of space, but we are talking about a variety of operations. So we have a great detailed traffic plan. The arrows -- I won't go through all of them for you but some of them reflect the existing patterns. What we do is we would -- we have signs, pavement markings. We would also use site staff, which we call spotters. Again, the term is fairly obvious. It's spotting the truck and telling the truck where to go to make sure they are in the right place and moving in the right direction.

06:57:46PM

What we do is this traffic would predominantly move in a counterclockwise fashion so that it just makes things simpler, makes things safer and, again, we have plenty of signs and pavement markings and folks to facilitate all of those movements. I mentioned it before with the buffer areas, where there's a pond on the west and east portion of the facility. They are key components of our storm water management system.

06:58:28PM

We recently went through -- When I say "recently," about two years ago, we wanted to pave additional portions of the property and add parking spaces and do some things like that. So we went through what's termed a planned use amendment development process, and that's the process I mentioned before where they approved our evaluation of wetlands and evaluation of the floodplain because as we pave more areas and
06:59:11PM create more impervious surface, storm water is a concern.

So we went through this process with West Chicago and DuPage County and we proposed a number of storm water improvements, which is primarily involve making the two ponds larger. Again, that simply comes from as you create more impervious, the water tends to flow off the property faster, so you need a slightly larger pond to contain it -- I shouldn't say
06:59:44PM contain -- detain it or slow it down before it leaves the property. So all of the improvements we're talking about as part of this proposed

facility were contemplated as part of that process we went through two years ago.

In fact, on the eastern portion of the property we have already performed all of that paving and we have enlarged the pond. So because all of this has already been contemplated, there is actually no additional storm water improvements that are proposed as part of this siting application.

07:00:23PM One of the other things I want to touch on with our property is wildlife management. This was another key component of our discussions and agreement with the DuPage Airport Authority. And what we have agreed to do, again, to minimize any potential impact of wildlife is to create a site-specific wildlife management plan. We would make sure that all of our staff are appropriately trained.

And I should say when we're talking

07:01:04PM about wildlife, we're really more specifically talking about birds. For all of the obvious reasons, being a bird attractant being near an

airport are a concern. Again, we have a plan. We would train our staff. We would have anti-perching devices on our buildings. Anti-perching just simply means spikes or other things that would discourage or prevent a bird from wanting to land on the building. We would perform routine wildlife surveys and we would -- When I say "wildlife surveys," we would walk around and look for are there any birds or water
07:01:49PM type -- water foul, for instance, wanting to use our ponds.

So as part of that, since we can't be everywhere at all times, we would use some game cameras. Again, when I say "game cameras," just similar to what people use when they go hunting. You put a camera out there, and if there's wildlife that moves in front of it, it will take a picture, so it will give us a better sense what's going on with our property with
07:02:18PM wildlife. We will have implemented all of those odor controls. Again, what we're talking about here, just the odor control, is above and beyond

what I have seen at any other transfer station of which I am aware.

We would perform improvements around the pond, portions of which we have already done. In all honesty, the ponds are potentially more of a hazard than anything else we're doing out there. Ponds are like large open water bodies. So we would be putting riprap or rock around the edges, we would keep
07:02:59PM the grass height low, and we would actually be putting a grid wire system over the ponds. When I say "grid wire," so bound 15 feet apart in multiple directions. We put these wires over the ponds and, again, the birds will not want to land in the pond. Then we would have a communication plan with DuPage Airport Authority, meaning a feedback, right. Nothing is ever perfect. You always want to be better. The idea is that we're implementing these --
07:03:36PM these protocols, we're evaluating it, we're looking at it, we're talking with the airport authority, and we're sharing information and

we're making improvements as we go. If they have suggestions, we would love to implement them. Again, everything we're talking about here is -- was part of the agreement with those folks and, in the end, we'll actually make this a -- the wildlife hazard potential will be lower going forward than it even is today. Meaning with all of these improvements, it will be a better situation and that is why the DuPage
07:04:17PM Airport Authority was supportive of this project -- or I should say one of the reasons.

So, in summary, our proposed operations will allow for the improved recycling of construction and demolition debris. Again, it will facilitate those operations having more stuff out there will allow us to make additional investments in infrastructure to reflect the construction and demolition debris. It will allow for more efficient management and
07:04:50PM transportation of the recyclables to a material recovery facility, again, like Lakeshore's one in Forest View or our new one in Chicago. It

will allow for the additional management of electronic waste with the drop-off area up front. It will add additional capacity and more efficient transportation to the management of the hydro-excavation waste, which is -- has our clients very excited, customers. And it will add additional capacity and more efficient transportation of wastes to a disposal facility, meaning a landfill.

07:05:25PM Again, to be clear, with what we're talking about here with the variety of operations and the design. We are proposing, this will be a premier waste management facility in Illinois. I am not aware of any other facility that will have this diversity of operations, will be this protective, and I'm very hopeful we can actually do all of this -- I shouldn't say do it -- to get approval to do all of this.

07:06:05PM So in terms of Criterion 2, it is my professional opinion that the West DuPage Recycling and Transfer Station is so designed,

located, and proposed to be operated, that the public, health, safety and welfare will be protected.

And going back to the fact that we are not going to be accepting anything that resembles hazardous waste, it is my professional opinion that the West DuPage Recycling and Transfer Station will not be treating, storing, or disposing of hazardous waste, so Criterion 7 is just simply not applicable.

07:06:40PM

Now we're going to move forward and talk about Criterion 5. Criterion 5 is that the plan of operations for the facility is designed to minimize the danger to the surrounding area from fire, spills, or other operational accidents.

So what it really boils down to is an incident prevention and response plan. The prevention is kind of obvious, that we want to take actions to prevent fires, spills, and other operation accidents from ever occurring.

07:07:23PM

The second piece is, obviously, the

response, that if something does happen, there is a plan in place. So we have an organized and coordinated course of action in responding to any potential fires, spills, or other operational accidents if they occur.

The first key item is the safety officer. When responding to any event, you need somebody in charge. So we will have a designated person on site at all times. That is typically the facility manager, but if he is not there for some reason, there will be a duly designated operator, typically one of the more senior, obviously, experienced folks, who is also well trained. It would be their responsibility to first implement the procedures to prevent any incident such as fires, spills, or other accidents; and then if something does occur, to coordinate the responses.

07:08:10PM

In terms of prevention, it's training. Facilities like this, typically have -- people are trained as they are hired, so they will go through a litany of things just to

07:08:52PM

make sure they are not only skilled in their job function but they are safe. Not only including them, but other coworkers and the customers who are using the facility. There are various systems and procedures that will be in place to contain and collect any spilled liquids. There's really not much, but whether it be from hydro-excavation waste or maybe just simply a truck. Trucks do break down. Trucks do leak oil. So what to do and spill kits and such associated with that. And then making sure everybody has and uses personal protective equipment.

07:09:32PM

Another big thing with facilities such as this is fire prevention. You may have heard stories about things such as, like, lithium batteries from phones. Those are real. So we do -- The existing buildings are equipped with fire suppression systems and all of our new buildings would have a wet or dry pipe fire suppression system as well. We have out there currently what is called a fire rover. A fire

07:10:21PM

rover is -- again, a very -- It's a newer technology that uses foam and thermal monitoring. It's contained in -- Picture a large shipping container and it will -- it monitors for heat within the building. If it detects heat, it will automatically direct the nozzle of this foam at the area and put out any fire. This has been used by Lakeshore at other facilities with very good success, and we would
07:11:22PM continue to maintain the one in the C&D building and we would add a second one of these, a second fire rover, for the MSW and single-stream building.

The other nice thing about this property is there is a very nice water source. It's an 8-inch main that actually loops through the site. So there's seven fire hydrants on the property. There's one actually just southwest of where the municipal solid waste and
07:11:54PM single-stream transfer building will be located, so you have a very nice water source there as well. We have plenty of heavy equipment on the

site. We have water trucks and loaders that if a fire were to occur, they will help extinguish it. The access plan that I've showed you before in terms of on-site traffic flows is designed to accommodate emergency vehicles, including fire trucks, and it's, again, a simple but important thing. We put fire extinguishers in all of the equipment and the scale house and in all the buildings.

07:12:35PM Just based on all this, it is my professional opinion that the plan of operations for the West DuPage Recycling and Transfer Station is designed to minimize danger to the surrounding area from fire, spills, or other operational accidents.

HEARING OFFICER PRICE: Mr. Mueller, do you have any questions at this time?

MR. MUELLER: I think that's all we have at this point.

07:13:14PM HEARING OFFICER PRICE: Okay. Protect West Chicago, you're up.

MR. MEZA: Can everybody hear me?

Okay. Great.

Mr. Hearing Officer, I have a number of exhibits, so I think I'm going to hand them all out in packets, if you don't mind. I'll be using the computer also, on occasion, but hopefully -- Can the witness see that -- that monitor?

THE WITNESS: I should be able to, if I put my glasses on.

07:14:10PM CROSS-EXAMINATION

BY MR. MEZA:

Q. Mr. Hock, we have never met before, have we?

A. Only briefly, I think, maybe at these meetings. I can't remember if you were at the prehearing meeting or not.

Q. I was. I'm saying before that, at other --

A. No.

07:14:58PM Q. My name is Ricardo Meza, so you know. Mr. Hock, one of the things you said was that -- Actually, you mentioned in 2.0 of your

Criterion 2 application, was you indicated that the West DuPage Recycling and Transfer facility is a unique facility for LRS; is that correct?

A. Yes. I think it would be -- When I say "unique," as proposed, it would have a very diverse set of operations, and it's very large. So they have a number of similar operations, but in terms of, like I said, the size and everything that's going on, yes, I think this is unique.

07:15:52PM

Q. Right. You said it's unique because of its relatively large size, right?

A. That is one of the factors.

Q. You said that in your report, though, right?

A. I would have to look back at the wording. I may have.

Q. It's on Page 2.

A. Right. We say the West DuPage Recycling and Transfer Station is a unique facility due to its desirable location, relatively large size, and diversity of

07:16:32PM

operations and will be a premier waste management and recycling facility in the state of Illinois.

Q. Right. You said it's premier because of its large size, right? Yes or no?

A. Well, I think I just clearly said it. That's one of the factors.

Q. Right.

A. Sure.

07:16:59PM Q. Large is not one of the nine criterion, is it, in 39.2?

A. Well, being protective of the public health, safety, and welfare isn't size. You know, having room on the property to maneuver in terms of traffic flow and buildings and structures is helpful. I'll say it that way.

Q. Large means more trucks, right?

A. When I say "relatively large size," I was referring to the fact that it's almost a

07:17:34PM 28-acre property, which I'm not aware of another transfer station in the Chicagoland area that has that much property.

Q. So large means more trucks can come in, right?

A. It certainly accommodates the traffic that we're proposing to bring in. In terms of relative to trucks, I mean, you have a transfer station down the road that's permitted for 3,000 tons per day.

Q. I'm not asking about that one.

A. I'm just -- it's --

07:18:08PM Q. Large means more trucks and more garbage, doesn't it?

A. That's not what I'm saying.

Q. Diversity of operations, doesn't that mean different trucks with different types of garbage?

A. Diversity of operations does mean different types of vehicles. I would agree there.

Q. With different types of garbage,

07:18:33PM right?

A. I hate to be -- When you say "garbage," hydro-excavation waste --

MR. MUELLER: Let him answer the question.

BY THE WITNESS:

A. Hydro-excavation waste is different than garbage. When I say "garbage," just to make sure we're on the same page, I'm generally referring to garbage as municipal solid waste.

Q. So am I, then.

A. Okay. Great.

07:18:57PM Q. Different trucks with different amounts of garbage, right?

A. I'm not sure how to respond to that question.

Q. Okay. We can go on. So you said, I believe it was yesterday, that you agree to cap the amount of waste -- municipal solid waste in your facility to 650 tons per day; is that correct?

A. Yes.

07:19:26PM Q. And you said you would agree to do that as a condition for West Chicago to give LRS this permit; is that correct?

A. Yes.

Q. But in your host agreement, you agree with West Chicago that you can bring up to 1,500 tons; is that correct?

A. So the number you're talking about is the correct number in the host agreement, but you have to recognize that the host agreement was put in place as a precursor to putting the application together and doing all of the

07:20:07PM detailed design and operation and detailed work that we did. So once we -- Once we performed that, we decided that we did not need 1,500 tons a day and we propose the amounts that are shown in the application. So it wasn't -- It wasn't intended to be some sort of -- I don't know -- you know, I don't know. It was just a number at the time based on what we knew. And as we moved forward, we came up with a more appropriate number.

07:20:40PM Q. But, today, you have an agreement with West Chicago that you can bring up to 1,500 tons per day; is that correct?

MR. MUELLER: Asked and answered.

HEARING OFFICER PRICE: Overruled.

You can answer.

BY THE WITNESS:

A. To be clear, the other thing that does occur, even though that agreement would remain in place, and my understanding of the regulatory rule is a more stringent requirement in a permit or approval would govern. So we wouldn't be -- We're not trying to, I don't know, trick or do any sort of slight of hand. We are fine with the volumes we're talking about and our -- We're fine with these volumes. Again, it's just an initial number created earlier.

07:21:19PM

Q. So you're fine with 650 at the cap; is that correct?

A. Yes. --

Q. Yes or no? Otherwise, we can end up being here for, like, three days.

A. Yes. My only caveat was I don't remember if the 1500 included any materials other than municipal solid waste. I just want

07:21:48PM

to be clear, the 650 is for the municipal solid waste, and then there's the single-stream number and hydro-excavation and the C&D numbers.

Q. 650 just for the municipal solid waste, which equals garbage, right?

A. Correct.

Q. You'll agree to that cap; is that correct?

A. Yes.

07:22:14PM Q. I assume you'll also agree that if you want to increase that cap, you'll agree to go through another siting hearing, is that correct, with the city as a condition to get this permit?

MR. MUELLER: I'm going to object. That's a legal question that the witness is not qualified to answer.

MR. MEZA: It's not a legal question.

HEARING OFFICER PRICE: Objection is sustained. The process set forth with a statute

07:22:35PM for how you apply a permit once it's issued, if it's issued.

BY MR. MEZA:

Q. You could agree to that, couldn't you, today?

MR. MUELLER: Object again.

HEARING OFFICER PRICE: Sustained. The process is set forth in the statute, sir.

MR. MEZA: I understand.

HEARING OFFICER PRICE: It's not this witness' expertise on that statute.

07:22:54PM BY MR. MEZA:

Q. So, Mr. Hock, I think it was Tuesday or Wednesday, you made reference to LRS as being a small private company; is that correct?

A. I think I probably used the word "midsized."

Q. So you didn't --

A. I may have used the word "small," but in the waste world, I would consider them as a midsized company.

07:23:24PM Q. So they are a midsized privately held company; is that correct?

A. Yes.

Q. You testified about vertical integration; is that correct?
A. Absolutely.
Q. You said that vertical integration is preventing you from competing with the three big waste companies, right?
A. The lack of vertical integration in this market by Lakeshore is absolutely a deterrent for us competing long term in this market.
07:24:05PM
Q. Vertical integration means that you own the trucks, right?
A. That is a component, yes.
Q. And you own the waste transfer station, right?
A. That is also a component.
Q. And that you own --
MR. MUELLER: Mr. Price, this was --
HEARING OFFICER PRICE: I'm going to sustain the objection. Mr. Leutkehans did a very thorough job of going over all of this on Criterion 1, and need was the issue, and that's
07:24:23PM

what we were talking about.

Why are we going over this ground again?

MR. MEZA: Because we're talking about 2.1.2.1, which is the application of the applicant and property owners, and we're talking about the fact that he has testified that as a, now, midsized company, he can not compete with the three large entities.

07:24:49PM HEARING OFFICER PRICE: 2.0 is not about competition. Competition was in the need criteria. Mr. Leutkehans did a very good job. We're not going to go over this and tread this geography again. Let's focus on 2.0 and go from there, please.

BY MR. MEZA:

Q. Well, 2. -- Let me direct you to Page 2-7, the application of applicant and property owners. That's part of Criterion 2,

07:25:12PM isn't it, Mr. Hock?

A. Do you have Section 2.1.2.1 in Criterion 2?

Q. Right. You talked about that in Criterion 2, right?

HEARING OFFICER PRICE: Is there a dispute as to who the applicant is or the property owner is? Is that the issue? Because if we're going to talk about who LRS is, Mr. Leutkehans did half an hour of what "midsize" versus "large" meant. We're not going to redo that.

07:25:41PM MR. MEZA: I will not take a half an hour.

HEARING OFFICER PRICE: I'm not going to give you five minutes to redo what Mr. Leutkehans already did.

BY MR. MEZA:

Q. You said Macquarie Infrastructure Partners are a major investor; is that correct?

A. Yes.

Q. Are they the owners of LRS?

07:26:05PM A. Well, the -- The applicant says -- The application says the sole managing member of LRS is LRS Holdings, LLC, and the current major

investor of LRS and LRS Holdings is Macquarie Infrastructure Partners.

Q. Who owns LRS, LRS Holdings?

MR. MUELLER: Asked and answered.

HEARING OFFICER PRICE: You can answer, Mr. Hock.

Overruled.

BY THE WITNESS:

A. The sole owner of Lakeshore Recycling Systems, LLC, is LRS Holdings, LLC.

07:26:38PM

Q. Do you know who owns LRS Holdings, LLC; yes or no?

A. I know that the major investor of both is Macquarie Infrastructure Partners.

Q. So you don't know who owns them; is that correct?

MR. MUELLER: Objection. He said he knew.

HEARING OFFICER PRICE: It's been asked and answered. Move on.

07:27:00PM

BY MR. MEZA:

Q. So you're saying that the owner is

Macquarie Infrastructures; is that correct?

MR. MUELLER: Argumentative; asked and answered.

HEARING OFFICER PRICE: You're asking about corporate entities and asking if one shareholder is an owner of a corporation. The application says Macquarie is an investor in the owner. I don't understand why you're messing around and saying things that aren't in the record. Let's focus on Criterion 2. These people want to have their public comment. I'm not going to go over the ground that's not relevant to Criterion 2.

If you have a question about ownership, focus on who the application says owns the property.

BY MR. MEZA:

Q. Who does the application says owns the property?

A. The property is owned by Oscar Illinois, LLC.

Q. Does it say who owns LRS; yes or no?

A. Yes. I thought I already said that. LRS is owned by LRS Holdings, LLC.

MR. MEZA: Judge, I'd like to show the witness Exhibit 650 -- excuse me -- 651.

HEARING OFFICER PRICE: That's in the package you have in front of you, PWC 651?

MR. MEZA: Yes. That should be in the packet.

(PWC Exhibit No. 651 marked for identification.)

07:28:53PM

BY MR. MEZA:

Q. Mr. Hock, do you know what a statement of economic interest is? If you don't, that's fine.

A. No. I mean, I could guess based on what it sounds like, but ...

MR. MUELLER: Don't guess.

BY MR. MEZA:

Q. LRS was required to give a statement of economic interest to the City of Chicago explaining to them who the owners of the company were. That's what 651 is. Can you take a look

07:29:12PM

at that?

A. Okay.

Q. Do you see how it shows on Page 1, LRS, LLC, is listed as the party disclosing the information?

A. I do.

Q. There's a separate disclosure statement asking who -- LRS, LLC, who owns them.

Do you see that? You can look on the screen, too, Mr. Hock. Sorry.

07:29:51PM

A. I'm confused. You're asking me to look --

Q. Okay. There's a statement of economic disclosure and affidavit that requires Lakeshore Recycling, LLC, to disclose who their owner is.

MR. MUELLER: Mr. Price, I want to raise a foundation objection to this exhibit. I don't know who it was prepared by or when it was prepared. The witness seems to be having the same trouble. I know that it lists LRS at an address that is obsolete, so that is what caused me concern.

07:30:28PM

HEARING OFFICER PRICE: I would agree. Can you set the foundation for this witness? I don't understand this.

MR. MEZA: Sure.

BY MR. MEZA:

Q. Mr. Hock, did you know that LRS obtained four contracts with the City of Chicago?

A. I'm generally aware that they bid on that type of work, and I understand that they have had some success, but I don't know the specifics.

07:30:58PM

Q. So you're not aware that they received or were awarded four separate contracts with the City of Chicago?

A. Not specifically.

Q. You're not aware that they received a $79-million contract for the blue cart recycling for the City of Chicago?

A. I was generally aware that they won some contracts for the recyclables, but I was not aware of the amount of the award or anything

07:31:24PM

like that.

Q. Would it surprise you to know that they received contracts totaling $107 million?

MR. MUELLER: Mr. Price, I'm going to object, unless he can produce the contract.

MR. MEZA: I have the contracts. We can go there. I'm just trying to speed it up. That's all.

HEARING OFFICER PRICE: How is it relevant? He said that the service area does not include the City of Chicago contract.

07:31:55PM

MR. MEZA: He said Macquarie Infrastructure Partners --

HEARING OFFICER PRICE: How is the contracts for Chicago relevant here to this?

MR. MEZA: I'm not looking to admit the contracts.

HEARING OFFICER PRICE: Let's move on. Ask a question.

07:32:16PM

BY MR. MEZA:

Q. So the last -- Did you know that the City of Chicago requires LRS to update their

statement of economic interest when they change ownerships? Did you know that?

A. No.

Q. Would that surprise you to know that, or not?

MR. MUELLER: What's the relevance.

HEARING OFFICER PRICE: Sustained.

Next question.

BY MR. MEZA:

07:32:39PM Q. Okay. Take a look at Page 4 of 70. This asks for ownership information.

Do you see that?

A. Again, I apologize. I'm not clear.

Q. 4 of 70.

HEARING OFFICER PRICE: It's Page 4 of, actually, 598.

MR. MEZA: Okay. I didn't copy all 600 pages.

BY MR. MEZA:

07:33:12PM Q. Can you, please, just take a look at Page 4, or take a look at the screen.

A. I'm looking at Page 4.

Q. Does that say "ownership information"?
A. I do see at the top of the page there's a No. 2 with the words "ownership" and "information" after it.
Q. It requires applicant, the person disclosing, to identify anybody who has an interest in excess of 7.5 percent; is that right?
MR. MUELLER: Relevance of what the
07:33:42PM City of Chicago requires. They are not the ones who are here.
HEARING OFFICER PRICE: Sustained.
MR. MEZA: This is about ownership.
HEARING OFFICER PRICE: What's your question about ownership? Does he know that LRS Holdings has a controlling interest in it? He has already said that.
MR. MEZA: Yes.
HEARING OFFICER PRICE: Next question.
07:33:59PM BY MR. MEZA:
Q. Do you know LRS Holdings is owned by MIP V as an intermediate? Did you know that?

If you don't, that's fine.

A. No.

Q. Did you know that MIP V owned the parent LLC is owned -- owns MIP V as an intermediate?

HEARING OFFICER PRICE: Let's ask a question. Do you know who owned LRS Holdings after this, Mr. Hock? As opposed to looking at an exhibit you have never seen before that's been objected for foundation, let's just ask the question.

07:34:33PM

Do you know who has the controlling interest in LRS Holdings, LLC?

THE WITNESS: No. Alls I know is that Macquarie Infrastructure Partners, which has the initials MIP, is a major investor.

BY MR. MEZA:

Q. All right. Take a look at Page 58 of 70, or you can take a look at the screen. That lists Macquarie Infrastructure Partners, doesn't it?

07:34:55PM

MR. MUELLER: Mr. Price, while the

witness is looking, again, I'd like some foundation as to the date of this exhibit because we think it's stale.

HEARING OFFICER PRICE: I'm not going to be bullied by an exhibit either. The question is fine. The question is -- There's a page about Macquarie Infrastructure Partners. I guess you're going to find out what Mr. Hock knows about Macquarie Infrastructure Partners.

07:35:53PM Where is this headed? Is this about the ability of the owner and that Macquarie is -- Is that what you're going to question?

MR. MEZA: Yeah. He said he didn't know who the owner was.

BY MR. MEZA:

Q. The major investor is Macquarie Infrastructure, is that correct, sir?

HEARING OFFICER PRICE: That's been

07:36:09PM asked and answered. What do you want to know about Macquarie from this witness?

BY MR. MEZA:

Q. Do you see Macquarie is listed on this disclosure statement?

HEARING OFFICER PRICE: The objection is sustained.

Next question.

BY MR. MEZA:

Q. Can you take a look at Page 69 of 70. Macquarie Infrastructure lists the what

07:36:36PM investment vehicles that are available for them. Can you read that number?

MR. MUELLER: Objection.

HEARING OFFICER PRICE: Sustained. This document is not something this witness is familiar with. If you have someone who has prepared it and you want to put them on to say this is how it is as of today, fine; but this witness doesn't know.

MR. MEZA: Sir Hearing Officer, he

07:37:05PM testified that -- Okay.

BY MR. MEZA:

Q. Did you testify that you were unable

to capitalize, raise capital? Didn't you testify to that?

A. Again --

MR. MUELLER: Objection. That was Criterion 1.

HEARING OFFICER PRICE: I'm going to give you a little leeway here. Go ahead. Capital would reflect on the ability to have a safe operation, so I'll give you a little leeway.

07:37:30PM

Go ahead and answer.

BY THE WITNESS:

A. I think what you're referring to -- What you're trying to do is mischaracterize what I said. What I'm saying is if you're not fully vertically integrated, it lends an unknown to your pricing structure as you go to bid on municipal contracts, for instance. The more unknowns you have in any process, the harder it is to make decisions of investing, make decisions about, you know, raising money to do such things. So, yes, that is true.

07:37:55PM

Q. Raising money to have a safe facility; is that correct?
A. That's not what I said.
Q. Is that why you want to raise money?
A. So if you -- let me -- as --
MR. MUELLER: I'm going to object. The question is argumentative.
HEARING OFFICER PRICE: I'm going to allow a little bit more room here. So
07:38:35PM overruled. Try to tie this up.
BY THE WITNESS:
A. My point was you go to bid on contracts, for instance, people don't have garbage trucks just sitting there waiting and doing nothing. So if you win more work, you need to buy things. You need to buy containers. You need to buy trucks. You need to invest. And you need money to do those things.
So my simple point was if there are
07:39:04PM unknowns in your cost structure and you're trying to make business decisions, if you have unknowns in the process like your disposal

costs, which are a significant piece of the cost you have to build into one of these things, it's much harder to do. That is another key reason why vertical integration is so important so people can make investments with good information. Even if somebody has the money. If you have a bunch of unknowns it doesn't mean they are going to want to use it. Again, that's the importance of having this transfer station
07:39:44PM and allowing Lakeshore Recycling to become vertically integrated in this market.

Q. The fact that the Macquarie Infrastructure Investments, who you listed in Criterion 2, has 17 billion in pooled assets, that has nothing to do with your operation; is that correct?

A. It's not what I said and it's a mischaracterization.

Q. Okay. Let's go to 2.1.4, which is
07:40:12PM location standards. I think you have one slide on that; is that right? Slide 5. It's Page 2-10 of your application.

A. Would you like me to go to the slide or the application?

Q. No. I just want you to go to the application so I can ask you some questions.

So this is the -- This is the application that deals with the location standards, which is 22.14(a) of the act; is that correct?

A. I don't remember the citation, but that's probably one of them.

07:41:06PM

Q. What's on Page 2-10?

A. 22.14(a) is the location standards for residential properties.

Q. The location standard that you're referring to, 22.14(a), that's a state statute of the Illinois Environmental Protection Act, correct?

A. Yes. I think we just said that.

Q. The Environmental Protection Act has

07:41:39PM

come up with a standard in which a company like LRS can site or not site a facility; is that correct?

A. Well, I'm struggling to figure out how to answer your question.

HEARING OFFICER PRICE: The statute applies.

THE WITNESS: Thank you.

BY MR. MEZA:

Q. So it's a yes; is that right?

A. I understand what the statute says. I can read 22.14(a), if you'd like.

07:42:24PM Q. No. There's no need to read it. My question is: The IEPA has said, for a company like LRS, if they want to build a pollution facility, like a waste transfer station, they have to comply with this section, don't they?

A. It is a requirement in the act that's applicable, which is why it's listed and referenced and discussed in our application.

Q. Right. Because the IEPA has said if it's closer -- if it's this thousand feet issue,

07:42:58PM you can't site it there; is that correct?

MR. MUELLER: It says what it says.

MR. MEZA: I understand, Mr. Mueller.

HEARING OFFICER PRICE: Objection is overruled.

BY MR. MEZA:

Q. It's very specific. It says it cannot be sited if it's within 1,000 feet from the nearest property zoned for primarily residential uses; isn't that correct?

A. That is part of the language in that section of the act.

07:43:39PM Q. Well, it's not just language. That's state law, isn't it?

MR. MUELLER: Calls for a legal conclusion.

HEARING OFFICER PRICE: I'm going to overrule the objection. He testified under this section. He talked about the West Chicago --

BY THE WITNESS:

A. I'm sorry. Can you repeat the question?

07:44:03PM Q. The statute, it's not just what it says; it's the law, isn't it?

A. I have already agreed that the statute

applies, which is why it's discussed in the application and why I put it on the slide. If you're equating statute to the law, then that's fine.

Q. Maybe you're --

A. I guess I'm confused by your language or your wording.

Q. A statute is the a law.

A. Okay.

07:44:37PM Q. So I'll just use law.

A. Okay.

Q. Can LRS circumvent the law?

A. I believe that the location of this facility meets all of the applicable laws and statutes.

Q. The question is: Is LRS allowed to circumvent the law; yes or no? 22.14(a).

MR. MUELLER: Mr. Price, I'm going to object, that's argumentative. And Counsel is

07:45:04PM aware that there has been a Pollution Control Board ruling and Appellate Court ruling that have carved out an exception to the setback

standard.

MR. MEZA: We disagree with that.

HEARING OFFICER PRICE: Right. That's for another place, not for this witness. Let's move on.

BY MR. MEZA:

Q. Now, in your application and in your presentation tonight you admitted that there was property that is zoned ER-1 within a thousand
07:45:34PM feet; isn't that correct?

A. Yes.

Q. And that is a property that is zoned primarily for residential, isn't it?

A. As I mentioned in the presentation, as discussed in the application, we do not believe that this criteria or this law applies to this property.

Q. You're relying on the City of West Chicago; is that correct?

07:46:14PM A. I think we're relying on common sense, the letter is also very helpful, and we believe it does not apply.

Q. Right. On Page 2-11, you say -- you describe the parameters for ER-1 and then you say, quote, This conclusion is supported by a letter from West Chicago provided in 2-E1; is that correct?

A. Yes. Again, that's because my opinion is that -- is that that requirement does not apply to this property for the reasons set forth, that it is -- you know, that that is about being set back from residences and it is, obviously, impossible to ever put a one-acre sized lot with hundred foot setbacks on active railroad property that's been an active railroad for 75 years. It can't possibly fit within the structure -- in the context of what they are saying and the West Chicago letter, I thought, was very helpful in pointing out it's just an anomaly from how it was originally annexed in. You know, they use it also for forest preserve that will also never be a residence. That's why we disagree that it is property that's primarily zoned for residential use because it's not going

07:46:59PM
07:47:41PM

to ever be used for residential use, so it doesn't apply.

Q. So you included a letter from West Chicago in the appendix, correct?

A. Yes, we did.

Q. And that's -- Let me direct your attention -- You can either look at it in your application or I have it on the screen. It's PWC 34.

07:48:10PM Do you see that?

(PWC Exhibit No. 34 marked for identification.)

BY THE WITNESS:

A. It's easier for me to look at in the application.

Q. Okay.

A. I'll just go to it.

MR. MUELLER: Mr. Price, while he's looking at it, to speed this up, the applicant

07:48:22PM would stipulate that there is ER-zoned property within 1,000 feet of the facility boundary. I have a full legal memorandum on this issue

prepared and ready for the city council at the appropriate time.

HEARING OFFICER PRICE: Does that save you any time?

MR. MEZA: Only if they will stipulate there's actually two City of West Chicago positions with regard to the setback.

MR. MUELLER: Well, he's asking about the letters. He's entitled to ask those.

07:48:57PM HEARING OFFICER PRICE: Okay. Onward.

BY MR. MEZA:

Q. So this letter states that it's physically impossible and that the City of West Chicago concludes that this statute doesn't apply; is that correct?

A. That's the wording in the letter.

Q. But the City of West Chicago and the mayor of West Chicago, they can't overrule or trump state law, can they?

07:49:26PM MR. MUELLER: Argumentative.

MR. MEZA: It's a question. How is that --

HEARING OFFICER PRICE: And asking for a legal conclusion from a nonlawyer.

BY MR. MEZA:

Q. I'm asking if a decision of a city council, do you know whether they can overrule state law?

A. They can certainly have an opinion. I think their opinion is in the letter.

Q. Mr. Hock, you're aware, are you not, that a number of documents and draft applications were obtained by a citizen as a result of at FOIA, Freedom of Information Act, request; you're aware of that, right?

A. Yes.

Q. So the drafts of your application and the draft exhibits for Draft No. 1, 2 and 3 of various criteria were produced. You understand that, right?

A. Okay.

Q. Is that a yes or no? Do you know?

A. I do not -- I do not know what was obtained through the FOIA request.

Q. Okay. Did you know that -- Did you prepare Criterion 2, Draft 1?

A. Yes.

Q. And preparing Criterion 2, Draft 1, you obtained a copy of the letter from the City of West Chicago, didn't you, regarding the setback?

A. Yes. If there was a letter in there, then, yes, we obtained it.

07:51:24PM Q. You may have to look at Exhibit 13-A, which is on the screen, but it's also in your folder. If you can take a look at that.

THE COURT: 13-A?

MR. MEZA: A. There should be a 13-A there.

(PWC Exhibit No. 13-A marked for identification.)

HEARING OFFICER PRICE: My packet has not a 34, nor 13-A.

07:51:57PM MR. CALLAGHAN: I don't have it either.

HEARING OFFICER PRICE: Mr. Meza, my packet doesn't have 34 and it doesn't have 13-A.

MR. MEZA: It's actually in two locations. So let me direct the hearing officer and everyone to --

HEARING OFFICER PRICE: I'm going to need 34 eventually, depending on whether you move these in.

MR. MEZA: Mr. Hearing Officer, there's also a copy of the letter in Exhibit 200.

HEARING OFFICER PRICE: All right. Thank you.

07:52:37PM

BY MR. MEZA:

Q. Mr. Hock, maybe just take a look at Exhibit 200 on the screen?

HEARING OFFICER PRICE: What page in 200?

(PWC Exhibit No. 200 marked for identification.)

BY THE WITNESS:

A. I think I found it. It's the October 15th, 2019 letter.

07:53:00PM

Q. So that letter was drafted a couple of years earlier than the one in the final

application; is that correct?

A. Yes.

Q. It's drafted by the exact same person who wrote the first -- the second letter, right?

A. Yes.

Q. But this letter doesn't include the words "physically impossible," does it?

A. No.

Q. In fact, it doesn't even include the word "concludes." It says, The city believes Section 22.14(a) is inapplicable, doesn't it?

A. Are you referring to the last sentence?

Q. Yes.

A. It says, "As such, the city believes Section 22.14(a), 1,000-foot setback requirement, is not applicable."

Q. So isn't this the official position of the City of West Chicago?

MR. MUELLER: Calls for him to read the mind of the city.

HEARING OFFICER PRICE: He's testified

about this. Go ahead. I'll overrule it.
BY THE WITNESS:
A. I'm sorry. Can you repeat the question?
Q. Yes. Isn't the first letter the position -- true position of the City of West Chicago?
A. I don't believe so. We took the most recent letter and that's what we put in the
07:54:42PM application.
Q. Where did you get the most recent letter from?
A. I always mispronounce his name. So, Tom, if you're out there, I apologize. Tom Dabareiner.
Q. Do you know who asked Tom to change that letter?
A. I asked Tom to change the letter.
Q. You asked him to change it from
07:55:05PM "believes" to "concludes"?
A. Well, if you'd like a little more insight, I'd be happy to give it to you.

Q. I just want to know if you asked him?
A. If you look at the first letter, it talks about the Union Pacific.
Q. I'm not asking about the Union Pacific, sir. I'm asking you about the words that got changed from "believes" to "concludes." Did you ask him to change that?
A. I'm trying to be as clear as I can to answer your question.
07:55:48PM MR. MUELLER: It calls for a yes or no, John.
BY THE WITNESS:
A. I asked him to change it.
Q. You asked him to change, and he changed it for you?
A. We asked him to update the letter, and he updated the letter.
Q. You asked him to change "I believe" to "I conclude," didn't you?
07:56:10PM A. When we asked them to change the letter to include both railroads, instead of just the one, which we did because we had

updated information, we did suggest language to include in the letter and this is what we have as a result.

Q. So since you're changing the railroad to add Canadian National to show that they own it, not EJ&E, go ahead and change believes to concludes, right?

A. Well, you just mischaracterized what I said again. The reason we asked him to change
07:56:52PM the letter is that the original information we had when we put the draft together back in 2019 suggested that the Canadian National Railway was part of -- well -- I'm sorry. I want to make sure I get it straight.

One of the railroads was actually in unincorporated DuPage County and was zoned light industrial. As we moved forward to finalize the application, we saw an updated zoning map from DuPage County, and it showed
07:57:33PM that both were, in fact, in West Chicago. So, as such, we wanted to update the letter.

Q. Which included changing "believes" to

"concludes," right?

A. It does include that change.

Q. Thank you.

Now, let's talk about APTIM. You know who APTIM is, don't you?

A. I see two representatives of them sitting right here.

Q. Mr. Devin Moose and Walter Willis; is that correct?

07:58:05PM A. No. I don't think Walter --

THE WITNESS: Walter, you're not with APTIM, are you?

BY MR. MEZA:

Q. Marty Fallon.

HEARING OFFICER PRICE: For the record, Mr. Willis is not with APTIM.

BY MR. MEZA:

Q. Now, the City of West Chicago hired APTIM to help them review the application; is

07:58:27PM that correct?

A. That is my understanding.

Q. Well, you know that, don't you?

A. Well, they are sitting right there. I'm assuming they were hired by West Chicago.
Q. So you never saw the contract?
A. No.
Q. So you just assume they were hired by West Chicago to help them?
A. It's --
Q. You knew West Chicago hired them, didn't you, sir?
07:58:53PM A. How do I say this? I wasn't presented with the contract, but it is customary for a community to hire a consultant to help them review this; and when they called and said they were, I took them at their word for that.
Q. Right. It's a customary practice, right?
A. Yes.
Q. When they showed up, you said, Hey, you were the guys that West Chicago hired to
07:59:19PM review my application, right?
A. Well, Michael Guttman also, I think -- I'm sure he indicated either to -- I can't

remember -- either myself or someone else on the team that that's what they were going to do. Yeah, I didn't see the contract but that's what we were told.

Q. So you were actually told that?

A. I don't know. I don't recall exactly.

Q. And the LRS representative on this matter is a person named K.J. Loerop; is that correct?

07:59:52PM A. K.J. Loerop, yes, has been involved in this project as a representative of Lakeshore Recycling since the beginning.

Q. He's the one sitting right behind you, right?

A. Yes.

Q. He knew that APTIM was hired by West Chicago also, didn't he?

A. Well, K.J. is sitting here.

Q. Do you know; yes or no? If you don't

08:00:29PM know, that's fine. If you don't know that the he knew that APTIM had been hired by West Chicago, that's fine.

A. I believe that K.J. understands that APTIM has been hired by West Chicago.

Q. And after West Chicago hired APTIM, K.J. asks APTIM if they would be willing to work and manage the wildlife plan that they developed, didn't he?

A. I'm not aware of that.

Q. Do you know if LRS has an agreement with APTIM to hire them for the wildlife plan that you did?

08:01:09PM

A. I don't understand your -- there's -- what -- I'm not clear on wildlife.

Q. If you don't know, that's fine, sir.

A. I don't know what you're talking about.

Q. You did at least three drafts of the application; is that correct? Maybe more; is that correct?

A. It's been a work in process since -- well, since 2019. So it depends how you count them, yes.

08:01:35PM

Q. How many would you count? Would it be

more than five or less than five drafts?

A. Well, we have been working on it consistently or off and on. Different sections have gone through a different number of revisions. I guess, again, I'm not --

Q. They have gone through revisions because Mr. Moose and APTIM had made comments on Application Draft 1, Draft 2, and Draft 3; isn't that correct?

08:02:13PM A. We did provide a draft that points along the way to APTIM, and it points along the way they did provide comments. Yeah, certain revisions were made. I shouldn't say in response -- Their comments were taken into consideration and, yes, we made certain changes considering those comments. Absolutely.

Q. Because you knew the City of West Chicago was going to be relying on APTIM for their expertise, right?

08:02:45PM A. Sure. That's part of it. If they made suggestions and comments then, you know, their opinion is going to matter to West

Chicago. It only makes sense that we would try to accommodate or consider those comments. Yeah, of course. That's normal course.

Q. You did consider them, right?

A. We did.

Q. And you did accept some, right?

A. We made -- We made changes considering some of those comments, yes.

Q. You accepted some of his comments, yes?

08:03:23PM

A. We did make changes considering some of their comments.

Q. You rejected some of their comments?

A. When you say "reject," yeah, there were certain comments they made that we did not change the application, based on our consideration. There were things they were suggesting that, yeah, we did not -- we didn't agree with or -- you know, other things changed, too. It's not -- There's a variety of considerations that go into the final product like any doctor. Certainly their comments were

08:03:55PM

a consideration.

Q. You said you were an engineer, so you're a math right, correct?

A. I am an engineer. I am definitely a math guy.

Q. Good. I'm not a math guy. Anyways, let's talk about Page 2-43 of your application.

HEARING OFFICER PRICE: Mr. Meza, you have done a nice job for laying a foundation for what I'm sure will be some specific questions about some specific things in the application and review, but we need to take a break. I have to give the court reporter a couple minutes here and the rest of the congregation an opportunity for a break.

Let's take ten minutes. We'll resume at 8:15, please.

(A short break was had.)

HEARING OFFICER PRICE: Back to you, Mr. Meza.

BY MR. MEZA:

Q. Mr. Hock, you said you're an engineer,

you're a numbers guy. Let me ask you this: At 650 tons per day, how many packer trucks is that?

A. It's about 80.

Q. So that's 80 packer trucks coming in with MSW, trash, and 80 going out per day max, right?

A. Yes.

Q. How many transfer trailers does that come out to? 08:18:01PM

A. About 26.

Q. The transfer trailers are simply the larger trucks that fit, like you said, two or three packer trucks. The trash gets put into the tipping floor, which is basically just the concrete floor, gets scooped up by these caterpillars, and gets put into transfer trailers; is that correct?

A. Well, there's some miswording in what you just said, but I think the -- I don't know how to answer that. I mean -- 08:18:46PM

Q. The packer trucks tip their garbage on

the tipping floor, right?

A. They do.

Q. And then the garbage gets picked up by a tractor or some machine and gets put into transfer trailers, right?

A. It does get picked up by a front-end loader and transferred into the transfer trailers.

Q. Then the transfer trailers get tarped and then they leave, right?

08:19:26PM

A. Yes.

Q. So there's 80 packer trucks coming in. Do they all stay in the facility at night?

A. Not all of them would. Not all.

Q. How many of them would stay? How many of the 80 packer trucks would stay at that facility?

A. It depends on a variety of factors.

Q. What are some of those factors?

08:19:58PM

A. How many of them Lakeshore owns.

Q. How many -- Do you have an estimate of how many Lakeshore Recycling packer trucks might

stay at the facility at the end of the night?

A. It depends.

Q. It depends on what?

A. They own a certain number of trucks now. To get to 650, they would likely have to buy more trucks and a certain amount of that volume would be third party volume. So it would be -- it would be other folks. So there's -- So it depends.

08:20:48PM Q. Well, you said that the trucks, by staying at that facility, is going to be better for the community, didn't you?

A. They would be better from the context that the miles that they would drive on the road for the wear and tear and vehicle emissions and all that stuff would be less.

Q. Right. So how many trucks is that, if you know?

MR. MUELLER: Is this a Criterion 1

08:21:24PM question.

MR. MEZA: It's safety.

HEARING OFFICER PRICE: The objection

is overruled.

You may answer.

BY THE WITNESS:

A. I'm sorry. Could you ask the question again?

Q. Is it not important to know how many trucks are going to stay at the facility at night; yes or no?

A. Yes.

08:21:52PM Q. Right. Because those trucks could have a part in what is referred as the storm water prevention plan and storm water pollution prevention plan; is that correct?

A. No.

Q. No. Okay. Then all of the transfer trailer trucks are going to stay at the facility, correct?

A. No.

Q. You have 17 spots, though, don't you?

08:22:23PM A. Yes.

Q. Okay. So up to 17 can stay there overnight, right?

A. Yes.

Q. Now, as far as operating this waste transfer station, isn't it important for you to know the peak hours of the waste transfer station?

A. Yes.

Q. How did you determine what the peak hours for this waste transfer station were going to be before it's built? How did you make that determination?

08:23:05PM

MR. MUELLER: That question should have been asked to Mr. Werthmann.

MR. MEZA: It's Criterion 2.

HEARING OFFICER PRICE: This is an operation question. The question is overruled.

You can answer.

BY THE WITNESS:

A. Would you clarify which of the waste materials you're talking about?

Q. Sure. Let's look at Page 2-43 of your final application.

08:23:23PM

A. Uh-huh.

Q. The top of the page states that the MSW and SSR recycling are accepted into and loaded out at the same buildings so are evaluated together.

Do you see that at the top of Page 2-43?

A. Yes.

Q. That's part of the evaluation of maximum amount of MSW, SSR, and C&D; is that correct?

08:24:06PM

A. Yes.

Q. It's important to know whether or not this facility can accept all of the waste that it's going to be sited for, isn't it?

A. Yes.

Q. So you want to know what are the peak hours of operation to make sure that whatever those hours are, there's going to be enough room in the facility to unload, leave, and then load the transfer trailer trucks, right?

08:24:34PM

A. Yes.

Q. And you said that the peak hours were

10:00 to noon for MSW and SSR, that's the -- let's see -- sixth bullet down.

Do you see that, 10:00 -- excuse me -- 11:00 to noon? No. The first peak hour occurs at 10:00 a.m. and noon, so 10:00 to noon, right?

A. Yes.

Q. And then the second peak goes from 3:00 to 6:00. The afternoon peak starts after 3:00 and it goes until about 6:00 p.m. right?

08:25:11PM

A. Yes.

Q. So how did you determine that those were going to be the peak hours?

A. Because Lakeshore already has hauling operations in that area where they are going out and doing collections. So they provided a breakdown of the times by truck of when they left when they came back. Basically their route times of using the Batavia Transfer Station. So with some -- so we relied on that data.

08:25:53PM

Q. So you relied on -- you relied on that data to come up with these peak times, right?

A. Yes.

Q. 10:00 to noon and 3:00 to 6:00. Based on those numbers, you created tables that told you about how many trucks would come in at 10:00 and 11:00 and between 11:00 and noon and then 3:00 to 4:00, 4:00 to 5:00, and 5:00 to 6:00; is that correct?

A. Yes, we did.

Q. And then you totaled those numbers up and then figured out you could run the operations at the peak hours, right?

08:26:24PM

A. Yes.

Q. Now, we talked about the draft application. Remember, you had, like, a couple drafts -- I don't think you remembered the exact number, but it was more than one, right?

I have at least three. So maybe there's more, but at least three?

A. Okay.

Q. Would you agree; yes or no?

08:26:55PM

A. No.

Q. Okay. Let's look at the draft

application you did in November of 2019. That's Exhibit 200, Mr. Hearing Officer and everyone else. Go ahead and take a look at that, Mr. Hock.

A. I'm sorry. Which exhibit?

Q. Exhibit 200.

HEARING OFFICER PRICE: PWC 200.

BY THE WITNESS:

A. I found it.

08:28:07PM Q. Now, in PWC 200, that was a draft, and you have it in the lower right for November 2019.

Do you see that?

Can you go to -- I didn't copy the whole thing. Can you go to Page 2-29?

A. Okay.

Q. Can you tell me what the peak hours were that you listed in this draft on Page 2-29?

A. Peak hours of MSW and SSR acceptance

08:28:44PM will be between 10:00 a.m. and 12:00 p.m. and then again between 2:00 p.m. and 4:00 p.m.

Q. So the peak hours went from 2:00 to

4:00 to 3:00 to 6:00; is that correct?

A. Yes.

Q. What caused the peak hours to change for this facility that hasn't been built yet?

A. I don't remember.

Q. In fact, do you remember the Excels you created where you were moving columns around with truck numbers?

A. I'm not -- I don't know what you're talking about.

08:29:27PM

Q. Did you or anybody under your direction create Excel documents to create the tables reflecting the trucks coming in and trucks leaving at different hours?

A. Can you clarify what tables you're talking about?

Q. Table 2.3 on Criterion 2. 2-3. Excuse me. Not 2.3, 2-3.

A. I don't recall what a draft from two years ago would have said or not said.

08:30:17PM

Q. 2-3 is the table that outlines LRS's calculations for the peak hours for MSW, SSR,

C&D, and hydro evacuation; is that correct?

A. No.

Q. Don't you have four separate tables?

A. We do. They are separate tables. They are not all on 2-3. They are separate tables.

Q. Okay. So the first one is 2-1. What is that?

A. That's the construction and demolition debris.

08:30:58PM

Q. 2-2?

A. It's the single-stream recyclables.

Q. 2-3?

A. MSW.

Q. And 2-4?

A. Is hydro-excavation waste.

Q. Let's focus on 2-3, MSW. Let me direct your attention to Exhibit 205 in the folder.

08:31:25PM

(PWC Exhibit No. 205 marked for identification.)

BY THE WITNESS:

A. I'm there.

Q. Now, you're the chief project manager of this; is that correct?

A. Yes.

Q. So you had different people working for you at CEC that were helping you prepare this application; is that correct?

A. Yes.

08:32:16PM Q. That included people who helped prepare the Table 2-3, correct? Yes or no?

A. I don't recall exactly who created it at this time, but I'm sure they worked for me.

Q. Do you recall that Table 2-3 was created off of an Excel that had various tabs on the bottom indicating move 1 percent, move 2 percent, move 5 percent, move 1 outgoing, move 2 outgoing, move 3 outgoing.

Do you remember that?

08:32:59PM A. I don't understand your question.

Q. Do you remember anybody working on an Excel where they were changing the number of

trucks in different columns?

A. Well, this is a draft from I don't know when.

Q. Mr. Hock, remember we obtained documents via the Freedom of Information Act requests?

A. Okay.

Q. This is one of the documents that was produced. It was an Excel that showed the MSW
08:33:46PM with tabs reflecting changes in numbers based on truck numbers being moved from one column to another.

Were you aware that that was being done?

A. I'm just not clear what you're referring to.

Q. Okay. You created Table 2-3, right?

A. Yes. 2-3 in the application.

Q. And that shows trucks coming in at
08:34:21PM different times and different number of trucks coming in at different times, right?

A. Yes.

Q. And you want to have that information because you have to make sure and show that your operation can safely accept trucks during the peak hours and then move them out; is that correct?

A. Yes, which the facility can.

Q. So did you know that somebody on your staff was moving numbers around? If you don't know, you don't know.

08:34:59PM A. We -- Analyzing and evaluating data is part of what we do.

Q. And the data here is: How many trucks do we think is going to come between 10:00 and 2:00 and 2:00 and 4:00 or 3:00 and 6:00, right?

A. Yes. We made estimates of how much is going to come between these hours based on the data.

Q. This data isn't just data. It's very important information, isn't it?

08:35:31PM A. It's data that we used.

Q. It's data that you're asking the city council to rely on that is accurate, right?

A. Well, the data that we used, I can assure you, is accurate.

Q. So you know today how many trucks are going to come between 3:00 and 6:00 in two years exactly, right?

A. That's not what I said.

Q. Now, let's talk about stock- -- tipping floor and stockpiling capacity. You have heard those terms before, right?

08:36:19PM A. Yes.

Q. Tipping floor is the floor in the waste transfer station that you described as eight inches of cement when the trucks tip and drop their trash; is that correct?

A. The concrete floor is at least eight inches thick.

Q. And then stockpiling -- Let me see. Stockpiling is a term to describe just putting all the waste in a pile because you don't have

08:37:09PM enough time to put it in the transfer truck, so you have to stockpile it so that maybe when there's less traffic you can pick it up and put

it in the trash -- tractor-trailer; is that correct?

A. Generally, yes. That's common at all transfer stations.

Q. Because at the end of the night you have to wash that tipping floor clean, right, so there's nothing that's going to be on there at the end of the night, right?

A. And we will.

08:37:36PM Q. So stockpiling is important, isn't it?

A. It's -- It occurs every day at all transfer stations.

Q. Now, APTIM had a lot of questions about your stockpiling information in your application, didn't he? Do you remember those questions?

A. I do remember some questions.

Q. Do you remember that he said at one time that the wheel loaders, these caterpillars, 08:38:18PM were depicted in a figure that were not drawn to scale?

Do you remember that comment?

A. No.

(PWC Exhibit No. 23 marked for identification.)

BY MR. MEZA:

Q. Okay. Let's look at PWC 23. I think we took that back from you. Let me -- We'll hand it out. Let me put it on the screen. So PWC 23, if you recall, was an August 27th, 2020, memo from APTIM that you redlined. It's not in that packet, Mr. Hock. I'll get you a copy.

08:39:05PM

Do you remember that memo?

A. Oh, yes. I handed this out the other day.

Q. Right. That was the memo that has your redline responses; is that correct?

A. Yes.

Q. But you didn't respond to every comment from Mr. Hock; is that correct -- I'm sorry -- Mr. Moose?

08:39:51PM

A. No. It wasn't necessary to.

Q. Let me direct your attention to page PWC, Page 12 -- 23, Page 12. Just tell me when

you get there.

A. I'm there.

Q. Now, take a look at that. That section is a section titled tipping floor capacity and operations; is that correct?

A. Yes.

Q. On Pages 12 through 14, Mr. Moose or APTIM is providing you comments on his observations with regard to the safety and

08:40:59PM information you provided as it relates to the tipping floor capacity in the operations; is that correct?

A. No.

Q. He's not?

A. No. It doesn't discuss the safety. It's just his comments on how he evaluated the capacity.

Q. Page 12 of 20? Are we looking at the same page?

08:41:28PM A. Uh-huh.

Q. Doesn't it say, Tipping floor capacity and operation?

A. It does.

Q. And doesn't it say, The wheel loaders that are depicted in Figure 2-3 are drawn at a smaller scale than actual size?

A. That's what it says.

Q. Isn't that about whether or not wheel loaders are able to move around in that facility, inside the enclosed facility?

A. It's not a safety issue. It's an operational issue. In the end, if you look at the figures that we have in the application, they are all drawn to scale.

Q. But the question is: That deals with not just operations, but you have to make sure you have enough room to move these wheel loaders around so people don't get hurt or for safety reasons, don't you?

A. This was a comment that the wheel loaders were not to scale.

Q. Right.

A. We drew it to scale.

Q. Because the way you had drawn it, it

made it seem like you had more room than you actually did, right?

A. No. I disagree with your -- You're mischaracterizing the comment. I disagree with what you're insinuating.

Q. Well, I didn't insinuate. Didn't Mr. Moose say, Are you going to use Model 850 Caterpillar or Model 650 so that he knew whether or not he could provide West Chicago an opinion as to whether or not those would be operated safely within your operations? Didn't he say that?

08:43:08PM

A. Can you repeat that?

Q. Sure. Didn't he say the smaller -- the smallest loader recommended by Caterpillar for use in a transfer station transfers is 1,300 tons per day is a Model 666 with an -- 966 with an 8.5-yard bucket? Do you remember reading that, or not?

08:43:44PM

A. This is a memo from two years ago. I don't remember the specific language in this memo.

Q. Okay. Tell us what size tractors you're going to have inside the facility to allow it to operate safely?

A. It's on the figure in the application. If you'll give me a moment, I'll be glad to tell you. We show two different types of loaders. We have a larger one that is a Cat® 950K, and we have dimensions shown and, again, the loader is drawn to scale, and then there's a second-size 08:44:44PM loader that's also shown and that is a Cat® 950M, and the dimensions of that are also provided.

Q. Turning your attention back to Exhibit 200. That was your first draft. Can you take a look at 200 and take a look at Section 2.4.17.5. Exhibit 200.

MR. MUELLER: What page, Counsel.

MR. MEZA: The bottom of the page should say 2-31. This was a 500-page section, 08:45:23PM so I just took out portions of it. Not Exhibit 23, Counsel. Exhibit 200. Exhibit 200, which is the first draft of your application.

BY MR. MEZA:

Q. If you just focus on Page 2-31, the tipping floor size and stockpiling capacity.

Do you see that?

A. Yes.

Q. So in your first draft, you calculated not just the tipping floor but the stockpiling capacity, correct?

A. Yes. And there's a stockpiling capacity in the current application as well.

08:46:04PM

Q. On Draft 1 you stated there was 1,333 cubic yards of stockpiling capacity for 17,100 square feet; is that correct? Isn't that what you wrote?

A. I think you may have misread it. It says assuming a 10-foot average height --

THE COURT REPORTER: I'm sorry. Can you start that over?

BY THE WITNESS:

08:46:46PM

A. Assuming a 10-foot average height and 0.8 slope loss factor, the waste storage capacity in this area is, approximately,

1,333 cubic yards paren or, approximately, 335 tons, assuming a waste density of 500 pounds per cubic yard, close paren.

Q. The first sentence of that section said that the approximate square footage was 17,100; is that correct? The very first sentence right underneath the heading.

A. 17,100 square feet.

Q. Okay. And that's tipping floor size and stockpiling capacity. Let's take a look at Exhibit 201.

08:47:29PM

(PWC Exhibit Nos. 201 and 202 marked for identification.)

HEARING OFFICER PRICE: Are we done with 200?

MR. MEZA: Yes. For now. If you see Exhibit 202, that's going to be next. Here's an extra copy of 201 and 202.

THE WITNESS: I just found 201.

08:48:44PM

BY MR. MEZA:

Q. So 201 is the second draft of Criterion 2. Let me direct your attention to

Section 2.4.18.5.

Can you read the title of that section that's on Page 2-34?

A. "Tipping Floor Size and Stockpile Capacity."

Q. How many -- How many square feet does it describe in the first sentence?

A. 17,100 square feet.

Q. Is that the same for the first application?

08:49:15PM

A. I believe it was.

Q. What's your stockpiling capacity now?

A. It says, Assuming a 12-foot average height and 0.8 slope loss factor, the waste storage capacity in this area is, approximately, 1,410 cubic yards.

Q. So you went from 1,333 at 10-foot to 1,410 at 12 feet, right?

A. I don't recall if we changed anything else in the calculation, but that would seem to -- that would seem to reflect the difference.

08:50:01PM

Q. Same square footage?

A. Same square footage.
Q. Just bigger piles, right? 10-foot to 12-foot, right?
MR. MUELLER: Objection. He's also got different waste density in there, so you're misleading him.
HEARING OFFICER PRICE: Overruled.
Mr. Hock can answer.
BY THE WITNESS:
08:50:44PM A. I would have to look and double-check we're using the same floor area. When we're calculating these stockpile capacities, we're not using the entire floor. We're using portions.
Q. Okay.
A. I'd have to look back and do the math.
Q. Take a look at 202 -- PWC 202. Let me direct your attention to 2.4.19.5. So it was .17, .18, now it's .19.5. That's on Page 2-77.
08:51:27PM A. I see it.
Q. Now, what's the title of this section?
A. "Tipping Floor Size and Stockpiling

Capacity."

Q. Is the square footage the same still, 17,100?

A. Yes.

Q. What's the stockpiling capacity this time?

A. I don't see it here.

HEARING OFFICER PRICE: We're missing -- For the record, it goes from 237 to 239.

08:52:05PM

BY MR. MEZA:

Q. Okay. Can you take a look at the screen? Mr. Hock, it's on the screen. I must have not copied that last page.

MR. MEZA: I can replace that, Hearing Officer.

BY MR. MEZA:

Q. If you can take a look at the screen, let me just read it to you. It says, Assuming a 12-foot average height and .8 slope loss factor, the waste storage capacity in this area is 1,422 cubic yards or, approximately, 284 tons;

08:52:20PM

is that correct?

If you can see it.

A. I can't see it from here.

Q. Would you take my word that I read it correctly, though?

A. I'm not going to argue with you.

Q. That's good enough, I guess.

Okay. Can you take a look at your final application and take a look at the section that talks about tipping floor and stockpiling capacity?

08:52:54PM

HEARING OFFICER PRICE: What was the cubic yards that you just read, Mr. Meza?

MR. MEZA: Sure. 1,422 cubic yards.

HEARING OFFICER PRICE: Thank you.

MR. MEZA: It should be Page 2-42.

BY MR. MEZA:

Q. Can you read the number before the words "tipping floor size"?

08:53:58PM

A. I'm not -- I'm not sure where you want me to read.

Q. Sure. It says, This is

Section 2.4.20.5. The other ones were .17 -- no -- 18 -- 17, 18, and 19. Do you remember that in 20, 21, 200, 201, 202?

A. Yeah.

Q. Now, what's the name of this section?

A. Tipping floor size.

Q. What happened to the words "and stockpiling capacity"?

A. We deleted them.

08:54:42PM Q. What else did you delete in that section?

A. Obviously, I don't know. I would have to compare these drafts. There were many things that changed between those original drafts and these.

Q. What is the stockpiling capacity now in your final application? Let me ask you that.

A. There is still stockpiling capacity in here. It's not like it's gone.

08:55:08PM Q. Can you tell me where that is in your application?

A. Give me just a moment. So if you look

at the Figure 2-4 that we show stockpile volumes there, and those are -- those are relatively large areas. What we show and discuss in here is that --

Q. Hold it. What are you looking at, Table 2-4?

A. Look at Figure 2-4.

Q. Oh. Figure 2-4?

A. Uh-huh.

08:56:44PM Q. Is that in the initial?

A. I'm talking about the application.

Q. Okay. Got it. Go ahead, sir.

A. Sure. So on Figure 2-4, we show stockpile volumes on the figure. If you notice that up in the -- Are you there yet?

Q. Go ahead. I'm listening.

A. So for the single-stream recyclables the plan is to stage them in the upper left corner. Again, to be clear, the staging of

08:57:21PM stockpiling occurs as waste or materials are coming in. If it does come in faster than we can load it out, then we end up with a volume on

the floor. What we do do is we look at the maximum capacity in the peak hours throughout the day. And the other tables that we were referring to calculate how much storage we would need using a number of conservative scenarios under these -- under the conditions. So what we'll do is compare the amount required for the floor storage based on everything we know, the available capacity, and what you'll see is that
08:58:05PM we have about -- the stockpiles shown here are about double the size of what's needed at a peak hour of a maximum capacity day and --

Q. What is the stockpiling capacity? What is that number?

A. So what we show on the figure for single-stream recyclables is 60 tons, for municipal solid waste we show 85 tons in another area, and in another area we show another 40 tons.

08:58:42PM Q. That's tons of garbage, isn't it, or trash or MSW?

A. It is. Which is -- It's just

converting the stockpile capacity from a volume to a mass. The thing that maybe would help that fundamentally changed is we lowered all of the acceptance volumes, which means the capacity volumes. So what that did is it changed the number of incoming vehicles at the same hours, reduced any of the needed stockpile capacities to very modest levels and what we were just simply showing is that we have more than ample
08:59:26PM storage space on the floor, again, during a peak-hour high-capacity day.

Q. 2:00 to 4:00 or 3:00 to 6:00?

A. It's by hour.

Q. So what's that final number? Because before you said it was 1,333 cubic yards, then it was 1,410, then it was, I think, 1,444.

What is it now?

You're a math guy, aren't you?

Mr. Hock, didn't you just take that
09:00:05PM section out because you got tired of responding to Mr. Moose's questions about that?

MR. MUELLER: That's argumentative.

BY MR. MEZA:

Q. Let me direct your attention back to Exhibit 23, Mr. Hock. This is, again, the exhibit -- the August 27th memo from APTIM to you that's redlined.

Did you do those redlines or not? Did you type that stuff or was it somebody else?

A. I don't recall.

Q. Do you recall doing -- Do you recall reading this memo, or not?

09:01:00PM

A. I just read it again the other day, which refreshed my memory.

Q. So is that a yes?

A. What was your question again?

Q. Do you recall reading this memo; yes or no?

A. Yes.

Q. Do you recall typing in red responses in this memo?

09:01:36PM

A. No.

Q. Are these your responses or are they somebody else's responses?

A. I don't recall exactly.
Q. Do you recall if you made any of the responses?
A. I don't recall which ones I may have done or which one others may have done.
Q. Do you recall personally making any of the responses; yes or no?
A. No.
Q. But you have a recollection of
09:02:39PM reading -- at least reading what Mr. Moose said about your application draft, didn't you?
A. Yes.
Q. You said earlier some of the comments he made you accepted and some you didn't, correct?
A. Yes.
Q. Some of the comments in this document, Exhibit 23, you responded -- somebody responded in red; is that correct?
09:03:10PM I can give you an example. Do you want an example? Let's go to Page 14.
A. There are comments and responses.

Q. Excuse me?
A. Yes, there's responses there.
Q. And those responses are in red, right? They are in caps, in red?
A. They are.
Q. Now, if you scroll down to Page 14 where it says, Further, the applicant incorrectly claims there's, approximately, 2,500 cubic yards.
09:03:39PM Do you see that?
A. I'm sorry. What page?
Q. It's on Page 14. The paragraph that starts, Further, comma, the applicant incorrectly claims there's, approximately, 2,500 cubic yards?
A. I see that language.
Q. There's no response after those comments, right?
A. There's nothing in red after those.
09:04:07PM Q. Mr. Moose is saying you should -- we believe the use of a more realistic density per cubic yards results in a need to store

1,200 cubic yards of SSR material as proposed.

Do you see that?

A. I do.

Q. No response, right?

A. Nope.

Q. Next paragraph you said, The applicant -- it says, The applicant also used average pile heights of 12 feet; however, with such narrow stockpiles, it will not be possible

09:04:44PM to store above the height of the push wall.

Do you see that?

A. Yes.

Q. You didn't respond to that either, right? There's no red after that, right? How about that?

A. There's no red after it, but our --

Q. Okay. The next section says, Figure 2 illustrates --

MR. MUELLER: He didn't finish his

09:05:06PM answer.

MR. MEZA: I'm sorry. Go ahead. Sorry.

BY THE WITNESS:

A. I was going to say there's so many things that changed since this draft was written that these comments -- Well, again, it's a mischaracterization. This was not -- I'll stop.

Q. Thank you. Was there any response in red to those comments and observations of the expert that the City of West Chicago hired?

A. There's no words on this piece of paper after those paragraphs. It doesn't mean we didn't consider them.

09:05:48PM

Q. There's no response was the question. Was there a response or not? Did you give a response in red here, or not?

A. Not on this piece of paper.

Q. Okay. The next paragraph talks about, Figure 2 also illustrates, as previously mentioned. He's talking about the SSR and the loader again. There's no response after that, correct?

09:06:16PM

A. Correct.

Q. He says that the waste will not be

routinely consolidated. Okay. And he's talking about how much space is needed, not to mention the inability to close the bay doors and the inherent increased likelihood for litter tracking in unwanted wildlife.

Do you see that?

A. As I'm looking at this, as I read it again, where it says, See updated throughput evaluation in Figure 2-3, that would likely have responded to all of these down below.

09:06:50PM

Q. Okay. So you didn't respond to his question about inherent increased likelihood for litter tracking, correct? There's nothing in red, right?

A. No. I think -- To be honest, I'm reading this again. It looks like what we did is we provided some comments after certain paragraphs that addresses other -- other paragraphs. There was -- Again, as I read this, there was not an intent to put words after every paragraph because it wasn't necessary or appropriate.

09:07:17PM

Q. The next paragraph starts with, In addition, Figure 3 shows the collection vehicle.

Do you see that?

A. Yes.

Q. There's no response after that paragraph, correct?

A. No. I think what he was referring to is Figure 2-3, which is what's referenced above. So it appears that, again, that general comment was referring them to a whole throughput evaluation and updated figure. We just didn't waste the time with putting words after every single paragraph.

09:07:44PM

Q. And throughput just is a fancy word for the amount of trash coming in and coming out, right?

A. Yes.

Q. Now, go on to Page 15. Mr. Moose then starts commenting on the width of the 10-foot truck. He says, Assuming a width of 10 feet for each truck.

09:08:20PM

Do you see that?

A. Yes.
Q. You did comment about that, though, didn't you?
A. Because that's specific -- you know, specific to that phrase. If you notice, it's after the clause versus after the paragraph. So, again, as I'm reading this again -- So, yeah, we provided responses to whether it be clauses or paragraphs or in some we refer to
09:08:57PM other comments and some it was just more general, so ...
Q. He said they were 10-feet wide, you said, Hey, they are only 8.5-feet wide. You corrected him. He was wrong, wasn't he?
A. We're just clarifying with the legal vehicle within Illinois.
Oh, I see why we did it now.
Q. Why did you do it?
A. He was talking about lack of distance
09:09:40PM between doors and things and he was using a wider width for the trucks, which would create a shorter distance. So we were just clarifying

that it was an overly-conservative assumption.

Q. He was off by a foot and a half, right?

A. Yes.

Q. Now, in that same paragraph, he talks about the time it takes to -- for a packer truck to unload.

Do you see that?

A. Yes.

09:10:16PM Q. Now, it's important to know how long it takes a packer truck to unload because you need to know whether you can process throughput from these trucks during the peak hours; is that correct?

A. The loading time is an important assumption in our throughput evaluation. I agree with that.

Q. Right. Because this is supposed to be a fully enclosed trash transfer facility,

09:10:54PM correct?

A. It is a fully-enclosed trash transfer stations.

Q. But in order to enter this facility, you have to open the doors, right?
A. They can't magically get in any other way.
Q. Well, are they automatic doors?
A. Yes.
Q. So they are going to be automatic doors that are going to automatically open?
A. Our plan is to have a spotter that
09:11:24PM will open and close them. When you say "automatic," they are mechanical. You can press a button and they will go up and down.
Q. Somebody has to press a button for it to come up and go down?
A. Yes.
Q. And there's four bay doors, correct?
A. Yes.
Q. And you're going to have three spotters?
09:11:44PM A. The plan is to have people helping direct traffic and managing the flow, so, yes, we'll have people that will be available and be

there to open and close the doors as needed to let trucks in and out.

Q. Didn't you testify that there was going to be three spotters the other day? If you don't remember, that's fine.

A. I don't recall is exactly what I said.

Q. How many spotters are there going to be then?

A. Well, what we have -- maybe this is what I meant -- is that there's three general spotting locations that we have planned for the facility. So one would be at the MSW and SSR building, which is what we're talking about here; we have another over by the C&D building; and then one up at the entrance, if needed.

Q. Okay. What about where the transfer trailers come in, are those automatic doors?

A. Yeah.

Q. So there's three sets of doors, right?

A. There's four bay doors.

Q. I'm saying sets of doors. There's the MSW doors. There's four of those, right?

09:12:25PM
09:12:59PM

A. Yes.
Q. There's the C&D doors. There's two of those, right?
A. Yes.
Q. Then there's a door where the trash transfer truck has to drive in to get loaded, right?
A. Yes.
Q. Then there's a door for the truck to
09:13:20PM exit, right? The trash transfer trailer truck, it goes in, it gets loaded, and then it leaves, right?
A. Yes.
Q. So there's --
A. There's two doors for that.
Q. Are those automatic doors?
A. Those would likely be automatic, depending on -- but we could have manual. Those trucks come in every ten minutes or so. It's a
09:13:58PM different operation. You could actually have the drivers operate those doors.
Q. So those doors, a driver would have to

get out of his truck, push the button, open that door, and then wait until the other truck leaves, right?

A. He wouldn't have to get out of his truck.

Q. How does he open the door then?

A. These things are a lot of times set up with lights, so you have kind of green light/red light so he knows if someone is there or not. So there's a button outside that he would push to open the door.

09:14:30PM

Q. There's going to be a button where he pulls up, he can push, and drive a transfer trailer inside, right?

A. There's a variety of means to do this. What I just gave you is an example. That level of detail, we would -- we would make an exact determination at a later time when we're actually building the facility. What you're talking about is very standard stuff that's done every day. And, like I said, there's different ways to do it.

09:14:54PM

Q. Well, it's not standard because it's close to an airport, and doesn't it have to be fully enclosed?

A. Not what I said.

Q. I understand that. My question is: It's not a standard municipal waste transfer station because it's located near an airport; isn't that correct?

A. The location is unique being close to an airport. The things we're talking about here are very standard.

09:15:26PM

Q. Right. But what you need is that it has to be fully enclosed, doesn't it?

A. And it is.

Q. Right. So what is the plan that you have to keep it fully enclosed right now?

A. We have fast opening and closing doors that will open before a truck enters and close after -- sorry -- it will open before it enters and it will close while it's in the building, and then it will open before it leaves and close after it departs.

09:15:59PM

Q. The same thing is going to happen with the municipal solid waste doors during peak hours, correct?

A. Yes.

Q. In fact, you estimated that there were going to be about three of those bay doors that would have to open and close every five minutes, correct?

A. You wouldn't need all three during the peak hours, but you could need up to three at times.

Q. And they are going to open up all the way up, all the way down, every five minutes from 3:00 to 6:00; is that correct?

A. That's how they work.

Q. So for those periods of time, when the door is open and the truck is -- it has to back in, correct?

A. Yes. It has to -- It can't magically get in the building. It has to go through the doorway.

Q. Right. But it doesn't drive in and

turn around and dump; it backs in, doesn't it?

A. It does.

Q. So it has to be open and the driver has to drive and back himself up through that door, three drivers, right -- up to three drivers, correct?

A. Again, I think you're mischaracterizing or misunderstanding.

Q. I understand. Don't the trucks have to back into the spaces, into the garage doors; yes or no?

09:17:29PM

A. Yes.

Q. And during peak hours, there can be as many as three garage doors open; is that correct?

A. There could be up to three garage doors in use.

Q. Right. In use. So one could open and one could be closed and then another one could open and another could be closed. So, technically, one door could be open at all times, then, right?

09:17:53PM

A. No.
Q. They are all going to be closed or open at the same time?
A. No.
Q. So some of them might be open while the others are closed, right?
A. I think you're getting it.
Q. Right. So it's not going to be fully enclosed, then, right?
09:18:16PM A. It will be fully enclosed.
Q. You estimated five minutes for the truck to back into the tipping floor and unload, correct?
A. Five minutes to back in, discharge the load, and leave and clear the doorway so another truck could do the same thing.
Q. Right. That's what you estimated, correct?
A. Yes.
09:18:49PM Q. Mr. Moose said he estimated loading times to be four to nine minutes on average -- Exhibit 23 -- didn't he? But you said we're

using five minutes, and we believe this is an appropriate average; is that correct?

A. Yes. It's the same we have used in other situations. All the information we have seen and my standing out watching these things over time, says five minutes is a good number.

Q. In fact, you went to the California MSW or facility that LRS owns to come up with approximate times, didn't you?

09:19:34PM A. Not for this.

Q. You didn't for this?

A. Not for the five minutes.

Q. Let me direct your attention to Exhibit 16. This is an e-mail from Lee Chastity to Marty Fallon of which you were copied.

Do you see that?

A. Yes.

(PWC Exhibit No. 16 marked for identification.)

09:20:30PM BY MR. MEZA:

Q. So I was wrong. CEC didn't go to do the times; APTIM went and did the times,

correct --

A. No.

Q. -- to the California facility?

A. No. We were both there. In fact, I was there that day, too.

Q. I was right, then, you did go?

A. Yes.

Q. And, in fact, you then -- Is the California facility one of the state of the art facilities for LRS?

09:20:58PM

A. Yes.

Q. Do they clean the floor every day like they are going to do here in West Chicago?

A. I know they clean the floor routinely. Exactly what they do every day, I can't say. It's a -- It's a flagship facility. It's very busy. It takes a lot of tonnage. They recycle a lot of C&D. It's a -- Yeah, it's a premier facility.

09:21:35PM

Q. Topnotch facility?

A. Yeah.

Q. Take a look at the next exhibit,

PWC 17. Can you tell us what that is?

(PWC Exhibit No. 17 marked for identification.)

BY THE WITNESS:

A. My apologies. I knocked the mic off.

Q. Take your time.

A. I'm sorry. Where are we at?

HEARING OFFICER PRICE: PWC 17.

BY MR. MEZA:

09:22:23PM Q. 17. Can you take a look at that?

A. Yes.

Q. Tell us what that is.

A. It's a spreadsheet of load times at their California Avenue facility. What it shows is -- So it's basically load times by different trucks.

Q. So what you were doing was going to the California facility to try to come up with some data about how long it would take you to

09:23:04PM unload a truck, correct?

A. No.

Q. What were you doing, then? What are

these tables for, then?

A. This is how long it takes to load a transfer trailer.

Q. Oh, okay. Load a transfer trailer. I'm sorry.

Did you do any -- Did you do any calculations at the California facility to determine how long it takes to unload a packer truck?

09:23:25PM A. No.

Q. Why not?

A. It wasn't needed.

Q. Why wasn't it needed?

A. Because we were good with five minutes and, you know, if you stand out there and watch, you can see -- especially at that facility, they get in and out of there faster than five minutes, so we didn't need to do it.

Q. But the California facility is not

09:23:57PM like this facility, is it?

A. There's similarities and differences.

Q. Right. It's not an enclosed facility,

right?

A. Correct.

Q. It's an open facility, right?

A. So there's an open side to the buildings.

Q. Okay. So do you think it would take more or less time to unload a packer at that facility than at this proposed new facility?

A. It depends.

09:24:37PM Q. On what?

A. Depends how much space is available, depends on cueing time.

MR. MEZA: Okay. Mr. Hearing Officer, I would like to show an exhibit, but it's a video. It's Exhibit No. 700. I'll mark it. It will be on the screen here, and it will be here.

(PWC Exhibit No. 700 marked for identification.)

BY MR. MEZA:

09:25:46PM Q. Do you recognize this location?

A. That looks like an aerial view above the 3152 California facility looking from east

to west.

Q. So this is the premier facility of LRS also; is that right?

A. They do a lot of recycling. The recycling operation is topnotch. They have actually done a number of other things to process organics and different things like that. It's a nice facility.

Q. Thank you. Do you see the time

09:26:30PM marker, it's two seconds? Do you see that? Would you take my word?

A. I'll take your word.

Q. Do you see a little blue truck there. Is that an LRS truck?

A. I would have to look closer.

Q. Come on in. Look closer.

MR. MUELLER: Mr. Price, if we're going to ask questions about a video and show a video, we need foundation.

09:27:01PM HEARING OFFICER PRICE: Overruled. You can show anybody a photograph if they recognize the photograph. So far all he said is he

recognizes this to be the California station. We'll see what the next questions are.

So overruled.

BY THE WITNESS:

A. It could be. It's a little tough to see the logo.

Q. Okay. That's fine. Let me hit play. It's 4 seconds, 5 seconds. Can you tell, from looking at the video, what this truck that may or may not be LRS is doing?

09:27:33PM

MR. MUELLER: I'm going to object based on foundation.

HEARING OFFICER PRICE: Overruled. He asked him if he could tell what the truck is doing. We haven't heard an answer.

BY THE WITNESS:

A. I don't see the truck anymore.

Q. The timer is at 44 seconds.

Do you see that, Mr. Hock?

09:28:10PM

A. Yes.

Q. Do you see the truck now?

A. Yes.

Q. I have paused it at 54 seconds.
Do you see that?
A. I'm sorry. I turned my mic off.
Q. That's all right.
A. Yes.
Q. Can you tell if that's an LRS truck now?
A. It appears so.
Q. All right. So we're at 54 seconds. We'll watch the video and then I'll ask some questions about it. We're at 3 minutes and 11 seconds.
09:28:41PM
Do you see that?
A. Yes.
Q. So we're at 5:30, but he didn't arrive until about 54 seconds, is that right, Mr. Hock, if you remember?
A. Yes. It was about the one-minute mark.
Q. Right. It looks like he's getting back in his truck. The time is 6:48; is that correct?
09:33:25PM

A. Yes.

Q. He drove off at about 7 minutes; is that correct?

A. Yes.

Q. So that would be about 6 minutes; is that correct?

A. Yes.

Q. Now, did the time that it took this driver about the same amount of time it's going to take to pull into this proposed facility, or not?

09:35:10PM

MR. MUELLER: Mr. Price, I'm going to object and move to strike this entire line of questioning because it's an apples-and-oranges comparison. We don't know what the circumstances were of that truck unloading.

HEARING OFFICER PRICE: Overruled. The question is simply whether this is an accurate representation of what we can expect at the proposed facility. That question is of minimal probative value, but nevertheless appropriate.

09:35:39PM

You can answer.

BY THE WITNESS:

A. The answer is not necessarily. It doesn't change anything. Because one of the main things you may have noticed is there was not another truck coming in behind him. It's like any task. If you have extra time, you can probably take extra time. So him taking an extra minute because he had extra time seems complete -- he actually moved out of there
09:36:15PM pretty quick given the time he had. It depends on a lot of things. It does nothing, nothing at all, to discount the five minutes that we're using.

Q. How many minutes did you calculate to load a transfer trailer?

A. So Lakeshore routinely does it in less than 8 minutes.

Q. Didn't Mr. Moose tell you that the average time he found was 13 minutes and
09:36:49PM 26 seconds?

Do you remember that?

A. No.

Q. Take a look at PWC 13 again, Page 4. You might not have seen that before. This is the first memo that Mr. Moose issued, wasn't it?

HEARING OFFICER PRICE: Do you have it, Mr. Hock?

THE WITNESS: I do.

BY THE WITNESS:

A. You're referring to the January 20, 2020 memo.

09:37:34PM Q. Right.

A. Second paragraph on Page 4 of 7?

Q. Right. Take a look at Page 4.

A. Uh-huh. It says, APTIM conducted vehicle processing times at the transfer station with the above average times: Process a transfer trailer is 13 minutes and 26 seconds.

Q. So it takes somebody else 5 minutes longer to load a transfer trailer than it takes LRS, right?

09:38:08PM A. Yeah. You should look back at PWC 16, which is the one that says -- the tables include the details for each trailer loaded. In

summary, it took 6 to 8 minutes to load a trailer, similar to our observations from the July 24, 2020 visit.

So, yeah, the time it takes to load a transfer trailer depends on a number of things. It all just confirms all of the assumptions we're using, that they are all accurate.

Q. Now, Mr. Hock, one of the things you mentioned was a -- I believe it was a 2019 PUD, a planned unit development. 09:38:51PM

Do you remember that?

A. Yes.

Q. So that was -- So correct me if I'm wrong. In 2015, LRS obtained a planned unit development to build the C&D site on Powis; is that correct?

A. I don't remember the year. I think it's in the application. I can double check it if you want. 09:39:32PM

Q. If you think I'm incorrect, go ahead and check.

A. I just don't remember.

You're correct. The original PUD was approved on May 8, 2015.

Q. The PUD is so LRS would obtain permission to build the C&D facility on Powis Road; is that correct?

A. Generally, yes. There's some other things it allowed, too; but yes.

Q. Okay. Then in 2019, CEC submitted an 09:40:51PM amended PUD; is that correct?

A. Yes.

Q. But that was for the C&D facility, wasn't it?

A. It was to make a variety of improvements to the property.

Q. Right. To the C&D facility?

A. Oh, yes.

Q. Right?

A. Well, to the existing facility and its 09:41:11PM various operations.

Q. Right. The various operations were the C&D operations, right?

A. No.
Q. It wasn't the C&D operations?
A. It involved the other operations as well.
Q. Right. So it was C&D and others, right?
A. Yes.
Q. Okay. So you were looking to expand the C&D facility, weren't you?
09:42:03PM Do you remember, Mr. Hock, or not?
A. Yes, that is part of it.
Q. In fact, you mentioned it in Criterion 2, on Page 2-5, didn't you? You said that it was an amendment to the planned unit development and site development permit; is that correct?
A. Yes.
Q. Can you flip to Page 2-6?
A. Yes.
09:42:33PM Q. The last paragraph says, The C&D expansion building is designed to be approximately 22,500-square foot rectangular

pre-engineered metal; is that correct?

A. Yes.

Q. That's the building that you want to use the waste transfer station for, isn't it?

A. It's the same size building in the exact same location.

Q. Right. But that's the building that you intend -- That's where you intend to place the waste transfer station building, correct?

09:43:05PM A. Yes.

Q. The exact same place?

A. Yes.

Q. But you didn't indicate that you were going to place a waste transfer station there in this PUD, you just said you were expanding your C&D facility, right?

A. Absolutely.

Q. Right?

A. Yeah. We couldn't -- The PUD

09:43:28PM amendment process was not about a municipal solid waste transfer station. It's not the -- It's not the appropriate process.

Q. You told the City of West Chicago that you were going to build a C&D expansion building, presumably to expand your C&D facilities, right?

A. Yes. So we have the approval to do that if we'd like.

Q. Didn't you also say that you have a permit for 1,200 tons of C&D?

A. 1,250, that's correct, that's the

09:44:10PM permitted limit as of today.

Q. But you guys don't even hit that number, do you? What's your average now, 750?

A. As I said before, the average is around 300 tons per day right now with peaks getting up to around 750 tons per day.

Q. So you want to file an amended PUD to expand a building for C&D, despite the fact that you already have 1,250, but you only take in 750, right?

09:44:38PM A. The building expansion was put in, along with other improvements, so that the storm water design that we were doing for that would

be the exact same as we're talking about for the municipal solid waste transfer station. We didn't want to have any additional impervious. We wanted the layout to be exactly the same because we didn't want to have to go through a storm water design and other such things twice. So that is why, as I pointed out before, the storm water has been approved for exactly the configuration that's out there and that's why
09:45:33PM there's no other storm water approved. So that was the logic behind --

Q. Sure. Take a look at Exhibit 10. I have it on the screen also. It should have been the one handed out just now. I'm sorry.

Can you take a look at the second page?

Does that have your signature, John Hock, P.E.?

(PWC Exhibit No. 10 marked for
09:46:36PM identification.)

BY THE WITNESS:

A. That is me.

Q. This was submitted June 20, 2019?
A. Yes.
Q. Can you flip to the fourth page that provides the information about the application for the private planned unit development?
Do you see that?
A. Yes.
Q. Now, the next page talks about the property information, doesn't it?
09:46:58PM A. Where are you looking?
Q. The following page, where it says, Property information, 1655 Powis Road.
Do you see that?
A. Yes.
Q. Then go ahead and go down. It says, Current use of the property.
Do you see that? Could you tell?
A. Yes.
Q. Could you read that?
09:47:19PM A. Construction and demolition debris recycling facility.
Q. Because that's what it's used for,

right?

A. Yes.

Q. And proposed use of the property?

A. It says, Improvements to construction and demolition recycling facility.

Q. Right. It doesn't say MSW waste transfer station, does it?

A. No.

Q. So this is for the expansion building of the C&D, right?

09:47:45PM

A. Among other things, right.

Q. In here, you included Attachment 7.1. Go ahead and flip to 7.1.

A. Okay.

Q. This is the Storm Water Pollution Prevention Plan; is that correct?

A. Yes.

Q. That's different than just a storm water plan; is that correct?

09:48:14PM

A. I don't understand your question.

Q. Don't you have to explain how you're going to deal with storm water runoff and then

also have to explain your storm water pollution prevention plan?

A. If you're referring to -- So there's a storm water design. And this is not -- The storm water pollution prevention plan is not a design. It's just how you're going to, just as it says, maintain the facility, best management practices, inspections and such to manage the design of the storm water system that's in

09:49:06PM place.

Q. Right. This is for the C&D building, right? This was attached to your application.

A. Yeah. This would be for the existing operations as of September 2018.

Q. On Page 6 of that plan, CEC has a section called, Pollutant source identification and evaluation.

Do you see that?

A. Yes.

09:49:47PM Q. That's where they are talking about what's going to happen with the water if it rains and it falls onto trucks and it's got

grease, where is that water going to go, right?

A. No.

Q. Well, isn't that why it's called a storm water pollution prevention plan?

A. The term comes from IEPA regulations. It's the term they use.

Q. So you don't use the storm water pollution prevention term?

A. Oh, yes, we do.

09:50:38PM Q. Right. Because that's part of your application, isn't it?

A. It's part of this application.

Q. It was part of -- That's right. It was part of this application, right?

A. Yes.

Q. In fact, let me direct your attention to Page 2-22 of Criterion 2, your final application.

HEARING OFFICER PRICE: I'm going to

09:51:00PM stop soon.

MR. MEZA: It's going to be tough. I can -- I can just ask him.

BY MR. MEZA:

Q. This storm water pollution plan was for the C&D. You don't have a plan for this application, do you?

A. We don't need one today. What this talks about is the management controls that are in place today. I'm just reading it again to refresh my memory. Yeah. So it talks about all of the things we already have, the settling basins and erosion controls and the training and inspections and the monitoring we do.

09:51:41PM

Q. Go to Page 20 of that Exhibit 10, which is the pollution prevention plan. Doesn't it also say that the designated representative will amend this SW -- storm water pollution prevention plan, other than is described, whenever, A, Procedure that is described in this plan has changed a control measure described in this plan is modified.

09:52:14PM

Do you see that?

A. I'm sorry. Where were you reading?

Q. Page 20, where it says, 12.0 plan

amendments?

HEARING OFFICER PRICE: Page 20 of this exhibit, John.

MR. MEZA: 10.

HEARING OFFICER PRICE: Exhibit 10, the last page.

BY THE WITNESS:

A. I'm sorry. I was looking in the wrong place.

09:52:36PM Q. That's all right.

A. Yes, I see what you're talking about.

Q. You have no storm water prevention pollution plan for the municipal solid waste transfer station that you're looking to get sited in the City of West Chicago, do you?

A. No. Because we don't need it today. You only need it once something is actually changed. Once the facility gets approved and we build it, before we start to operate it, we will

09:53:10PM absolutely have an updated storm water pollution prevention plan. What we have today is a design and we have the same features. So you don't

change the -- You don't change the plan in anticipation of things because the plan talks about things we're going to do. You don't do things for operations or something that's not yet a reality, so it's not applicable.

MR. MEZA: This will be the last question.

BY MR. MEZA:

Q. Go to 2.3.2 of your final application. Don't you write, Discharge is associated with the operation of West DuPage RTS, Regional Transfer Station, are managed through controls and procedures as detailed in the site's storm water pollution plan?

A. Yes, we have a plan. We actually are referring to an earlier draft of it. Of course we have a plan.

MR. MEZA: This is a good time, Mr. Hearing Officer.

HEARING OFFICER PRICE: Thank you, Mr. Meza. I appreciate you making an accommodation.

As I said before, we have two public participants who will be unable to be here for the public oral comment, so we will take those two people right now. I'll ask you to come down here to the microphone. We'll, start with Noreen Ligino-Kubinski and Paul Kubinski.

While they are coming forward, this is public comment, not testimony. They are not being cross-examined on this. It's just public comment.

09:54:51PM

MS. LIGINO-KUBINSKI: First of all, thank you for allowing my husband and I to provide a public comment tonight. As indicated, my name is Noreen Ligino-Kubinski. I reside in the Reserve Cornerstone Lakes subdivision in West Chicago. I have lived in the Reserve Cornerstone Lakes for 23 years. I have 40 years of business experience in corporate business, government, and community affairs. I currently serve and have served on a multitude of DuPage County and West Chicago boards for the

09:55:19PM

betterment of DuPage County and the City of West Chicago.

I am an active long-time corporate member for the DuPage Mayors and Managers Council of Government. I'm an active long-time board of director for Choose DuPage Economic Development Alliance and on the public policy board committee. I'm very proud to serve on this board for many years of the development
09:55:47PM that has come into West Chicago and our business park.

I am a former West Chicago City Council Alderman for Ward 7, former West Chicago Fire Protection District Board Trustee, and former Western DuPage Chamber of Commerce Member.

I'm very passionate about the community and ensure the best opportunities for economic development, environment, cost of
09:56:10PM living, education, and employment. I am also committed to making DuPage County and West Chicago a great place to live, raise a family,

work, have a business, and grow a business.

As stated, I live in the Reserve Cornerstone Lakes subdivision, which is, approximately, 2.5 miles away from Lakeshore.

Groot Waste Connections is actually closer to our subdivision. I have taken the time to learn about LRS, their staff, the facility, and what the facility upgrades will mean for our community. There is truly a lot of misinformation about the plans for this upgrade and the impact on the community, so I'm here tonight to set the record straight based on my research.

09:56:49PM

Tonight I am speaking as a citizen of this great city of West Chicago. The LRS facility is located on 28 acres in the manufacturing industrial area directly across from the DuPage Airport. We currently do not and will not see traffic in our Cornerstone Lakes neighborhood from the daily facilities and activities of operation.

09:57:15PM

In fact, as we heard, LRS is

committed to improving the traffic safety on Powis Road. Powis Road is a DuPage County road. And upon approval of this request, they will cover the cost of over, approximately, $645,000 to widen Powis Road, adding one more turn lane making it even safer for the traffic on Powis Road. The majority of traffic on Powis Road is industrial traffic, and it's the heart of the manufacturing district, far away from our residential homes. LRS is also committed to ensuring truck traffic will use the safest transportation routes. They will not travel through West Chicago and the City of St. Charles neighborhoods.

09:57:54PM

LRS currently uses their street sweepers to clean Powis Road and have committed to continue to do this. The upgraded LRS facility, which we have heard, will have a state-of-the-art building with doors that will open and close behind the trucks before they empty and load of materials, and they do not escape. The upgraded transfer station building

09:58:23PM

will have a modern air filtration system that treats the air before it's recirculated into the atmosphere. There will be no odor or traffic in our residential neighborhoods or anywhere in West Chicago from the LRS transfer station. The LRS facility and site area are more modern and equipped to manage materials, minimize odor, and improve traffic flow.

Another safety benefit will be that
09:58:56PM the upgraded facility, as we heard, will have a lower building. This is a safety feature for all of the air traffic arriving and departing from DuPage Airport.

Residents should know that LRS present is not new to West Chicago. It already operates the construction and demolition debris transfer station there now and also stores trucks and containers overnight. LRS is committed to accepting electronic waste for no
09:59:24PM charge at their facility during all hours of operation, not just on Saturday mornings like the Groot facility.

In addition to the need for the facility, West Chicago, DuPage County, and the DuPage Airport Authority will benefit financially from the materials that are brought into this facility. It is true that excess capacity already exists at Groot, Waste Management, and other transfer stations. It would appear that this excess capacity is due to high prices. There needs to be another
09:59:56PM competitive priced option. Groot may never use its full capacity, but so what? Let them compete for the business. In today's economy, every dollar counts.

I have heard misinformation about property values being impacted and environmental racism. This could not be the furthest thing from the truth. Do not be fooled or misled. It is very sad and infuriating to me to see this occur in the City of West Chicago, who is very
10:00:27PM inclusive. Many residents that I have spoken with do not fear that West Chicago will become the garbage capital of the western suburbs. I

know that a competitor of Ken Hoving worked with the local community in 2003 to fund an opposition campaign to thwart at siting effort. Is this the competitor that started the misinformation campaign Protect West Chicago directed at LRS? How else can a grassroots-based initiative so quickly fund advertisements, websites with wrong information, drop mail letters, yard signs, experts, lobbyists, and lawyers? Who is funding the drop mail letters that have gone out one -- That's what I brought today -- Another one came out today from a marketing Oak Brook address that came out today that went to West Chicago residents, Carol Stream, St. Charles, and Wayne. How wrong is this? Who is funding the opposition effort? Please be transparent. Show us the documentation. People have a right to know the truth. It is evident and clear LRS will support continued competition, which we all need, and we already have proven this in DuPage and West Chicago for citizens and businesses.

10:01:10PM
10:01:44PM

LRS has proven to be an excellent neighbor. They are good corporate citizens currently in our community. They will continue to be an excellent neighbor once this application is approved.

It is my understanding it is the city council's responsibility to determine if LRS meets the nine criteria the state has established for this type of facility. If they have met the criteria, it means this is necessary for the entire community, as it is good economic development. Based on everything I have heard, read, and seen, West Chicago aldermen would be foolish not to approve this facility. This facility and LRS only stands to benefit the citizens and the businesses of DuPage County and West Chicago, and I thank you.

10:02:17PM

10:02:58PM

MR. KUBINSKI: Good evening. My name is Paul Kubinski. I live in West Chicago in Reserve Cornerstone Lakes subdivision, just a few miles north and west of the proposed LRS waste transfer station. My wife and I built our

house in 2000 and have lived there ever since. I'm just a retired IT guy. Her career makes me look like a real underachiever.

Based upon my research and testimony presented here over the past few days, I would like you to know for the record that I agree that this new waste transfer station is needed at the existing LRS site on Powis Road in West Chicago. Lakeshore Recycling has been a
10:03:31PM good corporate neighbor for several years now. I personally toured their existing Powis Road operation when they opened several years ago. I was impressed with the state-of-the-art design and cleanliness of the facility. It's difficult to see the LRS site as one drives down Powis Road. An earthly berm and nice landscaping shield it from casual view. I would encourage all those who are interested in this proposed waste transfer station to come out and see the
10:03:57PM site for themselves.

The proposed waste transfer station will not be a nuisance to the residents of the

two Cornerstone Lakes subdivisions. You won't see it, as its tucked away up in the existing LRS site. You won't smell it, as the waste transfer is done indoors with an odor-eliminating air filtration system. And you won't hear it, as truck traffic will be confined to Illinois state roads and DuPage County roads. Basically no waste transfer truck traffic will be on residential streets in West Chicago or St. Charles.

10:04:30PM

The proposed waste transfer station will not negatively affect the property values in the two Cornerstone Lakes subdivisions. The main driver of property values in these subdivision is St. Charles School District 303. These highly regarded 303 schools are why young families and families want to live here. A waste transfer station that is not seen, smelled, or heard will not negatively affect your property values.

10:04:56PM

The main opposition to the LRS proposal seems intent on the keeping the current

waste transfer station status quo. Currently there's no real competition, which would lead to lower garbage and recycling service prices and better services for the residents of West Chicago.

In conclusion, I think that the proposed LRS waste transfer station is a win-win for the residents of DuPage -- West Chicago, DuPage County, and DuPage Airport Authority. I would urge the West Chicago City Council vote for their approval of this project. Thank you for listening.

10:05:25PM

HEARING OFFICER PRICE: Thank you, both, for the public comment. So that concludes our work here this evening and for this week. We are here next on Tuesday evening at 6:00 p.m. And then next Thursday we will be at West Chicago High School.

Do we know which room that is specifically, Dennis?

10:05:53PM

MR. WALSH: No.

HEARING OFFICER PRICE: Pay attention,

and there will be signage at the high school. We'll have further information on Tuesday, if you're here, to know specifically where that is. Again, I'll remind you, we have reserved the 16th and the 19th during the day at 1:00 to 5:00 at city hall if we need it for either testimony or public comment.

With that, is there anything else for this evening from anybody?

10:06:25PM (No response).

If not, we will pick this up on Tuesday evening here at 6:00 p.m.

Mr. Meza, you will still have the floor. Thank you everybody. Have a good weekend.

(WHEREUPON, the above-entitled cause was continued to January 10, 2023 at 6:00 p.m.)

STATE OF ILLINOIS)
) ss:
COUNTY OF DU PAGE)

I, KRISTI LANDOLINA, Certified Shorthand Reporter, Notary Public in and for the County DuPage, State of Illinois, do hereby certify that previous to the commencement of the examination and testimony of the various witnesses herein, they were duly sworn by me to testify the truth in relation to the matters pertaining hereto; that the testimony given by said witnesses was reduced to writing by means of shorthand and thereafter transcribed into typewritten form; and that the foregoing is a true, correct and complete transcript of my shorthand notes so taken aforesaid.

IN TESTIMONY WHEREOF I have hereunto set my hand and affix my electronic signature this 20th day of January, A.D. 2023.

/s/ Kristi Landolina
KRISTI LANDOLINA
C.S.R. No. 84-4611
Notary Public, DuPage County

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BEFORE THE CITY COUNCIL OF THE CITY OF WEST CHICAGO SITTING AS A POLLUTION CONTROL SITING AUTHORITY

In the Matter of:)
)
APPLICATION FOR LOCAL SITING)
APPROVAL FOR LAKESHORE)
RECYCLING RECYCLING SYSTEMS,)
LLC, FOR THE WEST DU PAGE)
RECYCLING AND TRANSFER)
STATION, 1655 POWIS ROAD,)
WEST CHICAGO.)

CONTINUED REPORT OF PROCEEDINGS had and testimony taken at the hearing of the above-entitled matter, at 900 Prince Crossing Road, West Chicago, Illinois, on the 10th day of January, A.D. 2023, at the hour of 6:00 p.m.

PRESENT:

MR. DERKE PRICE, Hearing Officer;

MR. DENNIS WALSH, City Council Attorney;

MR. PHILLIP A. LUETKEHANS, Attorney for Protect West Chicago;

MR. RICARDO MEZA, Attorney for Protect West Chicago;

MR. GERALD CALLAGHAN, Attorney for city staff;

MR. ROBERT A. WEINSTOCK, Attorney for People Opposing DuPage Environmental Racism (PODER);

MS. JULIETA ALCÁNTAR-GARCIA, Representative for People Opposing DuPage Environmental Racism (PODER);

MR. GEORGE MUELLER, Attorney for Lakeshore Recycling Systems, LLC.

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HEARING OFFICER PRICE: Good evening. This is the appointed hour for the resumption for the hearing on the transfer station application. One preliminary matter concerning Thursday night. This is our last hearing at this location. The next session is Thursday night at 6:00 p.m. in the high school cafeteria at West Chicago High School. The entrance is H, as in hotel. It's on the south side of the
06:00:35PM building. This information has been added to the city's website. Again, Thursday night we are at the high school in the cafeteria, Entrance H, as in hotel.

With that, Mr. Meza, you still have the floor in the middle of your examination of Mr. Hock. Mr. Hock, you're still under oath.

And unless there are any other preliminary matters, Mr. Meza, the floor is yours.

06:01:02PM MR. MEZA: Mr. Hock, just to make things go a little bit faster, I wanted to give the parties the order of exhibits that I hope to

go through so they can write it down and maybe -- I gave it to Mr. Hock already. 23, Exhibit 9 -- PWC 9, Exhibit 45, 46, and 47. And then Exhibit 38, Exhibit 43, 44, Exhibit 39, Exhibit 49, Exhibit 405, Exhibit 40, and Exhibit 701. May I start?

HEARING OFFICER PRICE: Yes.

CROSS-EXAMINATION
(Continued.)

BY MR. MEZA:

06:01:58PM Q. Mr. Hock, last week we ended talking about the Stormwater Pollution Prevention Plan. I wanted to now talk about Page 2-36 of your application, which you have titled Wildlife Hazard Mitigation. If you could take a second to just turn to that page. It's on Page 2-36.

THE WITNESS: Can you hear me okay?

HEARING OFFICER PRICE: Yep.

THE WITNESS: Great.

BY MR. MEZA:

06:02:50PM Q. So the next series of questions I'll be asking you is going to relate the wildlife hazard mitigation plan you have. So just to

remind some of the folks at the hearing, there's, actually, two ponds at the proposed facility; is that correct?

A. Yes.

Q. There's the west pond, which is in the front of the building, it's a smaller pond; is that correct?

A. It's just off of Powis Road, actually, just inside the fence, so it is to the west of the buildings.

06:03:21PM

Q. Okay. As you enter the facility, the pond is kind of between what's going to be the entrance and the exit; is that correct?

A. Yes.

Q. And then you have a pond on the east side of the facility, right?

A. Yes.

Q. That's a bigger pond, and it's kind of in the back of the facility, right?

06:03:41PM

A. Yes.

Q. Okay. Now, can you tell us how many miles there are between the closest point of the

DuPage Airport Authority and the west pond of your facility, how many miles is it, if you know?

A. I'm sorry. Can you repeat what measuring points you wanted me to use from the airport.

Q. Sure. The DuPage Airport -- So you know there's an airport across the street, right?

06:04:15PM A. Yes.

Q. It's called the DuPage Airport Authority, correct?

A. Yes.

Q. Do you know where the operations area of that airport is?

A. I'm not clear what you mean by "operations area."

Q. Where, like, the main building is or where the tower is?

06:04:32PM A. I would have to look on a map. I mean, it's set back in from their eastern property boundary quite a ways.

Q. Did you -- Did you try to calculate how many miles there was from the west pond, or the front of the facility, to either of those two locations?

A. When you say "either of those two locations," again, I'm not -- Do you mean from the tower or from -- from where?

Q. There's a tower, right?

A. Yes.

06:04:58PM Q. Did you try to -- Did you try to determine how many miles there was from the west pond to the tower?

A. No.

Q. Okay. There's another building that houses offices on the facility; is that correct? If you know.

A. I know that there's offices on the property where we've met with the DuPage Airport Authority.

06:05:20PM Q. Okay. From those offices to the west pond, did you figure out how many miles there was?

A. No.

Q. Did you figure out how many miles there was at all from the west pond to any area at the DuPage Airport Authority?

A. Like you said, it's right across the street. So did we calculate a distance, no.

Q. Now, let me direct your attention to PWC 23. That's the August 27th, 2020, memo that APTIM provided you and that you provided

06:06:00PM responses to. Okay. I want to direct your attention to Page 20 and 21 where Mr. Moose and APTIM are talking about the issue of tarping and the issue of proximity to airport and inconsistency with the circular.

If I could direct you to those two areas and if you can tell me when you're there.

(PWC Exhibit No. 23 marked for identification.)

BY THE WITNESS:

06:06:25PM A. I'm there.

Q. Now, Mr. Moose and APTIM, they had some questions about the proximity of this

facility to the airport, didn't they?

A. They did raise some questions, correct.

Q. In fact, they raised a number of questions, didn't they?

A. There's a variety of items listed here, so, yeah, I'll agree with that.

Q. And then directing your attention to Page 21, in fact, after identifying all of these issues, APTIM actually made another statement with regard to -- where it starts with, "These conditions," he states, "These conditions may provide a hazardous wildlife attractant."

Do you see that?

06:06:53PM

MR. MUELLER: I'm going to object, Mr. Hearing Officer. He's asking questions about a far previous draft of the application. Let him ask questions about what's in the application now.

06:07:27PM

HEARING OFFICER PRICE: In general, I agree with Mr. Mueller that -- You are going to tie this up, right?

MR. MEZA: Yes.

HEARING OFFICER PRICE: I have to say that in the last session I was disappointed that you didn't tie more up. You did tie up some of it. But it is the application, not the drafts, that are important. With the recognition that you've got to do that, it has to be about the application, not early drafts, I'll let you go a little farther.

06:07:54PM Overruled for now.

BY MR. MEZA:

Q. Mr. Hock, in your application you talked about issues relating to wildlife hazard mitigation; is that correct?

A. Yes. It's, actually, 2.4.18.

Q. In fact, prior to submitting your application or prior to LRS submitting their application, they took steps to determine what sort of hazard mitigation was necessary to avoid

06:08:22PM wildlife; is that correct?

A. Yeah. We did evaluate the issue and you misstated it a bit. We came up with steps,

yeah, to minimize any potential hazards.

Q. When we're talking about hazards and when you talk about the hazards in the application, you're talking about, like, birds that will fly up and might fly into planes; is that correct?

A. Predominantly, yes.

Q. Right. And it could cause damage to the plane and cause the plane to fail; is that correct?

06:09:00PM

A. Well, that's the concern that's expressed by the airport. I'm not an expert on exactly what damage they could do but, obviously, any damage is significant.

Q. It's your concern also, isn't it? Isn't it LRS's concern?

A. Sure, yeah.

Q. Because didn't LRS hire a company --

A. I'm sorry. I was trying to finish answering your question.

06:09:23PM

Q. Go ahead.

A. So, no, you're correct. So we did

come up with a very robust mitigation plan that we believe actually will make the site better, safer from the wildlife hazard mitigation than it even is today. The final items are all in the application. And as what you mentioned -- What you're referring to on a draft that's two and a half years old is somewhat irrelevant to me, but I'll continue to do my best to answer your questions.

06:09:56PM Q. The foundation of that mitigation plan came from an expert that LRS hired, didn't it?

A. Pieces -- Pieces definitely did, yes.

Q. And that expert is a company called Loomacres; isn't that correct?

A. Yeah, we did hire a company called Loomacres to help us with our evaluation. Absolutely.

Q. Because they are experts in identifying wildlife hazard -- hazards and

06:10:28PM helping you come up with mitigation; is that correct?

A. Yes.

Q. Loomacres came up highly recommended to you; is that correct?

A. They were recommended. I don't remember exactly from who, but it did come through a referral, if my memory is correct.

Q. In fact, after Loomacres -- So Loomacres came to the proposed site, correct?

A. They did.

Q. And they did a survey of the site, correct?

06:11:07PM

A. They did.

Q. After they did a survey of the site, they came up with a report, correct?

A. They did.

Q. And you included -- LRS included that report in its initial application, didn't it?

A. It's not in the application. We did provide it to APTIM early in the process and then a number of things changed and the report really became outdated from a number of aspects so we no longer included it in the report because it just wasn't necessary. What we did

06:11:40PM

is we just took the important pieces, which is what we were going to do going forward, and that's exactly what's in the application and that's exactly what we provided to the DuPage Airport Authority, so it's the exact same information that's in our agreement with them.

Q. But you didn't provide all of the information that the expert that you hired found on your site, did you?

06:12:11PM A. I don't understand the question.

Q. Well, didn't your expert find on Page 3 of Exhibit 9 that rock pigeons were already inside the sorting building?

(PWC Exhibit No. 9 marked for identification.)

BY THE WITNESS:

A. Of course there were some -- some birds already on the property. That's the whole point, is to understand what's there and come up

06:12:39PM with measures to minimize any -- any wildlife hazards going forward, so that's what we did.

Q. That expert also found that already at

that site there were birds that were loafing around in the rafters; is that correct? That's on Page 3 of Exhibit 9.

A. Uh-huh. Yeah. After the report was written, I, actually, followed up on a number of items in here. There's actually one that's already referenced. It kind of pained my soul, but they recommended taking down a couple large trees. I'm a big fan of trees, but -- So we already took it down.

06:13:21PM

There's a number of things in here that we already did, like the tree. So if what you're trying to do is compare this report to our application, again, conditions changed. You know, we did all of the improvements on the east side of the property. Again, we took the relevant important pieces of the report and put it in the application, which is what everybody agreed to, because it will work.

06:13:49PM

Q. Loomacres found various survey points in their review of your site, didn't they?

A. I think what you're referring to is

they went to different locations and did -- and observed the conditions to see if there were any wildlife present and they, actually, went to some off-site locations to do the same thing as well. So, yeah, they did a nice -- I thought they did a nice, thorough job.

Q. In fact, they found that Survey Point 1 was the small pond that we were just talking about on the west side, wasn't it? That's on Page 8.

06:14:31PM

In fact, they have at photo of it, don't they?

MR. MUELLER: Mr. Price, I'm going to object again. He continues to harp on a 2019 report that comments on conditions which are no longer in existence.

HEARING OFFICER PRICE: Well, that's what we need to establish. So I'm going to overrule it for now. Loomacres was previewed in their opening statement about the omission of information. So if, in fact, you're correct, Mr. Mueller, that will be the testimony, but we

06:14:58PM

need to establish that by an actual witness.
Overruled.
BY MR. MEZA:
Q. Mr. Hock, didn't the expert that LRS hired found -- find that Survey .1, which was the small pond, there were small perching birds, blackbirds?
A. They did. They also found that employees placed devices designed to scare
06:15:33PM wildlife around the pond. There's decoys out there. So -- We have continued to -- to monitor and manage it. Again, the point of all of this is if the facility is approved, we're actually going to do additional things as well.
Q. They found that blackbirds can pose a significant hazard to aircrafts due to their tendencies to form moderate-to-large-sized flocks, didn't they?
A. I don't see where you're reading, but
06:16:17PM I'm trusting that you're just reading a --
Q. Let me direct your attention to Page 10.

A. -- that you're just cherry picking phrases out of the report.

Q. Let me direct your attention to Page 10. Do you see that little image of the west pond?

A. I don't see any images on Page 10.

HEARING OFFICER PRICE: Do you mean Figure 10?

BY MR. MEZA:

06:17:00PM Q. Yes. It was right below Figure 11 where it says "Survey Points."

Do you see that?

HEARING OFFICER PRICE: That's on Page 8.

MR. MEZA: Yes, Page 8. I apologize.

BY MR. MEZA:

Q. Do you see where he identifies Survey Point 1 being the west pond?

A. Yes.

06:17:25PM Q. You told APTIM that you were not -- LRS was not going to include the Loomacres report in the final application; is that

correct?

A. I don't recall what I told them, but it's not in the report for the reasons I just mentioned.

Q. Let me direct your attention to Exhibit 23, Page 21, the last paragraph.

HEARING OFFICER PRICE: We have established it's not in the application.

MR. MEZA: Right. But the question was whether or not he said --

06:18:18PM

HEARING OFFICER PRICE: It doesn't matter.

MR. MEZA: I want to ask him why he didn't include it.

HEARING OFFICER PRICE: Then ask the question.

BY MR. MEZA:

Q. Okay. Why didn't you include it?

A. I thought I just told you. There's a number of conditions that have changed. Like, for instance, if you look at the pictures of the east pond, the east pond has been expanded, the

06:18:30PM

tall grass is no longer present. That was one of the recommendations that they made, that you don't want tall grass out there because birds can kind of hide in there and they are harder to see. That was a recommendation we took to heart and there's no longer tall grass out there.

Like I said, I mentioned the tree that we removed. So, again, the conditions have changed. There was no relevance to putting an outdated report in the application.

06:19:12PM

Q. Mr. Hock, let me direct your attention to Page 2-13 of your application.

A. Okay.

Q. Now, you're familiar with what's referred to as the runway protection zone, aren't you?

A. Generally, yes.

MR. MEZA: Could we have Exhibit 45 on the screen.

06:19:58PM

(PWC Exhibit No. 45 marked for identification.)

BY MR. MEZA:

Q. This is Appendix 2-G1. Can you take a look at that, Mr. Hock? Is that a photograph of the runway protection zone that LRS includes in their application?

A. Yes. That was provided by CH2M Hill, which is shown over to the right, who is a consultant for the DuPage Airport Authority. That runway protection zone was determined by them and provided to us.

06:20:31PM

Q. Tell us what a runway protection zone is and why it's necessary to be -- why we need that -- why the airport needs that runway protection zone?

A. Well, it's a trapezoidal shape, just as it shows up there. My recollection is it extends about a thousand feet out from the edge of the runway. And you can actually see -- I think it's Runway 28 there. And, you know, the exact reasons are actually -- Well, I think the general idea is you do not -- you want generally a clear area in that runway protection zone.

06:21:06PM

Q. So the airport doesn't want anything in that area; is that correct?

A. No.

Q. Okay. What do you mean then by they just want a "clear area," then? What does that mean?

A. I think where you're going, and I think it's a fair question, is that the runway protection zone is on part of our property. So

06:21:40PM we talked directly with the airport authority about it, and they were fine with the facility. That's why they gave us the information, that's why we included it in the agreement, and the fact that the runway protection zone is fine is actually kind of cited or referenced in our agreement with them.

Q. Let me direct your attention to 2-13 of your application again.

A. Uh-huh.

06:22:08PM Q. Directing your attention to the last paragraph that starts with, "As noted."

Do you see that?

A. Yes.
Q. So, there, you're referring to FAA Advisory Circulars; is that correct?
A. Yes.
Q. What are FAA Advisory Circulars?
A. It's information published by Federal Aviation Administration, which is the FAA. And they are not rules or regulations, but they are advisory circulars. So 13-A, actually, talks about the design of airports and I think it's -- yeah, Section 3-10 talks specifically about runway protection zones.
Q. In fact, you have on here that the runway protection zone's function is to enhance the protection of people and property on the ground through the airport ownership?
A. Correct. You just recited Bullet Item 1 on the -- you know, in our application on that page.
Q. The western portion of the facility is almost entirely in the runway protection zone; is that correct?

A. You can see it on the map. You know, so the area in yellow is the runway protection zone, and the area in yellow that's on our property, you know, that is on our property. Absolutely.

You can -- you can probably -- You know, the best reference is the buildings shown on the southern portion to get an idea of how much -- of where it extends to.

06:23:38PM Q. It goes almost up to kind of the front of that building on the lower right; is that correct?

A. Right. So there's no -- There's no waste handling operations on that portion. It's got the pond, it's got our berm, it's got the trees, and it's -- Other than that, it's parking.

Q. I've got this little light here. What's underneath here? What is there? Can you

06:24:00PM see what that is, or not?

A. I think what you're referring to or where the pointer is is the western pond.

Q. This would be the entrance, the bottom?
A. You look pretty close.
Q. And over here would be the exit now (indicating)?
A. Correct. That would be the new exit we would be opening up.
MR. MEZA: Can we -- Can we look at Exhibit 46.
06:24:22PM (PWC Exhibit No. 46 marked for identification.)
BY MR. MEZA:
Q. So this is your facility here; is that correct?
A. It is.
Q. So the runway protection zone would cut here, and this is Runway 33; is that right?
A. I don't remember the number of that runway but ...
06:24:53PM Q. That's a runway. How about that?
A. It is a runway.
MR. MEZA: Can we look at PWC 47.

(PWC Exhibit No. 47 marked for identification.)

BY MR. MEZA:

Q. Now this is kind of a different angle shot, a close-up. So would you agree that kind of where I have this little pointer going up, that's the western part, that's all in the runway protection zone; is that correct?

A. Roughly, yeah. Just as it's shown on the previous portion where it was yellow. So it's still a bit west of the building. But just as I mentioned, it covers the pond, the trees, the berm, and some parking areas. And that's exactly what we showed to and discussed with the DuPage Airport Authority, which they were completely fine with.

06:25:20PM

Q. Mr. Hock, isn't part of the proposed facility in the western portion of the facility in the runway protection zone?

06:25:52PM

A. I'm not sure I understood your question.

Q. Sure. Isn't it true that part of the

operations activity occurs in the western part of the facility that's located within the runway protection zone?

A. I think I already previously stated that the berms, the trees, the entrance, and parking areas are within the runway protection zone, which is, again, exactly what we showed the DuPage Airport Authority and they were fine with it.

06:26:30PM Q. But it's more than just parking, isn't it?

A. It's just parking.

MR. MEZA: Can we put Exhibit 38 up.

(PWC Exhibit No. 38 marked for identification.)

BY MR. MEZA:

Q. Do you recognize Exhibit 38?

A. Yes. That's our -- I don't remember which drawing, but that's our traffic flow plan

06:26:54PM from the application. It appears so.

MR. MEZA: Could you put up -- I'm sorry, Mr. Hock.

Can you put up the one that's not blown up?

That's fine. I can work with this.

BY MR. MEZA:

Q. Let me ask you this, Mr. Hock: Where I'm here with the pointer at the office, is this about the area where the runway protection zone ends?

Right where it says -- Like, the straight line, 60.40 straight down, is that where it ends about?

A. I'd have to look back. I think it's maybe a little bit west of there.

Q. About how far west? By where it says 45 -- By where it says "45.04," there, going up and down?

A. Probably that general vicinity.

Q. Okay. But this area west of that is part of the facility. Isn't this where vehicles cue up to get weighed for the scale on the driveway?

A. What you're pointing to is the

entrance, which is the driveway where the trucks enter.

Q. Isn't that where trucks cue up and wait before they get weighed in this scale -- or one of these scales?

A. Yeah. They really don't have to wait there at all. The trucks, as they enter the scale, everything is so electronic now that the amount of time they spend on that scale is about the time it takes to stop at a stop sign. But if two trucks come at the exact same moment, there could be a truck parked in that area, sure.

06:28:36PM

Q. Do you see where it says, Spotter base location, traffic control person?

A. Uh-huh.

Q. Do you see that?

A. Yes.

Q. Is that part of the proposed facility, that you're going to have a spotter at this base location directing traffic?

06:28:53PM

A. That's exactly what it talks about is

potentially having a spotter there just to make sure people head in the right direction and know where they are going as they enter the facility.

Q. Right. So this is part of the operations, isn't it?

A. We absolutely plan to have a spotter up front by the entrance as they come in the facility.

Q. Is having a spotter part of the proposed facility; yes or no?

06:29:31PM

A. Yes, of course it is.

Q. So part of the proposed facility operations is within the runway protection zone, isn't it?

A. You just saw it. Yeah, that portion of our facility is within the runway protection zone. Absolutely.

Q. You're not saying that the protection of people and property on the west side is less important than on the east side, are you?

06:30:03PM

MR. MUELLER: That's argumentative.

HEARING OFFICER PRICE: Sustained.

BY MR. MEZA:

Q. Now, let me direct your attention to PWC 43.

(PWC Exhibit No. 43 marked for identification.)

BY THE WITNESS:

A. The DuPage Airport Authority --

HEARING OFFICER PRICE: There's no question.

06:30:24PM THE WITNESS: Sorry.

BY MR. MEZA:

Q. Are you at 43, sir?

A. I have it.

Q. Now, PWC 43 is one of these advisory circulars that we were talking about; is that correct?

A. It is.

Q. In fact, this is -- you actually cited, I think, an expired one, the 5200-33B, but this is the actual current one.

06:30:51PM Were you aware of that or not?

A. I'm very aware that the update -- the

circular was updated in February of 2020. So, in classic fashion, when we originally drafted the agreement with the DuPage Airport Authority, it was 2019, and we referenced the advisory circular that was in play at the time. And then we were finalizing it and they updated the circular. So if you look at the agreement that's in the application, it references the updated correct circular.

06:31:25PM Q. On Page 2-13, you reference 5200-33B. That's just a typo. You meant to reference the most updated one, didn't you?

A. Oh, yeah, that's a typo. That should be 33C.

Q. That was my other point.

A. Yeah.

Q. You made a mistake on it referencing an older circular, right?

A. Yeah. We just missed updating it.

06:31:47PM Q. But there's probably nothing majorly significant that changed between the B and the C version, right?

A. No. I, at the time, went back and actually kind of compared the two, and I didn't note anything substantive.

Q. Now, Mr. Hock, let me direct your attention to 1.4 of Exhibit PWC 43. That's on Page 1-2.

A. Yes. I see it.

Q. Isn't it true that the FAA recommends a distance of five miles between the closest

06:33:06PM point of the airport's aircraft operations area and the hazardous wildlife tracking?

A. What you just referenced is what this section says, but there's additional clarification in the document about how certain uses can be compatible with safe airport operations.

Q. Are you talking about 2.2.4, where it says "enclosed trash transfer stations" on 2-3 -- Page 2-13?

06:33:53PM A. Yes.

Q. So, there, it's talking about enclosed trash transfer stations; is that correct?

A. Yes.
Q. But doesn't it say -- Let's see. Enclosed waste handling facilities that receives garbage behind closed doors, process it via compaction, incineration, or similar manner; and remove all residue by enclosed vehicles generally are compatible with safe airport operations --
HEARING OFFICER PRICE: Mr. Meza, you need to slow down and I need you to speak up.
06:34:28PM
MR. MEZA: Okay.
BY MR. MEZA:
Q. Do you see where I read, Mr. Hock?
A. I do.
Q. But doesn't it also say, Provided they are constructed and operated properly and are not located on airport property or within the runway protection zone?
A. Which is why I mentioned before it was a fair question about the runway protection zone, and that's why we talked specifically about the DuPage Airport Authority, about it
06:34:55PM

showing the same drawings that you put up on the screen, and they agreed, and it's clearly memorialized in the agreement -- if you put up a another exhibit here -- that they were good with the activities that were occurring in that area.

Q. Doesn't it also say that trash transfer facilities that are open on one or more sides -- I'm going to skip a little bit. It says, Or use semitrailers that leak or have
06:35:36PM trash clinging to the outside do not meet the FAA's definition of a fully enclosed trash transfer station?

A. Which is why our -- It does. That's why our transfer station is not open on one or more sides and will not have trash that leaks or clings to the outside of the trucks.

Q. Now, one of the concerns was the location to the transfer station to -- in fact, to the airport because of the wildlife
06:36:11PM attractants; isn't that correct?

A. I'm not sure that I understood your question.

Q. I mean, the whole reason why you have a section about wildlife attraction mitigation in airports is because you want to make sure that you're providing the reader with information that you're mitigating, you're trying to get rid of any wildlife attraction so it doesn't cause harm to an airplane. Isn't that what you're doing?

A. Yeah, that's a fair summary.

06:36:37PM Q. And you mentioned the FAA circular that we just discussed in your application, correct?

A. Yes. Like I said, we've included the agreement with the DuPage Airport Authority. And, again, if you look at it, we actually attached the same design and operational standards that are incorporated in here, including the drawings, including our operations plan, and gave them all of the information about

06:37:06PM what we're doing out there -- or planning to do, I should say.

Q. So are you saying that you attached

all of the information and the best-referenced information that you knew about?

A. Yeah. We attached all of the applicable information. We mainly gave them the operations plan and the drawings and --

Q. But did you attach the best reference of which you are aware?

A. We gave them all of the applicable information in terms of our design and operations.

06:37:39PM

Q. In your application, Mr. Hock, did you include what you describe as the best reference for which you are aware; yes or no?

A. That's not what I said.

Q. I know. I'm asking you if you did. Did you include what you refer to as the best reference for which we are aware in your application?

A. I think you're just -- I think you're cherry picking and twisting my words.

06:38:03PM

Q. All right. Let's take a look at Exhibit 23 again. Page 21. Have you ever heard

of DOT/FAA/AR-09/62? Have you ever heard of that publication?

A. I'm sorry. Counsel, if you could -- I didn't keep up with where you were directing me.

Q. Sure. Let me direct you -- If you're on Page 21, let me direct your attention to the first, second, third -- fourth paragraph that starts with the, Proposed transfer station.

Do you see that?

06:38:45PM A. We're in the application?

HEARING OFFICER PRICE: No. PWC 23.

BY MR. MEZA:

Q. Exhibit PWC 23.

HEARING OFFICER PRICE: Page 21.

BY THE WITNESS:

A. Okay. I'm there.

Q. So it's the paragraph that starts, The proposed transfer station is within 10,000 of the DuPage Airport.

06:39:06PM Do you see that?

A. Yes.

Q. So Mr. Moose is saying, hey, it's too

close to the airport. And didn't you say to him DOT/FAA/AR-09/62 is the best reference for which we are aware?

MR. MUELLER: I'm going to object. I don't see where the document says Mr. Moose said it was too close to the airport.

MR. MEZA: Okay. I'll withdraw that portion of it.

BY MR. MEZA:

06:39:38PM Q. Didn't you say in response to whatever question Mr. Moose asked, or whatever he was talking about, DOT/FAA is the best reference for which we are aware?

A. Now I understand how you're trying to twist my words. So, yeah, you're reading it correctly. And what you're referring to is a document -- I believe it's a 2010 document where they describe what, you know, open and partially open and fully enclosed transfer station means.

06:40:14PM Q. Can you take a look at PWC 44?

Did you find it?

A. Yes.

(PWC Exhibit No. 44 marked for identification.)

BY MR. MEZA:

Q. Why don't you tell us, is this DOT/FAA/AR-09/62 that I have been asking you about?

A. Yes, it is.

Q. Why don't you tell us what the name of this document is?

06:41:01PM A. It says, "Evaluation of Trash Transfer Facilities As Bird Attractants."

Q. So you didn't include this FAA document entitled "Evaluation of Trash Transfer Facilities As Bird Attractants" in your application, even though you had told Mr. Moose this is the best reference for which we are aware, did you?

A. No. Because there was no need to. It's -- It's just ancillary information that's

06:41:34PM not relevant because we went through this whole exercise with the DuPage Airport Authority and their consultants, who were also well aware of

this document, and they performed their own independent evaluation with their own consultant. And, again, it's memorialized in the agreement that the facility meets the definition of a fully enclosed transfer station.

Q. Let me direct your attention to Page 8 of this document that you did not include, this best reference. Take a look at the last paragraph that starts with, Bird use at trash

06:42:21PM transfer facilities vary considerably among those buildings that were of the same design.

Do you see that?

A. I do.

Q. Doesn't this FAA document state that the greatest amount of variation in the number of birds using trash transfer facilities occurred in -- occurred among the fully enclosed trash transfer facilities?

A. It does. I think it will also talk

06:42:50PM about how they were the lowest amount of birds seen. And if you look on another page, it shows a picture of what a fully enclosed trash

transfer facility looks like. And what we're proposing at our facility is actually well beyond what is discussed in this document as meeting the definition of a fully enclosed transfer facility.

Q. Let me direct your attention to Page 13, Mr. Hock.

A. Uh-huh.

Q. Under Paragraph 4, where it says, The number of birds using trash transfer stations differed among facilities of different buildings, but not in a consistent pattern.

Do you see that?

A. I do.

Q. Doesn't it say it was originally hypothesized that the number of birds actually using trash transfer facilities would decrease as the trash transfer buildings became more enclosed?

A. That's a correct reading of the sentence you had mentioned.

Q. But then it states, However, the data

from this study does not support that hypothesis?

A. Yeah. That's all language that's in here. There's -- That's partially why -- You know, we recognize that birds and hazards is kind of a dynamic or a potentially changing thing. So while you look at the mitigation packet, there's a variety of things we're proposing to do. And we talk about conducting routine surveys, having communications with the airport. And we recognize that it may be needed to vary exactly what we're doing, so we want to have trained people. But everything we're doing, if you look at it, it's well beyond what they use as their -- they use to describe what meets the definition of a fully enclosed transfer facility and it's why the DuPage Airport Authority consultants agreed that we clearly meet this definition and why it's memorialized in the agreement.

Q. But you clearly didn't include your best reference, did you? Yes or no?

MR. MUELLER: That's argumentative.

HEARING OFFICER PRICE: It's a simple question. And the answer is: He didn't include it.

The objection is sustained. There's no question, Mr. --

THE WITNESS: Sorry.

HEARING OFFICER PRICE: Next question.

BY MR. MEZA:

06:45:26PM Q. Now, do you consider yourself an expert in waste transfer stations?

HEARING OFFICER PRICE: That's been established. He's here as an expert. That's not in question.

BY MR. MEZA:

Q. Are you familiar with the brochure entitled EPA Brochure Waste Transfer Stations: A Manual For Decisionmaking, June 20 --

A. Yes. It's a 2002 manual. It's good

06:45:53PM general information. Like I said, it's 20 years old. So some of the information there is a little outdated and antiquated. But, yeah, I'm

generally familiar with the document.

Q. You have read it; is that correct?

A. Yeah, I have reviewed it from time to time. Haven't really looked at it in quite a while. It's -- Again, it's a 20-year-old document.

Q. In this 20-year-old document it provides -- companies looking to place or site a transfer station in a community, it provides them with information that they should consider, doesn't it?

06:46:30PM

A. It provides a whole bunch of information. And, yeah, there's some general discussion about that.

Q. Is that a yes or a no?

A. I'm sorry. Could you ask the question again?

Q. Sure. Does this brochure from the United States Environmental Protection Agency provide companies, towns, individuals with information that they should consider when siting a waste transfer station?

06:46:55PM

MR. MUELLER: I'm going to object. I don't think "they should consider" is anywhere in this document.

HEARING OFFICER PRICE: Overruled.

You can answer that, Mr. Hock.

BY THE WITNESS:

A. It's -- It's a guidance document. It's just out there to give people information that may be helpful to them as they consider these types of projects.

06:47:25PM

Q. It's a guidance document by the U.S. EPA, correct?

A. Yes.

Q. So what steps did you take to ensure that a siting decision with regard to the West Chicago -- with the LRS proposed siting did not impose a disproportionate impact or burden upon low-income or minority community in West Chicago?

06:47:54PM

MR. MUELLER: I'm going to object. That's not a criterion.

HEARING OFFICER PRICE: Sustained.

BY MR. MEZA:

Q. Doesn't it state to take that into consideration in the EPA manual?

MR. MUELLER: Object again.

HEARING OFFICER PRICE: Sustained.

BY MR. MEZA:

Q. One of the other things mentioned in the manual is requiring minimum distances between transfer stations; isn't that correct?

06:48:20PM MR. MUELLER: I'm going to object. There's no requirements in here.

HEARING OFFICER PRICE: Also not a 39.2 requirement. Sustained.

MR. MEZA: I understand that, but it says it in the manual.

HEARING OFFICER PRICE: The manual is not the criteria. The criteria are set forth in the statute. We're not here to see if we comply with a 20-year-old U.S. EPA document. It's

06:48:42PM 39.2. Let's stay focused.

BY MR. MEZA:

Q. Now, Mr. Hock, would you agree or

disagree that there's several places in your application that you talked about tarping?

A. Yes.

Q. Tell us again what tarping is.

A. So tarping is, whether it's a vehicle that's entering the facility or leaving, if it -- if the top is open, meaning it's not a fully enclosed vehicle, like a packer truck. To prevent any debris or material from blowing or

06:49:29PM being exposed, we put a heavy-duty tarp over the top of it and cinch it down and make sure that it's fastened. For those reasons, again, to make sure that there's no material or waste that's exposed or can blow.

Q. So you talk about tarping in the section where you're discussing litter, right, because if a vehicle isn't tarped and it has trash, it could cause litter, right?

A. Yeah. So that's one of the things we

06:49:56PM do talk about to prevent litter, is to make sure that, again -- Maybe I should say this: Most of the vehicles coming in with -- with municipal

solid waste are fully contained. They are within a -- you know, the metal structure of the truck. The loads that may come in with construction or demolition debris or some roll-off boxes or the transfer trailers that leave do not have a metal top, so those are the ones that we tarp.

Q. Some of the vehicles that enter your facility with trash or construction and debris should be tarped also, right?

06:50:38PM

A. Yes.

Q. For the same reasons, right, because stuff flies out and it can cause litter and maybe can cause harm, right?

A. Material may fly out and really -- Yeah, it's really a litter-control procedure or protocol.

Q. After the trash transfer trailers get filled with municipal solid waste in the waste transfer station, they leave the facility and go to the landfill; is that correct?

06:51:12PM

A. They do.

Q. Before they leave, they are supposed to be tarped; is that correct?

A. Yes. And they are. We actually talk about even before they leave the transfer building, those loads will be securely tarped.

Q. They can be tarped automatically, through an automatic tarper, or they have to be tarped manually; is that correct?

A. Yes.

06:51:42PM Q. What does it mean to tarp a trash transfer trailer manually? What does that mean? What does that entail?

A. Generally speaking, it's something where the driver has to -- well, manually pull the tarp over the top of the truck.

Q. So the driver has to get out of his truck, jump on top of the truck, and start pulling the truck tarp over, right?

A. They do.

06:52:16PM Q. How long is the trailer; how many feet?

A. In the range of 50, 55 feet.

Q. So for 55 feet he has to unroll the tarp. And does he have to hold it down with bungee cords on the side?

A. That is what they would do in that case.

Q. For your facility -- your proposed facility, that would be done after it gets loaded but before it exits the facility, right?

A. No.

06:52:43PM Q. When would it be done?

A. We're not going to use manual tarping at all. We're going to require -- So most of the trucks -- the transfer trailers that would be used are Lakeshore Recycling's own vehicle. They actually have a fleet of, oh, 100-plus transfer trailers now, and there's a good portion of them that already have auto tarpers. The only transfer trailers that would be allowed to be used at our facility would have auto

06:53:12PM tarpers.

Q. 25 of the trucks have auto tarpers, right?

A. When I had talked to them last about a fourth -- Yeah, so 25 out of the 100, and each year they are continuing to add more and more.

Q. So as of today, only 25 percent, 25 out of the 100 trucks, have automatic tarpers, right?

A. I'm not sure exactly what it is today. It's been a few months since I asked. It's something more than -- It's 25 percent or more. Like I said, by the time we begin operation of this facility, which is, you know, at least two years down the road before we go -- you know, before we get through the approval process and then we actually have to build the facility, we would have auto tarpers on however many that we need to to make sure that any that are using this facility have auto tarpers.

Q. On Page 2-31 of your application, which was dated, what, September 14th, 2022, you had, LRS has a fleet of approximately 100 transfer trailers and approximately 25 are equipped with these auto tarps, right?

A. Right. That's what I mentioned. That was as of a few months ago when we submitted the application.

Q. How many more do you have now?

A. I don't know.

Q. One more? Two more? 26? 27?

A. I said I don't know. I would have to ask the Lakeshore folks. Again, it doesn't really matter what it is today. What matters is what it will be when we begin operation of this facility, which is still a good couple of years away.

06:55:01PM

Q. What matters is if it's not an auto tarper, some guy has to jump on top of the truck and unwrap it. How long does it take a person to do that?

MR. MUELLER: Objection; he testified it won't happen.

HEARING OFFICER PRICE: Sustained. He laid foundation for a good condition here, Mr. Meza. I think we can move on.

06:55:18PM

BY MR. MEZA:

Q. Do you know how many minutes?

MR. MUELLER: Objection again.

HEARING OFFICER PRICE: Sustained. He said they are not going to use manual tarping. They will not be permitted. Everybody wrote down that's going to be a condition of approval.

Next.

BY MR. MEZA:

06:55:43PM Q. Mr. Hock, does LRS have a tarping policy?

A. Well, yes.

Q. Is it included in the application?

A. Yes. I'm trying to remember where we put it.

Q. What are you referring to in the application?

HEARING OFFICER PRICE: Well, where are we headed with this, Mr. Meza? He testified,

06:56:19PM which is part of the application process, that no manual tarping will be permitted. So everybody is going to put down for the city that

if they recommend approval, that it be on the condition that it be only auto tarpers. You have done your job. What's next about tarping?

MR. MEZA: Let's go to Exhibit 40. Can we put Exhibit 40 on the screen?

(PWC Exhibit No. 40 marked for identification.)

BY MR. MEZA:

Q. Is Exhibit 40 your auto tarping

06:56:46PM policy -- or your tarping policy? I'm sorry. Not auto tarping. Just tarping policy.

Look at Exhibit 40. It might be easier to find. It should be in one of the exhibits I handed you.

MR. JONES: Which one is 40? I don't have a 4 0.

MR. MEZA: It's the West DuPage Recycling and Transfer Station policy. It's got the logo on top.

06:57:15PM THE WITNESS: Yeah, I remember seeing it. Yes, this is correct.

BY MR. MEZA:

Q. Is this the same auto tarping -- I'm sorry.

Is this the same tarping policy that LRS has across all of its facilities?

A. I don't know what they do at every facility, but this is the policy that will be used at the West DuPage Recycling and Transfer Station, which is what it's titled and why it

06:57:45PM was included.

Q. In fact, according to LRS's policy, it says that all incoming and outgoing vehicles will be fully and properly tarped, doesn't it?

A. Yeah. The wording is actually "fully enclosed" or "properly tarped." And, again, the "fully enclosed" refers, again, like, a packer truck that the metal body or steel body of the truck fully encloses it and completely agreed that we want all incoming vehicles to be fully

06:58:17PM enclosed or properly tarped as well.

Q. That's because in the policy you actually cite the state law that says no person

shall operate it if it's not properly tarped; is that correct?

A. Yes.

Q. And you or LRS knows that it doesn't own all of the trucks coming in, does it? It allows third parties to come in and drop trash; is that correct?

A. Correct. That's why we have an enforcement section down below. So it is -- we

06:58:48PM can't control every person coming in at every moment, but what we can do -- and we do have customers -- is we can -- if something like that occurs, we would notify the driver, we would remind them, if needed, we would call their company representative, and if it really became -- if it happened multiple times, we would just simply ban that driver's use of the site. It's actually very effective. I have been involved with other facilities that had a

06:59:18PM similar policy and, yeah, once you -- Once you throw a driver off the property, it gets everybody's attention.

Q. So all incoming vehicles hauling waste will be fully enclosed or properly tarped, correct?

A. Yes.

Q. But if they are not, they are going to be reminded of the tarping policy, right?

A. That is one of the steps.

Q. They are not going to be prohibited from entering your facility, are they?

06:59:46PM A. Well, no. Again, what you have to realize is that --

Q. You're just going to remind the driver, hey --

MR. MUELLER: You interrupted him.

HEARING OFFICER PRICE: I agree, Mr. Mueller. Mr. Hock has a tendency to do more than just answer the question. I'm going to let it go a little bit. Come on. We need to get this done. Let's not step on each other.

07:00:10PM You can answer. Mr. Hock, focus on the question and the answer, and Mr. Meza will allow you to finish. We don't need an editorial

for every yes-or-no question.
BY THE WITNESS:
A. In this case all I was trying to say is the majority of the customers that use the site are regular customers. These are -- These are people who do this for a living, and they understand the rules and it's -- It's a fairly straightforward policy.
Q. Right. But if it's not a regular
07:00:38PM customer and they come untarped, you're going to remind them of the policy, correct?
A. Of course we will.
Q. LRS has the ability to prohibit anybody from entering the facility if it's untarped, doesn't it?
A. We have the right to prohibit anybody from using the facility for whatever reason we'd like.
Q. But you won't do that, you'll just
07:01:00PM remind them, right?
A. It seems a lot safer and appropriate if it's already there, if it's a regular

customer and it's waste to be disposed of, yes, we would take it and we would -- we would accept the waste and then take the appropriate measures to make sure it doesn't happen again.

Q. If it does happen again multiple incidents, that's not going to necessarily ban them, it may result in a banning, right?

A. There's a lot of different circumstances, so that's why it's worded the way it is.

07:01:35PM

Q. Because if you ban a truck that's untarped, you can't make the money from the tipping fees, right?

MR. MUELLER: Argumentative.

HEARING OFFICER PRICE: Overruled.

BY MR. MEZA:

Q. Is that correct?

A. That's not the focus of the decision-making in this case.

07:01:59PM

Q. Do you remember the question?

HEARING OFFICER PRICE: That's an answer to the question. Next question.

BY MR. MEZA:

Q. Will you be able to stop 100 percent of hazardous material entering this facility; yes or no?

A. Depends what you mean by "hazardous material." But I think where you're going, the answer is no.

Q. There's a specific definition of hazardous material, isn't there?

07:02:38PM A. We actually included a whole list of unacceptable waste. And it is true that unacceptable wastes do come until sometimes, such as tires or appliances or landscape waste. We have procedures to manage that waste appropriately.

Q. Now, you said you weren't sure if this policy applies to the California facility; is that correct?

HEARING OFFICER PRICE: Mr. Meza,

07:03:12PM that's not a question. Which policy?

MR. MEZA: I'm sorry. This tarping policy that's on the screen, Exhibit 40.

BY THE WITNESS:

A. I don't know.

HEARING OFFICER PRICE: Why are we talking about California?

MR. MEZA: I'm trying to find out if the tarping policy is applied across the board. If not, we can just show Exhibit 701, Judge -- Hearing Officer.

MR. MUELLER: He has already testified he doesn't know.

07:03:38PM

HEARING OFFICER PRICE: 701 is the video?

MR. MEZA: 701 is another video reflecting tarping and untarped vehicles at a facility.

HEARING OFFICER PRICE: We're going to focus on this facility, not California. So let's move on from that.

MR. MEZA: Let me have a second.

07:04:54PM

BY MR. MEZA:

Q. Mr. Hock, do you know if the proposed facility in West Chicago is going to be operated

any differently than any other facility of LRS?

MR. MUELLER: Objection; that's a vague question.

HEARING OFFICER PRICE: I'm going to sustain it for the lack of foundation. We have not established that he knows how LRS operates all of its other facilities. What's been in front of you is what the proposed operation plan is here. That's fair game.

07:05:23PM BY MR. MEZA:

Q. Do you know if the proposed operation plan for this facility is the same --

HEARING OFFICER PRICE: He already testified he doesn't know. There's no foundation for that. Let's focus on -- If you have a problem with this plan, focus on it. He's not going to answer for every LRS facility. That's not relevant.

MR. MEZA: What's relevant is whether

07:05:44PM or not this facility is going to allow untarped vehicles.

HEARING OFFICER PRICE: We have been

over that ground, and the answer is no. It's an auto tarp policy, and you have been through what happens when someone shows up without a tarp on. Move on.

MR. MEZA: Can we show Exhibit 701?

HEARING OFFICER PRICE: 701 is the California station?

MR. MEZA: For the untarped.

HEARING OFFICER PRICE: I'm not letting it in. Move on. We're not talking about the California station. You can take this up as an error. It's not relevant to this proposal for this station. Move on.

He doesn't know about LRS operations in other places. I don't care how many other scenes you want to show of LRS at any other facility. If you have a problem how this policy is written, let's hear it. You did a good job establishing we have to have a policy about auto tarping. I don't know what more you want. We're not watching a California video. You're prejudicing the right of the public to

have their opportunity to speak. I'm not putting it in. It's too long. Next.

MR. MEZA: It's only two minutes.

HEARING OFFICER PRICE: No. Move on.

MR. MEZA: Since I can't play the video, I don't have any further questions for this witness.

HEARING OFFICER PRICE: It would be -- PODER would be next. Any questions from PODER?

07:07:17PM MS. ALCÁNTAR-GARCIA: Please give me a moment to confer first.

HEARING OFFICER PRICE: Okay.

MR. WEINSTOCK: Mr. Hearing Officer, if you would like to pass PODER and ask another party.

HEARING OFFICER PRICE: That's not how it works. The city has the right to be last.

MR. WEINSTOCK: Understood.

MS. ALCÁNTAR-GARCIA: Pardon me. Okay.

07:10:04PM Some questions we have from our organization, PODER.

CROSS-EXAMINATION

BY MS. ALCÁNTAR-GARCIA:

Q. Mr. Hock, the proposed facility is a waste transfer station where diesel trucks will come in and out; is that correct? Right?

A. Yes.

Q. Did you do any evaluation of the diesel emissions from the trucks?

A. Well, we talked about it in Criterion 1, which is our need evaluation, that there actually will be substantial benefits if this facility is approved and becomes operational because the overall miles the trucks would drive in the area would decrease. So the wear and tear on roads would be reduced, the amount of fuel that would be consumed would be reduced. So there's a lot of efficiencies, you know, for the transportation, and that's where those benefits come from.

07:10:47PM

07:11:16PM

Q. But, specifically, has the evaluation of the emissions from the trucks, from the diesel trucks?

HEARING OFFICER PRICE: We talked about it and we went over that ground in Criterion 1. This is focusing on the operations in Criterion 2.

Do you have questions about No. 2? Mr. DeLaRosa was here. Those kinds of questions were asked already.

MS. ALCÁNTAR-GARCIA: Particularly, because our organization is about this issue, you know, we're trying to -- You know, these are concerning questions.

07:11:46PM

HEARING OFFICER PRICE: Yes. You had the opportunity to ask those questions. Now we're focused on a different criteria.

BY MS. ALCÁNTAR-GARCIA:

Q. These are questions I have. I'm sorry. Did you do any evaluation of diesel emissions?

HEARING OFFICER PRICE: We have already been over the diesel emissions. Please move onto a different topic.

07:12:13PM

BY MS. ALCÁNTAR-GARCIA:

Q. How about an analysis of diesel emissions while the trucks are idling in the facility?

A. We didn't specifically look at idling, but the amount of time that the trucks are at the facility and idling is very short.

Q. How will LRS enforce idling limits?

A. Again, our business is moving the waste through the facility and out to the landfill as quickly as practical, so there's really not -- there's really not a need to enforce that activity in the past. Like I said, the trucks, if they are idling, it's for a very short amount of time.

Q. I would love to listen to -- You mentioned an enforcement policy. Because, you know, there's the enforcement policy as to tarping the trucks. Why not idling?

A. Again, it's never been an issue at any transfer station that I'm aware of. Again, it's because the trucks move through very quickly.

The amount of time they are actually just standing or idling and waiting is a very short amount of time.

Q. Do you agree with me that diesel emissions are bad for your health, right? Do you agree?

A. I understand there's concerns with particulate emissions from trucks that burn diesel fuel, so yes.

07:14:19PM Q. Do you agree that the public health, safety, and welfare are impacted by many facilities in our community?

MR. MUELLER: Objection with regard to other facilities.

HEARING OFFICER PRICE: I'm going to allow it because it sets a little bit of background on the overall impact.

BY THE WITNESS:

A. I'm sorry. Could you ask that again?

07:15:26PM Q. This facility, we have so many --

HEARING OFFICER PRICE: That's too broad.

Next question.

MR. WEINSTOCK: Can we have the reporter read the question back?

HEARING OFFICER PRICE: Well, where are we going?

MS. ALCÁNTAR-GARCIA: We're going to a concern that the community has.

HEARING OFFICER PRICE: This isn't the time for argument. This is the time to ask
07:15:52PM questions about the presentation that was made. I appreciate you weren't here for Mr. Hock's presentation, but the questions need to be focused on the set of criteria he testified to at this time. It's not the time for the general argument or your argument to the city council about your position generally. This part of the hearing is for this purpose, specific questions devoted to these criteria and Mr. Hock's testimony.

07:16:16PM BY MS. ALCÁNTAR-GARCIA:

Q. In the analysis of how the facility would add or relate to existing facilities that

impact the public health, safety, or welfare --

HEARING OFFICER PRICE: That's not appropriate for these criteria. It's not.

MS. ALCÁNTAR-GARCIA: Okay. Thank you.

HEARING OFFICER PRICE: Then to the city. Mr. Callaghan?

MR. CALLAGHAN: Thank you.

CROSS-EXAMINATION

BY MR. CALLAGHAN:

07:16:50PM Q. Mr. Hock, you identify one small floodplain in the northeast part of the site, correct?

A. Yes. About one-twentieth of an acre.

Q. From the plan, it appears that is not being disturbed, correct?

A. That's correct. It's actually been restored and buffered as part of our improvements on the east portion of the property.

07:17:09PM Q. You also testified that this is going to be a fully enclosed facility and, by that, I understand you to mean that a truck -- the door

will open, a truck will drive in, the door will close, it will dump its load when its empty, the door will open, and it will leave again, correct?

A. Yes.

Q. Those are automatic doors?

A. Yes.

Q. And would the applicant accept the condition that those have to open and close as you just testified: When the truck goes in, when the truck goes out, closed at all times otherwise?

07:17:43PM

A. Yes.

Q. You also testified about auto tarping. As the hearing officer said, the foundation has been laid.

Would the applicant accept a condition that auto tarping is required at this facility?

07:18:07PM

A. Yes.

Q. I believe in the application you mentioned that there is a current IEPA permit

for the construction and demolition debris facility that's there today, correct?

A. Yes.

Q. Is it the applicant's intention if this waste transfer station is approved, that that C&D permit would be terminated and essentially, rolled into this permit for the waste transfer station?

A. Yes.

07:18:41PM Q. Now, there are a lot of conditions in that -- in that C&D permit, some of which may not be applicable. But would the applicant be willing to entertain a proposal from the city staff that some of those conditions remain in this site?

A. Yes.

Q. That is something we can propose to you and you can review but we think some of them are important so we want to make sure that

07:19:12PM process is available to us. All right.

Now the hydro waste -- What is it called again?

A. Hydro-excavation waste.
Q. Okay. Is the soil tested that is -- that is excavated through that process?
A. Generally, yes.
Q. Similar to if you're doing a tank -- you're pulling a tank or something and you detect, you know, petroleum odors or whatever, testing would be done of the soil?
A. Yeah. That's not really a good
07:19:49PM example. This is about making sure that we are not taking contaminated soil in. So it's -- You know, it's basically clean soil is really what it is.
Q. Is there some process for determining whether or not it is clean soil?
A. Absolutely.
Q. What is that process?
A. It's somewhat familiar -- similar to the CCDD rules is what I have seen companies
07:20:16PM use. So Nicor Gas and Com Ed, they actually have very conservative programs where they are looking at that constantly, and they do take

routine samples. Like the CCDD rules, though, there is some judgment as to how many and where and things like that. It's a very robust process that is used.

Q. And that will be used for those contractors that use this particular facility?

A. Yes.

Q. Now the trucks -- I think we asked this question before, but it's more appropriate at this point. The hydro-excavation waste trucks, they carry -- it sounds like it's a slurry-type material. Is that a good description of it?

07:20:53PM

A. I think wet mud is a better description.

Q. Okay. So it's -- Are these watertight trucks? That's really the concern, that they are not leaking when they are coming in?

A. Yes. Maybe the quick extra editorial is for the trucks to work, meaning they remove the material by vacuum, they have to be airtight or the vacuum system on the vehicle will simply

07:21:23PM

not work.

Q. So if a truck goes over a rough surface, it doesn't have any impact on the load, causing it to leak or anything like that?

A. No, not at all. Like I said, these are airtight seals on the back of these trucks, and they do not leak.

Q. What about when they are leaving and they emptied their load. Is there any residual liquid?

07:21:57PM

A. There may be, but it's the same process. The back of the vehicle will be closed and sealed such that it cannot leak.

Q. Okay. So the hydro-excavation waste is mixed with woodchips in order to solidify it. Is that a fair description of what happens?

A. Yes.

Q. What happens to that material after it's been mixed?

07:22:23PM

A. So it's scooped up and put into, basically, a dump truck, covered, and then it will leave the site and head to a landfill for

disposal.

Q. Again, the concern is that this is -- could be wet. Is it possible that those dump trucks would leak because they have the mixed load of wood and hydro-excavation waste?

A. We put liners in those vehicles so that that will not happen.

Q. What kind of liners do you use?

A. It's like a -- it's a plastic liner that's pretty routinely used.

07:22:57PM

Q. You mentioned that there was no need to do a Stormwater Management Plan for this facility because the plan has already been approved through the amended PUD process a couple of years ago?

A. Yes.

Q. Okay. That's -- I just want to make sure, the plan that was approved included the building, which is now proposed for a waste transfer station, correct?

07:23:33PM

A. It did.

Q. So is there any additional impervious

surface you will be adding to the site as a result -- if you were to get the waste transfer station approved?

A. Nothing that was not already accounted for in the storm water design.

Q. If there were, you would have to modify your Stormwater Management Plan, correct?

A. Correct. That would be -- That's what's required by the West Chicago rules.

07:24:03PM Q. And West Chicago approved the Stormwater Management Plan as part of the PUD process a couple of years ago; is that correct?

A. Yes, they did.

Q. Did they also approve a wetland delineation and wetland management plan?

A. Yeah. Technically that was approved by DuPage County, along with the floodplain study, that they have authority over those aspects of the plan.

07:24:28PM Q. Now, you had mentioned a SWPPP, Stormwater Pollution Prevention Plan, correct?

A. Yes.

Q. That's a self-executing plan, isn't it, where you simply file it with the state?
A. You do submit it to the IEPA.
Q. Correct.
A. Then you're required to follow it?
Q. Yes.
A. And, you know, complete updates as needed and review it annually.
Q. But a separate permit is not issued for that plan?
07:24:58PM
A. No. The permit requires that you have a plan and that you implement a plan, similar to being required to train your employees.
Q. You had testified about the wildlife management report, the Loomacres report, PWC No. 9. Is it fair to say that you used that plan in the preparation of your application so that those issues that were called out in the Loomacres plan were addressed in the application
07:25:34PM
that's before us tonight?
A. Yes. Absolutely.
Q. Now, your testimony about the runway

protection zone, and we saw the map on the screen. Are there any buildings located within the runway protection zone?

A. No.

Q. You're not proposing any buildings?

A. No.

Q. And no waste handling will occur on -- in the runway protection zone?

A. Correct. No waste handling will occur in that runway protection zone.

07:26:08PM

Q. But trucks with waste will have to cross it in order to get onto the site, correct?

A. Yes.

Q. There's been testimony -- I think Mr. Werthmann mentioned it and I think you may have in your testimony -- about the route that the transfer trailers will take when they are entering the site and leaving the site. I just want to go over those with you and make sure we're in agreement on what those routes would be.

07:26:39PM

Powis Road north to Route 64 and

then 64 to Kirk Road to I-88?

A. Correct.

Q. And the reverse if they are coming to the facility, correct?

A. Correct.

Q. Will there be any need to go to I-90 with transfer trailers?

A. I don't believe so.

Q. So we don't have to establish a separate route?

07:27:07PM

A. No, I don't -- No.

Q. All right. So, again, I would ask that the applicant -- if the applicant is willing to accept the condition that the transfer trailer route will be Powis Road to Route 64 to Kirk Road to I-88?

A. Yes.

MR. CALLAGHAN: That's all we have. Thank you.

07:27:29PM

HEARING OFFICER PRICE: Before I ask -- Mr. Walsh, before I ask you, I want to follow-up with one question from the city staff on the

hydro-excavation waste.

So will the origin of the hydro-excavation waste have to be preapproved, like, you were talking about for highway projects and other things? Or is the procedure not that involved?

THE WITNESS: So all of the material accepted as part of the hydro-excavation process is preapproved.

07:28:03PM HEARING OFFICER PRICE: And that procedure, you would agree -- Would the applicant be willing to agree to that as a condition for approval for hydro-excavation waste?

THE WITNESS: Oh, yes.

HEARING OFFICER PRICE: Mr. Walsh?

CROSS-EXAMINATION

BY MR. WALSH:

Q. Good evening, Mr. Hock. How does LRS

07:28:29PM propose to handle any hazardous waste that comes on the site?

A. So in terms of hazardous waste, I'm

not even aware of any situation recently where you get a full load of something like that. What we do see are portions of loads. Again, it's more typically batteries, tires, and there's procedures to set that material to the side and appropriately manage it. We do have the right to stop a vehicle and force them to load it back up and take it back with them. My experience is that those situations are rare.

07:29:17PM What we do is we train all of our staff to be on the lookout for anything that looks funny, smells funny, that just is something that's not supposed to be there and they know to stop -- stop the driver, figure out what it is, call the appropriate folks and appropriately address it.

Q. First of all, what hazardous waste will you have on the site past the end of the business day?

07:30:01PM A. I'm sorry, Dennis. Can you repeat the question?

Q. Yes. Will the hazardous waste that

inadvertently comes to the site -- batteries, tires, whatever -- remain on the site at the end of the close of the business day?

A. So if it was hazardous waste, we would have it off of the facility property. We do accumulate things, like batteries and tires, in relatively small amounts. We have various set aside, so as we accumulate a certain amount, it will be taken off site about once a week or

07:30:37PM something like that, depending on the amount that we see.

Q. With respect to the municipal water that's going to be used at that facility, how many gallons of municipal water is proposed to be used on a daily basis at that facility?

A. In terms of an exact gallonage, I don't know. There's a -- I believe it's a six-inch water main that loops through the facility, and there's multiple fire hydrants.

07:31:32PM The predominant use of water in the transfer station is really just washing down the floor routinely and the walls to help keep it clean.

So there's really not a substantive amount of water that is used.

Q. Do you have an estimate of how much will be used to clean the floor?

A. It would be in the order of, you know, the hundreds of gallons type of range.

Q. Per day?

A. Yes.

Q. With respect to waste water, will that be discharged in the sanitary sewers?

07:32:07PM

A. Correct. The facility is designed with an oil-water separator and a screen to make sure there's no debris, or if there is a little bit of an oil spill, that gets -- you know, it doesn't get discharged into the sewer. But, yes, we would have a direct connection to the sanitary sewer system.

Q. Is there a treatment process to the waste water before it goes to the sewer?

07:32:38PM

A. Nothing more than the oil-water separator.

Q. Is there an estimate of how many

gallons of waste water are going into the sewer on a daily basis from this facility?

A. It would be the same. So all of the wash water would go to the sanitary sewer. So it would be that same -- that same amount of water.

Q. Thank you. With respect to the throughput, your application says it's going to be 650 tons per day of municipal solid waste. Is that an average or is that the max per day?

07:33:09PM

A. That's the maximum per day.

Q. Is that true for the hydro-excavation waste, the C&D, and recyclables as well?

A. Yes. If you're referring to the -- I think it's 300 tons per day of hydro-excavation and 250 for recyclables and I think it's 750 -- 750 tons per day for the construction and demolition debris. You're correct, those would all be maximums.

07:33:41PM

MR. WALSH: Thank you. One second.

That's all I have. Thank you very much.

HEARING OFFICER PRICE: All right. That brings us back to you, Mr. Mueller. Is there any redirect?

MR. MUELLER: I have a few. Thank you.

REDIRECT EXAMINATION

BY MR. MUELLER:

Q. Mr. Hock, you were asked about hazardous waste. Can you distinguish between hazardous waste and unacceptable waste?

07:35:17PM A. Yes. Are you looking for me to describe the difference or --

Q. Please.

A. So unacceptable waste are things that are routinely generated, again, like, appliances or batteries or tires or landscape waste that are not supposed to go through a transfer station. They are supposed to be managed separately, and those are the things that, if they are observed, are set aside and, again, we

07:35:49PM would talk to the generator and make sure they understand the rules.

Hazardous waste would be more of a

sludge or -- where you can tell. It would have an odor to it. It would be different from municipal solid waste. It might have more soil like properties. It's readily distinguishable.

Q. Is hazardous waste -- Excuse me.

Is unacceptable waste necessarily hazardous?

A. No.

Q. In fact, most of it is not, right?

07:36:27PM A. Correct.

Q. Now, does LRS have a load-checking program, including random load checks, to try to identify unacceptable and hazardous waste?

HEARING OFFICER PRICE: Is the question: Is that being proposed for this facility?

MR. MUELLER: Yes, for this facility.

BY THE WITNESS:

A. So the way I like to describe it is

07:36:56PM every load is checked and inspected. And it happens because as the waste is deposited on the floor, it then becomes visible to the operator.

And that's when things would be noticed if it wasn't already caught at the gate.

Again, part of the reason these things don't happen very much is just a very consistent customer base. These are knowledgeable folks who know what the rules are. The process you're talking about is more of a documentation process in terms of maybe moving it to the side and doing an extra look at it. 07:37:39PM We are completely fine with doing that type of procedure.

Q. Now, when trucks are in the transfer facility, are the emissions from those idling trucks also subject to capture and being cleaned up by the venting and fan and air cleaning system in the facility?

A. When they are unloading and idling in the building, they would be. It is also important to note that the trucks that are used 07:38:23PM by Lakeshore have particulate filters on the back of them that actually reduce the particulate emissions by over 98 percent, and

basically any vehicles that have been manufactured since 2007 have that. So the amount of that type of emissions is actually very low now from the newer trucks.

Q. Going back to the airport, did the DuPage Airport Authority just recently retain their own independent expert to evaluate your application with regard to whether or not it meets the requirements of a safe enclosed transfer station? 07:39:18PM

A. They did.

Q. Who did that work for the DuPage Airport?

A. It's a company named Geosyntec.

Q. Do you know the individual at that company?

A. I do. His name is Jesse Varsho, who led the effort.

Q. He's actually a former key employee of Mr. Moose, isn't he? 07:39:38PM

A. Yes, he is.

Q. Now, what was Geosyntec's -- Did

Geosyntec prepare a report with their conclusion?

A. They did. The conclusions are referenced in -- Their report is actually referenced in our agreement with the DuPage Airport Authority, so, yes, they did create a report.

Q. Do you have that report with you tonight?

07:40:07PM A. I do.

Q. Can we have the pleasure of seeing it, sir?

A. Sure. Maybe what's worth noting is what was originally provided was the final draft report, and that report included some recommendations that were all incorporated into the final version of our agreement with them, and they have since provided a final version of their memorandum but inadvertently forgot to

07:40:39PM include a table on the back of it that's part of it, and we have requested them to provide that table. It just has not occurred as of tonight.

So we have a draft version with the table and a final version without the table.

Q. Do you have copies of those to mark as exhibits or should we defer this to another evening?

A. We have both of them.

HEARING OFFICER PRICE: So for purposes of the record, the draft is going to be Applicant 12 and the purported final is Applicant 13. And you can tell the difference, those of you getting them now, by the very first thing under the date.

(Applicant Exhibit Nos. 12 and 13 marked for identification.)

BY MR. MUELLER:

Q. Just for formalities' sake, Mr. Hock, can you look at Applicant's Exhibit 12, identify it, and tell me if it's a true and correct copy of the report that you read?

A. What you're referring to are the reports that we just handed out?

Q. Yes.

A. Those are true and correct versions.

Q. Okay. Let's go back to your testimony from last Thursday. Can you explain to the city council the process of developing a siting application?

A. Sure. I mean, it is a long, involved process and, in this case, it took over two years to do. We start with an outline and then we start putting all the narrative and all the information with it. It is a constantly evolving document. As we have different people review it, we get different perspectives. We're only trying to improve it and make it better, either from, you know, concise language to try to clearly convey the information, to the presentation of it and it does -- it does evolve over time. Like I said, we're trying to make it better. And in the end, it turned out to be three binders full of information.

07:43:30PM

07:44:10PM

Q. There are routinely drafts along the way?

A. Oh, yes. There are many drafts of --

especially the larger criteria, which are Criterion 1 and Criterion 2. A few of these are, obviously, very short and those are established very quickly. But, yeah, there are many drafts.

Q. And drafts are routinely reviewed by people outside your organization, sometimes even clients and your attorney?

A. Of course.

07:44:42PM Q. And they are also reviewed by other experts, such as APTIM?

A. Yes. This is -- My best description of this is it's a team sport. We lead the charge and serve as the quarterback but it's a large team with many players.

Q. Let's move on to the process that's come to be known as prefiling review. Can you explain that to the city council?

A. Sure. It's really become routine and

07:45:13PM a standard, especially for larger -- I shouldn't say "larger" -- facilities such as this. What we do is we provide drafts along the way. And

in this case we wanted to make it a very collaborative process, so we started our interaction with APTIM, which is who West Chicago chose to work with, backed with a site visit all the way back in 2019, I believe. We provided, again, kind of major points for key features of the facility as we went and we did provide copies of the applications at different points in time and we appreciated their review.
07:46:09PM We took their comments into consideration. We didn't always agree, which is fine. There's professional judgment, it is intrinsic to this process, and it lead all the way up to final drafts of Criterion 1 and Criterion 2, which are the most extensive, that we provided back in May of this year. And we received some feedback and questions but by the time we got to the endpoint, those questions were -- were very minor.

07:46:47PM Q. Mr. Hock, are prefiling review comments always submitted to you in writing?

A. No. Again, we have had -- We have

multiple meetings along the way. I had multiple phone calls with Mr. Fallon to answer questions. So it is, again, multiple iterations communicated in a variety of means.

Q. Let's talk about throughput. The final draft of the application limits your solid municipal waste throughput to 650 tons per day?

A. Correct.

Q. That's a lower number than you had previously thought about, correct?

07:47:42PM

A. Yes.

Q. Why did you reduce it?

A. We just thought it made a better application. It was -- You know, we took into consideration some comments from APTIM and looked hard at what we really needed and decided it was a better application to reduce it, so we did.

Q. At 650 tons of municipal solid waste per day, are there any problems with temporary storage space on the tipping floor?

07:48:17PM

A. No. With those volumes, it becomes

very easy. We, actually, did not change the size of the building from when we were proposing larger volumes. We just simply reduced the throughput but kept the same building.

MR. MUELLER: One second.

BY MR. MUELLER:

Q. Now I think you have explained this: Doors are not open while trucks are in the building, they are only open when they enter and exit, correct?

07:49:22PM

A. Yes.

Q. When you go into your house with bags of groceries, is the door open for a few seconds?

A. Yes, it is.

Q. Do you consider your house enclosed?

A. Yes.

Q. There was significant questioning last Thursday about the amount of time it takes a garbage truck to unload.

07:49:56PM

Do you recall that?

A. Yes.

Q. Now, are there multiple types of traditional garbage trucks, the kind that pick up waste from the curb?

A. There are.

Q. What are those types?

A. So the vehicle that was shown in the video from last week was a -- referred to as a rear-load vehicle. It's an older type of truck that is necessary to navigate the alleys of the

07:50:40PM City of Chicago. The types of trucks that are used out in the suburbs and that will be used at this facility are what's generally referred to as front-load trucks, and there are substantial differences between the vehicles. Those differences lead to differences in the time it takes to discharge the load from the vehicle.

Q. Did you -- What percentage, if you know, of the trucks that would come to this facility would be front load versus rear load?

07:51:16PM A. So in our throughput analysis we assume that 90 percent of the vehicles would be these front-load packer trucks and,

approximately, 10 percent would be roll-off trucks.

Q. After your testimony last week, did you have occasion to direct the making of some videos at another LRS transfer station to look at the amount of time it look for front-load trucks to discharge their loads?

A. We did. I have actually watched vehicles unload at a number of different facilities over the years from different operators and, you know, sat there and timed it, and I always thought that five minutes was a good number -- a good conservative number. Just to double-check myself, I asked the Lakeshore folks to videotape a few different trucks at one of their facilities, and they did that at the Elburn facility over the weekend.

Q. What was the average time it took for those front-load trucks to discharge?

A. So they sent me videos of three different trucks, and they were all the front-end loader packer-type vehicles, which

are, again, the exact same vehicles which we would use at our facility. And it took an average of 3 minutes and 35 seconds for the three vehicles to discharge their load.

To give you the quick explanation of why it's quicker than the truck that we saw in the video from last week, if you remember, if you were here, before the driver was able to discharge his load, he had to get out of the
07:53:18PM vehicle, walk to the side, and maneuver some turn buckles and such; and then he had to do the same thing after the load was fully discharged. So there was time for him to do that.

With the front-end loaders, as they back into the building, they are able to open the back gate and start the discharge process without ever getting out of the cab of the truck.

Q. Have you had the opportunity to
07:53:51PM provide copies of this video to the -- to Mr. Jones?

A. Yes.

Q. We should play that now then, if we could?

A. So there are three videos. They are all very similar.

Joe, is this Video 1?

MR. JONES: Video 1.

BY THE WITNESS:

A. Maybe to give you a quick narration, so that truck is backing in --

07:54:25PM THE WITNESS: Joe, are you able to hit a button on the screen where you can see the time down in the lower left-hand corner?

MR. JONES: I'm sorry. I'm not.

BY THE WITNESS:

A. If this is the first one, it should take about three and a half minutes. What you'll notice is -- So he just backed into the transfer station, and the waste bin that he'll load the material from each household in, he

07:54:52PM just maneuvered it out of the way. And you can see now he has released the back gate, and you can see the waste coming out of the vehicle and

discharging that out onto the floor. There's basically a ram that pushes the material out.

What he'll do in a moment is move forward a little bit to let the rest of the material come out. You can see the material still spilling out the back as it's pushed out. Again, that's him moving forward now just to let the rest of it fall out of the truck. He'll now stop.

07:55:53PM What you'll see him do in a moment is put on his hardhat and he is going to get out of the cab. There he goes. He's taking his hat off and putting his hardhat on. What he's going to do when he gets out is walk over -- I'm sorry. He does that, you notice he's lowering the gate on the back. That's a safety measure. So he just leaves it slightly open.

What he's going to do right now is he's picking up a small rake. What he's going

07:56:36PM to do is go to the back and make sure that there's no debris or clean off the little bit of debris that's going to be on that bottom seal

but he wants to make sure that when he closes it fully, that it's fully sealed so there's nothing to leak or drip out. So he went to both sides and just kind of raked across that seal to make sure that it's clear. He's putting it back where he got it so the next driver can use it. He must have picked up a small back of waste from somewhere, so he took that off the truck.

Again, you'll notice the difference between this and the last one, if you remember, there's no turnbuckles or anything he has to fasten. He has now closed the back gate of the vehicle and he is going to move out. At this point, this is basically when they would be leaving the transfer station and clearing the way for another vehicle. What he is going to do, and this is routine, he's going to take 30 seconds and get out of the vehicle again just double check that the back of the vehicle is sealed just the way it's supposed to. He's also looking around the truck doing what I call a circle of safety just to make sure there's no

07:57:18PM

07:57:57PM

waste or debris that got picked up by the truck or there's nothing -- you know, nothing unusable so it will be safe to proceed down the road again. He will take the bin in the front and he'll -- again, that's the bin that is down as they are running up and down the streets and use the automatic arm and dump the tote into the back of the bin. Until he gets to the route, he'll put it up top until -- so it's out of the way.

07:58:36PM

THE WITNESS: Joe, can you tell us the total time of that video?

MR. JONES: The total time from start to end was 4 minutes and 19 seconds.

BY THE WITNESS:

A. So, again, there's probably 30 seconds once he left the facility. If you guys are interested to see it, we have two more that are basically the exact same thing. Or if you want to take my word, we can skip it. I don't know whose choice it is.

07:58:59PM

Q. I'm satisfied with the one. Let me

ask you this, then, Mr. Hock --

A. I'm sorry. For the record, I wanted three data points because, as an engineer, you can do averages. I don't like just one data point. It was 3 minutes -- From 3 minutes 35 seconds, 3 minutes 20 seconds, and 3 minutes 50 seconds were the three different times of the videos.

Q. Last area of inquiry. Why would a 07:59:47PM transfer trailer stay on your site or on this site overnight?

A. Well, we will not leave any loaded ones on site.

Q. My apologies. I should have asked the question that way.

Will you leave loaded transfer trailers there?

A. No. And we don't need to.

Q. Then why do you have 17 parking spaces 08:00:14PM for trailers?

A. I mean, it's an extra-large area. We want to have extra empty trailers there, and we

may have full trailers staged there during the day. So what we want to make sure we have is the ability to have a continuous loading operation occurring.

In a perfect world, drivers come back from the landfill with empty transfer trailers and they are able to just maneuver and get right in line and fill up and then complete -- you know, continue the rounds back
08:00:55PM to the landfill. But there may be a gap, for instance, when there's not a transfer trailer that's arrived at the site. What we'll have is extra trailers in that parking area and we'll have a yard tractor that we can use.

If we know there's going to be a gap, we can bring a yard tractor or use the yard tractor to bring an empty transfer trailer over, have it filled; if necessary, bring it back to the staging area and have it picked up later and
08:01:20PM removed. We just want to make sure that we've got operational flexibility. And the reason we do not need to leave one overnight, even though

the landfill is closed, is that there is a large parking and staging area out at Lakeshore's landfill in Atkinson, Illinois where their routine operation is as people bring in full transfer trailers, they are actually dropped in this staging area, again, picked up by a yard tractor and brought up to the landfill and disposed.

Q. What's the role of a spotter near the doors?

08:01:59PM

A. The spotter is there just to make sure that the drivers know where they are going, for instance, which door they need to back in. They will control the process of opening and closing the doors. There's -- What we plan to do is have a computer or an iPad with a screen and use cameras as well to help make sure that the inside of the transfer station is clear once they drive in.

08:02:43PM

So they are really kind of monitoring activities and making sure that the doors are opening when they are supposed to and

closing when they are supposed to and all the traffic flow is happening as efficient as practical.

MR. MUELLER: Mr. Hock, that's all I have, although, I expect you may get a few more from others.

HEARING OFFICER PRICE: Thank you, Mr. Mueller. We're going to take ten minutes. We'll start at 8:15, Mr. Meza, with any recross you may have. And so take a break until 8:15, and we'll get started then.

08:03:10PM

(A short break was had.)

HEARING OFFICER PRICE: We'll turn back to Mr. Meza. Do you have any recross?

MR. MEZA: Yes, Mr. Hearing Officer.

HEARING OFFICER PRICE: Oh. Before you get started, I'm going to -- I think we have passed out the video Mr. Hock reviewed that Mr. Mueller put in. It's a flash drive. I'm going to label it A-14 for purposes of the record. We'll hand those out to others. But for purposes of the record, the flash drive will

08:15:46PM

get the little exhibit sticker and go into the pile with the other things going into the final record for whatever purposes.

With that -- Sorry, Mr. Meza. Back to you.

(Applicant Exhibit No. 14 marked for identification.)

RECROSS-EXAMINATION

BY MR. MEZA:

08:16:24PM Q. Mr. Hock, one of the things you said --

THE WITNESS: I'm sorry. I was looking for another flash drive I thought we had.

HEARING OFFICER PRICE: We'll get to that later.

BY MR. MEZA:

Q. Can you hear me okay?

A. Yes.

Q. Mr. Mueller was asking you about the

08:16:48PM spotters. Do you remember?

A. Yes.

Q. Again, just to remind us, there's

going to be four doors with the municipal solid waste for trucks backing in, right?

A. Yes, there are four available doors on that building for the trucks to go in and out.

Q. And then there's two doors for the C&D facility, correct?

A. Yes.

Q. Then there's a door where the transfer trailer trucks come in and where they exit, correct?

08:17:23PM

A. Yes.

Q. So that's eight doors. You had mentioned earlier there was going to be three spotters. Are you going to have spotters on the inside and the outside of the doors?

A. No.

Q. So you're not going to have spotters on the inside of the municipal solid waste and the SSR doors on the outside?

08:17:52PM

A. That's where we will be using cameras with a video relay. So these facilities -- A facility like this will have many different

cameras throughout the facility, and what we are doing is using the cameras in a display, and there's a station that was shown on that plan view, if you remember; so if he needs to get out of weather, he can be there or he can have an iPad, so he'll be monitoring the opening and closing of the doors to make sure, for instance, before a vehicle enters, that it's clear, that there's not a loader or something like that in the way. So we do want to have eyes on things as well.

08:18:40PM

Q. Let me direct your attention to Page 2-29 of your application that you submitted. I think it was September of last year. Are you at 2-29?

A. Yes.

Q. The first full paragraph, does it say, Spotters will be present inside and outside of the MSW and SSR transfer building to open and close the doors as vehicles enter and exit the MSW and SSR transfer building?

08:19:00PM

A. Yes. So they may be inside, but if we

can use cameras and other means to just keep them out of the way of traffic, we would do that. So that wasn't meant to -- Maybe that language wasn't as clear as it could have been.

Q. So will you or will you not have spotters inside and outside the MSW and SSR doors; yes or no?

A. They may be inside at times, but the intent is to have them primarily outside and use other video means to stay out of the way of traffic but still monitor the operations and make sure the doors are opening and closing just as they are supposed to.

08:19:54PM

Q. Mr. Hock, one of the other things you testified to was some of the experience -- not experience -- LRS as it relates to -- I believe -- was it the Elburn transfer station, is that what -- the one that was shown on the video?

08:20:22PM

A. Yeah, they do have a transfer station in Elburn and that is where those videos were taken.

Q. Right. We only saw one, but there's actually three, right?

A. Correct.

Q. And you also said that -- You said, Not with regard to any trash transfer facilities I'm aware of. I don't recall what that was in reference to, but did that relate at all to some of the experience of LRS when you provided that response? If you recall. If you don't recall, that's fine.

08:20:55PM

A. I don't recall what you're referring to or what that answer was referring to.

Q. That's all right. My notes reflect you said that. I just didn't remember what it was in relation to.

Part of your experience -- in fact, one of the exhibits requires that LRS provide information about experience in its operation; is that correct?

08:21:17PM

A. Yes.

Q. In fact, that's sometimes considered the tenth criterion; is that correct?

A. I have heard it referred that way.

MR. MEZA: At this time, we would ask or move to play Exhibit 701, Mr. Hearing Officer.

HEARING OFFICER PRICE: Wait. Going back to -- 701 is about the tarping issue?

MR. MEZA: Yes. It's about the experience -- Right. With regard to Lakeshore Recycling as it relates to its policies that are existing for tarping.

08:21:51PM

MR. MUELLER: There is no criterion or even implied criterion as to experience with regard to tarping. There is information regarding record violations and so forth.

HEARING OFFICER PRICE: We're not going to sit on that, Mr. Mueller. It says, just so everybody can play along at home, The county board or the governing body of the municipality may also consider as evidence the previous operating experience and past record of convictions or admissions of violations of the applicant and -- You went back on redirect,

08:22:18PM

Mr. Mueller, about tarping and the transfer trailers being parked outside.

So this video is about transfer trailers and whether they were tarped at the California facility?

MR. MEZA: Yes. And also C&D trucks as they were entering the facility.

HEARING OFFICER PRICE: We have spent more time -- How long is the video?

08:22:54PM MR. MEZA: About 2 minutes and 40 seconds maybe.

HEARING OFFICER PRICE: It's going to be very tight questioning simply within this one little area of this -- of the siting ordinance. Let's make it efficient and quick. Let's show the video. I'm not spending more time than it is to probably dispense with this thing. For whatever probative value it has, we'll just dispense with it.

08:23:17PM (PWC Exhibit No. 701 marked for identification.)

(Video played.)

BY MR. MEZA:

Q. Mr. Hock, is this the California facility of LRS?

A. Yes.

Q. Now, you see an individual tarping A transfer trailer manually, do you, at the bottom?

A. Yes.

Q. Now, the truck -- We're seeing that truck entered and these trucks are entering and they are discharging the loads. Are they tarped at all?

08:23:53PM

A. Well, they are discharging their loads, so you cannot discharge the load while it's tarped.

Q. So they could have been tarped before?

A. Yes.

Q. Okay. So the red truck, you can't tell if that's tarped -- do you know if it was tarped before it unloaded?

08:24:37PM

A. It wasn't shown in the video, so, yeah, I don't know.

Q. And you see that truck, can you tell whether or not it was tarped as it entered? If you can't, that's fine.

A. It's already backing in, so he would have removed any covering prior to backing up.

Q. Same thing with this truck driving through here, do you know -- this truck -- was this truck -- Can you tell from the video -- maybe you can't -- whether or not these were

08:26:06PM tarped?

A. I can't tell because those trucks came over a scale that's all the way on the other side of the building at the entrance and drove around the building to get to the point where they are at.

MR. MEZA: You can stop it.

BY MR. MEZA:

Q. Going back to the Elburn station, is that a fully enclosed station, or not?

08:26:44PM A. The doors are left open during the day. So as it's normally operated, the door is open. That would not be fully enclosed.

Q. Is it considered a semi-enclosed facility, the Elburn station in the video that the you showed?

A. I'm not sure what you mean by -- I'd have to look back at the definitions in the circular.

Q. But it's not the type of facility that's proposed for West Chicago; is that accurate?

08:27:25PM A. That's correct. That's correct. Those doors are normally left open all day, and that is not what we're proposing for West Chicago.

Q. Now, one of the other things you said was that putting together these applications takes a large team with lots of players?

A. Yes.

Q. Can you tell us whether or not a determination had been made before

08:27:51PM September 22nd of 2022, when the application was submitted, by the City of West Chicago that they would, in fact, approve the site, or no?

MR. MUELLER: That's beyond the scope of redirect. And improper.

HEARING OFFICER PRICE: And it happened September 16th.

MR. MEZA: I'm sorry. September 16th.

HEARING OFFICER PRICE: That objection is sustained.

MR. MEZA: I don't think I have anything further. Can I have just one second.

08:28:20PM HEARING OFFICER PRICE: Sure.

MR. MEZA: Thank you, Mr. Hearing Officer. I don't have any further redirect.

HEARING OFFICER PRICE: Thank you, Mr. Meza.

PODER, nothing?

MS. ALCÁNTAR-GARCIA: No.

HEARING OFFICER PRICE: Thank you. The city?

MR. CALLAGHAN: No.

08:28:59PM HEARING OFFICER PRICE: Nothing. Mr. Walsh?

MR. WALSH: We have nothing.

HEARING OFFICER PRICE: That concludes your testimony on those criteria. I believe Criterion 8 is next.

THE WITNESS: Yes.

MR. MUELLER: That's what I have in front of me.

HEARING OFFICER PRICE: All right. That means, for those of you who are following along, we're going back to Exhibit A-11,

08:29:24PM Applicant 11, which was the comprehensive set of slides that had been provided, and now we're on Criterion 8.

(Applicant Exhibit No. 11 marked for identification.)

MR. MUELLER: Just for everybody, it starts at Slide 52.

THE WITNESS: Job well done for Joe starting on the correct slide.

DIRECT EXAMINATION

08:29:45PM BY MR. MUELLER:

Q. Mr. Hock, you also prepared a report on whether or not the proposed facility is

consistent with the county solid waste management plan, correct?

A. Yes.

Q. And that's in the application?

A. Yes.

Q. And did you then prepare a PowerPoint presentation which summarizes the report and the most salient findings in the application?

A. Yes.

08:30:25PM Q. Could you proceed with that, please?

A. So Criterion 8 states that if the facility is to be located in a county where a county board has adopted a Solid Waste Management Plan consistent with the planning requirements of the Local Solid Waste Disposal Act or the Solid Waste Planning and Recycling Act, the facility is consistent with that plan.

To maybe give a little background of what that really means, so the act they are

08:31:06PM referencing was passed back in the late '80s. What it said is that each county in the state must adopt a 20-year plan for managing the

municipal solid waste generated within its boundaries. What it was really guided to do was provide a recycling program designed to achieve at least a 25 percent recycling rate. And that's, again, about the time that recycling became customary as it is today. And the act also talked about needing to update and review that plan every five years.

So we are, obviously, in DuPage
08:31:56PM County, and DuPage County first approved their Solid Waste Management Plan in 1991 and provides a lot of detail and background, including estimating DuPage County's waste generation and disposal needs and included recommendations regarding recycling, including construction and demolition debris and made recommendations regarding transfer stations.

They subsequently made updates to the plan, which were approved by the DuPage
08:32:27PM County Board in 1996, 2001, 2007, 2012, and 2017. And as part of those updates they would generally include the status of the

recommendations from the previous updates or plans.

The key items in the plan as it relates to this application is that first the Solid Waste Management Plan encourages recycling of C&D, recognizes it's a significant portion of the waste stream, and was important to meet recycling goals. And as we have talked extensively, the site currently is recycling
08:33:15PM construction and demolition debris; and for the reasons we have previously discussed, the proposed facility would increase the amount of C&D that's recycled. The Solid Waste Management Plan also recognizes the current challenges of implementing recycling programs for single-stream recyclables and our proposed facility would provide a facility that would facilitate the economic transfer of single-stream recyclables to material recovery
08:33:48PM facilities and serve as a drop-off location for residents, so it would benefit the recycling programs.

The Solid Waste Management Plan also stated that they need additional drop-off locations for electronic waste. And, again, as previously discussed, the proposed facility would serve as a drop-off location for electronic waste.

The solid waste plan also indicates that DuPage County has relied on transfer stations to transport nonrecyclable waste and
08:34:40PM municipal solid waste to out-of-county landfills, that at least DuPage County's waste is handled by out-of-county transfer stations and newer expanded facilities for handling, treating, and recycling waste would be considered on a case-by-case basis.

Again, as previously discussed, our proposed facility would enhance the capability on behalf of DuPage County to handle, treat, and recycle a variety of wastes. DuPage County
08:35:11PM provided a letter for us that's included in the application that concludes that the proposed West DuPage Recycling and Transfer Station

appears to be consistent with the 2017 update.

Based on this information, it is my professional opinion that the West DuPage Recycling and Transfer Station is consistent with the Solid Waste Management Plan and all provisions in effect at the time of the submittal of this siting location application.

HEARING OFFICER PRICE: Any further questions, Mr. Mueller?

08:36:06PM MR. MUELLER: We have nothing else.

HEARING OFFICER PRICE: Protect West Chicago.

MR. LEUTKEHANS: Thank you, Mr. Price.

CROSS-EXAMINATION

BY MR. LEUTKEHANS:

Q. Just so we're clear, this proposed waste transfer station is in Wayne Township, correct?

HEARING OFFICER PRICE: Wayne County?

08:36:26PM MR. LEUTKEHANS: Wayne Township.

BY MR. LEUTKEHANS:

Q. Are you familiar with that?

A. In all honesty, I have it on the map, but I'd have to double-check which township it is.

Q. I don't think there's much doubt it's in Wayne Township. Would you agree Wayne Township is the furthest northwest? You go further north, you're in Cook; further west, you're in Kane?

A. Yes.

08:36:51PM Q. Let's talk about Ms. Hinz's letter. Did you submit your entire application to the county before she gave you this letter?

A. No. I think the letter is from 2019.

Q. So there were earlier versions of the application or whatever -- What did you submit to her in 2019, I guess, is the first question?

A. She provided it about the time -- I think right after we had negotiated the secondary host agreement with DuPage County.

08:37:26PM Q. So what had she seen at that point, I guess is my question?

A. Just very general information. We

provided a presentation at one of the meetings with DuPage County describing the general nature of the facility and what would be included.

Q. Okay. So you provided her general information and she said in response, in her letter, that that general information appears to be consistent with the Solid Waste Management Plan; is that fair to say?

A. Yes.

08:38:18PM Q. She never said it is consistent; she just said it appears to be, correct?

A. Well, she provided the letter demon- -- You know, she was clearly supportive of the project for the variety of reasons and the benefits that are discussed in that secondary host agreement.

Q. We're talking about a staffer letter. She never says that your plan in your application is consistent with the Solid Waste

08:38:45PM Management Plan, does she? She says she believes it, correct?

MR. MUELLER: I'm going to object to

the use -- You can't read her mind. The letter speaks for itself.

HEARING OFFICER PRICE: Sustained. Rephrase, please.

BY MR. LEUTKEHANS:

Q. The letter does not say that your application is consistent with the DuPage County Solid Waste Management Plan, does it?

A. I think that's the intent of the letter.

08:39:08PM

Q. The question is: Does she say it's consistent; yes or no?

MR. MUELLER: Letter speaks for itself.

MR. LEUTKEHANS: That objection is already overruled.

HEARING OFFICER PRICE: I'll take care of the rulings. You can answer, and it is a yes-or-no question, Mr. Hock.

BY THE WITNESS:

08:39:24PM

A. I think the intent of the letter is that it does say it is consistent.

Q. I'm not asking you about the intent?

HEARING OFFICER PRICE: The letter uses the word "appears." We have all seen it, and it doesn't say the sentence you said, Mr. Leutkehans, so that's ...

BY MR. LEUTKEHANS:

Q. Joy Hinz does not make policy for the county, does she?

A. No. She mentioned she oversees the Solid Waste Management Plan, so she's the most knowledgeable about what it means and what it's intended to mean.

08:39:52PM

Q. The county board actually approved the Solid Waste Management Plan, correct?

A. Yes. Joy's job was to oversee the preparation of the plan. And you're correct that the DuPage County Board, then, approves it.

Q. So the final authority on what the Solid Waste Management Plan says is the county board, not some staffer, correct?

08:40:19PM

A. Sounds like a legal opinion to me, but --

Q. Yes or no?

A. Well, DuPage County, you know, they approve what she prepared, so they are the approval authority.

Q. Do you know that the 2017 Solid Waste Management Plan update was the exact same thing she proposed in 2017 or if they made any modifications to it before they passed it?

A. No.

Q. Okay. So the approved document was approved by the DuPage County Board. You have said that, correct?

08:40:54PM

A. Yes.

Q. Your slide about -- Could you go back a couple slides? I think it's listed as Page 55. Yeah. Okay. No. One more. Sorry. One --

A. One more back?

Q. Forward -- I'm sorry. You know what? I have been back and forth so many times. The one right before that. Right there.

08:41:27PM

A. I'm sorry.

Q. The statement, The West DuPage RTS

would enhance the capability and capacity of DuPage County to handle, treat, and recycle a variety of wastes, that's your statement, correct? That's not in the Solid Waste Management Plan, correct?

A. Correct. The wording after the dash is our view of why it meets the language prior to the dash.

Q. Okay. You understand, don't you, the 08:41:56PM 2007 Solid Waste Management Plan update articulates the need for a transfer station in the, quote, southern portion, end quote, of DuPage County, correct?

A. Which update were you referring to?

Q. 2007.

A. No.

Q. I'm sorry. What was the answer?

A. No.

Q. You don't understand that the 2007 08:42:32PM Stormwater Management Plan update articulates the need for a transfer station in the southern portion of DuPage County? You don't think it

articulates that need?

A. No.

Q. Could you go to PWC Exhibit 23, which you have in front of you? PWC Exhibit 23. Mr. Meza used it. It's the APTIM report. Page 5 -- Page 9.

Do you see that page?

A. Yes.

Q. Okay. Under issue plan consistency, do you see APTIM made the comment, Beginning with the 2007 plan update, the county began articulating the need for a transfer station in the, quote, southern portion, end quote, of the county and the response from your company was "Understood," correct? Is that what it says; yes or no?

A. That's the word.

Q. It's a typo, but it's supposed to be understood, correct?

A. I was acknowledging the typo.

Q. That idea was carried forward in the Shaw -- starting in the 2012 update, which,

again, states, The conditions may necessitate a transfer station in the southern portion of the county.

Do you recall that?

A. Yes.

Q. That 2012 report also says that service areas must be considered, correct?

I'm sorry. Wrong question.

The 2007 update also mentions that

08:44:46PM service areas must be considered, correct?

A. 2007 update mentions that they encourage the development of three to five waste transfer facilities throughout the county, they were evaluating disposal capacity.

Q. Okay.

A. I don't --

Q. You know --

A. I don't see in my notes where they talked about the service area.

08:45:17PM Q. You're absolutely right. It's the 2017 update that mentioned service areas must be considered, isn't it?

A. Yeah. The 2017 update says that service areas must be considered, as well as the market forces of private sector waste hauling entities, and that they will consider newer expanded facilities handling, treating, and recycling on a case-by-case basis.

Q. On a case-by-case basis, correct?

A. Yes.

Q. You never gave them your application

08:45:56PM to determine whether if you met these case provisions, correct, your application was never provided to them?

A. No.

Q. The latter -- the update -- In the 2017 update, there's no mention in there that it supercedes the prior updates, does it?

A. That language is not explicitly in the 2017 update that I'm aware of.

Q. Let's go to the slide right before

08:46:26PM this. None of these three summary items that you've used from the DuPage County Stormwater Management Plan, none of these items actually

require a Section 39.2 hearing, do they? None of those three bullet points.

A. Not necessarily, but the language is still in the Solid Waste Management Plan.

Q. Correct. We're here for a siting hearing. We're not here for a C&D siting, correct?

A. Well, we're here to discuss the consistency of the plan and those items are in here, and our facility is consistent with those items of the plan. That's why we listed them.

Q. Your facility is consistent with the items of the plan with or without municipal solid waste, correct?

Those three items don't mention municipal solid waste anywhere in there, do they?

A. They do not.

MR. LEUTKEHANS: Nothing further. Thank you.

HEARING OFFICER PRICE: Thank you, Mr. Leutkehans.

PODER?

Nothing on Criterion 8. Okay.

Mr. Callaghan?

MR. CALLAGHAN: Nothing.

HEARING OFFICER PRICE: Mr. Walsh?

MR. WALSH: No.

HEARING OFFICER PRICE: Any redirect, Mr. Mueller?

MR. MUELLER: No redirect. Thank you.

08:47:49PM HEARING OFFICER PRICE: As I understand it, Mr. Mueller, that concludes the applicant's presentation?

MR. MUELLER: It does, indeed.

HEARING OFFICER PRICE: Then a bit of housekeeping while I alert Protect West Chicago that you're up for anything you want to put in. While you're getting that together, though, I do have a little bit of housekeeping.

As a formal matter, is there any

08:48:10PM objection to entering into the record as evidence Applicant's Exhibits 3 through 14?

MR. LEUTKEHANS: What was 14? That was

the only question I had.

HEARING OFFICER PRICE: 14 is the video that was shown on the --

MR. LEUTKEHANS: No objection.

HEARING OFFICER PRICE: All right. So those are in the record. Then is there any objection to the entry of Protect West Chicago's exhibits, which I have as 151-A, 23, 1, 301, 302, 604, 651, 34, 13-A, 200, 205, 201, 202, 16, 08:48:51PM 17, 700, which was the video, 13, 10, 9, 45, 46, 47, 48, 43, 44, 39, and 49 and 40, plus the 701 video.

Are there any objections?

(No response.)

Those are in.

Then, lastly, although it wasn't brought up here, it was previously provided to everyone. The city provided GHA's report on traffic, which was testified to by the 08:49:21PM applicant, Mr. Werthmann, and to some extent Mr. Hock. Is there any objection to the GHA report being added to the record?

MR. LEUTKEHANS: Not on behalf of PWC, no.

MR. MUELLER: Not on behalf of the applicant.

HEARING OFFICER PRICE: All right. The GHA report is also in. I will provide all of these to the acting city clerk, the city manager is acting in that role, so we have them all for the record.

08:49:47PM With that, thank you, Mr. Mueller. That concludes the applicant's case in chief.

We will now turn to the other parties for their presentation in their case in chief and we'll begin with Protect West Chicago.

MR. LEUTKEHANS: We will call John Lardner, L-a-r-d-n-e-r. He will testify to Criterion 1 and 8. We'll start with 1 as soon as we get set up. And I'll hand out the exhibits in one second.

08:51:15PM (Witness sworn.)

HEARING OFFICER PRICE: The witness is sworn. Please -- The floor is yours,

Mr. Leutkehans.

WHEREUPON:

JOHN LARDNER,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. LEUTKEHANS:

Q. Mr. Lardner, would you please state your name and spell your last name for the record.

08:51:47PM

A. My name is John P. Lardner, L-a-r-d-n-e-r.

Q. You have in front of you PWC Exhibit 155, among other exhibits?

(PWC Exhibit No. 155 marked for identification.)

BY THE WITNESS:

A. Yes.

Q. Is that your current curriculum vitae?

08:52:00PM

A. Yes, it is.

Q. Okay. You also have in front of you

PWC Exhibit 156?

(PWC Exhibit No. 156 marked for identification.)

BY THE WITNESS:

A. Correct.

Q. Is that a report you prepared in this matter related to Criterion 1?

A. Yes.

Q. Also in front of you is PWC Exhibit 157. What do you recognize that to be?

08:52:20PM

(PWC Exhibit No. 157 marked for identification.)

BY THE WITNESS:

A. That is a PowerPoint presentation that reviews my assessment report review of the application.

Q. Okay. Do you want to, please, just walk us through your PowerPoint, which -- I assume, the PowerPoint is a summary of your full report?

08:52:37PM

A. Yes, it is.

Q. Why don't you walk us through that. I

think you have the controls over there.

A. I do. Okay. Thank you.

I'm going to be presenting a review report that I put together to look at the proposed West DuPage Recycling and Transfer Station, particularly Criteria 1, the facility need. And as it shows here, the criteria there is the facility is necessary to accommodate the waste needs of the area it is intended to serve.

08:53:13PM Just a little background on myself. I have lived in the Chicago area for 30 years now. I have been a professional engineer. I have 35 years of experience in the solid waste field. I have experience doing other work prior to that. I'm a registered professional engineer in Illinois and Indiana. I have a bachelor of science degree in civil engineering from Michigan State University and a master of science in civil engineering from the University

08:53:44PM of Illinois.

In the past I have prepared needs assessment studies and provided testimony for

nine waste-related facilities in Illinois, four of which were transfer stations, and I have been the design engineer for over 22 solid waste projects in Illinois and Indiana. I participate in professional associations. Those are the U.S. Composting Council, Solid Waste Association of North America, American Society of Civil Engineers, Illinois Recycling Association where I'm a current board member, and the Illinois
08:54:19PM Food Scrap & Composting Coalition, where I'm a current board member.

Just a quick overview of what I'm going to present from my review study is I'm going to go over the West DuPage RTS service area that was presented in the application. I'm going to go over a review of how we come up with waste quantity disposed of in the service area, how it's calculated, again, using the numbers that were in the application, and just kind of
08:54:49PM show how they came up with those as an example.

Then I'm going to look at other current transfer stations that overlap the

service area. When they prepared their facilities, they prepared a service area, and I'll be showing those service areas and show how they overlap to the proposed DuKane Transfer Station -- excuse me -- West DuPage RTS facility.

Q. When you say "they," you mean Lakeshore Recycling?

A. Yes, Lakeshore.

08:55:25PM Q. Thank you.

A. Then I'll summarize the waste transfer capacity that's available to the service area at the end.

Here, you see the proposed service area for the West DuPage RTS facility. Again, this is Figure 1.1 from the application in their needs assessment Criteria 1. It includes 13 townships in DuPage County, those being Bloomingdale, Milton, Lisle, Naperville, Wayne,

08:55:57PM and Winfield. Those in Kane County out Aurora, Batavia, Elgin, Geneva, and St. Charles. And then at Will County they include DuPage and

Wheatland.

One of the demographic pieces of information we use when we calculate how much waste is generated in a service area is we look at population. In this instance, I have listed the populations of DuPage County, Kane County, and Will County that we used for the townships that were in the proposed West DuPage RTS facility. And that total population comes out to 1,087,501 residents.

08:56:41PM

Q. To be clear, this is DuPage County, that is the 566,198. That's in addition of the six townships that are in the proposed service area, correct?

A. That is correct.

Q. Because all of DuPage is somewhere like 900?

A. Yes. All of DuPage is upwards of a million.

08:57:07PM

Q. Thank you.

A. So to determine from that population how much waste is generated and what will need

to be transferred, we look at how much is generated on a pounds-per-person per-day basis. For instance, DuPage County generates 8.77 pounds per person per day and it has -- It was talked about earlier. That figure comes from a study that was done by the Illinois Department of Commerce and Economic Opportunity. Among all the counties in Illinois they did waste sorts at landfills and transfer stations
08:57:44PM and then used that information to arrive at the amount of pounds per person per day that an individual would generate in these counties. We use that information to do our waste projections in terms of what needs to be disposed of from a service area.

Next, in Kane County, that amount adding up to 8.21 pounds per person per day. And in Will County, that quantity was a little bit less at 7.56 pounds per person per day.
08:58:19PM That's the amount of waste that gets generated. The amount of waste that gets disposed is something different than that because we

subtract from that the amount of recycling that gets done from that waste that gets generated.

So, for instance, DuPage County, we talked about their Solid Waste Management Plan, they reported in their 2017 update that they have a recycling percentage of 30 percent. Kane County, in their most recent 2020 update, reported they were recycling a percentage of 37 percent. In Will County that recycling percentage they reported in their most recent Solid Waste Management Plan was 43 percent.

08:58:54PM

So just a quick calculation of how we come up with how much waste needs to be -- is generated and needs to be disposed in a service area.

So we used a simple calculation. We use the number of people, multiply that times the pounds per person per day, which I just mentioned about it differs for each county, we subtract from that the amount that gets recycled and then we multiply that times 365 days and we divide that by 2,000 pounds per person to get to

08:59:28PM

tons per year.

The amount of tons per year --

Q. I'm sorry. When you say 2,000 pounds per person --

A. 2,000 pounds per ton. I'm sorry. Exactly. So we've come up with the amount of waste generated for disposal in the West DuPage RTS service area and in the report that was reported at 2,997 tons per year. So the waste
09:00:09PM generated is actually a little bit more than that because we're calculating pounds generated per day, whereas, a transfer station is only operating six days per week. So we have -- The actual calculation is a little bit higher in the report. They gave waste generated per the six-day workweek at 3,547 tons per year.

Q. When you say "per year," you mean the total year or per day in the year?

A. That's per year.

09:00:49PM Q. Okay. Thank you.

A. This figure shows the facilities -- the other nine facilities that overlap the

service area of the proposed West DuPage RTS facility. It's a rather busy diagram, and I'll go through each of these individually to make it a little easier to view.

I'll start out -- I'll start out with the Lakeshore Recycling Service Elburn Transfer Station service area. As you can see, that service area is about maybe a third of the -- the overlap is about a third of that
09:01:38PM transfer station service area but it represents about 84 percent of the population within that transfer station service area.

Next we look at the Waste Management Batavia Transfer Station service area and it overlaps a significant portion of the -- of the West DuPage RTS facility and it represents an overlap -- the service area population is 50 percent -- 6 percent within its overlapping area.

09:02:24PM Next we have the DuKane Transfer Station. It's identified here as a No. 3 diamond. Its service area encompasses almost

80 percent by area of the West DuPage RTS facility and represents 97 percent of the -- of its population.

Next we have the Waste Connections Plano transfer station. It overlaps a small portion of the West DuPage service area. It's the No. 4 diamond there off to the left. And it represents -- That service area population represents 9 percent of the population in the

09:03:19PM Waste Connections Plano Transfer Station service area.

Another transfer station just north of the proposed service area is the Waste Management Bluff City Transfer Station. The population within that overlap area represents 66 percent of the population in the Waste Management Bluff City Transfer Station.

This facility compares the overlap and service area between two transfer stations

09:04:08PM down in Joliet. One is the Joliet Transfer Station operated by Waste Management and what I'm calling the Moen Road Transfer Station, and

it's owned and operated by Environmental Recycling Disposal Systems.

MR. MUELLER: I didn't hear what you said after Moen.

THE WITNESS: The Moen Road Transfer Station.

MR. MUELLER: Road?

THE WITNESS: Moen, M-o-e-n, Road.

MR. MUELLER: What was the word after "Moen"?

09:04:34PM

THE WITNESS: Transfer station.

MR. MUELLER: Okay. Sorry.

BY THE WITNESS:

A. Again, for this one we have similar service areas in terms of boundaries, and they overlap a portion of the service area there and -- since they are pretty much in the same location. This overlap service area represents portions of Will County or areas that are contiguous of Will County that can be served by a landfill in southern Joliet owned by Will County.

09:05:09PM

This represents --

Q. Excuse me. You said "landfill." Do you mean landfill or transfer station?

A. Well, there's two transfer stations here in Will County, but in the earlier slide it showed that there is a landfill in Will County that is generally served by these two transfer stations. It's where the waste goes to.

Q. Okay. Thank you.

09:05:40PM A. This overlapped service area is 37 percent of the population of the service area for these two transfer stations. Then to the northeast portion of the service area, there's a transfer station.

Diamond No. 9 there is the Waste Connections Elk Grove Transfer Station. And that overlap area represents 10 percent of its population for that service area.

Then the last is the Melrose Park

09:06:24PM Transfer Station, which is transfer station No. 11 in the diamond there. It has a small overlap in the proposed West DuPage RTS

facility. And that overlap represents 9 percent of its transfer station population.

Q. Before you go on, it's a little hard to read on the paper copies. It didn't come out very well. It looks good on the screen.

The hatched area, that's the overlap, right?

A. Yes. The hatched area represents the overlap. You can see where the circle

09:07:02PM intersects the boundary of the diamond in green, which is the West DuPage Recycling and Transfer Station.

Q. Please proceed.

A. Then this is a summary -- is a summary figure showing the overlap in transfer stations that I represented earlier. You can see that there is many. The service areas overlap are as many as six down in the southwest portion of the proposed service area and they vary going north,

09:07:40PM approximately, four transfer stations overlap the service area and you go to the north -- northeast and there's roughly three to four

transfer stations that overlap and that's the service area. And down in the southeast portion of the service area it shows the fewest transfer station overlaps, and that's the green and there's two there.

Q. Okay. Let me stop you here for a second. Does this mean before any -- before the project is built if it's built, every portion of the service area has at least two transfer

09:08:24PM stations --

MR. MUELLER: I'm going to object as to leading.

HEARING OFFICER PRICE: It is leading. But it's in all fairness, rules don't have to be so strict, and I appreciate the time savings.

MR. LEUTKEHANS: That's what I'm trying to do.

BY MR. LEUTKEHANS:

Q. Is it fair to say -- So like the green

09:08:40PM areas, they represent where there are two current existing transfer stations --

HEARING OFFICER PRICE: What are the

green areas?

MR. LEUTKEHANS: The green areas --

HEARING OFFICER PRICE: That's the question. Let the witness talk. What are the green areas?

BY THE WITNESS:

A. The green areas on this figure are representing the southeast portion of the service area generally have two transfer

09:09:01PM stations available.

Q. So the pink area represents what? The pink areas.

A. The pink area represents three transfer stations.

Q. That are overlapping with the proposed service area?

A. Yeah, that overlap the proposed service area.

Q. For the record, the blueish/purple

09:09:22PM whatever color that is that's --

A. Those are four transfer stations that overlap within the proposed transfer station

service area.

Q. And the light blue?

A. Light blue are five transfer station service areas that overlap the proposed West DuPage RTS facility service area.

Q. And No. 6, the brown?

A. Those are -- Those are six transfer stations. Their service areas overlap the proposed service area of the -- of the West DuPage RTS facility.

09:09:53PM

Q. I see on the chart, at least, a color for yellow that corresponds to what?

A. Right. There are none.

Q. There are none?

A. Yes.

Q. So every -- Every area has at least two transfer stations serve that we know currently?

A. That is correct.

09:10:10PM

Q. Please, proceed.

A. This is a summary table that it shows the amount of waste transfer capacity that's

available in the service area. The way we calculate that is I look at the percentage of the population overlap to the service area and then I multiply that by that percentage and take that times the capacity of that particular waste transfer station.

For instance, the first one, the Waste Management Bluff City has 2,000 tons per day of capacity. The service area overlap
09:10:53PM population that I talked about earlier on the slide represented 66 percent of that population. And so the available capacity to the service area in this case was 1,320 tons. So I did that for each of the transfer stations, again, the Waste Management Bluff City, Waste Connections in Plano, DuKane Transfer in West Chicago, Waste Management Transfer in Batavia, Lakeshore Recycling Systems Transfer Station in Elburn, Waste Management Transfer in Joliet, and ERDS
09:11:29PM Transfer in Joliet, Waste Connections Transfer in Elk Grove Village, Republic Transfer Station in Melrose Park, and two are below here -- I

added these because waste -- from a construction and demolition debris recycling facility, up to 40 percent of the incoming volume in that can be treated as residuals, which would be considered waste that can go to a landfill.

So the existing capacity, for instance, here, at the LRS general construction and demolition debris facility, their permanent capacity is 1,250 tons per day. And if you take 40 percent of that residual that they could transfer out as non recyclables is 500 tons per day.

09:12:12PM

Then there's another facility just down the road from them called Falcon Green Resources. It's along Powis Road. It has a total capacity in tons per day of 300 tons per day. And, again, it can treat as residuals up to 40 percent. So it has an available capacity in tons per day, again, on the amount of waste that gets generated in this service area, it could handle 120 tons per day of that waste capacity.

09:12:46PM

This block chart shows a similar thing from the table below. Earlier there's 7,944 tons per day of current service area transfer capacity. Year 2020 need in the area for transfer that was in the application was 3,574 tons per day. They projected using population from the Chicago Metropolitan Area For Planning, CMAP, population projections and it came up with a 2040 transfer capacity, meaning in the service area of 4,263 tons per day.

09:13:40PM

Q. Did you say this was in the application, these numbers?

A. Yes.

Q. Do you disagree with the numbers? Or do you agree with them? Or did you check them?

A. For the waste generated, yes, I did check the numbers, and they did seem to appear correct.

09:14:02PM

Q. Okay. Please proceed.

A. This is Figure 1-2C from the application, the needs assessment. It shows the

different companies that haul within the proposed service area. Again, there's six of those that are there. Lakeshore Recycling, Republic Services, Waste Connections, Flood Brothers, Waste Management, and SBC Solutions. And you can see that there is the municipalities they serve. They are somewhat spread around the service area indicating, again, with all that overlap that there is facilities for all of these companies to use.

09:14:47PM

In coming up with my conclusions, based on the information presented in my review, an additional municipal solid waste transfer capacity is not necessary to serve the waste needs of the intended service area of the LRS West DuPage RTS Transfer Station. The conclusion was supported by the following facts: The LRS West DuPage RTS service area currently generates 2,977 tons per day of waste and requires transfer to landfills for disposal. This translates to 3,574 tons per operating day of the week -- per year based on operating day

09:15:23PM

of the week.

The present capacity in the service area for transfer waste is 7,944 tons per day, representing a surplus in capacity of 4,380 tons per operating day or 122 percent surplus.

The expected growth in the population through year 2040 is insufficient to create a need for additional waste transfer capacity in the service area because of the remaining 86 percent surplus of waste transfer capacity in the year 2020. Two waste transfer stations are located in the service area of the proposed LRS West DuPage RTS location and seven transfer stations that service areas spaced geographically in proximity to provide service within the proposed LRS service area. One of the nine is operated by Lakeshore Recycling Systems and its service area currently overlaps 84 percent of the population of the service area of the West DuPage RTS facility.

Then, as illustrated on Figure 11 in the report, there is currently a minimum of

two transfer stations available to serve the proposed service area on the West DuPage RTS facility, and as many as six.

Market conditions of waste volume, transfer capacity, and travel distance do not necessitate a new waste transfer station in West Chicago to meet the need in the service area.

Q. Mr. Lardner, is this the same type of analysis you have done on the other applications that you have either reviewed or presented as far as a needs analysis?

09:17:17PM

A. Yes. We normally look at the population in our proposed service area and we also look at other transfer stations whose service area overlapped those of the facility that I was looking at. And then we use the waste projections from whatever county it is I'm working in and then we come up with that tons per day of capacity that's needed.

Q. Okay. Were you here for Mr. Hock's presentation on Criterion 1?

09:17:49PM

A. Yes.

Q. Did he, in your opinion, admit that he could not meet the needs analysis that you performed?

A. Yes. They admitted that the service area had excess capacity that was necessary to meet the waste needs in their report.

Q. Do you agree with his arguments that the proposed facility is necessary from a competition standpoint?

09:18:21PM A. No, I do not agree.

Q. Okay. Mr. Hock talked about the need for LRS to compete in the industry. Do you recall that, that this was necessary for them to be able to compete in the industry?

A. Yes.

Q. Do you agree with that argument?

A. No. As mentioned on the one slide there is at least two transfer stations in the service area and, actually, LRS does have a

09:18:45PM transfer station that does overlap the service area.

Q. Could you look at the standard, which

is, The facility is necessary to accommodate the waste needs of the area it is intended to serve.

A. Yes. The standard that I -- I normally use and have seen people use is just the type of analysis that I mentioned. We look at how much waste is -- needs to be disposed of or is generated. We subtract out recycling and come up how much needs to be disposed of. We look at other transfer stations, you know, in the service area. And then we determine whether there's a deficit in transfer station capacity that's necessary for a new transfer station siting.

09:19:29PM

Q. Look at the standard. It says, The waste needs of the area, correct?

A. Correct.

Q. Does it say anything about the waste needs of the waste companies or the needs of the waste companies?

09:19:46PM

A. No. It basically talks about the waste needs to serve the people that are generating the waste in the counties where the

transfer station is located.

Q. Okay. Mr. Hock also argued that this waste transfer station was necessary for competition in the industry.

Do you recall that?

A. Yes.

Q. Do you agree with that argument?

A. No, I do not.

Q. Why not?

09:20:06PM A. Well, as I talked about, there's considerable overlap in service from other transfer stations to the proposed West DuPage RTS facility. So, generally speaking, we look is of the amount of waste that's being disposed in this service area, are there transfer stations that can handle it? The answer is absolutely, yes.

Q. Can you go to Page 17 of your PowerPoint? How does that play into this

09:20:49PM need -- this issue of whether the industry needs another transfer station in the proposed location?

A. As this particular figure shows, there is transfer stations that are to the east of the service area, some of whose service areas, again -- here we use the ten-mile radius for the service area for those transfer stations in circles there. So the waste transfer capacity need has been met by facilities outside of DuPage County in Cook County on the north and along the east and somewhat to the center of
09:21:39PM Cook County. And then there's other transfer stations to the west of DuPage County, one in DuPage County, the DuKane Transfer Station, and there's several in Kane County and then there's two transfer stations down in Will County that handle waste in the service area. So, yes, there is -- in terms of solid waste disposal market, there are transfer stations that handle waste.

Q. Let's look at competition. Is there
09:22:11PM any area within this proposed service area that does not already have at least two competitors or competitive waste transfer stations servicing

that area?

A. There is at least two competitive waste transfer stations in this proposed service area.

Q. In fact, in some places it's up to six?

A. That's correct.

Q. Do you have an opinion -- Based on your experience as an engineer and your professional background, do you have an opinion with a reasonable degree of engineering certainty as to whether this waste transfer application meets Criterion 1?

A. It is my professional opinion that the proposed application does not meet the Criterion No. 1.

Q. Have you ever testified previously that a facility did not meet Criterion 1?

A. No.

Q. So every facility, every analysis you have done in the past was stated that particular facility met Criterion 1, correct?

A. Yes.

MR. LEUTKEHANS: Nothing further. Thank you.

HEARING OFFICER PRICE: We're going to go to PODER first and then to you, Mr. Mueller.

Any questions for this witness?

MS. ALCÁNTAR-GARCIA: No.

HEARING OFFICER PRICE: They do not.

So LRS.

09:23:21PM CROSS-EXAMINATION

BY MR. MUELLER:

Q. Mr. Lardner, are you familiar with the Moen Transfer Station?

A. Yes, I am.

Q. That is close to the Joliet Transfer Station?

A. Yes, it is.

Q. Are you aware that even though those two transfer stations are literally only a block

09:23:55PM or two apart, the Pollution Control Board and the Appellate Court affirmed the need for the Moen Transfer Station?

A. Based on the review of that application, there were extenuating circumstances there that did leave them to believe there was a need for that transfer station.

Q. What were those extenuating circumstances?

A. One was the competing transfer station, the Joliet Transfer Station, it was exceeding its design capacity and there was waste that was sitting outside the facility, so it was overcapacity. And there were trucks that couldn't get in on certain days because the transfer station exceeded its incoming capacity.

Q. What was the design capacity of the Joliet Transfer Station?

A. If I'm -- I'm not certain. I think it was 1,300 tons per day.

Q. What was the permitted capacity of that transfer station?

A. I think it was -- I think that is the permit -- 1,300 is the permit.

Q. Is that 1,300 designed or permit?
A. I think it's both.
Q. It happens to be the same number, right?
A. I think so.
Q. Now, Mr. Lardner, you have been working on a project in Bloomington, Illinois, haven't you?
A. Yes.
09:25:32PM Q. On that project, there is already a transfer station that services Bloomington?
A. That particular project is not gone to a siting application, so I don't know if I'm privy to provide my information about that.
Q. Do you know, Mr. Lardner, whether or not there is a transfer station that services Bloomington and McLean County?
A. Yes.
Q. And that's the Republic Services
09:26:09PM Transfer Station, right?
A. Yes.
Q. And it does an adequate job, doesn't

it?

A. As far as I know it does.

Q. Yet, you have written a report that opines that a competitive transfer station is necessary to serve the waste needs of the area that it's intended to serve, haven't you?

A. Again, I did a study. It's not in the public domain. You know, the reasons and analysis there -- The reason for the needs there
09:26:53PM were different circumstances than there are here. So, I mean, I can talk about that but it's not a public record, so ...

Q. So you did opine that a second transfer station was necessary there even though it was adequate capacity for the public?

MR. LEUTKEHANS: Objection as to the word "opine." There is no public statement. He may have a draft report but --

BY MR. MUELLER:

09:27:16PM Q. You did put in a draft report that a second transfer station was necessary, right?

A. The reason it was necessary --

Q. Yes or no, sir?
A. Yes.
Q. Thank you. Now, if you turn to page -- Oh. Before I go to that, how many times have you testified at a transfer station hearing?
A. I think for transfer stations, four.
Q. Pardon me?
A. Four.
09:27:50PM Q. In each case you were hired by the applicant, except in this case, right?
A. Correct.
Q. So in those cases you opined that the transfer station was necessary?
A. Yes.
Q. In this case, you were hired by someone other than the applicant?
A. Yes.
Q. Who hired you?
09:28:09PM A. Protect West Chicago.
Q. How much have you been paid?
A. I don't know. I haven't put my bill

together yet. I have been paid nothing so far.

Q. How much have you quoted as a price for your testimony?

A. I think around $15,000 maybe.

Q. And that includes a report?

A. That includes report and testimony.

Q. Do you know whether or not you're being paid by Waste Connections?

A. No.

09:28:40PM Q. You don't know?

A. Again, my client is Protect West Chicago.

Q. You haven't received any checks, have you?

A. Just one.

Q. Was that check from Waste Connections?

A. No.

Q. Now, if you put up Slide 7 of your PowerPoint.

09:29:29PM A. Okay.

Q. The bottom line is that the waste generated is 3,547 tons per year?

A. No. I think that's per day. That's a mistake.
Q. Which is it? Is it per day, per week, or per year?
A. It's per day.
Q. Then why did you write "per year" there?
A. Because that was a mistake.
Q. So that's a mistake?
09:29:57PM A. Correct.
Q. If you turn to your report, sir, which has been marked as PWC Exhibit 156.
A. Okay.
Q. It says Criteria 1?
A. Yes.
Q. How many criteria are you testifying about?
A. I'll be testifying on two, Criterion 1 and Criterion 8.
09:30:35PM Q. You're testifying on two criteria?
A. Correct. I used the plural here, instead of the singular.

Q. So this report should say Criteria 1 and 2?
A. No. Just Criterion 1.
Q. That's Criterion 1, sir?
A. That is correct?
Q. Is that a mistake?
A. Yes, it is.
Q. By the way, your report in McLean County, the one for Bloomington, opined that the
09:31:18PM reason a second transfer station was necessary was because of competitive and environmental factors, right?
A. Yes.
Q. Do you know what vertical integration is?
A. Yes, I do.
Q. Are there benefits to a waste company being vertically integrated?
A. I would agree, generally, there are
09:31:44PM benefits.
Q. I didn't hear you, sir.
A. Yes, I would agree that there are

benefits.

Q. In vertical integration a company has the ability to control its pricing from the curb to the transfer station to the landfill, correct?

A. Yes. If they own each of those facilities and are doing the hauling, then they do set the price.

Q. And for a vertically integrated company, the choke point is the transfer station, isn't it?

A. Presuming that you're not hauling directly to a landfill, then, yes, the transfer station would be that intermediary point.

Q. What is Falcon Green Resources?

A. They are general construction and demolition recycling facility.

Q. They don't have the ability to take municipal solid waste, do they?

A. No, they do not.

Q. Are you aware of an asset swap about five years ago between Republic Services and

Waste Connections?

A. Just vaguely aware of it. I did hear it in the previous presentation that there was an asset swap.

Q. What is the nature of that asset swap, if you recall?

A. I recall that Republic swapped assets -- I think it was west of I-355 -- and kept the rest as Waste Connections and vice versa.

09:33:43PM

Q. Now, despite that asset swap, it's your opinion that transfer stations east of 355 are still available to the service area?

A. I would think so. I don't know why they wouldn't be. They are open for business.

Q. Can you tell me the last time any waste from this service area went to a transfer station east of 355?

A. I am not aware of any.

09:34:22PM

Q. Now, if we go to your Slide No. 9.

A. Okay.

Q. You talk about service areas -- Maybe

10 is a better slide.

A. Okay.

Q. What is the -- What's the red circle?

A. The red circle is a service area that was prepared in the report for DuPage County looking at available transfer stations capacity in one of their solid waste plans in 2007, their update. That represents, I think, approximately a 15-mile radius.

09:35:16PM Q. Is that the service area that the transfer station designated for itself?

A. I am not aware of that.

Q. Is that a service area that a siting entity restricted the transfer station to?

A. No, not -- I don't think so.

Q. It's just a circle with a 15-mile radius, right?

A. Correct. It's the radius that would be within a reasonable driving distance for

09:35:56PM someone who has big enough waste to take it to in the center of it.

Q. Does reasonable driving distance also

consider road conditions and traffic volume?

A. I would say yes.

Q. But this service area, the red circle, didn't consider any of that, did it?

A. No.

Q. That's an arbitrary number, as far as you know, correct?

A. Yes. It's a representation of what the service area would be for a facility at that time.

09:36:37PM

Q. What are you using as the DuKane Transfer Station's service area?

A. Again, that was a service area that was presented in the 2007 report for DuPage County that looked at available capacity available to DuPage County.

Q. Presented by whom, Mr. Lardner?

A. It was a 2007 report prepared by Shaw Environmental for DuPage County.

09:37:05PM

Q. Prepared by Shaw for DuPage County?

A. Yes. It's in their Solid Waste Management Plan.

Q. What did you use as a service area for the Moen Transfer Station?
A. I used their siting application.
Q. What did you use as a service area for the Bluff City Transfer Station?
A. Again, I used the 2007 Shaw Environmental report prepared for DuPage County, and the 2007 Solid Waste Management Plan update.
Q. Do you have that report with the you today, sir?
09:37:44PM
A. No, I do not.
Q. Are you aware that Bluff City isn't even in DuPage County?
A. I'm sorry. It's in -- It's in Cook County.
Q. Where did you get your values from for the Bluff City service area?
A. Again, that was presented in the DuPage report they showed the service area in --
09:38:09PM
excuse me -- of the Bluff City Transfer Station.
Q. Do you know what criteria were used in the single report where you got your service

areas from?

A. No.

Q. Have you tried to independently verify that those service areas are reasonable?

A. No.

Q. Isn't it true that an effective or reasonable service area depends on factors other than a circle with the radius?

A. Yes. Consider -- I talked about --

09:38:48PM That circle would overlap with other transfer stations. It's their service areas, too.

Q. It's your opinion, sir, that if you have overlapping circles, then there's no need for an additional transfer station; is that right?

A. I'd just say if there's enough overlapping areas of transfer stations, there would not be a need for another transfer station as long as the capacity in those transfer

09:39:13PM stations was sufficient.

Q. And that's your opinion, regardless of whether there are competitive factors that would

make a transfer station realistically unavailable?

A. I'm not aware of the competitive factors. This is how I would typically prepare a needs assessment report.

Q. Let's talk about competitive. Is price is competitive variable?

A. Generally speaking, I would say yes.

Q. So if one transfer station has a price
09:39:52PM that is significantly higher than another transfer station, are they both equally available to a customer?

A. I don't think there's anything that prevents somebody from using a transfer station, no.

Q. If you want to pay $100 a ton, then you can do it and they are all available, right?

A. If you pay the price at the gate, whatever, you know, a person charges, then you
09:40:20PM should be able to use that service.

Q. Is road mileage a variable in realistic access to transfer stations?

A. Generally speaking, a hauler would try to take the shortest route to a transfer station, yes.

Q. So if one transfer station is 30 miles away from a point and another is 10 miles away from a point, are they both equally accessible to that point?

A. I think -- Yeah. Either one. You can go to either one, yes, they are both accessible.

09:40:57PM Q. They are both equally accessible?

A. I mean, they are accessible. To say they are equal, you know, I don't know what route they are going, I don't know what kind of traffic they are going to encounter, no.

Q. In your report and your analysis did not consider variables such as price or mileage to the different transfer stations, did it?

A. No.

Q. Your report did not consider

09:41:28PM environmental factors such as emissions, did it?

A. No.

Q. Once again, your report did not

consider the impact of the Republic asset swap with Waste Connections?

A. In what regard?

Q. In regard to whether or not transfer stations within the circle that you have arbitrarily drawn are equally available to a service area?

A. No.

Q. No, I'm wrong? Or you did not consider it?

09:42:27PM

A. I did not consider it. I didn't know if there was an agreement that would preclude it.

Q. Do you have any idea why Will County's recycling rate is almost 50 percent higher than DuPage County's recycling rate?

A. No. I'd have to look -- I have read through their Solid Waste Management Plan. And I do know that -- It does seem higher than others but, again, it's -- you know, solid waste -- there's data that compares that information.

09:43:08PM

Q. You didn't do any independent work to try to figure out the difference?

A. No.

Q. You're aware that Mr. Hock, in his testimony, admitted that if you looked at pure capacity without regard to factors such as pricing and environmental impact and benefits, that there is, in fact, excess capacity in this service area?

09:44:06PM A. I did see he reported excess capacity in the service area, yes.

Q. And your conclusion is as simple as if there is excess capacity and there are multiple transfer stations that you could take garbage to, then there's no need for an additional transfer station?

A. No. I think the question was: Is there waste that's generated in a service area not being handled by transfer stations in the

09:44:38PM service area? Some of that waste could be coming from the general construction and demolition facility and some of that might be

coming -- going out to the transfer stations that are directly adjacent to the service area. So they're not exactly in the service area but very close.

Q. Now the Elk Grove transfer station, how did you generate their service area?

A. Again, I just used a ten-mile radius.

Q. Is there a learned report or treatise that says a ten-mile radius is an appropriate number?

09:45:19PM

A. It's just a general rule of thumb.

Q. Your rule of thumb, right?

A. That, and I've read other publications and it was alluded to the in the 2007 Shaw Environmental report.

Q. Give me the name of another publication that it was alluded to?

A. I can't give you one right off the top of my head.

09:45:40PM

Q. Is the Melrose Transfer Station one with a ten-mile service area?

A. Yes.

Q. Again, that's your rule of thumb, right?
A. Correct.
Q. Who else uses your rule of thumb?
A. I just think it's generally when people are looking at what's a distance between a transfer station versus other options, that ten miles is the distance and time-wise and to look at -- if it's longer than that, you might look at an alternative.
09:46:19PM
Q. How many transfer stations are located within ten miles of the center of this proposed service area?
A. I don't know the answer to that.
Q. Wasn't that part of your assignment, to analyze things like that?
A. I was looking at the service area overlaps.
Q. Now, with regard to the transfer stations that you say overlap this one --
09:47:36PM
A. Correct.
Q. -- how many of those are owned by

Waste Connections?

A. I think I have two there. I guess, three if you count --

Q. Is it three or is it four?

A. I'm referring to my Figure 8. It's three.

Q. How many are owned by Waste Management?

A. Four.

09:48:56PM Q. So you said between two and six transfer stations overlap the service area?

A. Correct.

Q. They are all owned by Waste Management or Waste Connections, other than the Republic station east of 355, right?

A. There's one down in Will County.

Q. Oh, the Moen Transfer Station?

A. Right.

09:49:28PM Q. How far is the Moen Transfer Station, sir, from the southern edge of this service area?

A. Looks to be -- Say, about maybe,

approximately, eight to ten miles.

Q. You don't know the exact number, do you?

A. No.

Q. Have you ever driven from West Chicago to Rockdale?

A. No.

Q. Would it surprise you to know that that's about an hour drive by car?

09:50:11PM A. Again, I have not driven it, so I don't know.

Q. So you're saying a transfer station south of Interstate 80 is reasonably available to this service area?

A. To the southern part. Not to all of it, no.

Q. Other than that, all of the other transfer stations that are available are owned by the two big companies Waste Connections and

09:50:45PM Waste Management, right?

A. Well, there's --

MR. LEUTKEHANS: Objection; form. I'm

not sure -- I don't know what that is. We already talked about these two.

HEARING OFFICER PRICE: Overruled.

Go ahead and answer.

BY THE WITNESS:

A. Well, in Slide 8 there -- It's not up there. But there's -- Overlapping the service area there's two other transfer stations. One is owned by Lakeshore and the other one is owned by EDRS.

09:51:16PM

Q. One owned by who?

A. Is it EDRS?

Q. EDRS?

A. ERDS.

Q. That's the Moen Transfer Station, isn't it, sir?

A. Yeah. Okay.

Q. And Falcon doesn't do municipal solid waste, right?

09:51:40PM

A. No, they do not.

Q. Pardon me?

A. No, they do not.

Q. Do you also dispute that there's a need for this transfer station's ability to dispose -- or to transfer hydro-excavation waste?

A. I don't dispute that, no.

MR. MUELLER: Mr. Lardner, that's all I have. Thank you.

THE WITNESS: Okay.

HEARING OFFICER PRICE: Mr. Callaghan, 09:52:32PM I've got -- I want to know how much time you think you're going to need.

MR. CALLAGHAN: I'll finish before 10:00.

HEARING OFFICER PRICE: I have one public comment person I have to get in tonight. If you think you can be done by 10:00 -- He's coming back for Criterion 8, right? So we'll do redirect tomorrow. So, Mr. Callaghan, go ahead. And 09:52:59PM Ms. Boza please be ready to go as soon as Mr. Callaghan is done.

CROSS-EXAMINATION

BY MR. CALLAGHAN:

Q. I just want to understand, going to Slide 8, these service areas were -- most of them came from a DuPage County report?

A. Yes, with a few exceptions; one for the Plano Transfer Station and the other one for the Moen Transfer Station.

Q. So you don't -- You don't actually know whether or not these are service areas that are actually served by these transfer stations?

09:53:33PM

A. I don't have direct knowledge of that, no.

Q. Now, you -- I think, on your resume, it says that you were the consultant who prepared the needs analysis for the Plano Transfer Station?

A. Correct.

Q. So I look at the Plano service area, which is quite large, probably -- maybe other than Moen, it looks like the largest service area up there. Where did you get that service

09:54:05PM

area from? Did you create that service area?

A. No. That was provided to me by the -- my client.

Q. So the applicant chose that. And I guess by the logic of your testimony, a good portion of that service area is not valid because there are all these other transfer stations that could serve it?

A. In essence, their service -- Yeah, there was -- There is overlap, right.

09:54:41PM

Q. But, nevertheless, you testified in favor of that service area?

A. There was a slight need there. Not so much in the present but a lot of the need occurred going into the future because it was a very fast growing area.

Q. Has it been a fast growing area recently?

A. I'm not aware. We looked at 20 years.

09:55:09PM

Q. We were talking about vertical integration, which is hauling, transfer, and landfill?

A. Correct.

Q. If you have a choice, if you can haul directly to a landfill, that's the best approach because you save the middle step, correct?

A. Correct. Historically for, especially like in DuPage County, you had the luxury to two publicly-owned landfills going back to the 1990s, so there was no need for a transfer station. And as those two landfills closed, then there was a need for a transfer station somewhere in DuPage County and that transfer station ended up being in West Chicago.

09:55:44PM

Q. So for a county of a million people, I think you said --

A. Right.

Q. -- you believe one transfer station is sufficient?

A. Depending how large it is and how accessible it is.

09:56:10PM

Q. You mean for a second one?

A. It could be, yes.

Q. Going back to Plano service area, just

north of the service area is a landfill?

A. Correct.

Q. So why would the north part of the Plano service area be necessary if there's a landfill there? After what you just said, it's more economical to haul directly to a landfill?

A. I think at the time it was their existing clients, and when they haul, they were going to do some separation of recyclables. So in that area they had clients there who they were going to bring that material to the transfer station for recycling reasons.

09:56:45PM

Q. So there are various considerations for selecting service areas, such as your clients -- convenience for your clients, correct?

A. In this case, it was the distance. If you looked at where Plano is located to the next furthest transfer station, there's mostly distance.

09:57:23PM

Q. But, again, the landfill is much closer to the north part of the service area

than the transfer station, correct?

A. Right. You have to look at the haul distance.

Q. By the way, the Plano Transfer Station is the last of the transfer stations up there on Page 8 that has been sited, correct?

A. As far as I know.

Q. So it wasn't as though it was there first and the others came along?

09:58:14PM A. No.

Q. That was the last --

A. That was the last one, correct.

Q. So it seems to me you were doing exactly -- making exactly the same determination that LRS is here, that it was a convenient, economical choice for customers of the waste company to put a transfer station in?

A. A lot of it came down to, again, the population and the growth of the area. Again,

09:58:45PM the actual transfer capacity, as I recall, was fairly close to existing, but when you looked at future, there was a need.

Q. Now, if your only choices for transfer stations are considerably more expensive, if you're a hauler and you have a landfill and your only choices for a transfer station are considerably more expensive than if you built your own within the service area, are you saying that's not a consideration for a company?

A. I always look at these as what's available to serve the amount of waste that's being generated? Where does it go? Price, obviously, affects the hauler. But you have to look at waste transfer stations, where can they go?

09:59:33PM

Q. Sure. Yeah. And this location happens to be a site that's been selected by a waste company.

MR. LEUTKEHANS: Objection. Is that a question or are we arguing now?

HEARING OFFICER PRICE: Overruled.

09:59:57PM

BY THE WITNESS:

A. What was the question?

Q. Let me just ask this question: You

have a bunch of transfer stations shown on Slide 8?

A. Correct.

Q. Is it your testimony that most of them are not necessary?

A. They have been -- Again, I wasn't through their siting process to determine, you know, what the need was. Certainly there is excess capacity for these transfer stations.

10:00:31PM Their capacity is more than what's -- at least in this service area what gets generated.

Q. So is your answer, yes, most of them are not necessary?

A. Not that it's -- No, I think they are necessary.

Q. Notwithstanding the surplus capacity?

A. Again, I don't know that the circumstances around, you know, when they projected their capacity and their service area.

10:01:02PM Obviously, it looks to be there is some excess capacity out there just because -- especially for this service area. If you looked at how

much waste is generated and how much gets recycled and what is left over, the abundant capacity exceeds that what is needed.

MR. CALLAGHAN: Nothing else. Thanks.

HEARING OFFICER PRICE: Thank you, Mr. Callaghan.

Mr. Walsh, nothing?

That's going to conclude for this evening but for the public comment from Ms. Boza. The redirect will pick up on Thursday, again, in the cafeteria at Entrance H, as in hotel.

10:01:36PM

With that, Ms. Boza, would you give your public comment. Again, for everybody this is -- Ms. Boza is giving public comment. It's not subject to cross. Please give it the appropriate weight.

Okay. Go ahead.

MS. BOZA: Good evening, everyone. I'm Jenn Boza. I have been employed with LRS since 2013, and since 2019 I have serviced across West Chicago. Our environment in the West Chicago

10:02:03PM

facility is fast paced where we work hard and provide services to the DuPage County residents every day. We get in before sunrise and ensure all of our operations are performed safely and seamlessly --

MR. LEUTKEHANS: I'm sorry to interrupt. I don't think -- I'm having a hard time hearing, and I think so is the court reporter.

10:02:29PM HEARING OFFICER PRICE: Can you move closer to the microphone?

MS. BOZA: Sure. Our environment in the West Chicago facility is fast paced where we work hard and provide services to the DuPage County residents every day. We get in before sunrise and ensure all of our operations are performed safely and seamlessly to the community's residents.

Incredibly, I have seen generations 10:02:50PM of families work at our facility over the years with the ultimate reward of being able to send their kids to college. I hope that I get to

work here in West Chicago for many more years to come and I'm grateful for the incredible career and opportunities I have had at LRS.

I urge city council to vote yes for LRS as I want to see jobs, careers, and opportunities made alike here in West Chicago. Thank you.

HEARING OFFICER PRICE: Thank you. So that concludes for this evening. Again, to pick up Thursday at the West Chicago High School. We will pick it up there at 6:00 o'clock.

10:03:22PM

Mr. Leutkehans has the floor.

Thank you, all, and good night.

(WHEREUPON, the above-entitled cause was continued to January 12, 2023 at 6:00 p.m.)

STATE OF ILLINOIS)
) ss:
COUNTY OF DU PAGE)

I, KRISTI LANDOLINA, Certified Shorthand Reporter, Notary Public in and for the County DuPage, State of Illinois, do hereby certify that previous to the commencement of the examination and testimony of the various witnesses herein, they were duly sworn by me to testify the truth in relation to the matters pertaining hereto; that the testimony given by said witnesses was reduced to writing by means of shorthand and thereafter transcribed into typewritten form; and that the foregoing is a true, correct and complete transcript of my shorthand notes so taken aforesaid.

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my electronic signature this 23rd day of January, A.D. 2023.

/s/ Kristi Landolina
KRISTI LANDOLINA
C.S.R. No. 84-4611
Notary Public, DuPage County

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BEFORE THE CITY COUNCIL OF THE CITY OF WEST CHICAGO SITTING AS A POLLUTION CONTROL SITING AUTHORITY

In the Matter of:	)
	)
APPLICATION FOR LOCAL SITING	)
APPROVAL FOR LAKESHORE	)
RECYCLING RECYCLING SYSTEMS,	)
LLC, FOR THE WEST DUPAGE	)
RECYCLING AND TRANSFER	)
STATION, 1655 POWIS ROAD,	)
WEST CHICAGO.	)

REPORT OF PROCEEDINGS had and testimony taken at the hearing of the above-entitled matter, at 326 Joliet Street, West Chicago, Illinois, on the 12th day of January, A.D. 2023, at the hour of 6:00 p.m.

PRESENT:

MR. DERKE PRICE, Hearing Officer;

MR. DENNIS WALSH, City Council Attorney;

MR. PHILLIP A. LUETKEHANS, Attorney for Protect West Chicago;

MR. RICARDO MEZA, Attorney for Protect West Chicago;

MR. GERALD CALLAGHAN, Attorney for city staff;

MR. STEVE DeLaROSA, Representative for People Opposing DuPage Environmental Racism (PODER);

MR. GEORGE MUELLER, Attorney for Lakeshore Recycling Systems, LLC.

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HEARING OFFICER PRICE: So this is the continuation of the public hearing on the proposed transfer station. This evening we don't quite have the technology we had at the --

You may have a seat, Mr. Lardner. It will take a minute.

We don't quite have the technology we had at the Academy. We don't have a PowerPoint, for example, to display, and

05:59:05PM we're -- have "A" microphone, which I will shortly hand to the witness, Mr. Lardner, who is in the middle of his testimony on Criterion 1.

But as a result, so that everybody is aware of what's going on, we've moved the court reporter over here so that she can hear Mr. Mueller's questions and the questions from the attorneys and the witnesses a little better, particularly since don't have microphones, only the witness will have them.

05:59:31PM I also have been informed that there are several people who wish to give public comment who are unavailable next week when we're

working on Monday and Thursday during the day. Given the limited technology, I'm going to not only take care of those ten people, but anybody else who has signed up to give oral public comment, if you wish to go tonight, we'll do that.

We'll use Mr. Lardner's time effectively, complete Criterion 1. He's proposed to testify on Criterion 8 and we'll get
06:00:00PM that done, then we'll do some public comment to the extent we have it, and then we'll go back to working on the testimony. So that's the game plan for this evening.

One last thing to remind everybody about, again, the City Council includes the mayor, are acting in the capacity of a jury. And while you are used to having them available and accessible to you on all sorts of things of import in West Chicago, wherever you meet them,
06:00:30PM whether it's at city hall, at meetings like this, at -- at places of worship, in the grocery store, again, I need to remind everybody, they

cannot talk to you about this. They're acting as a jury.

The statute says that it's fundamentally unfair for people to lobby them and to do the kinds of pro se interactions that would take place during the hearing. So we need to respect that process. You can put in your public comment through writing. There's -- You can do it now or 30 days after we close the
06:01:04PM hearing. You can put in everything you want in the written public comment time period, but what you can't do is attempt to interact with them on an interpersonal basis right now.

All right. With that being said, we are back to Mr. Lardner. We are on redirect.

Mr. Luetkehans, I will turn the floor over to you. I will ask that you project for the benefit of everybody, and I'm going to give the microphone to Mr. Lardner.

06:01:25PM MR. LUETKEHANS: One -- One second, Mr. Hearing Officer. Before -- I just want the schedule -- We have a -- our appraiser in from

out of state, so we are going to kind of break up Mr. Lardner and go to the appraiser, and then if you want to go to public comment, but --

HEARING OFFICER PRICE: That's fine.

MR. LUETKEHANS: -- we're -- I just didn't want anybody to think I was sandbagging.

THE WITNESS: Thank you.

MR. LUETKEHANS: You know what? I'm going to stand just because it's easier for me

06:02:15PM to be a little louder that way.

HEARING OFFICER PRICE: Anything to help everybody here.

MR. LUETKEHANS: And if you -- someone can't, please, yell, scream, whatever.

WHEREUPON:

JOHN LARDNER,

called as a witness herein, having been previously duly sworn, was examined and testified as follows:

REDIRECT EXAMINATION

BY MR. LUETKEHANS:

Q. Mr. Mueller asked you certain

questions Tuesday night about your position related to a possible waste transfer station in McLean County.

Do you recall that?

A. Yes.

Q. Can you tell us who you worked for in that assignment?

A. That assignment was for a company called Andrews Engineering.

06:02:37PM Q. Have you done a report there?

A. I prepared a preliminary report that they're going to use for preparing a Criterion 1 section for a transfer station siting.

Q. Why is it still preliminary?

A. The application has not been filed as far as I know, and I don't know if they've made any changes to it beforehand.

Q. Can you explain the purpose of that

06:02:58PM report and your preliminary findings?

A. Yes. The report was to prepare an analysis of a municipal solid waste transfer

station for a new transfer siting application so that the company would able to be -- to bid on a municipal hauling contract in Bloomington-Normal, Illinois.

The bid contract requirements included demonstration that the bidder have a waste transfer station within the city limits of Bloomington or the town of Normal, and that there was only one transfer station operated by
06:03:30PM Republic Waste in the service area. And it did not have a capacity associated with it due to its age and it never went through the Section 39.2 siting hearing process. So we didn't know what the capacity of that transfer station was.

And, again, in order to submit a bid for municipal hauling in the service area -- excuse me -- in the limits of Bloomington and Normal, which comprise most of the service area, they needed to have a transfer station.

06:04:02PM Q. Okay. Was there any competition in that county with Republic?

A. There is no -- There was competition

within the county. There is no competition for waste hauling in the city limits of Bloomington-Normal because of the qualification that the -- the bidders have a transfer station in the city limits.

Q. Okay. This is going to be a little hard for the public, but the rest of us have these slides.

In your Power Point, Mr. Mueller pointed out a typo on Slide 7 of your Power Point. Do you recall that?

06:04:30PM

A. Yes.

Q. The slide, for example, said that, quote, waste generated for disposal in WDRTS service area is 2,997 tons per year.

Is that a correct statement?

A. Yes.

Q. But then at the -- So that's what the slide said?

06:04:51PM

A. Correct.

Q. Okay. And then it discussed the six-day workweek tonnage is 3,574 tons per day

or per year again.

Do you recall that slide saying that?

A. Yes.

Q. You said Tuesday that the -- that was a typo. It should have been days versus years, correct?

A. Correct.

Q. Okay. Obviously, there are not only 3- -- they're not 3,000 tons per year of waste generated in DuPage County alone?

06:05:12PM

A. That is correct.

Q. Okay. Did that typo change your opinion or calculation in any way?

A. No.

Q. In fact, please look at Slide 18.

Are you there?

A. Yes.

Q. Does that slide discuss capacity per day or per year?

06:05:47PM

A. Per day.

Q. And is that actual calculation you

did -- Is that the actual calculation you did about the amount of capacity in the service area?

A. Yes. It corresponds to the amount of waste per day in the West DuPage RTS facility criterion report.

Q. Okay. And going to the next slide which is 19, is this the summation of your calculations on the excess capacity?

06:06:14PM A. Yes.

Q. And does this show the capacity in tons per day or per year?

A. Per day.

Q. Okay. And does this slide carry forward the same numbers from Slide No. 7 just -- it shows that it's days but it's the same numbers, correct?

A. Yes.

Q. Okay. You said Tuesday night there

06:06:35PM are benefits to vertical integration.

Do you recall that?

A. Yes.

Q. Who are those benefits to?
A. Primarily to the waste company.
Q. Not the needs of the service area?
A. No, not as there is already so much competition in the service area.
Q. Okay. Another thing you were asked about the other night was Republic swap, I think, is what it was called as it related to east and west of I-53.
06:06:59PM I think you said you were aware of some agreement in relation to that. Do you recall that statement?
A. Yes.
Q. Was that something you were aware of before Mr. Hocks's testimony or were you just saying you heard that from his testimony?
A. When it was mentioned, I recalled hearing about the swap.
Q. Okay. Also, you said you were not
06:07:14PM aware of DuPage waste going east.
Do you recall saying that?
A. Yes.

Q. Okay. Were you saying that you knew no waste was going east from this area?

MR. MUELLER: Object, he's leading him.

HEARING OFFICER PRICE: It's redirect. It's cleaning up what you asked him about. I'm going to overrule it.

BY THE WITNESS:

A. No. I was saying I did not know for sure one way or the other.

06:07:33PM Q. You were asked about the Shaw service areas that were used in -- I think it was the 2007 DuPage County Storm Water Management Plan Update.

Do you recall that?

A. It was a solid waste management update, and yes.

Q. Sorry.

And who was Shaw?

06:07:51PM A. Shaw was an environmental consulting firm specializing in waste recycling and disposal in the Chicago area.

Q. Okay. So they specialized in this

area?

A. Correct.

Q. And do you know if there's a connection between Shaw from 2007 and APTIM today?

A. Yes, there is.

Q. What's that connection?

A. The lead engineer there is an individual by the name Devin Moose.

06:08:11PM Q. Okay. So in certain circumstances, the fact it came up the other day that Shaw used a 15-mile circle and a 10-mile circuit [sic], it appears?

A. That's correct.

Q. Shaw obviously felt comfortable enough in this analysis to include that in their study they did for DuPage County; is that correct?

MR. MUELLER: I'm going to object to how Shaw felt. He wouldn't know.

06:08:31PM HEARING OFFICER PRICE: Sustained.

BY MR. MUELLER:

Q. Shaw included that number in its

study, correct?

A. Correct.

Q. And you said you reviewed the Hock report, correct?

A. Yes.

Q. Does Mr. Hock, in his needs analysis, also denote all the transfer stations in a 15-mile radius of the LRS proposed service area?

A. Yes. Page 1-10 mentions Figure 1-1 showing existing municipal solid waste transfer stations within an approximately 15-mile distance from the service area. And also, again, in their application, it included the 1996 update from the -- the solid waste plan.

06:08:54PM

And I'll read that: Due to the increase in the number of landfills and increase of haul distances, transfer stations will become an even greater integral part of the management of solid waste for DuPage County. The location of transfer stations at selected sites throughout the County will serve the management

06:09:20PM

of solid waste generated within the County and further assist in keeping down costs associated with long distance hauling of the waste. Industry standards for a packer truck haul distance to a disposal facility is approximately 15 miles.

Q. So both Hock and Shaw used the 15-mile radius, correct?

A. That's correct.

06:09:45PM Q. Okay. You were asked Tuesday night about some kind of predatory pricing scheme to keep LRS out of waste -- out of the area; is that correct?

A. Yes.

Q. Did you see any hard numbers in Mr. Hock's report to support that conclusory statement?

A. No, I did not.

06:10:04PM Q. You were also asked about whether you did any analysis on mileage or pricing to determine competition in the service area.

Do you recall that?

A. Yes, I recall it.
Q. To your knowledge, did Mr. Hock -- And you were here for Mr. Hock's testimony, correct?
A. Yes.
Q. You've read his reports, correct?
A. Yes.
Q. Did -- To your knowledge, did he do any such analysis of this type in his report or his testimony?
06:10:23PM A. No.
Q. Did he do anything other than make the conclusory statement related to this issue?
A. No.
Q. Were you asked about the distance by car between Rockdale and West Chicago Tuesday night?
A. Yes.
Q. And I think you said it would be about an hour away?
06:10:38PM A. That's correct.
Q. Is the LRS Elburn transfer station an hour away from West Chicago?

A. No. It's approximately 30 minutes.
Q. Is Rockdale an hour away from the southern portion of the service area proposed?
A. From the southern portion of the service area, it's approximately 25 minutes.
Q. Okay. Another topic that came up Tuesday was the fact that a minority of the overlapping service areas of transfer stations -- I'm sorry. Let me reread that.
06:11:04PM Another topic that came up on Tuesday was the fact that a majority of the overlapping service areas of transfer stations with the service area were owned by Waste Management and Waste Connections.
Do you remember that discussion?
A. Yes.
Q. Did you see any evidence in Mr. Hock's report that support the fact that Waste Management and Waste Connections are in any way
06:11:23PM colluding to keep LRS or any other hauler out of the market?
A. No.

Q. In fact, did you hear Mr. Hock deny that he was aware of any such collusion? Do you recall that?

A. Yes.

Q. Okay. Based on your experience in the industry, are you aware of anything along those lines, any kind of collusion to keep LRS out of the market?

A. No.

06:11:46PM Q. How many transfer stations overlap with the proposed service area that are not owned by Waste Management or Waste Connections?

A. There are three identified -- Lake Shore Recycling, Republic, and EDRS.

Q. There were questions asked the other night about the Plano transfer station as well as others about there being excess capacity.

Do you recall that?

A. Yes.

06:12:12PM Q. And then the question became, why would -- the concept was why would they be necessary?

A. Because of substantial growth anticipated in Kendall County at the time, when the transfer station was sited, it was still somewhat rural. And in the 2010 census, it was among the fastest growing counties in the nation.

Q. And did you prepare that analysis based on the traditional needs analysis you did here?

06:12:39PM A. Yes.

Q. Okay. And what was the determination there?

A. That based on future population growth in the following 20 years, there was a need for waste transfer in the service area.

Q. You heard -- Mr. Callaghan asked you about why is there ever a need if the service area is -- why is there need if the service areas overlap, and there's excess capacity in

06:13:02PM those outside service area -- outside waste transfer stations.

Do you remember that?

A. Yeah. The growth of the area outside of the service area may generate waste for disposal that exceeds the proportional capacity available at the overlapping -- overlapping transfer stations.

In this case, the area that was outside the overlap was -- was anticipated to grow faster and created the need for the transfer station.

06:13:26PM Q. And so that's Plano you're talking about there?

A. Yes.

Q. Any others that you see on the chart that -- Well, I guess the question in my mind is: Just because there's excess capacity in this service area and its transfer station is based outside the service area, does that mean we don't need the one -- I mean, I guess I'm -- I was kind of confused by Mr. Callaghan's

06:13:53PM question because -- Well, let me ask this. I'm Sorry.

MR. MUELLER: I'm going to --

HEARING OFFICER PRICE: Is there a question?

MR. LUETKEHANS: I said, Let me ask the question.

HEARING OFFICER PRICE: Strike all of that before that, please.

New question.

BY MR. LUETKEHANS:

Q. The transfer stations -- Well, here, one of the things that came up correct was that there is excess capacity in the service area, correct?

A. Yes.

Q. And that -- that is partially because or a lot because that there are transfer stations outside of the service areas that overlap --

A. Correct.

Q. -- correct?

And those transfer stations capacity may include a part of the service area, but they also include areas that are well

outside the service area; is that fair to say?

A. Correct.

Q. Okay. So when you look at their total capacity, only a certain part of it may be based in the service area?

A. Correct.

Q. Okay. Do any of the points raised by Mr. Mueller or Mr. Callaghan modify or make you doubt your analysis and the opinions that you have provided in this hearing?

06:14:54PM

A. No.

MR. LUETKEHANS: Nothing further. Thank you.

HEARING OFFICER PRICE: Next up would be PODER. Are there any questions from PODER?

MR. DELAROSA: No, not at this time.

HEARING OFFICER PRICE: Then to the applicant, Mr. Mueller.

RECROSS-EXAMINATION

06:15:07PM

BY MR. MUELLER:

Q. Now, you've done a needs analysis for some other transfer stations in the Chicago

area, correct?

A. Correct.

Q. Which ones are those?

A. There's one transfer station -- I think it was on Kedzie Avenue -- and there's another one, I think, down in Riverdale, and then, of course, the one in Plano.

Q. You did -- Did you do the needs analysis at Plano?

06:15:51PM A. Yes.

Q. And with regard to those facilities, did you do an overlap analysis?

A. Yes.

Q. How many transfer stations overlapped the Plano service area?

A. I don't know the exact number of that. I don't recall.

Q. Well, was it more than one?

A. I think it may have been more than

06:16:17PM one.

Q. Less than a million?

A. Less than a million.

Q. Okay. More than five?
A. I don't know if it's more than five. It's somewhere between one and five.
Q. And in that case, you found there was still a need, correct?
A. Correct.
Q. The -- Which were the Chicago ones that you did?
A. One was down on Kedzie Avenue and one
06:16:41PM was down in, I think, River- -- somewhere in another location in Chicago.
Q. Did you do an overlap analysis for the one on Kedzie?
A. As I recall, I did.
Q. How many other transfer stations overlapped that service area?
A. Again, I don't recall that exact number.
Q. Was that one more than five?
06:17:02PM A. Yes.
Q. And you still found there was a need, correct?

A. Correct.
Q. And the other one was Riverdale?
A. As I recall, yes.
Q. Where is that?
A. That was a -- It's a -- borders Chicago on the south side.
Q. Did you do an overlap analysis?
A. As I recall, I think I did.
Q. You think you did?
06:17:27PM A. Yeah. Again, I don't have the application. It's been several years, and I don't recall the exact details.
Q. And you believe there was some overlap?
A. I'm sure there would be.
Q. Did you find there was a need despite the overlap?
A. I'm -- Again, I don't recall the exact details, but I think it did meet the need
06:17:49PM criteria, so ...
Q. Now, you relied on a 2007 report from Shaw to determine the 15-mile service area

radius, correct?

A. I relied on the figures that were in the solid waste plan that were part of their study.

Q. Do you know whether Shaw did a study?

A. It was reported in the solid waste plan that they did a study.

Q. Who did it for Shaw?

A. I don't know. It didn't say who the author was.

Q. Your corporation, what's that called?

A. JPL Environmental Engineering.

Q. Is there a reason why it's not in good standing with --

MR. LUETKEHANS: Objection --

BY MR. MUELLER:

Q. -- the Secretary of State?

MR. LUETKEHANS: -- beyond the scope. This has nothing to do with redirect.

HEARING OFFICER PRICE: It does have to do with his qualifications. You asked him about his history and background. I'm going to allow

it.

BY THE WITNESS:

A. My -- I submitted an annual report last week, and it was due December 31st of this [sic] year. And so it's considered not in good standing because it hadn't been paid by the 31st.

Q. As of today, the Secretary of State still shows you not in good standing, correct?

06:19:15PM A. I did not check that. I don't know when the check was received along with my -- my statement.

MR. MUELLER: Thank you, Mr. Lardner. That's all we have.

HEARING OFFICER PRICE: Mr. Callahan?

MR. CALLAGHAN: Yeah, just a couple.

RECROSS-EXAMINATION

BY MR. CALLAGHAN:

Q. The McLean County transfer station, you said the bid that was made required that the

06:19:36PM app- -- or that the bidder had to have a transfer station?

A. Correct. It had to have a transfer station in Bloomington-Normal -- the city of Bloomington-Normal or the City of Bloomington or the Town of Normal.

Q. So the -- the need for the transfer station there didn't necessarily have anything to do with capacity available in that area?

A. Well, the -- the issue there was the transfer station that was in the City of
06:20:10PM Bloomington was put into operation before Section 39.2.

So when they submitted their permit application to the State of Illinois, they didn't report capacity. So we don't know what the capacity of the transfer station happened to be, so we couldn't compare what waste was being generated versus what the existing capacity was.

Q. What volume does that other transfer station report receiving on an average day?

06:20:42PM A. Again, I didn't -- I don't recall what that was --

Q. Did you --

A. -- if we had it.
Q. Did you look at that?
A. As I recall, we did, but I don't know the exact number.
Q. Okay. But -- So the reason the transfer station was proposed was because it was a bidding requirement?
A. Yes.
Q. Mr. Luetkehans asked you some
06:21:05PM questions early on and it looked like you were reading your answers?
A. I was just kind of looking at --
HEARING OFFICER PRICE: Microphone, please.
BY THE WITNESS:
A. I was looking at my notes from what we discussed today.
Q. So you were reading your answers?
A. I was paraphrasing them, yes.
06:21:23PM Q. When was the Plano transfer station sited?
A. I think it was 2014.

Q. Do you -- Are you aware -- So in that -- Strike that.

In the Plano area, you've got Yorkville, Sugar Grove, I believe. Those are the municipalities that you were anticipating to grow?

A. Yes. Again, I used the -- the Chicago metropolitan area planning CMAP population tables to -- to project what the next -- you know, in the coming future, what the population was going to be which then drove the amount of waste that would be generated.

Q. What were the dates -- What was the date of those projections?

A. It was their report that says go to -- I think it was 2040 or 2050 report. And I don't know when the exact date it was, but it was fairly current, after the 2010 census was prepared.

Q. Are you aware of what's happened with regard to population projections in that area since around 2007?

A. No. Again, the 2010 census showed a big population increase from the earlier census data.

Q. Do you know how many platted undeveloped lots are Yorkville?

A. No.

Q. Sugar Grove?

A. No.

Q. Is it fair to say if -- You apparently know something about this area. Is it fair to say that the growth in that area, basically for all intents and purposes, is considerably lower than was projected prior to the housing crash of '07?

06:23:06PM

A. I will say that it would be a reasonable statement to say that the growth may not have been as high as anticipated, but I live out that area and I drive by it, and I do see development going on.

06:23:37PM

In 2010, you know, right before the siting area, I did -- I did see some growth going on. Whether or not that total growth

measured up to what the expectations were, I don't know. I didn't, you know, look afterwards to look.

Q. But that was the basis for your needs analysis for that transfer station?

A. Again, yes, we used the best population data we had times the waste projection -- our waste generation amount to determine whether or not there would be a need in the future.

06:24:11PM

Q. And the siting was 2014?

A. Correct.

MR. CALLAGHAN: That's it.

Thank you.

HEARING OFFICER PRICE: Mr. Walsh...

MR. WALSH: No questions.

HEARING OFFICER PRICE: All right. Thank you, Mr. Lardner. That concludes your testimony for Criterion No. 1.

06:24:30PM

(Witness excused.)

HEARING OFFICER PRICE: Mr. Luetkehans?

MR. LUETKEHANS: Yeah. We would call

Kurt Kielisch.

HEARING OFFICER PRICE: So that concludes Mr. Lardner's testimony, and they're calling their next witness, appraiser, Mr. Kielisch.

(Witness sworn.)

WHEREUPON:

KURT KIELISCH,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. LUETKEHANS:

Q. Mr. Kielisch, would you state your name and spell your last name for the record, please.

A. Yes. My name is Kurt Carl Kielisch, Kurt with K, Carl with a C, Kielisch, K I E L I S C H.

06:26:10PM Q. Showing you what has been marked PWC Exhibit 350, is that a copy of your -- 351, is that a copy of your current curriculum vitae?

A. Yes, it is.
Q. Okay. And did you prepare a PowerPoint on Criterion 3 or at least a portion of Criterion 3 in this matter?
A. I did.
Q. And is that PDC Exhibit 352?
A. Yes, it is.
Q. Please proceed with your presentation Mr. Kielisch.
06:27:03PM A. Certainly.
Okay. My presentation is going to be looking at Criterion 3, the -- obviously, for the reason we're here, the West DuPage County recycling transfer station proposal, in particular, the examination of the Kleszynski report called Land Use Compatibility and Real Estate Impact Study.
The first page I have on my PowerPoint is my credentials; very briefly,
06:27:37PM 39 years in the real estate field as well as a real estate appraiser, educator, and writer; valued over 21 different states, over

$13 billion worth of real estate; expert witness on issues that deal with complexities such as stigmatized properties, eminent domain issues in state courts, federal courts, public service commissions as well as County zoning and siting councils and committees that --

I do have two Wisconsin Supreme Court decisions that I was principal in that impacted how eminent domain is done in the state of Wisconsin; certified appraiser currently in Wisconsin and Tennessee.

I have held designations in 13 other states, certified designations, including Illinois. I'm currently not an Illinois certified appraiser; ASA designated, which is a senior member, American Society of Appraisers, as well as the senior right-of-way for the International Right of Way Association; a Realtor, though, I am not a salesperson; and approved instructor for real estate appraisal in six different states; also, a faculty member of the American Law Institute CLE, and Eminent

Domain Institute CLE International.
BY MR. LUETKEHANS:
Q. Can -- Can I stop you for a second.
Have you ever testified at a pollution control facility siting hearing in Illinois?
A. No, I have not.
Q. Have you testified at other similar-type siting hearings, however?
06:29:15PM A. Yes, I have.
Q. What types have you testified at?
A. Well, I have testified in three different ones that have come to mind; one in Door County, Wisconsin; one in open-pit mine in Milwaukee, Wisconsin; and then an impact analysis of the single -- single stream recycling facility, which was in Burlington, Wisconsin.
Q. How about other types of impacts
06:29:38PM analysis?
A. Yes. I do a lot of impact analysis, impact studies, as well as stigmatized property

studies.

Q. For what types of facilities or what types of issues?

A. Well, the issues can be the impact of wind farms, the impact of solar farms, there's impact -- I've done an analysis on impact of contaminated soils on not only the property that was contaminated but surrounding properties; of course, eminent domain issues that deal with
06:30:10PM power lines, gas and oil pipelines as well, and navigation easements that deal with airport -- in the air easements and their impact on property value.

Q. Okay. Please proceed. I'm sorry.

A. Sure.

So looking at Criterion 3, which is the next page I have, that you-all know the definition of facilities to be located as to minimize incompatibility with the character of
06:30:39PM the surrounding area and minimize the fact of value of surrounding property values.

So my examination of the -- the

report -- Kleszynski --

Q. Mr. Kleszynski.

A. -- Kleszynski -- Okay. I appreciate a difficult last name. Mine is also difficult. When you look at it, how it's spelled, there's advantages especially when someone is calling you that you don't know they mess up your name. You automatically know that they're there to sell you something. So Mr. Kleszynski. Very good.

06:31:13PM

My -- My job was to look at this report, see whether or not that the report substantially supported his concluding opinion that the proposed facility would meet Criteria 3 -- Criterion 3. And we --

The next page is something I can pass over. The committee already knows the West DuPage County recycle transfer proposal, the size of the building that's going to be utilizing transfer of both solid waste, single stream recyclables, as well as the liquid hydro waste.

06:31:43PM

My next two PowerPoints deal with the definition of -- of municipal solid waste, as well as single stream recyclables and hydro excavation waste, just so we all have an understanding of what those are.

Looking at the neighborhood, the neighborhood, of course, at 1655 Powis Road, which is going to be the location of the proposed recycling facility, that it is on Powis Road going north to south; to the west is the DuPage Airport. Surrounding the property both to the north and south and somewhat to the east is industrial and office land uses including some vacant land that is for sale. And then approximately 3,000 feet to the east is residential land use.

06:32:26PM

Q. Let me interrupt you.

You said it's a proposed recycling facility. Are you aware that it's also proposed for a waste transfer --

06:32:51PM

A. Yes.

Q. -- municipal solid waste?

A. Yes, I am.
Q. Okay. Please proceed.
A. Thank you.
Currently, it's -- the LRS, the recycling facility is at this location dealing with the waste of construction.
Now, looking at the report itself, and what I'm looking at is to see whether or not this report adequately supported the -- the
06:33:18PM concluding opinion of Criterion 3 being honored. This report focused mainly on highest and best use analysis to support the opinion that the proposed facility does satisfy the impact analysis requirements of Criterion 3.
And the highest and best use, however, does not meet, in my opinion, the analysis requirement to measure Criterion 3. And here is the reason why: Highest and best use is focused on the buyer or the property
06:33:52PM owner. It's the most profitable use of that property to the individual. And that is based on physically -- what's physically possible,

what's legally permissible, what's financially feasible, and a combination of those that -- that give the highest rate of return to the potential buyer or the current owner.

Criterion 3, however, is different. It doesn't look at the individual and their basic most profitable use of the property. Criterion 3 looks at the least intrusive use. In other words, Criterion 3 looks at the community where its highest and best use looks at the individual property and the property owner.

Q. So -- So is it fair to say they're looking at two different things?

MR. MUELLER: He's leading him again.

HEARING OFFICER PRICE: Try to make it direct, please.

BY MR. LUETKEHANS:

Q. Are -- Is highest and best in Criterion -- and lease intrusive use, are those two different things?

A. Yes, they are.

And I -- I propose that highest and best use does not equal the Criterion 3 for those very reasons.

So some of the observations -- Again, the focus of the report was highest and best use. And the conclusion was since the highest and best use was for the proposed use, therefore, it met the criterion, but, again, as I've pointed out, highest and best use looks at
06:35:16PM the individual property and the individual profitability to the owner or potential buyer. It does not look at the community or outside of that property to say, Is this the best use of the property with the community involved.

That -- It requires -- This Criterion 3 requires proof. It requires proof that has a minimum impact to the property value and that it's minimally in- -- incompatible to the land uses around.

06:35:51PM And just because a property can meet the physically and financially and legally permissible test that we use in highest and best

use, does not mean it will not negatively impact the surrounding property value.

I gave an example of a pig farm. A pig farm would be zoned A- -- AG or agricultural, so it meets the legally permissible. If the pig farm is structurally sound as far as the soils and content goes, you meet that. And if the pig farm is going to be a profitable operation, then it meets that test; but a pig farm will not have a positive impact to the surrounding property values. So that's another example of how one methodology utilized in appraisal does not necessarily equate the meeting of the requirement of Criterion 3.

06:36:28PM

That -- The proposed facility, being a -- a, you know, mixed-use, single-stream waste type of recycling operation, does have a potential of presenting odors and noises and creating insects, bugs, all sorts of different things. Now, it doesn't necessarily have to do that to impact negatively surrounding property value, just the belief it does. And that's

06:37:07PM

called perception. Perception is what drives value in real estate.

The proposed facility has potential noise and dirt and dust and other things due to its facility. The other aspect that I was looking at in observation is that there was no quantitative or analytical -- we call that qualitative -- analysis on surrounding property values.

06:37:43PM Now, qualitative is a -- that's a measurement mainly as a yes-no question. Qualitative would use things like surveys, possibly opinion surveys, possibly knocking door to door up and down Powis Road asking the -- the landowners there whether or not they see this as a positive or negative, or whether it could impact property -- property value or ability to lease or something like that. It would be interviewing, say, commercial Realtors, on that

06:38:17PM same token, looking to see what would the market respond. Is this a yes or a no as far as it meeting valuation standards.

Now, the quantitative -- quantitative analysis is the actual hard analysis that's the arithmetic analysis. That's where you would compare properties that had such an operation to those that did not both being sold, one outside of the area of influence, one in the are of influence to see whether there's a difference in property value. And you would do several of those because one does not make a
06:38:57PM market. You would want to use at least three. I like to use at least six to a dozen if I can. And that would create a pattern of whether or not there is an influence of property value, either positively, negatively, or no influence. It also answers the yes-no question, but it gives you a little bit more ammo on that yes-no question that it gives you a percentage usually.

So on the two tests of the Criterion, the first is minimize incompatibility
06:39:29PM with the character of surrounding area. I have that as blank. I -- I'm not qualified to make that decision of compatibility. That's not in

my -- my wheelhouse, if you will. I deal with value, valuation stigma, that type of thing. Not land planning, never sat on a zoning board or never wrote zoning. So that's really not my -- my capacity.

My focus was on the second test and that is, minimize the effect of the value of the surrounding property value. The question is: Did the report adequately address this test? Did it give significant proof qualitatively and quantitatively to the reader -- to convince the reader that -- of their conclusion -- the appraiser's conclusion?

06:40:04PM

I -- My observations of this report is there was not a qualitative analysis, nor was there a quantitative analysis; therefore, neither impact positive, negative, or neutral could be devised from reading of this report.

So I concluded that the report failed on the second test of minimizing the effect of property value.

06:40:31PM

Q. Okay.

A. So lastly, just as a summary, you just heard my summary on my conclusion of the report. And also that though highest and best use is used in appraisal all the time, and it's one of the fundamentals. As a matter of fact, when I teach appraisal, I teach it as the hub of real estate valuation.

From there, the spokes and the direction of the appraiser comes of what comparables to select, what methods evaluation, what approaches to select. That all comes from the highest and best use analysis. So that analysis in itself is a strong analysis when you're valuing an -- that individual property, but it does not stand the test of what was required in Criterion 3.

06:41:02PM

Q. How would you do a quantitative analysis of effect on value of surrounding properties before or after a waste transfer station?

06:41:32PM

A. Well, there would be three different -- First of all, I would do the

quantitative if I could. In the quantitative -- The ideal quantitative is to look in the neighborhood -- let's say, this neighborhood that had an identical type of building and operation, and when it came into effect. And then say it came into effect 2015, so we -- you would look for property sales prior to 2015 of properties that would be in close proximity, and then properties in 2000- -- after 2015, once the
06:42:08PM facility was in full operation, to see whether or not there was a -- any type of property fluctuation -- up, down, or neutral.

Now, chances are you probably -- You know, of course, there always was a fairly small sector there. I don't know if you're really going to find those sales. If you do there go (phonetic). But your second thing to do then is to find a facility that is similar in use -- maybe in a different proximity -- that
06:42:39PM had recently sold, and to see what -- I'm sorry -- not recently sold, but in the location, and then properties around that facility that

sold before and after, and then look at that comparison to see if there is any type of impact.

Another thing to do is a comparative, what we call a match-pair analysis, or I call it comparative sales analysis. And that's where you take a property that has under the influence or could be potentially influenced, by a similar facility and you

06:43:11PM compare it to another property similar to it equally substitutable that is outside of the area of the influence and see if there's any valuation difference there.

Another thing to do would be to do a -- a study to see if there was any -- it's called a literature study -- to see if there's any other studies that were done in the State -- in the United States or in the state of Illinois or anywhere else on -- that's trying to answer

06:43:38PM this very question of impact. That could be useful.

And the last thing I would do is I

would do a qualitative study, interview commercial Realtors as well as go up and down the area where the proposed facility is and ask those individuals in the building and property owners their opinion.

Q. Okay. You did not do any of those four things that you just talked about, correct?

A. I did not.

Q. Why not?

06:44:05PM A. That was not the assignment. My assignment was to look at the report to see whether Criterion 3 was met with adequate proof.

Q. How long would it take you to do those four things?

A. If I'm not busy, three to four months. My current schedule, more like six to seven months out.

Q. Okay. If you had done a comparative analysis or a match-pair analysis, is that

06:44:31PM something you would expect that you would put in your report or that would regularly be put in a report?

A. Yes, because you would need that to substantiate your position of any impact, yes, no, or -- or neutral.

Q. And what kind of information would be included in the report at that time just, let's say, for a match-pair analysis alone?

A. Well, a match --

MR. MUELLER: I'm going to object. It assumes facts not in evidence.

06:44:52PM HEARING OFFICER PRICE: Agreed. Sustained.

MR. LUETKEHANS: What facts are assumed? I'm sorry.

MR. MUELLER: He's speculating about --

HEARING OFFICER PRICE: He didn't do the work.

MR. LUETKEHANS: Correct.

MR. DELAROSA: So we're not going to speculate about what it would say when he didn't

06:45:03PM do the work.

MR. LUETKEHANS: Well -- Okay.

HEARING OFFICER PRICE: That's the very

point about --
BY MR. LUETKEHANS:
Q. What would you -- What do you normally put in your report --
HEARING OFFICER PRICE: No. Sustained.
MR. LUETKEHANS: What he -- What you would expect to see in this report is relevant if he had done it. Mr. Kleszynski kind of hinted that he did it.
06:45:16PM HEARING OFFICER PRICE: Ask a question about Kleszynski's report.
BY MR. LUETKEHANS:
Q. If Mr. Kleszynski had done a match-pair analysis or a comparative analysis, would you have expected to see it in your report -- in his report?
A. Yes, I would.
MR. LUETKEHANS: Okay. Nothing further.
06:45:39PM HEARING OFFICER PRICE: All right. Thank you.
First up is PODER. Anything from

PODER?

MR. DELAROSA: Actually, yes.

Because I would just like to introduce the fact that tonight's hearing is so different than the hearing that was taking place at the previous location of the hearing where we had sound equipment or the audience can see the documentation introduced or they can see it on a monitor where people can actually comprehend the information that's being presented at this public hearing. That's one thing, that it's a disadvantage for the people at this side of the table.

Secondly, is that we have no Spanish language translation here for people from the community in a minority-majority community that have an interest in this along with the rest of the people of West Chicago.

That's what I have to say. Thank you.

No further words.

HEARING OFFICER PRICE: All right.

Then to you, Mr. Mueller.

CROSS-EXAMINATION

BY MR. MUELLER:

Q. Mr. Kielisch, where do you practice out of?

A. Neenah, Wisconsin.

Q. Do you know what a pollution control facility is?

A. I have a general idea, yes.

06:47:23PM Q. Well, tell us what it is.

A. A pollution control facility -- Well, simply by the language, it would be a facility that tries to control pollution and reduce it.

Q. Do you know whether a transfer station is a pollution control facility?

A. I do not.

Q. Have you ever testified at a pollution control facility hearing?

A. No.

06:47:53PM Q. Have you been to the subject site?

A. Yes.

Q. Did it look to you like it was

compatible with the surrounding area?

MR. LUETKEHANS: Objection, beyond the scope.

HEARING OFFICER PRICE: Overruled.

BY THE WITNESS:

A. I'm not one to judge compatibility. That is not my expertise.

Q. Well, you're a long-time real estate appraiser, right?

06:48:21PM A. Yes.

Q. You must have some sense of whether something fits into the area or sticks out like a sore thumb, don't you?

A. Well, that would be true, yes.

Q. Okay. Did the existing Lake Shore facility appear to fit into the area?

A. The existing one?

Q. Yes.

A. Yes.

06:48:42PM Q. Do you know what they do there?

A. Yes.

Q. What do they do there?

A. They take construction debris and they recycle it, package it up, ship it out.

Q. What else do they do there?

A. That's all the knowledge I have of it.

Q. Are you aware of whether they have a port potty business there?

A. No, I do not.

Q. Are you aware -- Are you aware of whether or not there are other pollution control

06:49:13PM facilities nearby?

A. Yes. Well, pollution control, if you mean, like, a recycling type of facility, is that what you're speaking of?

Q. No. I -- Do you know if there are any other transfer stations nearby?

A. Yes. There's Groot, I believe is the name. It's north about a quarter mile.

Q. And do you know how long that's been there?

06:49:34PM A. Well, it says on the website that it's been in the -- in the family since 1914. I do not know it's exact existence, I mean, at that

location.

Q. So that transfer station, to your knowledge, could be 108 years old?

A. I would have no opinion if it is or not. No. It looks pretty -- It looks more modern than that for sure.

Q. Does it appear to fit into the area?

A. Again, I'm not really qualified to say whether it's compatible for the area. It looks like a square building.

06:50:13PM

Q. The -- The Lake Shore facility, you said, has a potential for odors?

A. Yes.

Q. What makes you believe it has a potential for odors?

A. Well, number one, you go on a literature survey. You see that is a very strong concern of individuals, that I have personally experienced it in Wisconsin, and I did an analysis of a single stream recycling facility. And that was the big issue, was the odor.

06:50:49PM

Q. You personally experienced odor in Wisconsin?

A. Yes.

Q. And how does that relate to whether or not this state of the art design will produce odors?

A. That facility was also state of the art, by the way, and went through a very rigorous type of analysis and engineering to prevent odors, and yet it still had the odor issue, which was causing property valuation issues.

06:51:22PM

Q. What was the name of that facility?

A. I don't recall the name right here, but it was in Burlington, Wisconsin.

Q. Okay. You experienced odors but you don't know the name of the facility?

A. Well, yeah. I do a lot of appraisals. I can't remember all the names.

06:51:45PM

Q. How old is that facility?

A. That was a new facility. It was built within about two years prior to my appraisal.

Q. When was your appraisal done?
A. 2021.
Q. And was that a fully enclosed facility?
A. Yes.
Q. Do you know what air filtration and scrubbing technology that facility had?
A. I don't know exactly what it had, but I do know it did have that air filtration
06:52:18PM scrubbing that was a requirement for the City of Burlington.
Q. Do you know whether this facility intends to mask odors or actually eliminate them?
A. This facility here, I do not know.
Q. Did you hear Mr. Hock's testimony on Criterion 2, which is whether the facility is designed, located, and proposed to be operated that the public health -- health, safety, and
06:52:44PM welfare would be protected?
A. No.
Q. So is it your opinion that this

facility will smell?

A. Well, in -- it has the potential, and that's really not the issue. In value, what you are valuing in issue is what the -- what the buying public believes will be happening, not necessarily what is happening. And that's the perception, and that's what drives value.

So though something may not have, 06:53:13PM they may have the engineering that they did not cause the -- let's say, odor for instance, the perception that they do can still drive value.

Q. How far does the perception go distance-wise?

A. I don't have an opinion on that.

Q. Well, if someone has an opinion that a pollution control facility 100 miles from their home may have odors, do you think that will negatively impact value?

06:53:52PM A. No. It must be the commonly held within the market, not just one individual.

Q. So what is the proximity required in

order for the opinion to matter?

A. Well, in the analysis I did in Burlington, the proximity was about a six-block dis- -- six-block radius.

Q. That would be, what, maybe half a mile?

A. More like probably a quarter mile.

Q. Quarter mile?

A. Quarter mile to half mile, somewhere around there, yeah.

06:54:31PM

Q. So do you know how many residential properties there are within a quarter mile of this facility?

A. No.

Q. Isn't that something you should have looked at in order to determine whether or not there's a potential impact on property value?

A. That was not my assignment. My -- My assignment was clear. It was: Did this report meet the requirement on Criterion 3 to give adequate support to the concluding opinion. My assignment was not to do an appraisal or to do a

06:54:57PM

study.

Q. All right. So let me see if I understand this. The only question you were trying to answer was whether or not the highest and best use analysis equates to whether or not it minimizes impact on property values?

A. Pretty close.

Q. Okay.

A. Pretty close.

06:55:32PM I would go a step further on whether it met the requirement of Criterion 3, was to look at outside of the property on whether there was an impact on property value.

Q. You don't have an opinion on whether or not this facility is compatible with the surrounding area?

A. I do not.

Q. Generally, isn't it true that compatible facilities tend to have less impact

06:56:00PM on property values than incompatible facilities?

A. Generally, that could be true.

Q. Okay.

A. Yes.
Q. So if we built a pig farm on the Lake Shore property, you might be concerned that that might have a negative impact on surrounding property values?
A. Correct.
Q. Especially down wind, right?
A. Absolutely, down wind.
Q. Do you have an opinion, without knowing the exact technology that Lake Shore intends to use, as to whether or not this facility will generate odors?
A. I do not.
Q. Okay. You said it also has the potential for insects?
A. Yes.
Q. What kind of insects are those?
A. Well, particularly, flies, fly larva, things that will -- will be attracted to the smells, the sweetness, for instance, things that were in bottles, that type of thing.
Q. Do you have an opinion as to whether

or not this facility, which is fully enclosed, will generate insects?

A. Again, it has the potential. I do not know if it will, nor was that my assignment.

Q. And you suggested that Lake Shore or Mr. Kleszynski should have interviewed neighbors to see how they feel about this facility's impact on property values?

A. That would be a qualitative analysis.

06:57:43PM That is one method to do that, and I mentioned many others.

Q. Are you aware that Lake Shore has letters of support from neighboring business owners?

A. I am not.

Q. If we had those kind of letters of support, then that would be in the nature of a qualitative analysis, correct?

A. Incorrect, that would not be. That

06:58:08PM would be more of a political survey. A qualitative analysis will go to the individuals and find out what their opinion is.

If they are in support, okay, let's talk about that, if they're in support. But just because they wrote a letter of support, it's not a qualitative analysis.

Q. So you're saying people who write letters of support aren't actually necessarily supporters?

A. No. I'm saying they're not necessarily going to be representing what the market is doing in that area. The appraiser would need to talk to as many people as possible. And, again, that's only one part of a suggested a qualitative analysis.

06:58:35PM

You also can do commercial real estate appraisers and things of that sort.

Q. Now, you suggested that for quantitative analysis, we should have looked at sales before and after 2015, correct?

A. That is one method, correct.

06:59:04PM

Q. What's so magical about 2015?

A. I gave that as an example. If a facility such as this was built in 2015, one

method is to look at sales in the same neighborhood prior to that date of -- of operation, and then after that date of operation to measure whether or not there was an impact.

Q. Now, with another transfer station a quarter mile away, does it become difficult to do your kind of quantitative analysis because the item that potentially impacts property values is already in the market?

06:59:47PM A. No. That would be exactly what you want because what you want is that item -- a facility like that one already in operation in business and then to look at property values of similar properties before that date and after that date to get a quantitative analysis of whether or not there is an impact.

Q. Well, how far back can you go to get a meaningful quantitative analysis?

MR. LUETKEHANS: Objection, form.

07:00:12PM HEARING OFFICER PRICE: Overruled.

BY THE WITNESS:

A. Well, you can go back -- I mean, I've

gone back ten years, if the data isn't there, and you can go back and find data ten years. 20 years is probably too far, but you can go back five, ten years.

Q. 20 years is too far. That's what you said, right?

A. Yes. In my opinion, right, I would try not to do that.

Q. The Waste Connections facility has been there over 20 years. Are you aware of that?

A. I am not. I believe you asked me before if I knew when it was there. So I do not.

Q. So we can't meaningfully go back to before when the Waste Connections facility got there?

A. Sure, but that's just one analysis, sir. That's just one potential quantitative analysis. That's not the only one that you could do.

Q. Now, you heard Mr. Kleszynski's

testimony that, in his opinion, property that is at its highest and best use minimizes the impact on the value of -- on the value of surrounding properties, didn't you?

A. That is what his report said. I -- I did not hear his testimony.

Q. You -- You disagree with that conclusion?

A. Yes. I think that doesn't meet the compatibility test, and it certainly does not meet the test of whether it has a positive or negative impact to surrounding property value.

Q. You can't talk about compatibility because you said you're unqualified on it?

A. That's correct. That's why I said I'm not having an opinion on that.

Q. Did you look at Mr. Kleszynski's credentials?

A. Yes, I did.

Q. Does he appear to be a qualified real estate expert?

A. Yes, he does.

Q. Is it the case that sometimes qualified experts disagree on things?

A. Yes. Yes. That's why we have court.

Q. So the fact that you disagree with Mr. Kleszynski doesn't mean he's wrong, it just means you disagree?

A. Well, I'm not saying he is -- Okay. I'm not getting into anything personal with Mr. Kleszynski. He could be a wonderful guy. I don't know who he is. He could be sitting here today. I have no -- And I do not go after an individual.

I simply look at the report and ask myself: Did this report meet the requirements that were set forth?

My answer is: No, it was not.

So I disagree. I believe that that report did not meet that requirement.

Q. And the reason for that is because you disagree with Mr. Kleszynski's opinion about the relationship between highest and best use and property values, right?

A. Yes, that's correct. That is not a way to measure impact of surrounding property values.

Q. In your opinion, sir?

A. Well, no. If you look at the definition of highest and best use, it has nothing to do with a methodology to measure the impact of surrounding property values.

Q. Mr. Kleszynski said property at its highest and best use is least likely to negatively impact surrounding property values.

Do you agree with that statement?

A. No, not necessarily. Highest and best use does not prove that.

Q. But it's certainly a significant factor, isn't it?

A. That's not the test of highest and best use.

Q. I'm asking you if it's a significant factor, not what the test is.

A. No, it's not a significant factor. The three tests are the significant factors.

Q. Do you think that a transfer station on this property would be its highest and best use?

A. I did not do a highest and best use analysis. This was, again, not my assignment.

Q. Do you believe that this property is negatively impacting surrounding property values?

A. Again, that was not my assignment. My assignment was: Did this report substantially support the position and the conclusion of the report --

07:04:22PM

Q. Do you have an opinion --

A. -- in that one area.

Q. Do you have an opinion, sir, as to whether or not this transfer station, if its built, will negatively impact surrounding property values?

A. I do not.

07:05:06PM

(Brief pause.)

BY MR. MUELLER:

Q. Sir, do you know where the Cornerstone

subdivision is?

A. I do not.

Q. Would it surprise you if a high-end residential subdivision was built very near a pollution control facility?

MR. LUETKEHANS: Objection, foundation, assumes facts not in evidence. I don't know what "very near" means.

MR. MUELLER: I'll withdraw the question.

07:06:13PM

HEARING OFFICER PRICE: Thank you.

BY MR. MUELLER:

Q. If a pollution control facility exists at a location and subsequently residential development -- high-end residential development occurs in the immediate vicinity of that facility, can we infer that the facility is not having a negative impact on property values?

MR. LUETKEHANS: Same objection. What is "immediate vicinity"?

07:06:49PM

HEARING OFFICER PRICE: Yeah. I'm going to sustain that. We've talked about

quarter mile. We've talked about significance.

Can you put a mileage on it, Mr. Mueller?

BY MR. MUELLER:

Q. Within three-quarters of a mile, sir?

A. Just because -- Just because the developer or someone like that decides to go through with development does not -- is not evidence of property enhancement or neg- -- or

07:07:20PM neutral or negative property value impact.

It's -- It has -- You know, in order for you to do that, you would have to then compare those property values and how they were sold to ones that were outside of that influence. That is the way that you would measure that.

(Brief pause.)

BY MR. MUELLER:

Q. Sir, would it influence your opinion

07:08:08PM to learn that Mr. Kleszynski's testimony about highest and best use being a factor that minimizes impact on surrounding property values

has been approved by the Pollution Control Board in at least two other cases in Illinois?

A. That definition --

Q. Yeah.

A. -- of highest and best use?

I would be surprised.

Q. So if we can find that -- those cases for you, that might make you rethink your position?

07:08:44PM A. Well, highest and best use is an appraisal action. And whether a board or a zoning board makes the decision, I don't think -- at least to me, in my profession, that doesn't influence us and say, Well, because a politically elected board says something else contrary to what our -- our methodology would say, therefore, they're right.

I would say no, that would not influence me.

07:09:11PM What influences me is that tradition and the methodology that hold the appraisal organizations and appraisal

associations teach.

Q. That's your story and you're sticking to it?

MR. LUETKEHANS: Objection, argumentative.

HEARING OFFICER PRICE: Sustained.

MR. MUELLER: No further questions.

HEARING OFFICER PRICE: Thank you, Mr. Mueller.

07:09:31PM Mr. Callaghan...

MR. CALLAGHAN: No questions.

HEARING OFFICER PRICE: Mr. Walsh...

CROSS-EXAMINATION

BY MR. WALSH:

Q. Sir, I got a couple questions for you. Have you ever testified before on Criterion 3?

A. No, I have not.

Q. Have you looked at any case law or

07:09:43PM Illinois Pollution Control Board rulings on how -- how they interpret the -- the ability to meet Criterion 3?

A. No, I have not.

MR. WALSH: That's all I have.

Thank you.

HEARING OFFICER PRICE: Redirect?

MR. LUETKEHANS: One follow-up line.

REDIRECT EXAMINATION

BY MR. LUETKEHANS:

Q. You were asked about going -- you couldn't go use a sale more than 20 years old because the Groot facility was older than 20 years old.

Do you recall that line of questioning?

A. Yeah, but that's not what I was answering. That line of questioning, yeah.

What I was -- What I was trying to say is that the question was, How would you do -- You know, how far back would you go if you did such an analysis.

And my point was, I would go -- you know, I could go up to five or ten years; 20, that might be a stretch because you're going to

find more than enough data within the five to ten year. Plus, if you're all the way back to 20 years, you could have different facilities, different technologies, things of this sort. So it's best to try to keep it as contemporary as possible.

Q. And there's no magic in looking at the one down the street versus another facility that might have been put in place in the last five years?

07:10:53PM

A. That is correct.

MR. LUETKEHANS: Nothing further.

HEARING OFFICER PRICE: Anything further from PODER?

MR. DELAROSA: No questions.

HEARING OFFICER PRICE: Mr. Mueller...

MR. MUELLER: Nothing. Thank you.

MR. CALLAGHAN: No.

HEARING OFFICER PRICE: Mr. Walsh...

07:11:07PM

MR. WALSH: Nothing further.

HEARING OFFICER PRICE: All right. Thank you, sir --

THE WITNESS: Thank you.
HEARING OFFICER PRICE: -- for your testimony.
(Witness excused.)
HEARING OFFICER PRICE: Why don't we -- Criterion 8 is not going to take a long time, I don't think, right?
MR. LUETKEHANS: The direct is not. I don't know about after that. We'll do it either
07:11:26PM way, however you would like.
HEARING OFFICER PRICE: All right. Well, then what I would like to do is -- I've been informed that there are ten people -- I've been given the names -- who had previously signed up to deliver oral public comment who are not able to attend the sessions we have coming up next week at City Hall during the day.
So I'm going to call those ten in the order I have them from how they signed up
07:11:56PM and were given to me. And then if there are others who have signed up previously and submitted in a timely form, you have an oral

public comment, if you would like to do it tonight because of the limited nature of what technology we have, Mr. DeLaRosa's point -- and I'm not expecting any of you to have had PowerPoints that you wanted to show -- we will take that public comment as well, and then we'll return to taking testimony from Mr. Lardner.

So, Mr. Lardner, thank you for your patience, but we're going to try and take

07:12:31PM advantage of the lack of technology to allow people to put in the oral public comment.

So with that -- And we'll -- we'll take a break at 8:00 o'clock because it's not fair to our court reporter to put it into a death march (phonetic).

So first up is Ms. Sheila Rutledge, and Ms. Rutledge will be followed by Connie Schmidt, and then on deck after that is Janice Guider.

07:12:59PM So hold on. Let me give you the microphone.

MS. RUTLEDGE: Yes. Good evening. My name

is Sheila Rutledge, and I'm coming to speak on behalf of Lake Shore Recycling tonight, both as a citizen of Incorporated West Chicago and with my work on protecting the environment.

I first became aware of Lake Shore Recycling from 2015 to 2018 when my late husband and I owned Advanced Property Solutions. Essentially, we renovated houses and sold primarily to first-time home buyers.

07:13:48PM At that time, Lake Shore Recycling was the only trash hauler that we could find that would actually reclaim any recyclable items from our demolition projects. Items such as any type of wood, concrete, gypsum board, and metals like aluminum and copper made up most of our demo debris, and it was important to us that those reusable items did not end up going directly to landfills.

As somebody who is environmentally

07:14:13PM conscious, that was important because our landfills are quickly filling up, with some estimating they will be full by 2035. We must

do a better job of keeping those things out.

Most of the other haulers at the time took all of those dumpsters directly to landfills. I can find no information about the existing transfer station recapturing those resources.

According to the EPA, recycling efforts reduced the amount of waste sent to landfills and incinerators, conserve natural
07:14:45PM resources such as timber, water, and minerals, increased economic security by tapping a domestic source of material, prevent pollution by reducing the need to mine raw materials, saves energies, supports American manufacturing, and conserves valuable resources, and creates new jobs in the recycling and manufacturing industries in the United States.

From an economic aspect, recycling adds 681,000 jobs, 37.8 billion in wages, and
07:15:10PM 5.5 billion in tax revenues. And this equates to 1.17 jobs for every 1,000 tons of materials recycled.

The ferrous metals industry provides the largest contribution to all three categories -- job, wage, and tax revenue -- followed by construction and demolition.

The first night of hearings asked the question about capacity. And I suggest that the rate of recycling in our surrounding communities is not very good and we should support a program to help educate our citizens about the importance of recycling and how to do it properly to increase our rates and keep people from wish cycling items that contaminate the streams and slow down the process.

07:15:39PM

It often comes down to confusion and inconvenience. People don't know how to recycle, what can be recycled, or what to do with those items. The top reason Americans say they don't recycle regularly is a lack of convenient access. LRS's plan helps to alleviate some of those complaints.

07:16:06PM

I've heard some people say that the existing transfer station is not maximizing

their capacity. At our current rates of recycling, that may be true, but with landfill space diminishing, we must, as a community, improve rates of recycling.

I'm an animal lover. I walk my dogs often and always shake my head at the lack of knowledge on how to recycle properly in my community. The majority of recycling receptacles at curb side are contaminated by
07:16:32PM people who bag their recycling or put in items that cannot be recycled at the curb.

My hope is that a robust education program can help to use these facilities at full capacity and help our environment overall.

The plan Lake Shore is presenting is a solid state-of-the-art facility that expands the good work they're already doing. As of 2019, the United States has yet to touch the top ten recycling countries list. We must do
07:17:01PM better.

It is time for a state-of-the-art recycling transfer station so that we can

increase the diversion of useful recyclable items from our landfills. The existing facility is old and it needs improvement, and I believe LRS has made a solid plan to mitigate any of the concerns that the local community might have. Their commitment to keeping down litter, street sweeping, capturing noxious odors is to be commended and rewarded.

Competition is the bedrock of business in this country. It improves services and controls costs. I can only surmise that the battle over the issue is not because of racial injustice but simply a publicly traded company spending huge amounts of behind the scenes money to protect their shareholder value.

Thank you.

07:17:28PM

HEARING OFFICER PRICE: Thank you.

Next up is Ms. Connie Schmidt, followed by Janice Guider, and then after that Greg Walsh.

07:17:51PM

MS. SCHMIDT: Hello. My name is Connie Schmidt. Today I'm here to speak as the chair

of the River Prairie Group of the Sierra Club.

The Sierra Club, for anyone who doesn't know, is the largest grass root organization in the United States. We have over 60 chapters across the nation and Illinois has 14 regional groups. The River Prairie is one of the most active, and we cover here in DuPage. We have over 2,600 members across this county.

Concerned citizens of West Chicago, 07:18:21PM an advocate for environmental justice contacted our group because they were concerned that a waste dump was coming to West Chicago and would negatively impact their community and residents who are already burdened with a legacy of other environmental issues.

From the onset, The River Prairie Group's interest was a built environment plan for a healthy and sustainable equitable environment for all residents. We advised this 07:18:49PM group that the data would drive any RPG decision or action. We provided some air monitors, training, data collection; and with the data

collected, significant concern was not documented with the current traffic and land use.

In addition, we met with the representatives of LRS to learn details of their plan. We learned that the plan is not for a landfill or a waste dump. It is an expansion of existing services already found on this property that they now own and are doing recycling of
07:19:29PM materials such as construction waste. LRS now wants to add household garbage do their services.

The property is in an industrial park. A particular concern to us is the intention -- attention to environmental impact. It appears to us that LRS has given considerable attention to mitigate environmental concerns with an enclosed state-of-the-art building and air filtration system to protect the workers and
07:19:58PM quickly closing doors as trucks and enter leave to protect the community.

The waste transfer station will

make it possible for the collection vehicles to travel less distance on roads, decreasing their particulate emissions and fossil fuel usage, two concerns we have for air quality.

We advocate for aggressive monitoring to ensure that LRS is compliant with commitment they are making in this process. With very careful consideration and respect for the concerns of the citizens of this community, the group of the Sierra Club is determined that we will not oppose this permit request and, in fact, we support it.

07:20:32PM

HEARING OFFICER PRICE: Thank you.

The -- Next up is Janice Guider, who will be followed by Greg Walstra, and then Barbara Laimins.

MS. GUIDER: Good evening. My name is Janice Guider.

And Connie Schmidt, who just spoke, and I are colleagues. We both serve, Connie as president, and I am chair of what we call our health equity operations.

07:20:55PM

HEARING OFFICER PRICE: Ms. Guider, could you pull the microphone closer to you.

MS. GUIDER: Okay. What if I stand closer?

Okay. And I want to take issue with the fact that there are members of this community who -- where English is not their first language. And I'm hoping as we go forward that we would make sure that there are Spanish-speaking people here to help translate and make sure people of this community understand what's going on.

07:21:34PM

I also work alongside Immigrant Solidarity DuPage, and I sit on several boards throughout DuPage County. Immigrant Solidarity and PODER brought the LRS expansion project to our attention believing LRS's plan would inflict racial and harmful environmental injustice upon the West Chicago community, particularly, the Latin population.

07:22:13PM

From the beginning, we began an objective and robust effort to research and validate the community's concerns. After a

close examination of the facts, we soon realized the LRS application is not for a new waste dump, instead an expansion of its current facility with verifiable promises for increased revenue inherent with proficiency in the management of recyclables, reduce costs for residents, and the security of local jobs for West Chicago citizens.

Perhaps more importantly is that LRS's plans for growth include a facility to minimize toxic particulates from escaping into the atmosphere and eventual addition of electric vehicles, beautification of the area with the addition of new tree plantings, and a plan right with the promise to improve the air quality around this industrial park.

07:22:59PM

We support LRS's application to expand because plans demonstrates the potential to become even a better stakeholder and to positively influence the health of all residents in the West Chicago and greater DuPage County community.

07:23:41PM

Thank you.

HEARING OFFICER PRICE: Thank you, Ms. Guider.

Next is Greg Walstra, followed by Barbara Laimins.

MR. WALSTRA: Good evening. My name is Greg Walstra. I'm a resident of Wheaton. I've lived in DuPage County well over half my live.

And the reason that I'm here supporting Lake Shore with its permit application is that I've been involved in the waste industry for over 20 years in three different states. And I know people talk about their studies and the radiuses, but I can tell you that, in my opinion, it is absolutely absurd that DuPage County, with about a million people, only has one municipal solid waste transfer.

Effectively, DuPage County is exporting its garbage, and along with it, we're exporting the revenue that goes with it, and the jobs that go with it. And the issue -- My opinion is certainly not about capacity. It's

about competition. Without -- Without disposal options, waste haulers are hurt and competition is reduced and prices go up.

In the last five years, I've worked for a law firm in Wheaton, and we consult with several small waste haulers because of my industry experience. And I can tell you that, you know, some people have been obviously hurt, some people have had to sell out or go out of
07:25:22PM business just because without those disposal options, it just -- it hurts the small hauler. It hurts competition, raises the price, and ultimately, you know, reduces freedom. It's Economics 101.

So thank you.

HEARING OFFICER PRICE: Thank you, Mr. Walstra.

Next up is Barbara Laimins, followed by David Sabathne, and Omar Espinosa is
07:25:43PM on deck.

MS. LAIMINS: Hi. With your permission, I would like to hold my comments

until next week at City Hall, after I've heard all the testimony.

Thank you.

HEARING OFFICER PRICE: Okay. Thank you.

Next is Dave Sabathne, followed by Omar Espinosa, and then John Stoetzel.

MR. SABATHNE: Good evening. My name is David Sabathne.

07:26:16PM Other than a few formative years, I'm a lifelong resident of West Chicago. I feel like brain cells are just dying by the minutes sometimes. I mean, I -- I can't possibly be the only one who listened -- I'm not an attorney. I'm not an environmentalist, and I'm not an appraiser, but the idea that we would even analyze, say, an appropriate analysis would be to take a facility that was built and compare the property values.

07:26:48PM Using the pig farm, the only comparison is, tell me what the values did when you built a pig farm next to a pig farm.

Everything else is irrelevant because there already exists a pig farm.

Like I said, I've been a resident of West Chicago my whole life. I'm president and CEO of the Western DuPage Chamber of Commerce. I'm a former alderman of the City of West Chicago, former Scoutmaster at the age of 21, a former commissioner for the DuPage Airport Authority, so I'm familiar with Mr. Luetkehans, and I chair a state-wide committee on workforce development, and I'm a trained economic developer.

07:27:26PM

The short version is I'm old, experienced, I love my community such that I've committed my life to serving it.

This experience as a councilman is most relevant. While serving, we successfully won a decades-long battle of the largest brown field in the country, 1.2 billion-dollar clean up of thorium in our community. That resulted in citizens becoming active and being able to talk about Picocuries and life cycles and -- and

07:27:55PM

technical issues and bringing that to our legislatures and getting it done.

Doris Karpiel, one of the great legal minds in environmental (indiscernible) Gainus (phonetic) and a bunch of people helped us. But through that process, we learned a whole bunch of things. As a result, it led us to further good decisions.

While Lake Michigan water runs in
07:28:33PM tubes through West Chicago, we don't access it. We built our own water treatment plant. Because we don't take the word of everyone else, we do our own study and to find out what's good for our community. And so instead of tying on to Lake Michigan water, we built a new water treatment plant, and as a result, our water rates are less, our quality is higher, our capacity is virtually unlimited, and we have control over that element. We're very proud of
07:29:02PM that.

We looked at a lot of things, potassium -- and reverse osmosis, ion exchange,

do we use sodium chloride, you know, calcium chloride? What do we do? And you know what? The same thing happened when VFI came with a proposal of a transfer station in our community. Yeah, we had some of the neighbors who, you know, imagine -- as most people do -- garbage smells. You may have the same opinion about compost piles -- it's actually dump really -- but I -- I -- I understand the assumption, but we don't live on assumptions.

07:29:38PM

So what did we do when that proposal came? The mayor at that time, Steve Lakics, and alderman, Brenda Douglas, our public works director, Ken Dean (phonetic), and I drove to Minneapolis to find the most similar facility that we could find. And we went into it and we stayed there and we used this, like, backhoe function and packed a few trucks, and then we walked the neighborhood and we talked to the businesses and said, What kind of neighbor do you have here? How has it been?

07:30:06PM

We don't have any problems. We

love the convenience when we need to get rid of a couch or something, but for all practical purpose, there isn't a problem.

So the assumption may be based on a principle that we all generally agree with, but in practice, it's not the reality.

I think this proposal meets the spirit and intent of the use and to -- to pick apart and say, Well, here is what the coach says, to limit this because of a residential zoning that -- that a house could never be built on, would be like protecting an area of grass because it was set aside to protect the species while realizing that the species went extinct 50 years ago.

07:30:40PM

It could be similar to somebody saying, Here are forms, fill out and make sure that put on your home phone number, and then rejecting it because they included a cell phone number, which isn't technically at a home, but it could be.

07:31:15PM

I mean, please. We see through

this. We've see the Columbo, Houdini kind of, you know, antics here, but that's what we see.

One of the things we learned about the environment is that when you hide money, when you cover it all up, it gets a smell. When something smells a little funny, you kind of follow the money trail to find out where the bulldung is.

Now, LRS clearly is transparent. They know what they're -- you know, their vested interest is in this. Yes, they're a business for profit, and they expect to do that.

How the other side affords the high-powered attorneys they have here sure as heck didn't get there by a neighborhood bake sale. To think so, would be naive.

Now, West Chicago is more environmentally sensitive, aware, educated, and I'm proud to say, responsible. We have a long history of protecting our community, the region and the benefits to our community and our residents, and we have unequal capacity to do

07:31:51PM
07:32:28PM

our own research, weigh our options, and do what is best for our community. That's why you have support letters from the City of West Chicago and so many residents believe strongly in approval of this project.

Thank you.

HEARING OFFICER PRICE: Thank you.

Next is Mr. Omar Espinosa. He'll be followed by John Stoetzel.

07:33:12PM MR. ESPINOSA: Hello. My name is Omar Espinosa, and I could see myself, probably one of the few minorities here.

And I belong at the Lions Club at West Chicago. I belong at the Rotary Club of West Chicago. I'm a board member of the Mexican Culture Center. I'm a board member of Neighborhood Food Pantries. I'm a board member of H.O.M.E. DuPage. As you can see, I'm in DuPage most of the time. I don't live in

07:33:41PM DuPage, but I work in DuPage. I've been working here for ten years, and I am in favor of the construction expansion of LRS.

As a minority, I think that also will benefit the people here for more jobs as well.

So thank you.

UNIDENTIFIED SPEAKER: We're the majority here, not a minority.

HEARING OFFICER PRICE: All right. This isn't a debate. It's public comment. We're not going to have that, or else we'll be excusing people.

07:34:06PM

Next is Mr. John Stoetzel, followed by Mr. Mike Hampson.

MR. STOETZEL: Hi. My name is John Stoetzel, and I've lived and worked in DuPage County since I moved to the Village of Wayne in 1973. I was elected to the Village Board of Wayne in 1975 and served as president from 1980 through 1986. So I'm very aware of this area.

My involvement with this specific property being considered tonight, which is immediately north of Lake Shore's recycling proposed transfer station was when I was

07:34:36PM

appointed around 1996 by LaSalle Bank to oversee the redevelopment of a parcel that had been foreclosed on and laid fallow for a number of years. There was a bankruptcy and an environmental issue at the time.

We were able to find a tenant for the vacant 80,000-square-foot building that, in fact, has been occupied ever since. We were also able to develop two parcels of property
07:35:13PM with industrial buildings both down the street from the Groot facility.

Today I stand to represent current owners of that property, Maxwell Properties, LLC. The property north of Lakeside [sic] Recycling property. We appreciate the relationship we've had with Lakeside as a property owner and a responsible neighbor.

I fully endorse Lake Shore's Recycling as an investment in West Chicago.
07:35:44PM Thank you.

HEARING OFFICER PRICE: Next is Mr. Mike Hampson, followed by Peter Polous.

MR. HAMPSON: Good evening. Thank you.

My name is Mike Hampson. I'm the executive secretary of Chicagoland Associated General Contractors. CAGC is a union-based construction trade association with over 200 general contractors, specialty contractors, suppliers, and development members.

The CAGC fully supports the LRS waste transfer station. In an industry where 07:36:19PM competition is on the thinnest of margins, having a more -- having more competition will greatly benefit contractors and the industry.

As a 20-year member of Chicagoland AGC, LRS continues to be a great industry partner helping the contractors achieve lead -- lead points while building a silver or gold level green buildings.

An additional transfer station in the second largest county where we have a strong 07:36:46PM member base would allow contractors to have an additional choice. And in the case of LRS, the choice of having a leader in recycling

construction materials.

Thank you.

HEARING OFFICER PRICE: Next is Mr. Peter Polous.

MR. POLOUS: Good evening. My name is Peter Polous. I'm a commercial real estate broker focused in the industrial building material trade market and very familiar with the waste industry, the requirements of general
07:37:22PM contractors in DuPage County.

I spend a lot of time trying to site facilities, logistics sites, industrial sites, quarries, mines, landfills, and I feel that this is an excellent location, incredible opportunity for the Village or City of West Chicago, county of DuPage County for asset engagement, reducing the carbon footprint that Lake Shore would have by having this facility increasing competition.

07:37:53PM And competition is excellent. It all makes us better. It's a win-win for everybody -- the consumer, the customers, and

the competitors.

Thank you.

HEARING OFFICER PRICE: All right. That concludes the list of people I was informed needed to go and weren't able to go next week. I have 17 other people who have registered to give oral public comment.

Do any of those other 17 wish to speak this evening?

07:38:22PM (No verbal response.)

HEARING OFFICER PRICE: All right. It's 7:40.

Why don't we do this. You said the direct won't be long with Mr. Lardner. So why don't we put the direct on, and then we'll take a break.

Okay. Again, for everybody's reference, next week we are meeting on Monday from 1:00 to 5:00, and again Thursday 1:00 to

07:38:50PM 5:00 in the city council chambers. That's where the work will be performed. If we need additional time after that, we'll have to figure

that out. We'll see how it goes.

Public comment can be either of those days for the 18 people remaining. It's 18 because I'm now including Ms. Laimins. She wanted to speak next week.

So for you 18, that will be your opportunity.

For everybody else who hasn't registered to give oral public comment, again, you're welcome to submit your comment in written form at any time, and that will be up to 30 days after the hearing concludes. It will be your opportunity to do that. That's by statute. We welcome that information and after that, then we -- we're going to be in a bit of a sprint to allow city council to take action on the application.

So with that, is the witness -- Mr. Lardner, why don't you come back. I'm going to grab the microphone. You're still under oath, Mr. Lardner.

MR. LARDNER: Yes, I understand.

HEARING OFFICER PRICE: With that, Mr. Luetkehans, the floor is yours.

WHEREUPON:

JOHN LARDNER,

called as a witness herein, having been previously duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. LUETKEHANS:

07:40:24PM Q. Mr. Lard- -- Okay. You have in front of you PWC Exhibit 800. That's your --

Did you do a report in this matter regarding Criterion 8 for this property?

A. Yes, I did.

Q. And that's PWC 800?

A. That is correct.

Q. Okay. And then also in front of you -- and in front of everybody else, for the record -- is PWC 801.

07:40:49PM Do you see that?

A. Yes.

Q. Is that your -- Is that the PowerPoint

plan you prepared --

A. Yes.

Q. -- in relation to Criterion 8?

A. Yes.

Q. Okay. I'll just let you proceed.

A. Okay. So since we don't have our slides, I'll just go through -- I'll be reading more than I normally would here.

So what I'm -- what I did was

07:41:10PM prepare a review on Criterion 8. My original slide said Criteria 8, plural, because I was doing 1 and 8. So this one is on Criterion 8, for the proposed West DuPage recycling and transfer station in West Chicago.

That's a solid waste management plan consistency review. The requirement is that if the facility is to be located in a county where the county board has adopted a solid waste management plan, consistent with the planning requirements that a local solid --

THE COURT REPORTER: I'm sorry. Could you slow down a little.

THE WITNESS: Okay.

THE COURT REPORTER: You're reading, so you're going a little fast for me.

BY THE WITNESS:

A. If the facility is to be located in a county where the county board has adopted a solid waste management plan consistent with the planning requirements of the Local Solid Waste Disposal Act or Solid Waste Planning and Recycling Act, the facility is consistent with that plan.

07:42:01PM

Again, going over my background, I'm a professional engineer with over 35 years of experience in the solid waste field. I'm a registered professional engineer in Illinois and Indiana. I have a B.S. in civil engineering from Michigan State University and a master's of science in civil engineering from the University of Illinois, and I've prepared solid waste manage plan consistency [sic] and testimony or actually for four waste-related facilities in Illinois, two of which were transfer stations.

07:42:29PM

And I've been a design engineer for over 22 solid waste projects in Illinois and Indiana. And I'm a member of professional associations related to the solid waste industry, those being the Solid Waste Association of North America, U.S. Composting Council, American Society of Civil Engineers, Illinois Recycling Association where I'm a current board member, and the Illinois Food
07:43:02PM Scrap and Composting Coalition, where I'm also a current board member.

So what I'm going to review here is the best solid waste -- DuPage County solid waste management plan and their five-year updates. I'm going to review a past transfer siting consistency determination in unincorporated DuPage County near this location, and provide a summary and conclusion.

Now, the 1991 solid waste
07:43:35PM management plan prepared for DuPage County was one that all the counties in Illinois were required to do. They were given budgets from

the State of Illinois to do solid waste planning. And the goal was there to recycle 25 percent of their waste stream.

DuPage County prepared their solid waste management plan and gave us four sections; one was the report, and there was three sections that were appendices.

In the report, first there is seven sections. One was an introduction and
07:44:11PM requirement and talked about previous planning efforts; two, was existing solid waste management systems and their need; three was solid waste management systems; four was education and information system; five was definitions of proposed solid waste management systems; six was implementation issues; and seven was a plan of action.

And so in that study, they also looked at the demographics of DuPage County, the
07:44:40PM population. They also looked at waste generation and disposal capabilities, similar needs analysis that has been done for this

project and which I testified on earlier evening for this process.

They also looked at different ways for recycling by commodity, for instance, like paper, glass containers. They also looked at opportunities for construction and demolition debris recycling, for landscape material recycling, and food scrap recycling. And they also looked at waste processing, disposal, and transfer options.

07:45:18PM

And the recommendations at that time for waste transfer was to evaluate its practicality, perform a siting analysis for if they were proposed, and then continue on with land filling of solid waste.

In the next slide that I had, I had the 1991 solid waste management plan recommendation, but actually this is one from 1996, and I'll read that: The County should encourage development of three to five waste transfer facilities throughout the County. The County should assist the private sector in

07:45:46PM

determining the most appropriate and efficient locations for transfer facilities, and providing education and appropriate tours to municipalities, townships, or any other people interested in knowing more about transfer stations.

Going on to the 2001 solid waste management plan update, in terms of the transfer station disposal capacity, the plan -- and I'll
07:46:23PM quote -- The permanent capacity of the DuKane transfer station be increased from 1500 tons per day to 2500 tons per day with a proportionate increase in acceptance at the facility for waste generated in DuPage County.

And a second recommendation was that a second and/or third transfer stations should be sized to accommodate the 350,000 tons of waste per year and accommodate future population growth and subsequent waste
07:46:58PM generation.

A second and/or third transfer station is expected to increase competition,

reduce wear on roads, reduce overall truck miles traveled, and decrease truck air emissions.

So in that second recommendation, was one that a second transfer station would incentivize haulers to use -- use it due to a shorter hauling distance rather than go to DuKane transfer station; and that two, that the -- the second or third transfer station would be closer to other DuPage communities that were not as close to the DuKane facility thereby reducing the wear on roads and overall truck miles.

07:47:34PM

Then going on to the 2007 solid waste management plan -- and I will, you know, paraphrase or read from that -- it says: In 2002, DuKane's capacity was increased to 3,000 tons per day. Three new transfer stations have been proposed since the last update, however, none were approved. Transfer facilities have been constructed outside the county border that are close enough to serve our needs.

07:48:06PM

So, for instance, they -- in this case, they recognized that the DuKane capacity at 3,000 tons per day was somewhat of a safety valve in case other transfer stations were not sited. And that there were other facilities outside the county that was being located in Cook County and in Kane County. In Kane, there was the Elburn transfer station and a Batavia transfer station. And in Cook County, there was
07:48:39PM that Bluff City transfer station.

A second recommendation in the 2007 solid waste management plan update was to provide an accurate snapshot of the current disposal waste disposal capacity. An evaluation was done of existing transfer stations and disposal facilities. The County was divided into quadrants and the consultant whom they hired at the time, Shaw Environmental, reviewed the nearest three transfer stations to each
07:49:13PM quadrant. The ideal transport distance is no more than ten miles. Out of ten tran- -- ten stations that were analyzed, only two facilities

serving southern DuPage County failed to meet this criteria.

And so I had showed in earlier Figure 1 in this -- in the application, and it is Slide No. 13, is that the -- there are fewer transfer stations options in the southern part of DuPage County. I think there was two compared to, I think, four up in the northwest and as many as six in the southwest.

07:49:55PM Number two, this is kind of where the ten-mile radius comes into for use in a service area delineation. Number three, recommendation they said that the position at this time is to rely on existing transfer stations both inside and outside the County borders. While this reliance comes at a cost of higher disposal rates, it is preferred method. This method will serve the county needs for five more years.

07:50:31PM And then the next -- in my PowerPoint presentation, I -- I showed where the analysis was made as part of the 2007 solid

waste management plan. The consultant at the time divided DuPage County into centroids or population geographic centers and looked at what transfer stations were available to those four centroids within DuPage County.

So, for instance, in the northeast centroid, they looked at the three transfer stations outside of Cook County, that being the Groot Chicago transfer station, the Melrose Park
07:51:15PM transfer station, and the Northlake transfer station.

In the northwest portion of DuPage County, they looked at -- from that population centroid -- the Bluff City transfer station in Cook County, the DuKane transfer station that was in DuPage County, and the Batavia transfer station in Kane County.

They looked at the service areas of transfer stations proximate to the southwest
07:51:47PM DuPage County. And those at the time, were the DuKane transfer station, the Batavia transfer station and the west Elburn transfer station.

And then the transfer stations to the southeast of DuPage County were in the -- in Cook County, those were the Heartland transfer station, now owned by Lake Shore Recycling; the Liberty transfer station and the Groot McCook transfer station, which is now Waste Connections.

And in that slide, they showed a -- again, a circular service area that did not or just barely covered the -- where the southeast quadrant of the population was located.

07:52:27PM

So now going to the 2012 solid waste management plan update, that rec- -- the recommendation there was factors that contribute to the need for new facilities are increasing population, rising waste generation rate, and fuel operating costs. Future conditions may necessitate a new facility in the southern portion of the county.

07:53:01PM

The maps and table from 2007 -- again, the maps that were those figures of the quadrants -- indicate that this area is somewhat

underserved and that some areas are out of range for existing facilities. These conditions can result in less competitive waste hauling and higher costs especially in unincorporated areas.

So in this case, they were looking at costs that might be more than residents were willing to pay because they didn't have the -- the density for the number of customers that a hauling company would desire to make it

07:53:43PM profitable for them to serve them. So in this case -- case, they might be treated like a rural area where in rural areas they actually have a transfer station where people bring their bags of waste to whatever and the recycling materials to and drop it off. And it's generally secured or guarded, and then that's how waste is handled in rural areas if it's not picked up by a waste hauler.

And then another conclusion in --

07:54:09PM or recommendation in 2012 solid waste management plan was, it is potentially foreseeable that the out-of-county facilities may cease serving all

or parts of the current DuPage area. In the event that occurs, there would be a service gap in the affected areas, thereby creating a potential need for a new facility.

Well, these concerns were unfounded because facilities that served these out-of-county facilities that were serving DuPage County never ceased to -- never ceased to stop serving them, and that they were providing
07:54:46PM hauling services at prices that communities were willing to pay.

And in Figure 1-2C in the applicant's application, they showed a colored coordinated map of DuPage County and some kind of surrounding areas color-coded by the different hauling companies that were serving to communities in DuPage County. And there were six hauling companies that were actually serving them at the time. So that concern that there
07:55:21PM would not be a service to these communities was somewhat unfounded.

And then going on to the 2017 solid

waste management plan update -- and, again, I'm going to read from the recommendation -- is that the DuKane transfer facility is permitted to accept up to 3,000 tons per day -- per operating day. So it could move 939,000 tons per year. However, service areas must be considered as well as the market forces of private sector waste hauling entities, large regions of the county are not optimally served due to the
07:56:10PM lengthy transportation routes which lead to increased costs and air emission. To address this, the County of DuPage will consider new or expanded facilities handling, treating and recycling waste on a case-by-case basis.

Now, I want to make four points there: One, where they talked about service areas must be considered as well as the market forces, there are close by transfer stations available outside the county that have been
07:56:45PM capacity to provide transfer station services here.

Number two, they talked about

market forces. Here, the market forces we're talking about the lengthy transportation routes would lead -- which were leading to costs, these being distance. So what -- you know, talked about costs that residents were willing to -- to pay versus their -- you know, the hauling costs that a provider might be encountering.

And then, again, spoke to the amount -- the density or the number of stops 07:57:19PM that a waste hauling company can make, the more that -- the closer in proximity, the easier it is for them to make the cost, cost less.

And then three, they talked about regions that optimally served are in the south part -- part of DuPage County per the 2012 update. Again, they were talking about the service in the -- the market wasn't providing optimally serving the south part of DuPage County at the time. Again, this is 2017.

07:57:55PM And then they also talked about that DuPage County will consider new or expanding facilities. Now, the word

"consider" -- and I looked at the definition -- it means, think carefully about something before making a decision. That implies that the County would evaluate any new transfer station project.

And so in terms of being consistent with the solid waste plan, you can see that these -- there's been concerns from 1996 on through 2017, which is the last solid waste management plan update. There actually was a 07:58:41PM 2003 siting application called west DuPage recycling and transfer. There was a siting in that year, and it was for a facility about a mile from the proposed facility, the west DuPage Recycling and transfer siting that's going on now.

And the board -- DuPage County board prepared a resolution as part of that siting, and I'll read two -- two paragraphs from that: The application of --

07:59:13PM MR. MUELLER: I'm going to object to a previous resolution because it's not relevant to this proceeding.

MR. LUETKEHANS: I think it is relevant because this is the actual board that passes this solid waste management plan.

HEARING OFFICER PRICE: Overruled, that the objection --

Go on, Mr. Lardner.

BY THE WITNESS:

A. Okay. The -- The resolution said the application of West DuPage recycling and
07:59:36PM transfer for siting -- for siting approval for the West DuPage transfer recycling and transfer is hereby denied. The applicant has also failed to meet its burden in establishing Criterion No. 8 in that the proposed facility is inconsistent with the solid waste disposal plan of DuPage County because the proposed facility location is within one-quarter mile of another transfer station and fails to reduce wear on roads, reduces -- reduces overall truck miles
08:00:08PM traveled, and decreased truck air emissions.

As part of that siting process, the City of West -- West Chicago prepared a

resolution on April 7th, 2003, and it stated: Whereas the County of DuPage, the County has previously adopted a solid waste management plan -- the plan that calls for siting of five waste transfer stations to be located throughout the county and, whereas granting a siting approval violated the terms of the plan by placing two transfer stations within the same community's planning area.

08:00:43PM In the application, there was a letter from the DuPage County Building and Zoning, April 20th. The letter was addressed to West Chicago, and I'm going to read a paragraph from that letter.

It says: The document finds that service areas of existing facilities be considered as well as market forces. It observes that the County lacks disposal capacity for the waste generated within the borders, and

08:01:20PM that additional pollution control facilities may be needed but will be considered on a case-by-case basis. The proposed pollution

control facility appears to be consistent with the aforementioned solid waste management plan year update in (2017.)

Four points to make there. It says: All transfer stations service areas, not just those for a particular waste transfer service application, in this case, the West DuPage recycling and transfer station. Number two, the lack of disposal capacity in the south in the 2000 update speaks to other portions of the county that were -- that needed service.

08:02:04PM

Number three, again, consider -- think carefully about -- before making a decision. No information was provided along with that letter to indicate what DuPage County thought about the West DuPage recycling and transfer project.

In that letter, it says the facility appears to be consistent with the aforementioned solid waste management plan five-year update. Appears -- Again, the definition of appears is: Give impression that.

08:02:40PM

There is no statement that it is consistent. It says appears consistent.

39.2 states that the facility is consistent, not the facility appears consistent with the county's solid waste management plan.

So my conclusion is that the West DuPage recycling and transfer station is inconsistent with the DuPage County solid waste management plan for the following reasons: The

08:03:20PM solid waste management plan updates starting in 2007 all focus on the need for additional transfer capacity in the south portion of DuPage County. Adding another transfer station in the northwest portion of DuPage County will serve as a disincentive to a south -- south facility because it requires more travel from underserved -- underserved areas. It's still -- It's still got to service out the area.

The siting application for the West

08:03:52PM DuPage RTS did not consider service areas of other pollution control facilities, nor did it ask DuPage to consider it prior to filing the

application. There was no evidence of that in the -- in the DuPage County review.

And there is no mention of the siting application that the assistance of DuPage County was requested by the applicant with determining the most appropriate location for transfer facilities.

That concludes my presentation.

Q. Do you have an opinion, based on your experience in the industry and your experience and education as an engineer, as to whether this proposed waste transfer station application meets Criterion 8?

08:04:22PM

A. It does not meet Criterion 8 because it is not consistent with the plan.

Q. And that's based on your experience in the industry and your experience as an engineer?

A. Correct.

MR. LUETKEHANS: Nothing further of this witness.

08:04:45PM

Thank you.

HEARING OFFICER PRICE: All right.

We're going to take a break. It's 8:06. So let's come back together at 8:20.

(A short break was had.)

HEARING OFFICER PRICE: Do you have questions, sir?

MR. DELAROSA: At this time, no.

HEARING OFFICER PRICE: Okay. So Mr. Lardner is getting something. Mr. DeLaRosa doesn't have questions.

So, Mr. Mueller, you will be -- soon to be up.

Okay. All right. Back to you. Mr. Mueller has the floor.

CROSS-EXAMINATION

BY MR. MUELLER:

Q. Mr. Lardner, the 1991 plan recommendation called for three to five transfer stations in DuPage County?

A. I think that was a misprint. It's the 1996.

08:20:13PM

Q. It's another typo?

A. Correct.

Q. Okay. It did call for three to five transfer stations?
A. That is correct.
Q. How many transfer stations does DuPage County have?
A. One.
Q. And the 2001 plan update referred to a second and third transfer stations, right?
A. Correct.
08:20:46PM Q. DuPage County still only has one, correct?
A. Yes.
Q. And that plan noted that the second and third transfer stations would increase competition. Do you agree with that statement?
A. That's what it says.
Q. Do you agree with it?
A. It says -- Rephrase the question.
Q. Do you agree with the conclusion of
08:21:12PM DuPage County that a second or third transfer station would increase competition?
A. I think a second or third transfer

station did have the potential for increasing competition.

Q. I'm looking at the language from the plan. I can't see the word "potential" in there?

MR. LUETKEHANS: It was -- Objection. He answered the question. The question was, what is your -- do you disagree with it? He stated what he believed.

08:21:40PM HEARING OFFICER PRICE: Overruled. Let the witness do it.

BY THE WITNESS:

A. Are you asking me to read what was in the plan?

Q. Well, no. DuPage County -- Do you agree with DuPage County's statement, correct?

A. In essence, yes.

Q. And do you agree with DuPage County's statement that a second or third transfer

08:22:01PM station would reduce wear on roads?

A. Depending on its location.

Q. Do you agree with DuPage County's

statement that a second or third transfer station would reduce overall truck miles?

A. Again, depending on where it's located.

Q. Well, the county just sought -- made the statement without regard to location, didn't it?

A. I think it implies that it was there to accommodate future population growth, meaning
08:22:44PM that areas where population growth was increasing would need a transfer station because of the distance having to travel to the DuKane transfer station.

Q. Mr. Lardner, I don't know what it implies because I just can -- I read the words. You apparently are able to see into the minds of the people in DuPage County that passed this plan update.

MR. LUETKEHANS: Objection,
08:23:13PM argumentative.

HEARING OFFICER PRICE: Sustained.

BY MR. MUELLER:

Q. Now, did you hear the testimony of Mr. Hock that our proposed facility will increase competition?

A. I remember that.

Q. Did you hear the testimony of Mr. Hock that our proposed facility would reduce wear on roads?

A. I think that was his opinion, yes.

08:23:40PM Q. Did you hear the testimony of Mr. Hock that our transfer station, if tit's approved, would reduce overall truck miles traveled?

A. In which county?

Q. In DuPage County.

A. If it's in DuPage County, yes, I remember hearing him say that.

Q. And did you hear his testimony that a second transfer station, our transfer station, would decrease truck air emissions?

08:24:09PM A. Yes, that was his -- his statement.

Q. Now, DuPage County, when they wrote the 2001 solid waste management plan update,

apparently thought all of those benefits were -- were -- were useful and important, right?

A. Yes. I think that the -- when they put together that statement, they were looking at transfer stations that would serve DuPage County or that the hauling distance was somewhat prohibitive or too far from the DuKane transfer station.

Q. So -- Well, again, I'm looking at the 08:24:54PM 2007 plan update. I don't see any reference to distance. Am I missing something?

(Witness perusing document.)

BY THE WITNESS:

A. Which plan were you talking about?

Q. 2007 plan update, the one I've been reading to you from. Excuse me. I take it back.

2001.

A. Okay. So, again, now what is your 08:25:36PM question?

Q. Do you see any references to distance or location for the transfer station in that

plan update?

A. No. It's alluded to by reducing overall truck miles traveled, and it's the distance.

Q. Let's go to the 2007 plan update.

That plan also recommended more transfer stations for DuPage County, correct?

A. I don't see anywhere where they recommended that at the time, I mean, through my slide here.

08:26:30PM

Q. Have you read the entire plan?

A. Yes.

Q. Did the plan recommend more transfer stations or didn't it?

A. I don't recall that it did.

Q. You don't recall that it did or you don't recall either way?

A. Either way.

Q. Okay. And the -- the blurb that you quoted does say "the ideal transport distance is no more than ten miles."

08:26:51PM

Do you agree with that statement?

A. I think there -- yeah, I would agree in -- in -- in concept that the -- the goal here was to try and find transport facilities or facilities that would serve -- transfer stations that would serve the community so that no more than ten miles had to be traveled.

Q. Then why are you using more than ten miles for some of your service areas?

A. Because at the time these were the service areas that were identified from the siting application.

Q. From what siting application?

A. For instance, the -- the Plano transfer station siting application, there's more than ten miles traveled.

Q. Now you got me confused. Let's do it again.

Do you -- You agree, apparently, that the ideal travel distance for transfer stations is no more than ten miles, right?

A. Again, there's a lot that goes into that.

Q. Yes or no?
A. I would say no.
Q. Okay. So you disagree with DuPage County's finding here about the ideal travel distance?
A. I don't think it's an exact number. So I would say I would have to disagree. It could be -- It could be a little bit more than that. It could be less.
08:28:40PM Q. You understand what the words "no more than ten miles" mean, don't you?
A. Yes.
Q. 11 miles would be more than ten?
A. Right. Correct.
Q. But you disagree with that statement by DuPage County?
A. I don't disagree with the exact number there. I'm just saying that ten miles, depending on where you're at, could be the
08:29:04PM equivalent of a few more miles because of, you know, conditions.
Q. This plan update didn't talk about

distances in terms of road conditions or other variables, did it?

A. No. It was talking about the -- the mileage from different quadrants in DuPage County.

Q. And I noticed that this particular update also connects reliance on existing transfer stations as resulting or could result in higher disposal rates, right?

08:29:51PM A. Which plan are you referring to?

Q. 2007 plan update.

A. I don't see that in my -- in my slide.

Q. Which of the plan updates said that reliance on existing facilities will result in higher disposal rates?

A. I think that was a 2017 where it says will lead to increase costs. Large regions in the county are not optimally served due to lengthy transportation routes which lead to

08:30:53PM increased costs and air emissions.

Q. So as recently as 2017, the county found that reliance on existing transfer

stations will result in higher disposal rates, correct?

A. That was the 2012 solid waste management plan. It says: These conditions can result in less competitive waste hauling and higher costs especially in incorporated areas.

Q. Do you agree with that statement?

A. In concept, it could.

Q. And would higher disposal rates generally be a bad thing? 08:31:44PM

A. No.

Q. So if you had a choice of paying a lower rate or a higher rate, it wouldn't matter to you?

A. If I was getting better service at the rate, yes, it would.

Q. Now, turning to the next page where you show service areas in the northeast part of DuPage County ...

A. Which slide are you referring to? 08:32:25PM

Q. I don't know. It's called 2007 Shaw Environmental report.

A. Okay. Yes. That's the -- That's those service area quadrants.

Q. All right. You've got a transfer station called Groot Chicago listed.

A. That was in there, correct.

Q. That service area is not a ten-mile radius circle, is it?

A. It's not a circle. It's more of a rectangle.

08:33:14PM Q. It's a big rectangle that goes from Lake Michigan all the way to the western edge of DuPage County?

A. Correct.

Q. Would that be more than 20 miles?

A. I don't have a scale on this drawing so I -- I can't make an exact --

Q. Let me -- Let me try to help you here, sir.

Do you know what township lines

08:33:45PM are?

A. Yes.

Q. How big is a standard township?

A. It six miles by six miles.
Q. Okay. And DuPage County is, other than the southeast corner, three townships by three townships, right?
A. Yes.
Q. So DuPage County's regular width, from east to west, is 18 miles?
A. Correct.
Q. And the service area for Groot Chicago
08:34:22PM appears to be almost twice the width of DuPage County, right?
A. Well, maybe not twice, but it's larger than DuPage County, I'll grant that.
Q. So why aren't we using the county's recommendation for a ten-mile maximum travel distance when we look at Groot Chicago?
A. Because I think that it was the county's reliance on out-of-county disposal services, even though it said it might increase
08:35:04PM costs.
Q. So when the county looks at out-of-county transfer stations, the ten-mile

rule doesn't apply?

A. I think they're showing portions of the county with- -- you know, with- -- within a ten-mile radius of the -- that Groot Chicago transfer station.

Q. Can -- Can you, sir, show me anywhere in the plan update -- any of the plan updates where the county writes that the ten-mile rule no longer applies?

08:35:41PM A. I don't think -- There was nothing there. They said this was an ideal location or ideal distance they had quoted.

Q. All right. Let's look at the next page, comes from Appendix F: Service areas of transfer stations proximate to northwest DuPage County.

Do you see that?

A. Yes.

Q. And there's a big circle that

08:36:10PM surrounds the Batavia transfer station, correct?

A. Correct.

Q. What's the radius of that circle, sir?

A. I think that was 15 miles. As I mentioned earlier this evening, that was a statement out of one of their -- I think the 2000- -- I'm not sure exactly what solid waste plan, but it talked about a 15-mile radius.

Q. So you abandoned DuPage County's ten-mile rule when drawing the Batavia transfer station service area, right?

A. In this area, you know, again, that was the -- in this particular appendix, that's what they used as the 15-mile. Again, it depends on driving distance. If you're in a more developed area, ten miles could be the equivalent of 15 miles in a rural area.

08:36:51PM

Q. So do you think 15 miles is better than ten or is ten better than 15, or don't you know?

A. It depends on what you're talking about.

Q. Now, let's go to the 2012 solid waste plan update. That's the one that says: Fewer transfer stations can result in less competitive

08:37:20PM

waste haul.

Do you agree with that statement?

A. It didn't talk about fewer transfer stations. It just says -- indicating areas are somewhat underserved and then some areas are out of range for existing facilities. It says: These conditions can result in less competitive waste hauling and higher costs especially in unincorporated areas.

08:38:22PM Again, they were talking about residents who lived in the southern part of the county and that were too far away from -- for a hauler to serve them.

Q. Now, it seems to me that several of the DuPage County plan updates talk about competitive factors; is that correct?

A. They're talking competition in that, you know --

Q. Well, I'm --

08:39:08PM A. -- what -- its service. And, again, where they're talking about here in -- in the southern portion of the county, there wasn't as

much competition because there were fewer transfer stations that were -- were close enough to serve them.

Q. Where does it say that in a plan update, what you just said?

A. That- -- That's my interpretation.

Q. Ah, your interpretation.

Now, going back to my original question: The county plan updates seem to

08:39:35PM consistently mention competitive factors as something they look at, right?

A. The word "competition" is -- was in several of the plans, and they also could say "can result in less competitive." It's not a definite statement.

Q. I guess I got to ask you: Do you want to change your testimony on Criterion 1 to now include competitive factors, because you've testified that you didn't include competitive

08:40:10PM factors when deciding there was no need?

MR. LUETKEHANS: Objection --

HEARING OFFICER PRICE: Overruled.

MR. LUETKEHANS: -- misstates the testimony.

HEARING OFFICER PRICE: That's overruled.

BY THE WITNESS:

A. So, again, your question?

Q. Do you want to change your testimony on Criterion 1 where you disregarded competitive factors in concluding that there was no need?

08:40:33PM A. No.

Q. The 2017 or 2012 plan update suggests a possible transfer station in southern DuPage County, correct?

A. That statement was there, yes. Correct.

Q. Does it rule out other locations in the county?

A. It makes no mention of other --

Q. Does that plan update say that a

08:41:09PM location in a nonsouthern portion of the county is inconsistent with the plan?

A. It does not say that, no.

Q. And then we go to the 2017 plan update. That's the most recent one, correct?
A. That is correct.
Q. And that says that large areas or large regions of the county are not optimally served due to lengthy transportation routes.
Do you see that?
A. Yes.
Q. So would lengthy transportation routes be a bad thing?
08:41:55PM
A. In this case, it -- for this -- Again, they're going back to the regions that were not optimally served. I interpret, again, that to be the southern part of the county that wasn't being optimally served and it was increasing the transportation costs for that area.
Q. Okay. That's your interpretation?
A. Correct.
Q. We looked at the 2017 plan update carefully and can't find any reference in there
08:42:30PM
to the southern portion of the county.
Have you looked at that plan update

carefully?

A. Yes.

Q. Could you find a reference to the southern portion of the county?

A. Not in a 2017 waste management plan update.

Q. So if it doesn't mention the southern portion of the county, why do you want to insist that that's what DuPage County's plan was

08:42:57PM thinking about?

A. Because both -- both mention the underserved parts of the -- of the county.

Q. And it says also that the county of DuPage will consider new or expanded facilities, right?

A. Yes.

Q. So if you have a new or expanded facility to propose, that would seem to be consistent with the plan; isn't that right?

08:43:26PM A. Depends if they considered it.

Q. Are you aware of the fact that DuPage County has signed a secondary host agreement

with Lake Shore?

A. Yes.

Q. Do you consider that -- Is that consideration on their part of a new or expanded facility?

A. I have no opinion on that.

Q. Well, you did opine that because the DuPage County expert on solid waste planning who said this proposal appears to be consistent,

08:44:15PM that because she didn't say "is consistent," the plan is automatically inconsistent; is that right?

A. I just stated that she didn't say that it is consistent.

Q. Well, appears to be consistent is pretty close to a finding of consistency, isn't it?

A. No.

Q. She didn't say it appears to be

08:44:42PM inconsistent, did she?

A. That's not what's there, no.

Q. Then why would you believe that

because she only said "appears to be consistent" that our proposal is actually inconsistent with the plan?

A. Because she gave no reason behind it.

Q. DuPage County is not the siting authority, are they?

A. No.

Q. So they don't have to consider our proposal in detail, do they?

08:45:09PM A. There's no -- There's no regulation or -- or law that states that, no.

Q. But DuPage County did consider it sufficiently to -- to execute a secondary host agreement and to give us a letter of the appearance of consistency, right?

A. It did give you the letter, I agree.

Q. And they did execute a secondary host agreement with us?

A. I agree with that.

08:45:39PM Q. Do you know what the evidence that the 2003 siting hearing was?

A. No.

Q. You just quote the findings even though you don't know the evidence?
A. That is correct.
Q. Was that proposal the same as this one?
A. No.
Q. Do you know if that proposal had evidence about reduced wear on roads, reduced overall truck miles, and decreased truck air
08:46:27PM emissions?
A. No.
Q. This proposal does that evidence on all of those figures or factors, doesn't it?
A. It was introduced by a consultant, yes.
(Brief pause.)
BY MR. MUELLER:
Q. I want to turn to your conclusions.
Your first statement is the SWMP
08:47:16PM updates, starting in 2007, all focus on the need for additional transfer capacity in the south portion of DuPage County.

Is that what you said?

A. If it's in there and -- and with the ...

Q. I didn't hear your answer, sir.

A. Yes, they do -- Some focus on the south portion of DuPage County but not all.

Q. Show me the focus on the southern portion of the county in the 2017 plan update.

A. There is no mention of that. It was in an earlier version -- earlier updated version.

08:47:51PM

Q. This says starting in 2007 "all focus." Do you know what the word "all" means?

A. Yes.

Q. You selected that?

A. Yes.

Q. And that's state- -- that word is incorrect as to the 2017 plan update; isn't that true?

08:48:11PM

A. I would agree.

Q. And then you say "adding transfer station to the northwest portion of DuPage

County will serve as a disincentive to a south facility."

Do you have any evidence of that?

A. No. I think it's implied because they're talk- -- earlier versions talked about the need for a south facility to reduce the travel distance that was going to the DuKane facility at the time.

Q. Well, in 2017, we didn't talk about a south facility?

08:48:51PM

A. That's correct.

Q. So you have no evidence that there will be a disincentive, do you?

A. No.

Q. And then your third conclusion is that the siting application did not consider service areas of other pollution control facilities, right?

A. Yes.

08:49:23PM

Q. Is that a requirement of this solid waste management plan?

A. Well, the solid waste management plan

is a conclusion, said that the document -- it says "service areas of existing facilities be considered."

Q. Mr. Lardner, you're testifying about consistency with the solid waste management plan, right?

A. Yes.

Q. Does this third conclusion that you have, have any requirement for that kind of consideration in any of those solid waste management plans?

08:49:58PM

A. In the 2017 solid waste management plan update, it said service areas must be considered.

Q. We considered our service area, didn't we?

A. It says ...

Q. Do you recall Mr. Hock testifying about other transfer stations and their service areas and the fact that they would have some impact on this service area?

08:50:36PM

A. Yes.

Q. So he did consider them?
A. Yes.
Q. So your third conclusion is also wrong?
A. (No verbal response.)
Q. Let's go to the fourth one.
A. I would -- I would say not exactly wrong. It's -- Again, he talked -- he didn't show the entire service area. He just talked
08:51:03PM about other transfer stations.
Q. Did he consider service areas of other transfer stations?
A. No, not service areas.
Q. And then -- And just backing up for one second, we've determined that the consideration of service areas of other pollution control facilities is not a plan requirement, right?
A. I think the plan says to consider
08:51:44PM service areas of other pollution control facilities.
Q. Let's go to 2017. What does it say?

A. It says service areas must be considered.

Q. And your -- your belief is that even though Mr. Hock testified about other service areas, he really didn't consider them?

A. He didn't testify to the whole service area that the tran- -- other -- other facilities had.

Q. You're correct. He didn't testify about the Lake Michigan shoreline portion of the Chicago Groot service area?

MR. LUETKEHANS: Objection, argumentative.

HEARING OFFICER PRICE: Sustained.

BY MR. MUELLER:

Q. Your fourth conclusion, there's no mention in the siting application that the assistance of DuPage County was requested.

Is it a requirement of the solid waste management plan that the county's assistance be requested when you are trying to site a facility in a municipality?

A. The plan reads that the -- that the service areas of existing facilities be considered and that the proposed control facility appears -- excuse me -- be considered on a case-by-case basis. So it does say to consider it.

Q. We're done with that one.

A. Okay.

Q. So I'm asking you whether or not there's a requirement that we ask for the county's assistance in developing --

08:53:11PM

A. Not assistance, no. You're correct.

Q. So there's no such requirement?

A. No.

Q. So at least conclusions one, two, and four are not valid, right?

A. I would say they're not valid. I would just say that, you know, in your interpretation of that, that you feel they're not.

08:53:35PM

Q. And how many transfer stations does DuPage County have now?

A. One.
Q. Still only one?
A. Correct.
MR. MUELLER: Thank you, sir.
HEARING OFFICER PRICE: Mr. Callaghan?

CROSS-EXAMINATION

BY MR. CALLAGHAN:

Q. The 2003 siting that you mentioned --
A. Yes.
08:54:03PM Q. -- did you look at the -- the file on that?
A. No, I did not.
Q. Where did you learn about it?
A. Just through -- through research.
Q. Research.
What kind of research?
A. With -- With the -- With the attorney that was -- who I'm working with.
Q. The attorney told you about it?
08:54:26PM A. We -- we discussed it, yes.
Q. But you didn't know about it before that?

A. I knew about the -- that it was -- that the 2003 was -- was not approved. And we asked about that, yeah. The 2000 [sic] siting was not approved and we discussed it and I said I would like to see the resolution.

Q. You -- You asked him about it or he told you?

A. No. I knew about the 2003 siting application not being approved and I asked him, Was there a resolution?

08:54:51PM

And he said, Yes, and he provided it to me.

Q. How did you learn the 2003 application was not approved?

A. Because I was living in the area and practicing in the solid waste industry and I followed it.

Q. Did you go to the hearings?

A. No.

08:55:06PM Q. Do you know how big that site is?

A. Which site?

Q. The 2003 site.

A. No.
Q. Is there any comparison between that site and the site that we're talking about in these hearings?
A. I'm not familiar enough to make a comparison, no.
Q. But you put it in your report?
A. No, because, in -- in general, I was talking -- looking at facilities that DuPage
08:55:34PM County wanted be on the DuKane facility and -- and to serve other portions of DuPage County. And, clearly, updates of the plan showed that that was what their interest was.
Q. Do you know anything other than what is shown on this page about it, on slide -- it doesn't have a number -- the 2003 West DuPage recycle transfer siting slide?
A. No. Just -- Just what I remember recall at the time, no, there's no more.
08:56:14PM MR. CALLAGHAN: That's all we have. Thank you.
HEARING OFFICER PRICE: Mr. Walsh...

MR. WALSH: Just a couple questions.

CROSS-EXAMINATION

BY MR. WALSH:

Q. Mr. Lardner, did you consult with DuPage County in the development of a plan or any of the updates?

A. No.

Q. Did you discuss the meaning of any of the provisions of the plan or any of the updates with anybody from DuPage County?

08:56:36PM

A. No.

Q. So your testimony is based on your interpretation of the words and the provisions in the plan and the updates, correct?

A. Yes.

Q. You don't have any independent knowledge as to what the county intended when it created the provisions in the plan or the updates other than your interpretation of those provisions, correct?

08:56:57PM

A. Correct.

MR. WALSH: Okay. Thank you.

That's all I have.

HEARING OFFICER PRICE: Redirect...

REDIRECT EXAMINATION

BY MR. LUETKEHANS:

Q. Let's start kind of where we ended, which was the -- the county board resolution board CB0002-04.

And you've cited the finding of the DuPage County board as it relates to the holding facility in 2003 as it relates to Criteria No. 8; is that correct?

08:57:30PM

A. Correct.

Q. Okay. And could you read, starting with the "proposed facility" and through the words "transfer station" in paragraph 2?

A. The proposed facility location --

MR. MUELLER: Objection, that's not proper redirect. That's just repeating direct.

HEARING OFFICER PRICE: Overruled for now.

08:58:03PM

BY THE WITNESS:

A. It says: The proposed facility

location is within one-quarter mile of another transfer station.

Q. And it says above that -- Yeah.

Okay. It's because the proposed facility location was within a quarter mile of another transfer station, that's the reason they gave, correct?

A. Correct.

Q. Not based on the size of the lot?

08:58:25PM That had -- That's not based in Criteria 8 -- their Criteria 8 finding, is it?

A. No.

Q. Okay. Do you know when DuPage County signed the host agreement with L- -- the secondary host agreement with LRS?

A. I think it was 2019 or '20.

Q. Okay. Yeah.

Actually, it was April of 2019. I don't think there's any dispute that.

08:58:55PM That was before this -- That was two and a half years before this application was filed, correct -- actually, three years before

this application was filed?

A. Correct.

Q. So it make sense that they hadn't seen the application at the time they approved their secondary host agreement?

A. Yes.

Q. Let's talk about this southern portion.

You made a mistake -- Would it be
08:59:23PM fair to say you made a mistake when you said in conclusion number one, "all focus"?

A. Yes.

Q. Okay. So -- But the two prior storm water management plans, they do focus on that, correct?

A. Yes.

Q. And is there anything you read -- and I think Mr. Hock admitted it. Is there anything that you read that 2017 somehow overruled the
08:59:46PM 2007 or 2012?

A. No, it did not overrule it. I didn't see anything to that.

Q. Did you consider it to be supplementing those prior --
A. Yes.
Q. Did you disregard competitive factors in your needs analysis?
A. No.
Q. In fact, if I remember correctly, you discussed all the competition that was already there?
09:00:15PM A. Yes. There was -- There's many transfer stations that are serving the proposed service area of the West DuPage County transfer and recycling facility.
Q. We heard about lengthy transportation routes.
Are the transportation routes any lengthier -- or are they significantly lengthier to the current Groot facility than they would be to the Lake Shore recycling facility a quarter
09:00:46PM of a mile away?
A. No. They're essentially the same.
Q. Okay. So the transportation costs

from the hauler to -- or the actual transportation costs from the hauler to the current facility in DuPage County versus the one a quarter of a mile down the street is minimal, at best?

A. That is correct.

Q. You were asked about the second or third transfer station is expected to increase competition, reduce wear on roads, reduce overall truck miles traveled, and decrease truck air emissions. That's from the 2001 plan. Do you recall that?

09:01:28PM

A. Yes.

Q. And you heard -- Mr. Mueller asked you if Mr. Hock testified to those things, to some of those issues, correct?

A. Yes.

Q. You're not here to testify to any of those issues, are you?

09:01:45PM

A. No.

Q. In fact, have you looked at those issues?

A. Not closely, no.
Q. Let's go to the 2007 solid waste management plan update slide.
A. Okay.
Q. And you were asked a bunch of questions about the word "ideal" or the ideal transport distance is no more than ten miles. Do you recall?
A. Yes.
09:02:29PM Q. Is there anything ideal about having two transfer stations next to each other in DuPage County?
A. No.
Q. And you talked about ideal -- that -- I think you kind of hinted or implied that the ideal distance may be different depending on where the transfer station is located?
A. Right. Again, in a -- in a less-developed area, the mileage might not be as
09:03:00PM important a factor as it is in the highly-developed area. You know, going ten miles in a developed area, it takes longer than

it does in a suburban less-developed area.

Q. Would it be fair to say that the traffic time in the northeast corner of DuPage County is slightly different -- is relatively different than that in Plano or Kendall County?

A. Yes.

Q. You got these four quadrant maps, and I think they were originally Appendix E, F, G, and H in the original document that Shaw or that the county had, correct?

09:03:37PM

A. Right.

Q. Okay. Are these your maps?

A. No.

Q. Okay. You took these from the plan. You did not -- You did not make these up?

A. No.

Q. Okay. So this isn't -- This Groot Chicago service area that goes probably 25 miles, I'm not going to deny, that -- you didn't do that, correct?

09:03:59PM

A. No. That was their service area selection.

Q. Okay. And you just took what the solid waste management plan said regarding these quadrants and put it in your PowerPoint?

A. Yes.

Q. In the 2012 -- Well, in a couple -- in the 2007 and in the 2012 solid waste management plan updates, it talks about the southern portion of the county, correct?

A. Yes.

09:04:34PM Q. To your knowledge, has -- do any of the solid waste management plans after the 2017 -- I guess that's the only one -- does that at any time conflict with that statement that the southern portion is the one that needs a transfer station?

A. No.

Q. And then could you look at that slide, 2012 solid waste management plan update for me?

A. Yes.

09:05:03PM Q. Okay. This is all -- The first paragraph is all in one paragraph in the plan, correct?

A. Yes.

Q. Okay. So the first two sentences talk about certain things. The second sentence talks about the southern portion of the county, right?

A. Correct.

Q. And then the third sentence, is that talking about the southern portion of the county again?

A. Yes.

09:05:23PM Q. And the fourth sentence that says, "these conditions can result in less competitive waste hauling," is that, again, talking about the need for a new facility in the southern portion of the county?

A. Yes.

Q. Okay. So those all relate to that southern portion concept?

A. Yes.

(Brief pause.)

09:06:04PM BY MR. LUETKEHANS:

Q. Let's talk about your conclusions.

Mr. Mueller tried to say that

because the word "all" was in there means your conclusion was wrong.

Would you agree with that?

A. No.

Q. It's just -- It's still -- You still have the same conclusion if you take the word out "all"?

A. That would be correct.

Q. Okay. And then the second bullet point says, Adding another transfer station in northwest portion of DuPage County will serve as a disincentive to a solid facility.

09:06:33PM

That's your opinion?

A. That is because it -- because it makes it less attractive for someone to put a transfer station in the southern part of the -- of the county.

Q. Okay. Have you seen any evidence in this hearing that that is -- that -- that conflicts with that statement?

09:06:58PM

A. None that I've heard.

Q. Okay. And you've been here for

most -- for most of the nights, correct?

A. Yes.

MR. LUETKEHANS: Thank you, Mr. Lardner.

HEARING OFFICER PRICE: PODER, anything from you?

MR. DELAROSA: No, not at this time.

HEARING OFFICER PRICE: All right. Then back to you, Mr. Mueller.

09:07:28PM MR. MUELLER: Very briefly, Mr. Price.

RECROSS-EXAMINATION

BY MR. MUELLER:

Q. Mr. Lardner, do you have the 2007 plan update in front of you?

A. The slide?

Q. No, the actual plan update. I don't want your interpretations.

A. No. I don't have it in front of me, no.

09:07:52PM Q. Are you aware that in addition to the section from the 2007 plan that was quoted in your slides, that plan also says DuPage County

should encourage the development of three to five waste transfer facilities throughout the county?

A. Yes, that's correct.

Q. You interpret that to mean that all three to five new waste transfer facilities should be in the southern portion of the county?

A. I would -- I interpret that to mean it should serve areas outside -- in DuPage County that were far enough away from the DuKane facility so as not to make a driving distance, again, a factor.

09:08:33PM

Q. So you don't interpret it as meaning it should be in the south only?

A. I think they're talk about unserved areas.

Q. It doesn't say that, does it?

A. It does not specifically mention the south, no.

09:09:02PM

Q. So as recently as 2007, DuPage County wanted, in addition to a transfer station in the southern portion of the county, they wanted

three to five overall new transfer stations, right?

A. Correct, to serve the area of waste being generated, that wasn't going to DuKane.

Q. It doesn't say that, does it?

A. It talks about it earlier in --

Q. Does it say that in the plan?

MR. LUETKEHANS: Can -- Let the witness finish the answer, please.

09:09:36PM HEARING OFFICER PRICE: Overruled. He can handle himself. You led him --

MR. LUETKEHANS: No. I'm just saying --

HEARING OFFICER PRICE: That's enough.

MR. LUETKEHANS: All I'm asking --

HEARING OFFICER PRICE: Overruled.

Ask a question.

MR. LUETKEHANS: All I'm asking is that the witness --

09:09:42PM HEARING OFFICER PRICE: Overruled.

MR. LUETKEHANS: -- be allowed --

HEARING OFFICER PRICE: Overruled.

MR. LUETKEHANS: -- to finish his -- finish his answer.

HEARING OFFICER PRICE: Answer the question.

BY THE WITNESS:

A. Could you repeat the question? I'm sorry.

MR. LUETKEHANS: He couldn't finish his answer.

09:09:49PM BY THE WITNESS:

A. Repeat the question.

HEARING OFFICER PRICE: Well, that's because you did most of the testifying, Mr. Luetkehans. I would like to hear from the witness.

BY THE WITNESS:

A. What was the question?

Q. Let me ask a different one.

A. Okay.

09:10:03PM Q. Do you have any indication in your ability to interpret the plan of where these three to five additional transfer stations

should be?

A. There is no specifics given on that, no.

MR. MUELLER: Thank you.

That's all I have.

HEARING OFFICER PRICE: Mr. Callaghan?

MR. CALLAGHAN: Just a couple.

RECROSS-EXAMINATION

BY MR. CALLAGHAN:

09:10:30PM Q. Have you looked in the area of southern DuPage County to determine whether any -- there was any location that would meet the require- -- the legal requirements for a transfer station?

A. I have not specifically looked at that. I do know that there are some large tracks of -- there are some large tracks of undeveloped. Whether they meet that criterion, I have not examined that, no.

09:11:01PM Q. Do you know if DuPage County has done that analysis?

A. No.

Q. Do you know that DuPage County concluded that there are no such locations in -- in southern DuPage County?

A. I remember reading that, that they found that the county was not -- because of this development, could not find other places to develop transfer stations.

MR. CALLAGHAN: Thank you.

HEARING OFFICER PRICE: Mr. Walsh...

09:11:28PM MR. WALSH: I don't have anything further.

HEARING OFFICER PRICE: Thank you, Mr. Lardner.

(Witness excused.)

HEARING OFFICER PRICE: Do you have another witness here this evening?

MR. LUETKEHANS: Yes. We would call Joe Abel to the stand.

HEARING OFFICER PRICE: Madam Reporter,

09:12:14PM would you swear in the witness, please.

(Witness sworn.)

(Brief pause.)

WHEREUPON:

JOSEPH ABEL,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. LUETKEHANS:

Q. Mr. Abel, could you please state --

MR. MUELLER: Mr. Price, before the witness starts, we were handed a CV and a one-page exhibit.

Is that all --

MR. LUETKEHANS: That's it.

MR. MUELLER: -- there is with this witness?

MR. LUETKEHANS: Yep.

MR. MUELLER: Okay. Thanks.

BY MR. LUETKEHANS:

09:13:29PM

09:13:40PM

Q. Mr. Abel, could you please state and spell your name for the record?

A. Joseph Abel -- Joseph H. Abel, A B E L.

HEARING OFFICER PRICE: Mr. Abel ...
BY MR. LUETKEHANS:
Q. You got to speak into the mic.
How are you currently employed?
A. I'm a planning and zoning consultant.
Q. Could you provide us with the main history of your employment background or your -- yeah, your education and employment background?
A. Yes. I have a degree in city and
09:14:06PM regional planning with a minor in architecture from the University of Illinois. I received that -- I hate to tell you -- in 1959. I did graduate work at the University of Chicago center for urban studies, and I also completed an economic development institute program at the University of Oklahoma. It was a summer program. So that's my educational background.
I started my planning career in Lake County, Illinois with the Lake County
09:14:41PM Regional Planning Commission and worked on a number of projects. It was one of the first counties to develop county-wide comprehensive

plans. So I got in on the very ground level of preparing large area comprehensive plans. Most communities had been doing planning but not very many counties, and Lake County was the first.

After spending three years at the Lake County Regional Planning Commission, I then was hired by Carl Gardner & Associates, probably the premier planning consulting firm in the Chicago area. Back in that time frame, I was
09:15:21PM the principal consultant for a number of municipalities -- Cary, Illinois; Deerfield; Fox River Grove; Glendale, Wisconsin; Indian Head Park; Morris, Illinois; but more importantly, worked on the development of the Village of Oak Brook. I actually worked very closely with Paul Butler on the actual design of Oak Brook during that time frame.

I also, because I had worked at Lake County, specialized also in developing new
09:15:53PM county plans and accompanying zoning ordinances. I developed the first plan -- comprehensive plan and zoning ordinance for Grundy County and then

did all of the municipalities in the county, prepared their land use plans and -- and zoning ordinances -- Iroquois County, Kankakee County and Kendall County; also did a lot of urban renewal work with Carl Gardner, and things of that nature.

I actually then interviewed with DuPage County to be the consulting planner through Carl Gardner & Associates, went through
09:16:36PM the entire process. And then I got a phone call saying good news/bad news. The bad news was the county -- DuPage County wanted to prepare their first comprehensive plan in this particular area and have their own planning department and we want to hire a consultant, we want to hire you.

I had to make a decision and became the first planning director for DuPage County in 1970 and was in charge of developing the first land use plan and then accompanying zoning
09:17:12PM ordinance for DuPage County. I directed the entire program for 17 years, had a staff of approximately 40. And, again, we were the first

county in Illinois, other than Grundy County, which I had done to do a comprehensive plan that actually included all the municipalities. So my directive was, do not go to the county board with a comprehensive plan until all 37 municipalities were included and signed off on the plan. It took us seven and a half years to accomplish that, but we developed the comprehensive plan.

09:17:53PM Obviously, starting with 1970, I've been working in the area and am very familiar with it.

After the plan was adopted, I then was in charge of the comprehensive revision zoning ordinance. And by the time I left, I was in charge of the entire development process in the county. I was in charge -- I was the director of the zoning board. I was the -- was the secretary to the zoning board of appeals, 09:18:26PM was in charge of the zoning department, of the building department, and the planning department. So we called it the county

development department.

Well, after 17 years, I guess I got a little itchy and I was approached by the City of Chicago to head their economic development program. And so from 1987 to 1992, I was head of the economic development for the City of Chicago, responsible for developing industrial parks, setting up programs. We did work at the airports, and we set up an international trade
09:19:09PM council during that time frame. The budget there was 1.3 million, and I had a staff of 15.

In 1992, I decided it was time to -- to start off on my own. And so since 1992, I've had my own firm and have had many, many municipalities that I have under contract, presently working very closely with Oak Brook Terrace.

But other than that, doing primarily with the public and private sector.
09:19:49PM I've done expert testimony at the federal courts, local courts, and as an expert witness primarily zoning cases, and I have done some

site work for environmental facilities.

Q. Are you cert- -- Is PWC Exhibit 602 a copy of your curriculum vitae?

A. Yes.

In addition, I am a member of the American Institute of Certified planers. And in my planning profession, I have been very active. I was director of the Chicago metropolitan section of the Illinois chapter of the American
09:20:32PM Institute of Planners and also was elected president of the Illinois chapter of the American Planning Association and have been a member of the American Institute of Certified Planners for about 50 years.

Q. And what is that?

A. Requires -- Well, educational background has to first be met. You have to have a degree in city and regional planning from a recognized university, have to have a certain
09:20:58PM number of years of experience, and then you have to keep up your qualifications every year in terms of going to conferences and classes and

things of that nature. And I have maintained my AICP, I think, since about 1978.

Q. Okay. Are you familiar with the property that is the subject of this application for the siting of a waste transfer station?

A. Yes.

Q. And how are you familiar with it?

A. As director of planning directly for 17 years for the county. As I said, I was

09:21:36PM secretary to the zoning board of appeals. And so I did go out every night -- every Thursday night with the zoning board to public hearings.

When I was there, we actually went out to the communities for the public hearings. Now you have to go to the -- to Wheaton. But in terms of developing the plan for the county, I had become very familiar obviously with all of the communities. We actually had the advantage of going under contract with a number of

09:22:04PM municipalities after we prepared the comprehensive plan. And one of the communities that we contracted with was the City of West

Chicago.

So I -- I also was -- worked on the Groot facility, which is approximately a quarter of mile north of the subject property, and I had done a lot of work for the airport. We worked very closely with the DuPage County Airport all the years I was with the county. So that entire area we did some specialized planning studies for that area. And so I'm very familiar with
09:22:41PM Powis Road, its entire length from North Avenue to Roosevelt Road.

Q. Okay. In front of you is PWC Exhibit 350. Do you recognize that?

A. Yes.

Q. Okay. And can you -- do you -- We don't have the big one so I just have a small -- and you have it in front of you, but can you locate the proposed transfer station location?

A. Yes. If you look carefully at it,
09:23:16PM where the number 18 is, that's Powis Road, and you'll see the end of the runway of the airport and --

Q. You got to put it a little closer to you, Joe. I think she's --
A. Pardon?
Q. You got to put that mic a little closer to you.
A. Oh, yeah.
The -- The airport runway just about ends directly across from the subject property, and it's approx- -- the property is
09:23:46PM approximately midway between North Avenue and Hawthorne Road to the south.
Q. What is located directly to the east of the subject property?
A. The two rail lines.
Q. And are you familiar with the rail line parc- -- with rail line parcels in DuPage County that are no longer utilized as railroad -- rail lines and are now owned by someone or some other entity that is not a
09:24:11PM railroad?
A. Yes.
Q. How is that?

A. Just through the years following some of the vacations that have taken place. I happen to be working on a project right now in the -- near the Village of Glen Ellen and Glendale Heights. And the property that I'm working on is just directly north of a railway -- rail line that was -- was vacated.

I recently was involved in a project in Indiana also dealing with vacated rail lines. We actually are using the rail lines on the -- on the particular property for additional parking.

09:24:47PM

Sort of interesting that my first assignment out of school was in Lake County and what people don't remember is there was a major, major electrical rail system in Lake County that was vacated, and we studied that very carefully.

First, we tried to stop the vacation and then we had to decide how to handle all the vacated parcels as part of the planning process. So I've been involved with vacated rail lines and things of that nature for quite

09:25:20PM

sometime.

Q. Are there vacated rail lines that are -- Well, forget that.

Do you know the zoning of those two railroad parcels?

A. Yes.

Q. What is the zoning?

A. It's the R-1 estate residential in the City of West Chicago.

09:25:49PM Q. Now, how many different development projects -- and I know not to the exact number -- have you consulted on in private practice over the past 30 years?

A. Literally, hundreds.

Q. Do you understand how it would be difficult to develop these two rail parcels directly to the east as residential in their current size and location?

A. Yes.

09:26:13PM Q. Why is that?

A. Well, it's a linear zoning at this point. It's long, narrow, and just wouldn't be

possible to develop.

As I recall, the zoning classification requires a minimum of 40,000 square feet. And just to do a series of 40,000 square foot [sic] would just not be practical.

Q. Does that mean these railroad parcels directly to the east of the subject property cannot been developed as residential?

09:26:54PM A. No. They definitely can be developed as residential.

Q. How -- How could that occur?

A. Combining with the adjacent properties.

Q. Okay. So when you say adjacent property, do you -- it could be to the east -- it could be to the west of that; is that correct?

MR. MUELLER: I'm going to object.

09:27:12PM He's calling for witness to speculate on facts not the evidence.

MR. LUETKEHANS: Well, he's here to

give his opinion.

MR. MUELLER: The properties to the west and east are not zoned residential.

MR. LUETKEHANS: Well, we're going to get to that.

HEARING OFFICER PRICE: I'm going to allow Mr. Luetkehans a little room here.

I -- I generally agree. We haven't established a foundation that -- although he's
09:27:37PM an authority in planning, that he's a residential home builder, so I'm looking forward to you tying that up.

BY MR. LUETKEHANS:

Q. Let me ask you a question: Have you ever been involved in residential home development as a consultant?

A. Yes. Through my -- the years I've been doing this, I have designed hundreds of
09:28:02PM residential subdivisions from senior housing to small lot development to estate properties. Designing and laying out subdivisions is part of what we do, not only preparing comprehensive

plans, but also designing subdivisions throughout DuPage County, throughout the Chicago metropolitan area. I'm trying to think of the closest one to this subject property. It's probably just on the north side of North Avenue.

But the question you -- you asked is --

Q. Well, let- -- let's not go to the question yet. So let me ask another question.

09:28:44PM As community develop- -- As development director at DuPage County, did you oversee or did your -- did you oversee the development or approval of residential zoning projects in DuPage County?

A. Every subdivision had to come through our approval before it was granted permission to develop.

Q. Okay.

A. You have to remember that the time

09:29:11PM frame that I was at the county, from '70 to '87, we were the fastest growing county in the state of Illinois, the third fastest growing county in

the country.

Our zoning board was out every Thursday, 50 Thursdays out of a year. We handled sometimes three -- We had to break our zoning board appeals into two groups going out every Thursday. We handled three cases probably a night. So that's two times three is six, times 50. That's how many zoning cases we had, and most of those were residential development. We were the fastest growing county in the state of Illinois.

09:29:52PM

Q. Okay. How is the farmland to the east of the prop- -- of the railroad currently zoned?

A. It's in two zoning classifications. Part of the area is still unincorporated, and the area that is directly -- directly adjacent to the railroad is zoned manufacturing in the City of West Chicago. And then as you go a little further to the east, it's zoned R-2 residential.

09:30:24PM

Q. Okay. Do you know what the word "consolidation" means from a real estate or

zoning perspective?

A. From a zoning and planning standpoint --

Q. Yeah.

A. -- it's to consolidate as many properties as possible to -- to develop your -- to get a good development.

Q. Have you seen residential developments that consolidated different PIN numbers or

09:30:48PM different parcels throughout the years?

A. Oh, yeah.

Q. And have you seen properties be consolidated with different zoning on -- underlying zoning on them?

A. Yeah. I'm presently working on a very large 100-acre development in Oak Brook Terrace where we're developing a new town center, and it has multiple zoning on it right now and we're going to hopefully pull it all together and

09:31:16PM bring it into one development.

Q. Okay. And have you been involved with the rezoning of parcels that are commercial or

for whatever -- whether that be office or industrial into residential?

A. That's what we're doing right now on a number of projects.

Q. Okay. Could the railroad parcels being consolidated, in your opinion, at some point if -- if the railroad was vacated? Obviously, when the railroad is there, it can't happen.

09:31:50PM A. Can't happen.

Q. But once the railroad --

MR. MUELLER: I'm going to object.

BY MR. LUETKEHANS:

Q. In the railroad is vacated, could you ever -- is it possible that they could be consolidated with another parcel and be used as residential?

MR. MUELLER: I'm going to object. The statute calls for examination of current

09:32:09PM conditions. We can't speculate about a possible vacation of the busiest east-west rail line in the state, nor can we speculate about future

zoning.

MR. LUETKEHANS: Well --

MR. MUELLER: It could eventually be zoned residential and we can build hundreds of houses there, but that's not what we're required to look at now.

MR. LUETKEHANS: What we're required to look at is the current zoning --

HEARING OFFICER PRICE: The objection is overruled.

09:32:40PM

MR. LUETKEHANS: -- which is residential.

HEARING OFFICER PRICE: You can just -- The objection is overruled.

BY MR. LUETKEHANS:

Q. Do you remember the question, Mr. Abel?

A. No.

Q. Okay. And I'll try and ask it, and I'll probably ask it worse, so I apologize.

09:32:49PM

But is -- do you -- is there -- From a zoning perspective and land use

perspective, if the railroad was vacated as you've seen happen in DuPage County in the past or as you testified to has happened, is there any zoning -- could that parcel be consolidated with one of the other parcels to the east and be developed as residential from a land use and zoning standpoint?

A. Yes. And they might be wanting to pick up additional land area just to accommodate
09:33:30PM particular density thereafter. So there's -- there's definitely an advantage of adding any of that rail line -- any vacated rail line to the property to the east.

In fact, like I said, one of the properties I'm working on now down near -- finished in Indiana, that's exactly what happened. There was a manufacturing operation and they took over the easement for additional parking.

09:33:59PM Q. Do you have an opinion as to -- with a reasonable degree of planning certainty as to whether the railroad parcels directly to the

east of the subject property could be ever used as residential parcels?

A. Yes, definitely could be used for residential purposes. In fact, that's how it's zoned right now.

MR. LUETKEHANS: Thank you, Mr. Abel. Nothing further.

HEARING OFFICER PRICE: PODER...

MR. DELAROSA: Nothing at this time.

09:34:28PM HEARING OFFICER PRICE: Mr. Mueller...

CROSS-EXAMINATION

BY MR. MUELLER:

Q. Mr. Abel, you work out of your house, don't you?

A. No. I work out of an office in Wheaton.

Q. Well, you show your address as a residential address in Glen Ellyn.

A. Yes. 200- --

09:34:42PM HEARING OFFICER PRICE: Mr. Abel, I really need you to use the microphone.

THE WITNESS: Yes. Yes.

BY THE WITNESS:

A. 200 Forest is my home address where I have an office, but I work out Gary Weber & Associates. They do all of my graphics, all my secretarial, and I have accommodations there. It's in downtown Wheaton.

Q. That's not your office, though, is it? It somebody else's office that you use sometimes?

09:35:08PM A. I use it all the time.

Q. So why don't you put it down as your address?

A. That's just my preference.

Q. Sir, looking at your resume, I don't see anything on here after 1992 other than you working as a self-employed consultant; is that correct?

A. Yes.

Q. And this Exhibit PWC 350 that was

09:35:58PM handed out, do you know how old that aerial photograph is?

A. I would guess it's fairly recent.

I -- All of my work that I did at the office was using aerial photography that was from 2021.

Q. Is this a photograph that you were provided by your attorney?

A. Yes. I could have printed out my own --

HEARING OFFICER PRICE: Mr. Abel, I know we don't have a stand, but nobody can hear. You're a very soft-spoken and articulate person, but you absolutely have to speak into the microphone. I can barely hear you.

09:36:52PM

THE WITNESS: I'll stay right on top of it.

BY THE WITNESS:

A. I use primarily computer-generated aerial photography while I was working on this, so it's always on a screen in front of me. And this was printed out so that -- because of the fact that there wasn't a screen here tonight. So I don't know when they did it.

09:37:24PM

Q. I think my question is: Did -- Did your attorney provide you with this photograph?

A. Yes.

Q. So whatever photography you generate is different from what your attorney provided you here, right?

A. No, it's identical. I have photos probably in my file over on the bench. This area has not changed dramatically. Like I say, I just finished a big distribution facility about a half a mile to the west on North Avenue over the Christmas holidays. And I've done a number of projects in this area.

And this aerial photograph, whether it was -- it's two years old or three years old, wouldn't make any difference. Nothing has dramatically changed in this -- this particular area over the last two or three years.

Q. Speaking of nothing having changed, the -- the railroads still operate there, correct?

A. Correct.

Q. And the -- those railroads are actually quite busy and active, aren't they?

A. The Union Pacific is. The Canadian National is a single -- single track, and the others -- the Union Pacific is a double track.

Q. So that other railroad is the Canadian National Railroad?

A. Yes.

Q. And Union Pacific, that's a main east-west line, right?

A. Correct.

09:39:04PM Q. Who hired you, Mr. Abel?

A. Mr. Luetkehans.

Q. And have you been paid?

A. No, but I will be.

Q. How much are you going to be paid?

A. It's on an hourly basis.

Q. The -- How much time do you have in this so far?

A. About 20 hours.

Q. And what's your hourly rate?

09:39:46PM A. 275.

Q. Now, you said you've seen railroads vacated in the past?

A. Yes.

Q. What railroads in DuPage County have you seen vacated?

A. Major line now is -- that I'm familiar with because I working on the project is -- I forget which line it was, but it's halfway between St. Charles and North Avenue on Main Street in Glen Ellyn. That was where the crossing was.

09:40:22PM Q. So one DuPage railroad, that you can't identify, has been vacated?

A. No. When I was with the county, there's the EJ&E line was vacated in the West Chicago area close to Wheaton Christian Academy. So there have been a number of them throughout the 30, 40 years.

Q. And I thought I heard you correctly to say, given the nature of the activity on these railroad tracks and the zoning to the east, it

09:41:07PM would be impossible to develop that -- those railroad tracks at the present time into estate homes. Is that -- Did I hear you correctly?

A. It's presently zoned estate. If -- If it were vacated --

Q. I'm not asking if.

Can it be developed into estate homes now?

A. No.

Q. In fact, it would be -- and I think you used the word -- "impossible," right?

A. Nothing is impossible, but it wouldn't be practical.

09:41:42PM

Q. How high are the berms on the east and west side of those rail lines?

A. I'm not sure.

Q. Are there access roads to those rail lines in the immediate vicinity of the proposed site?

A. Nothing that crosses over it.

Q. Now, if the DuPage Airport were vacated and that property was rezoned residential, then we could also build houses on the property of what is now the DuPage Airport, right?

09:42:28PM

A. If the airport was vacated?
Q. Yes.
A. Yes.
(Brief pause.)
BY MR. MUELLER:
Q. So your conclusion about the possibility of developing residential uses on these railroad tracks requires not one, but two assumptions about what might happen in the
09:43:17PM future, correct?
A. Well, the first assumption is that it would have to be vacated.
Q. Right.
And the second assumption would be that you would have to rezone adjoining property?
A. The difference is between -- when you mention the airport, that's an --
Q. I'm not asking about the airport.
09:43:41PM A. No. I'm just -- I'm giving a comparison between the two sides.
One is developed. The thing that

was interesting to me as a planner is that the entire -- over 200 acres directly to the east is agricultural, for all practical purposes, vacant land. It's used for agricultural purposes and does lend itself to a major redevelopment.

This is a very dynamic area in DuPage County. And to be able to find a site like this that has been sitting vacant -- I was with the county for 17 years, and nothing happened on this site and nothing has happened on the land to the east since I've been gone. This area is right for redevelopment; and, therefore, has the potential for being a mixed-use residential area which would include residential. And that residential could be within a thousand feet of the subject property.

09:44:19PM

Q. So to get back to my question, your assumption about the possibility of residential development on those railroad tracks requires two things to happen in the future, correct?

09:44:53PM

A. No. The property does not have to have any building on it.

Q. No.
A. It would just be part of the setback.
Q. I'm asking if the potential future use requires us to vacate the railroad tracks?
A. Yes.
Q. Okay. That's one thing that has to happen in the future, right?
A. Yes.
Q. And the second thing that has to
09:45:22PM happen is that you need some other property that's contiguous that also has to be rezoned, correct?
A. Oh, yeah. It would definitely have to be rezoned.
Q. And that, again, is a future contingency?
A. That's correct.
That's what planning is all about.
Q. Mr. Abel, have you ever heard -- when
09:45:45PM people say the word "if," ever heard the phrase, if ifs were skiffs, we would be all be sailors?
MR. LUETKEHANS: Objection,

argumentative.
BY THE WITNESS:
A. No.
MR. MUELLER: That's all I have.
HEARING OFFICER PRICE: Mr. Callahan...
CROSS-EXAMINATION
BY MR. CALLAGHAN:
Q. Mr. Abel, the -- what is the zoning classification of the railroad property?
09:46:06PM A. ER-1 estate residents district.
Q. Okay. And the reason the railroad property in and of itself would be difficult to develop is -- we have an exhibit that was provided by the applicant of a tax map, and it shows each railroad has 100 feet of width.
A. Correct.
Q. So it's 200 feet wide for the entire -- both rights of way, correct?
A. Yes.
09:46:41PM Q. And the minimum lot width is, at the building line, 200 feet. It's virtually impossible to just develop the railroad track,

correct?

A. Correct. I've said.

Q. I know.

A. Yes.

Q. I just wanted to go through that.

Now, on the east side of the Canadian National Railroad track, are you aware that there's a creek that runs along there?

A. Yes.

09:47:08PM Q. Okay. So there's -- not only would you have to consolidate with property to the east, you would have to deal with a creek in between those two parcels, correct?

A. No. It would be part of the development.

Q. The creek would cut -- completely cut the two parcels off from each other?

A. From a design standpoint, there's a way of getting around that. That parcel I'm

09:47:32PM working on now in Oak Brook Terrace, we're creating a whole system of lagoons and lakes and there will be walkways and things of that

nature. So it's -- the creek can be incorporated. It might even be able to be moved, I don't know, but that's a design feature.

Q. You can engineer anything is what you're saying?

A. You can design anything, yes.

Q. Do you know how this property came to be zoned ER-1?

09:47:55PM A. No. I don't know why West Chicago rezoned it.

Q. I'm going to show you a section of the zoning ordinance, which I think explains it. And it's a fairly typical -- I'm going to mark it City Staff Exhibit 1.

HEARING OFFICER PRICE: Actually, City Staff 2.

MR. CALLAGHAN: 2.

HEARING OFFICER PRICE: You have the

09:48:31PM GHA report.

MR. CALLAGHAN: Oh, I forgot about that.

Can I have your pen?

HEARING OFFICER PRICE: You have the GHA report.

That's my job.

(Brief pause.)

BY MR. CALLAGHAN:

Q. You're familiar with that kind of a zoning classification?

A. Oh, yes.

09:49:11PM Q. And what does it provide for?

A. I'll just read it: Any land -- Any land whose classification is not shown on the official zoning map and land hereinafter and next to the city shall be automatically classified these are ER-1 estate until differently classified by amendment. Streets, alleys, public rights of way shall comply with Subsection 64.

This is pretty standard.

09:49:41PM Q. Right.

A. And I have written that into many of the ordinances that I've done, I've had to be

very careful. The ordinances that I have written --

HEARING OFFICER PRICE: Mic -- Mic.

BY THE WITNESS:

A. I've prepared the planning standards for zoning ordinances. I'm not an attorney and do not prepare --

Q. Sure.

A. -- the complete zoning ordinance.

09:49:59PM Q. So my whole point of raising this is, it is likely that this property was automatically zoned upon annexation into this district, ER-1.

A. Yes, but if they didn't want it to be ER-1 and -- on their map, they would have rezoned it.

Q. Right.

A. They had that ability at any time to rezone this property to some other zoning

09:50:21PM classification. And the way the -- the way the ordinance is written, it's the zoning that's there today, a thousand feet away from any zoned

residential.

Q. Right. I understand.

A. West Chicago has the right at any time to rezone this property.

Q. And if this were to be consolidated or the property next-door was -- was rezoned to some other classification -- I mean -- Strike that.

Any property can be rezoned at any time, correct?

09:50:54PM

A. That's correct.

Q. And so this doesn't change the use of the property, the ER-1 classification?

A. But that's not the way the ordinance reads. It's how the land is rezoned today, and it's zoned ER-1 residential.

Q. My whole point is: The zoning of the railroad property has nothing to do with the use of the property, correct?

09:51:20PM

A. That's -- You have to ask the City of West Chicago that.

Q. Well, is it -- is it being used for

residential?
A. No.
Q. It's being used for railroad?
A. Yes. I have many parcels that are zoned differently than they're used.
Q. You mentioned that you did work for Groot?
A. Yes.
Q. What did you do for Groot?
09:51:48PM A. Their initial siting.
Q. Of the transfer station down the street?
A. Yes.
Q. And you testified about Criterion 3?
A. Yes.
Q. Okay.
MR. CALLAGHAN: That's all -- That's all I have.
HEARING OFFICER PRICE: Thank you,
09:52:04PM Mr. Callaghan.
Mr. Walsh...
THE WITNESS: Just for the record,

though, at that time, the railroad was zoned industrial.

MR. WALSH: No questions.

MR. CALLAGHAN: Can I -- I'm sorry.

HEARING OFFICER PRICE: Back to you, Mr. Callaghan.

BY MR. CALLAGHAN:

Q. Have you looked at the floodplain maps for the property to the east?

09:52:25PM A. I looked at just a generalized land -- environmental map.

Q. Do you know if there was floodplain on the property to the east?

A. No.

Q. Do you know if there's wetlands on the property to the east?

A. No.

MR. CALLAGHAN: That's all I have. Thanks.

09:52:47PM HEARING OFFICER PRICE: Mr. Abel, I -- I need to ask because my job is the record. You don't know or there aren't?

You said no. I'm not sure if you meant you didn't know or that there are none.

THE WITNESS: I don't know. All I know is that it's presently used for agricultural purposes. And I just said before, just like with the creek, and in DuPage County, you design around your environmental problems.

HEARING OFFICER PRICE: I appreciate that. I just want to make sure we get what we
09:53:21PM needed on the record.

All right. Redirect, Mr. Luetkehans...

MR. LUETKEHANS: Yeah.

REDIRECT EXAMINATION

BY MR. LUETKEHANS:

Q. You were asked about doing work --

HEARING OFFICER PRICE: You passed, right?

MR. WALSH: Correct. I have no
09:53:28PM questions.

BY MR. LUETKEHANS:

Q. You were asked about doing wok for

Groot previously.

Did you also do work for West Chicago related to a prior transfer station?

A. Yes.

Q. And that was the holding facility in 2003?

A. Correct.

Q. The airport is not zoned residential, however, is it?

09:53:45PM A. That's correct.

Q. Unlike the railroad, it's actually zoned airport?

A. It's special district, yes, on its own.

Q. You were asked about railroads vacated in DuPage County, and you mentioned, you know, the one at St. Charles -- between St. Charles and North Avenue on Main Street in Glen Ellyn. We have a -- We have a bunch of trails

09:54:09PM throughout DuPage County, correct?

A. Correct.

Q. And those trails, what were they

before they were trails?

A. Most of them were railroad right of ways.

Q. When you said this property is a CN Railroad, you don't know who owns that railroad, do you, that -- those -- those parcels themselves?

A. No.

Q. Okay. And you don't know who gets the tax bills for those parcels? 09:54:30PM

A. No.

Q. Mr. Mueller kind of tried to imply that you're working out of your house, you know, and you're kind of not working.

How many --

MR. MUELLER: I'm going to object to what I implied.

BY MR. LUETKEHANS:

Q. How -- Well, let me just ask the question: How many projects do you work on per year for the last five years would you say? 09:54:48PM

A. Between 25 and 50, all over the

Chicago metropolitan area. I mean, it's full-time, and that's why I have to have a backup of Gary Weber & Associates that provides all of my drafting, my secretarial.

So, in effect, I really have a staff of about 15. What I am is a marine maker. I bring in the work to Gary Weber & Associates, and I probably generate enough to keep a good portion of their staff busy. So if -- if I didn't have this fortunate opportunity, I would have to have a staff of at least five or six to keep up with all the projects that I have.

09:55:36PM

Q. And you -- do you regularly testified in front of zoning boards and -- to this day?

A. Oh, yeah. I mean, I just finished a large -- Just to give you an example, on North Avenue, we just finished a large parking -- truck parking facility, also a large distribution facility -- all on North Avenue -- and also an indoor storage facility on North Avenue. So that's just some of the different kinds of clients.

09:56:16PM

And then I have residential zoning cases -- commercial. The communities I represent right now, the only community is Oak Brook Terrace, and -- but, again, it's more than enough to keep a big staff going.

Q. And the aerial you were provided, we provided that to you, correct?

A. Yes.

Q. But you looked at it, or did you look at it first?

09:56:50PM

A. Yeah. It's identical to the one that I've been using for last two weeks up on the wall in my -- in the office.

MR. LUETKEHANS: Nothing further.

Thank you, Mr. Abel.

HEARING OFFICER PRICE: PODER...

MR. DELAROSA: Nothing further.

HEARING OFFICER PRICE: Thank you.

Mr. Mueller...

09:57:06PM

RECROSS-EXAMINATION

BY MR. MUELLER:

Q. Mr. Abel, you said, I think twice,

under questioning from your attorney and also from Mr. Callahan, that what matters is the zoning now, correct?

A. I'm not sure what reference you're --

Q. Well, you were asked whether any property could be rezoned at any time?

A. Yes.

Q. And you said what matters, though, is the zoning now, right?

09:57:47PM A. From the standpoint of the requirement of this hearing, that's what I was getting at. It's -- It's -- The fact is that it says, no transfer facility within a thousand feet of a residential piece of property zoned.

It's zoned that now, and that's what you have to live with.

Q. I --

A. That's not my problem. It's in the ordinance. And unfortunately, the City has left

09:58:19PM that zoned residential, and you are within a thousand feet of a residentially-zoned piece of property. That's the point I was trying to

make.

Q. And we've admitted that, Mr. Abel.

A. Yes.

Q. If you say that what matters is the zoning now, also in the "now," you can't develop the property as a residence, can you?

A. No --

Q. Thank you.

A. -- because it's zoned residential.

09:58:45PM MR. MUELLER: That's all I have.

HEARING OFFICER PRICE: Mr. Callahan...

MR. CALLAGHAN: Nothing.

HEARING OFFICER PRICE: Mr. Walsh...

MR. WALSH: No.

HEARING OFFICER PRICE: Thank you, Mr. Abel.

THE WITNESS: You're welcome.

HEARING OFFICER PRICE: That concludes the testimony.

09:58:53PM THE WITNESS: Sorry I didn't pull this closer.

HEARING OFFICER PRICE: Well, we didn't

have a stand. It's awkward. I appreciate your patience. You'll hand me the microphone.

So that's going to conclude our work for this evening, right at 10:00 o'clock. So well done, all parties.

We next convene, for everybody, Monday afternoon, 1:00 o'clock, at city hall in council chambers.

Mr. Luetkehans, how many more witnesses?

09:59:26PM

MR. LUETKEHANS: We have one more expert, and we may have a short witness that -- testify for a few minutes --

HEARING OFFICER PRICE: Okay.

MR. LUETKEHANS: -- a fact -- a fact witness.

HEARING OFFICER PRICE: All right. So we have one more expert testimony and then a fact witness.

09:59:48PM

PODER, how many witnesses are you going to call? They need -- They need to be ready on Monday.

MR. DELAROSA: Okay. We probably intend to call two to three witnesses.

HEARING OFFICER PRICE: They need to be at city hall on Monday. They need to be ready to go.

MR. DELAROSA: Okay.

HEARING OFFICER PRICE: And then it will be City Staff. I don't know that we'll get to you on Monday. I might take the time to fill

10:00:14PM it in with any public comment that needs to happen.

And then the following Thursday we have more work to do, and probably City Staff will be at that time.

Okay. Thank you, everyone.

(WHEREUPON, the hearing of the above-entitled cause was adjourned until 1:00 p.m., January 16th, 2023.)

STATE OF ILLINOIS)
) SS.
COUNTY OF DU PAGE)

Kim A. Kocimski, being first duly sworn, on oath says that she is a Certified Shorthand Reporter and Notary Public doing business in the City of Chicago, County of Cook and the State of Illinois;

That she reported in shorthand the proceedings had at the foregoing public hearing;

And that the foregoing is a true and correct transcript of her shorthand notes so taken as aforesaid and contains all the proceedings had at the said public hearing.

I hereby affix my electronic signature this 28th day of January, 2023.

/s/ Kim A. Kocimski
KIM A. KOCIMSKI, CSR

CSR No. 084-004610

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BEFORE THE CITY COUNCIL OF THE CITY OF WEST CHICAGO SITTING AS A POLLUTION CONTROL SITING AUTHORITY

In the Matter of:)
)
APPLICATION FOR LOCAL SITING)
APPROVAL FOR LAKESHORE)
RECYCLING RECYCLING SYSTEMS,)
LLC, FOR THE WEST DU PAGE)
RECYCLING AND TRANSFER)
STATION, 1655 POWIS ROAD,)
WEST CHICAGO.)

REPORT OF PROCEEDINGS had and testimony taken at the hearing of the above-entitled matter, at 475 Main Street, West Chicago, Illinois, on the 10th day of January, A.D. 2023, at the hour of 1:00 p.m.

PRESENT:

MR. DERKE PRICE, Hearing Officer;

MR. DENNIS WALSH, City Council Attorney;

MR. PHILLIP A. LUETKEHANS, Attorney for Protect West Chicago;

MR. RICARDO MEZA, Attorney for Protect West Chicago;

MR. GERALD CALLAGHAN, Attorney for city staff;

MR. ROBERT A. WEINSTOCK, Attorney for for People Opposing DuPage Environmental Racism (PODER);

MR. GEORGE MUELLER, Attorney for Lakeshore Recycling Systems, LLC.

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No. 8	1299	

HEARING OFFICER PRICE: Just a reminder, we're here today to work on the witnesses. At 4:30 there are a couple of people who want to get in public comment, so we'll be calling the testimony short at 4:30 or so for that.

We're back here Thursday at 1:00 o'clock for the rest of whatever testimony and then the rest of public comment. Hopefully, we conclude Thursday by 5:00. Right now we're in the middle of the case being put on by Protect West Chicago. As I said before, remember, the elected officials aren't allowed to engage with you on this at this time, so please respect that. That's the usual warning.

01:00:58PM

Mr. Leutkehans, are you taking the next witness or Mr. Meza?

MR. LEUTKEHANS: Mr. Meza will, please.

HEARING OFFICER PRICE: Mr. Meza, the floor is yours. Would the court reporter please swear in the witness.

01:01:28PM

(Witness sworn.)

MR. MEZA: Exhibits 603 is the resume, and 603-A is a PowerPoint. We didn't know if there was going to be some extra -- We didn't know there was going to be a PowerPoint here, so I have a bunch of extra here if the members of the public want a copy or they can follow along.

HEARING OFFICER PRICE: Thank you.

MR. MEZA: Feel free to grab one if anybody wants one.

(PWC Exhibit Nos. 603 and 603-A marked for identification.)

WHEREUPON:

JAMES POWELL, QEP,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MEZA:

Q. Can you state your name for the record, please.

01:03:20PM

A. James Powell, P-o-w-e-l-l.

Q. Mr. Powell, where do you work?

A. Mostardi Plat.

MR. MEZA: I have handed out.

HEARING OFFICER PRICE: Mr. Meza, one second. Can people hear? There are microphones that have speakers above the people in the back -- No? Then you're going to need to speak up. Mr. Powell, please project.

THE WITNESS: I will try.

BY MR. MEZA:

01:03:43PM Q. Mr. Powell, I have handed you what's been marked as PWC Exhibit 603. I don't know if you have that. That's your resume.

Does that outline your background?

A. Yes it does.

Q. Can you summarize that for the hearing officer and the rest of us here today?

A. Sure. I've got a bachelor's degree from the University of Iowa in general science and geography and an environmental engineering

01:04:11PM degree from the University of Florida. I have been working as a consulting engineer for over 40 years and, specifically, in the field of air

pollution control the majority of that time.

Q. What is your title?

A. Director of emerging solutions.

Q. What is the name of the company you work for?

A. Mostardi Plat.

Q. You said you're an environmental engineer; is that right?

A. Correct.

01:04:40PM Q. Tell us what an environmental engineer does?

A. I help organizations evaluate impacts of various projects on both sides, from an industrial perspective, as well as public. Most of my clients are industrial, very similar to LRS. We'll do permitting work associated with the various state and local agencies and U.S. EPA for that permitting group work. We do environmental modeling where we actually do

01:05:16PM dispersion modeling and simulate what the impacts are on a neighboring area.

Q. You -- Prior to today, you created and

put together a PowerPoint; is that correct?
A. That's correct.
Q. That's been marked as Exhibit 603-A. You have that computer in front of you and you can control it through the computer; is that correct?
A. That's correct.
Q. Why don't we turn to Slide 2, I believe it is. Why don't you go ahead and tell us if that expands a little bit on your background. The next slide. There it is.
So you told us you were an environmental engineer, you have 40 years of siting and permitting experience. Go ahead.
A. Correct. My current position is director of emerging solutions. In that capacity, I'm looking at different technologies and systems to help better understand environmental issues. Some of those include sensor technology and personal monitoring. The other one is looking at the impact of PFAS and PFOA by community groups from an air quality

01:05:41PM
01:06:15PM

perspective. And then do overall environmental health and safety compliance monitoring.

Q. Have you testified in relation to Criterion 2 before?

A. Criteria 2 or similar before with Illinois EPA, Ohio EPA, and the Iowa Department of Natural Resources.

Q. So those are the acronyms, they are IEPA, OEPA, and IDNR?

01:06:50PM A. Yes.

Q. About how many times?

A. Three times.

Q. Let's continue to Slide 3. You're going to testify in the relation to Criterion 2; is that correct?

A. Correct.

Q. Let's go to Slide 4. Tell us what information is contained in Slide 4, and why you included it?

01:07:16PM A. This is direct information off the LRS website relative to the reduced miles and ultimately reduced emissions. I was evaluating

this relative to the project impacts.

Q. This slide deals directly with the proposed waste transfer station that they want to site here in West Chicago; is that correct?

A. That's my supposition, yes.

Q. Let's go to Slide 5. When you talk about public health, safety, and welfare, can you tell us what you mean by that?

A. Well, when I evaluate a project, I try
01:07:55PM to determine if it's going to have a negative impact either for the particular client or for the neighbors around it. We use a technique called modeling -- and it's mathematical modeling -- to quantify impacts on an existing air quality throughout the region impact.

Q. Let's just ask you a little bit about that term "modeling." It seems it's a technical term. Can you try to explain what modeling is?

A. Essentially we create a mathematical
01:08:26PM program to evaluate the downwind distance and impacts of various constituents.

Q. When you say "constituents," what do

you mean by that?

A. Pollutants. It could be from -- various things, from roadway, from cars.

Q. Is that the way in which pollutants are measured generally in your profession?

A. There's two ways to do it in ambient air. You either do modeling or you do monitoring. Monitoring is where you go out physically to determine the source and what

01:09:02PM their contributing at that particular point. In this case, monitoring was not done because it's a proposed facility. Generally, when that takes place, you're looking at doing modeling because it's predictive.

Q. Now, were you able to tell, with regard to the proposed siting of this facility in West Chicago, whether or not there was any impacts on health and welfare and whether or not they have been addressed in the application?

01:09:31PM A. I guess, after reviewing Criterion 2 and some of the other documentation, I didn't think it was fully addressed in the submittal,

and the specifics were public health and welfare.

Q. Let's go ahead and turn to Slide 6. Tell us the areas you evaluated and why?

A. Well, to do this type of evaluation you need to look at certain parameters, such as traffic, the air quality that's already in existence because we already have background levels, and the impact on the community as a whole.

01:10:03PM

Q. Is that what you tried to do in relation to this proposed siting?

A. Yes.

Q. Can you turn to Slide 7, please. Can you explain to us what is depicted in 7?

A. Well, when I evaluated the prior slide that was done, it did a really good job of evaluating the collection vehicles, and it looked at one constituent's carbon dioxide. It didn't look at any other pollutants. It didn't take into account also the increase in transfer vehicles from this facility and the change in

01:10:34PM

direction of those transfer vehicles.

The other thing is the apparent reduction in emissions is only within DuPage County, and we're sitting on the border between DuPage, and Kane and the majority of the transfer traffic is actually going through Kane County. So I didn't think that handled public welfare, unless we're only looking at DuPage in this case.

01:11:08PM As I said earlier, it only looked at carbon dioxide emissions, which are the greenhouse gas emissions, not particulates, which are in different sizes, or nitrogen oxides. And I couldn't find any supporting calculations to evaluate the math associated with that graphic.

Q. Right. So on this slide you talk about PM2.5 and PM10. Let's go ahead and go to the next slide. Is that a slide that kind of

01:11:37PM tries to explain a little bit more about what the PM2.5 and PM10 is?

A. Yeah. And it's difficult. I

understand from a public perspective, it's not an easy technology. When I first got started in the business, we weren't even worrying about different sized particles. We were told worry about total suspended particulate, which, essentially, you can see. Today we're worrying about things you can breathe in, and they are very small particles.

Q. Let me stop you there. When you say 01:12:08PM "particles" and "particulates," what do you mean by that?

A. Essentially dust in some form or another. And it could be made up of chemicals with water, but it's a particle of air. It's not a gas.

Q. All right. Now you have a little diagram to the right of the PowerPoint?

A. Yes.

Q. Can you explain what that is and why 01:12:30PM that's there and what the source is?

A. Well, the source is U.S. EPA. It's right off their website. And it gives the

comparison of PM10, which is the small -- I don't know if you can see where my cursor is. That's what the size of a PM10 is compared to a human hair. So PM10 is 10 microns in diameter. A human hair is between 50 and 70 microns.

Q. Hold on. So that long item there, that's depicting a human hair, right?

A. Correct.

Q. Then those little -- sorry if it's got the wrong color -- like, the blue circles around the air, is that the PM10?

01:13:05PM

A. The smaller portion of those, that's PM10, yes.

Q. What is the PM2?

A. PM2.5 is --

Q. Sorry. PM2.5.

A. -- the smaller looking of that. So these are smaller particles even than the PM10.

Q. Okay. So that -- That diagram is just trying to visualize for somebody how small these particles are; is that correct?

01:13:28PM

A. Correct.

Q. Go ahead. Tell us about the difference between these particles and what else is depicted on this slide?

A. Well, generally, PM2.5 is coming from combustion of fuel and that fuel can be diesel from trucks, it could be coal, it could be oil. Various sources. PM10, on the other hand, is from construction activities, roadway dust, brakes, tire wear. So just to give you an idea of the size difference and where they are coming from.

01:14:01PM

Q. Okay. Let's go to Slide 9.

A. Besides just looking at the particles, the PMs, again, this data is from U.S. EPA, over 60 percent of all the nitrogen oxides that are produced are from diesel-powered vehicles. Not all of them are from trucks, of course, but a good bit of it. Particulate matters, similar things, especially 2.5, and the most surprising to me when I was doing this research was is looking at ultra fine, which is less than 0.1 micron, so it's really small. 80 percent coming

01:14:41PM

from diesel. The other thing, on the left hand side it talks about some of the carcinogens that are also contained in diesel exhaust, and the graphic to the right depicts -- you know, when you're asking the question what's a particle, it's made up of various different things. It's not just dust. It's not just construction debris. There's other chemicals and other compounds tied together.

01:15:18PM Q. Let's go to Slide 10, please, and tell us what's depicted in Slide 10 and why?

A. I was just looking at all of the different constituents from diesel because all of the vehicles that I'm seeing from the LRS facility are powered by diesel oil, or other fuels like that. So nitrogen oxides is another pollutant that has a significant impact on asthma and other breathing issues.

Q. All right. Let's go to Slide 11,

01:15:55PM please. So what -- What did you evaluate here as it relates to these particulates?

A. I looked at the proposed site relative

to neighboring activities where it might conflict, and in terms of residential property related to trucks, and then overall the impact on air quality in the area.

Q. Let's go to Slide 12. That Slide 12 talks about this modeling again a little bit; is that correct?

A. Right.

Q. Go ahead.

01:16:30PM A. We used what's called air mod and it's U.S. EPA and IEPA, Illinois EPA, approved model technology. We use -- We input data. Besides the traffic data that we look from the LRS submittal, we looked at metrological data that is recommended, five years of data from O'Hare and five years from the Davenport, Iowa site, because we looked at both surface conditions and upper air conditions. Upper air is only measured in certain areas in the U.S. Davenport

01:17:04PM happens to be the closest site.

Q. Let's turn to Slide 13. Now, tell us what's included in Slide 13 and why you included

this?

A. Well, I took a look at the various sources of traffic data within Criterion 2 that were provided by LRS. This happened to be the first grouping, which are Tables 2-1, 2-2, 2-3, and 2-4, which basically outlined trucks coming in, trucks transferring out.

Q. So those were the tables. And if you turn to the following slide, 14, these are the tables that are in Criterion 2 that kind of describe how many trucks would be arriving at certain times and leaving; is that correct?

01:17:47PM

A. Correct.

Q. Was there anything else you wanted to describe with regard to Slide 14 as it relates to how you came up with your methodology -- the modeling? Excuse me.

A. The one thing that was confusing to me and we weren't able to really totally resolve it -- and I don't have the columns. I'm sorry -- but our incoming, the number of trucks is one thing but, to me, a trip is

01:18:15PM

inbound/outbound, so that's two trucks, not just one truck. So that's one of the confusions that we had to face with going through this.

Q. Let's turn to Slide 15. Again, this is just a separate table that was included in Criterion 2?

A. Correct. This is for the single-stream recyclables.

Q. And Slide 16?

01:18:51PM A. For the municipal solid waste.

Q. And Slide 17?

A. This is for the hydro-evacuation waste.

Q. And, again, these were the numbers of the trucks that you tried to use as part of your modeling; is that correct?

A. Correct.

Q. Can you turn to Slide 18, please. Tell us what else you did other than just using

01:19:15PM the tables that were just on the screen?

A. Well, we tried to look at all sources of data from the application. And within

Criterion 2, there's two other sources. The site throughput capacity, which is on Application 2-37 and the unloading time and queuing capacity in Application Page 2-40.

Q. Why did you look at that information?

A. Well, I wanted to see if it was consistent with what was being depicted in the other tables; and, if not, try to determine what the maximum capacity would be coming in and out of this facility. 01:19:52PM

Q. When you talk "capacity," you're talking about trucks; is that right?

A. Correct.

Q. Let's go to the next slide. It should be 19. Can tell us, what is Slide 19?

A. We did a comparison of basically the three -- four different areas, the Tables 2-1, 2-2, 2-3, and 2-4, the site throughput capacity, the unloading time and cueing, and the related traffic study. 01:20:19PM

As you can see, there's some inconsistency here in how it's being depicted.

Q. Give us an example.

A. Well, if you compare the unloading time and cueing capacity to the other sections, there's a significant difference. I mean, it's about -- almost double the related traffic study. The other two seem to correspond pretty well but that one sticks out and it's one that I was confused by and couldn't figure out why there was such a big difference.

01:20:57PM Q. Let's go to Slide 20. Now, Slide 20 discusses a type of fuel. Tell us why you included this slide?

A. Well, right now all trucks generally are -- that are coming in and out of this facility are all diesel-based fuel. Now, that being said, you can go from regular diesel, which is ultra low sulfur or bio diesel. Now, a lot of people are switching to that because everybody seems to think it's more

01:21:31PM environmentally friendly, but it actually has more nitrogen dioxide emissions than regular diesel. Lower particulate but higher NOx. The

other potential ways to change emissions on this is you can go with liquefied natural gas or compressed natural gas, which are the LNG/CNGs, which reduce both particulate and nitrogen dioxide. And, lastly, go electric.

Q. Were you able to see whether there was any reference to the types of fuel being used for the -- any of the trucks for this facility, or not?

01:22:06PM A. I was unable to find that.

Q. Can you go to Slide 21. So Slide 21, tell us what you have included here.

A. We used the dispersion model we talked about earlier, and we modeled the emissions solely from the maximum capacity in this facility as defined -- we had defined in that table. And that was based upon how many trucks per hour were going to go through and tip their load and then transfer the load.

01:22:48PM Then we added to the LRS impact the background conditions that are already in existence out here. The backgrounds were based

upon existing data in Naperville, Lyons Township, and Schiller Park. So those are IEPA monitoring devices.

Q. What you're saying is you -- two things: You tried to figure out what the background is now, and then what the LRS impact of the additional trucks would be, correct?

A. Yes.

Q. Then that gave you the cumulative impact; is that correct?

01:23:22PM

A. Right. That's correct.

Q. And you say -- Below cumulative impact, you have, "Current national ambient air quality standards." What is that about?

A. There are air quality standards that are updated periodically by U.S. EPA and Congress that are set to protect human health and welfare. And each -- For each parameter that we're dealing with here -- we have PM2.5, PM10, and PM2 -- all have different levels. For instance, PM2.5 has a 24-hour standard and annual standard. PM10 only has a 24-hour

01:23:49PM

standard. And NO2, on the other hand, has a one hour and an annual standard.

Q. So tell us, at least with regard to the 24-hour PM2.5 standard, what the numbers 22, 21, 23, 35, what do they represent?

A. The current standard is 35. As of last week, there was a proposal out there put out by U.S. EPA to reduce that to 25, which is a significant change. But it's there to try to improve air quality. 01:24:35PM

I'll give you one example of this. Right now, this area we're in is in a nonattainment area for ozone. What does that mean? We have too much nitrogen oxide and too much organic compounds in the air. You can debate what the cause of that is but, as a result, projects that I'm working on today have to get offsets to be able to justify the change in emissions or they have to show no net increase in emissions. 01:25:06PM

Q. So you're trying to just see what the potential impact would be to what the U.S. EPA

has set as standards; is that correct?

A. Correct.

Q. Was there anything else that you wanted to mention off of Slide 21?

A. I don't believe so.

Q. Okay. Let's go to Slide 22. This says, "Modeling Results." Tell us what the modeling results show. I know it's a little hard on the screen, but there's extra copies if someone wants to see them.

01:25:37PM

A. Yes. I apologize for these screenshots. The model isn't real good relative to depicting these things. I guess the key thing you want to see is the site is situated up in this top right corner and the transfer trucks are going along North Avenue down Kirk to 88. And what this is depicting are the concentrations as they go on that route. And you see kind of a shaded kind of blue, that's the impact of those trucks going down the road.

01:26:07PM

Being totally frank, up until about two, three years ago, we never modeled this sort

of thing this way. But the state and federal -- well, and City of Chicago is requiring this for all new sites dealing with any truck traffic.

Q. So all the numbers on the screen -- And I know it's hard to see but there's, like, numbers on the screen: 57, 57, 59, 56.

What do those numbers represent?

A. The concentrations with background at that location.

01:26:41PM Q. Okay. Then you have an arrow with the word "max." What do you mean by that?

A. That's the maximum concentration we found in that entire route.

Q. Now, does that mean -- Does that include the proposed trucks that you modeled would lead to whatever those numbers are for the EPA standards?

A. Yes.

Q. Now, I know it's very hard to see, but

01:27:05PM it looks like a yellow line going north. What road is that? Is that --

A. I'm not sure. Where are you seeing

yellow?

Q. I'm not good with -- See if you can tell us where North Avenue is?

A. This is North Avenue. This is Powis.

Q. It's hard to see from the screen. I'm not sure if you -- Just try to describe it verbally as far as the numbers. Like, how many numbers down is it?

A. Well, the transfer trailers are going
01:27:40PM north on Powis, generally west on North, south on Kirk to 88.

Q. Okay. So what is -- So where you have "max," what is that intersection?

A. That's Roosevelt Road and Kirk.

Q. Okay. So that's when they have already gone down Kirk and they have hit Roosevelt?

A. Correct.

Q. Were you able to determine how or why
01:28:04PM that's the maximum?

A. Yeah. It's primarily due to the trucks stopping at a signalized intersection and

idling at that location. So they are there for -- They aren't traveling through the area. They are actually sitting at the intersection for a while.

Q. What town is that intersection in?

A. Geneva.

Q. Geneva, Illinois. Okay. So let's go to Slide 23. And tell us what Slide 23 depicts.

A. It's looking at the same model results for PM10, instead of NO2.

01:28:32PM

Q. It looks like the max is in the same area it was before; is that right?

A. That's correct.

Q. Is the max for NO2 the same for the prior?

A. Same location.

Q. Okay. This is PM10, right?

A. Correct.

Q. Let's go to Slide 24. What does Slide 24 depict?

01:28:58PM

A. This is PM2.5 at the same location as you would expect.

Q. So the max is the same as the other slides for PM10 and NO, right?
A. Right.
Q. Do you have another slide? Okay.
What is depicted here?
A. This shows you the route of the transfer trailers. And I put on here the existing environmental justice areas that are situated near the site, as well as south on Kirk Road, and along 88.
01:29:38PM
Q. All right. Now, when you talk about environmental justice, are you -- are you aware that the Illinois EPA requires that a pollution control facility such as transfer stations be so designed to protect the public health and welfare?
A. Yes.
MR. MUELLER: I'm going to object to environmental justice testimony.
01:30:01PM
HEARING OFFICER PRICE: I'm going to sustain the objection. So, here, based on something Mr. Leutkehans said both in his

opening and in one of his questions, 39.2 has not been changed to include the environmental justice inquiry. In fact, when you go to IEPA's site and all of their published literature, they say it's part of their permitting. Not this permitting process. Until it gets to them. From here, it would go to IEPA. If people want to submit their U.S. -- their environmental justice comments to them, you can put them in as
01:30:36PM written comment here. You can also send them to IEPA when it gets there.

To my knowledge, having reviewed the case law, I do not see it as part of the 39.2 siting process, and I'm going to sustain the objection that environmental justice is not relevant to the 39.2. You're welcome to put it in as comment, the elected officials are welcome to consider it as that, but it is not relevant criteria testimony. So I'm going to sustain the
01:31:02PM objection about discussions about environmental justice.

MR. MEZA: In light of that, I do want

to submit an offer of proof that if Mr. Powell will be allowed to answer the questions that I would ask, this would be his testimony. I have the proposed offer of proof here. I'd like to include that into the record it relates to the questions he would have been asked with regard to environmental justice, as well as the related exhibits. The only exhibit that's not included is Exhibit 49, which I believe was already admitted into the record.

01:31:36PM

(PWC Exhibit No. 49 marked for identification.)

HEARING OFFICER PRICE: 49, that was the one you handed out last session?

MR. MEZA: That was EPA waste transfer station that talked about the environmental justice, yes. I believe it was admitted. If not, I would admit it as part of this --

HEARING OFFICER PRICE: 702 is going to come as an offer of proof only and that way it's in the record. You don't have to resubmit it. So for that purpose -- It's in as an offer of

01:32:00PM

proof. That's the only reason it's in.

So the city council understands the difference, it's in -- it's public testimony in the sense that it's public comment, but it's not testimony.

(PWC Exhibit No. 702 marked for identification.)

MR. WEINSTOCK: I have a request for clarification on the ruling you just issued, Mr. Price. I'm not sure what Mr. Mueller means by "environmental justice." That's a term that different people use with different meanings. I'm hoping either he or you can explain what the contours of your ruling just were and, specifically -- when you say you're excluding "environmental justice information," I just don't know what's in or out.

01:32:28PM

HEARING OFFICER PRICE: That's part of the problem. IEPA has not defined "environmental justice," except to say that all people are entitled to a safe environment. What has become an analysis of is, in particular,

01:32:52PM

question in this hearing already, trucks are going through minority communities. That is not relevant criteria of 39.2. The truck routing, in terms of the truck impacts that's one thing. That it goes through a minority community is not a piece of relevant criteria.

So environmental justice are not terms we have heard in 39.2 siting hearings ever and I don't think we need to make reference to
01:33:22PM it for precisely the reason you suggested. IEPA has not well defined it, it's not in 39.2, the legislature has not adopted it, and there's no published administrative regulation for it.

In fact, if you read the IEPA website, I don't understand what they think they are getting. They said it's an evolving area that they will consider as part of their permitting process. Fine. They are smarter people than me. They can consider it, but it's
01:33:47PM not part of 39.2. That's what I mean.

MR. WEINSTOCK: Understood.

HEARING OFFICER PRICE: I'm not going

to hear testimony about environmental justice, I'm not going to have testimony about if this were to impact on persons of whether it's color, income. None of that is relevant to 39.2.

MR. WEINSTOCK: Thank you, your Honor. One -- one -- Just want to make sure I'm connecting that. The ruling is that those -- that type of testimony is outside the scope of Criterion 2 reference to public welfare and public health?

01:34:19PM

HEARING OFFICER PRICE: Yes.

MR. WEINSTOCK: Thank you.

BY MR. MEZA:

Q. Mr. Powell, let's skip this screen and let's go ahead and skip that one. Let's go to your final opinion.

A. Okay.

Q. Do you have an opinion with regard to the application as it relates to the public health, safety, and welfare?

01:34:37PM

A. Yeah. In my opinion, the application for the proposed LRS waste transfer facility is

deficient by not determining the full impact on public health, safety, and welfare.

MR. MEZA: Thank you. We'll pass Mr. Powell.

HEARING OFFICER PRICE: Thank you, Mr. Meza. After that would be you folks, PODER.

MR. WEINSTOCK: Just a few questions for Mr. Abel.

HEARING OFFICER PRICE: This isn't --

01:35:12PM MR. WEINSTOCK: Powell. I'm sorry.

CROSS-EXAMINATION

BY MR. WEINSTOCK:

Q. My name is Rob Weinstock. I'm a lawyer here who is helping PODER through their direct testimony later today. And your testimony relates to some things they are interested in as well, so I just had a couple questions.

First, before when you were talking

01:35:33PM about diesel emissions and you mentioned that there were different types of diesel and different types of vehicle have different

emission profiles.

Do you remember that?

A. Yes.

Q. One thing you mentioned was that electric vehicles would have different levels of emissions than diesel?

A. Correct.

Q. How would you describe that difference?

01:35:51PM A. They are basically -- Electric vehicles wouldn't have any of these emissions.

Q. So if LRS committed to using an exclusively electric fleet --

A. Yep.

Q. -- for the trucks coming in and out of the facility, would that ameliorate some of these diesel emissions concerns you explained before?

A. I'll -- I have to put some proviso on

01:36:14PM that.

Q. Please.

A. On the trucks that they own, they can

probably do that. There are transfer trucks that they are outsourcing that transfer to that would have to get another company to commit to as well.

Q. Sure. We heard last week that LRS was imposing restrictions on the way incoming trucks tarped?

A. Right.

Q. So if LRS can impose restrictions on the equipment the technological specifications of the trucks coming into the facility, would you agree that a requirement that only electric trucks be permitted in and out of the facility would ameliorate some of these diesel emissions concerns?

A. Yes.

Q. Next question is -- Maybe we can go back to Slide 21. In the beginning of your direct examination you mentioned that you did a modeling exercise because there was no monitoring. Can you just repeat -- reset that point, so I know --

A. Sure. Normally if you're planning a project, you do modeling because you have no way to monitor what the actual emissions are. In the case of monitoring, if you -- Historically, and you can come back in after the fact and monitor to make sure you're in compliance using that. That's some of the things we're doing today with some of this sensor technology.

Q. The idea behind, really, the entire testimony is to determine what the impacts would be of the truck traffic emissions proposed by LRS in the context of the air quality that already exists in the area; is that fair to say?

A. Correct.

Q. So I'm looking on Slide 21, the background source for some of this data you used was monitoring stations in Naperville; is that right?

A. Yes.

Q. About how far away is Naperville from the facility?

A. Probably 25 minutes.

Q. How about in distance?
A. I'm not sure. 15, 20 miles.
Q. Okay. So for PM2.5, the best available data you have for modeling was 15 or 20 miles away?
A. Correct.
Q. Would it have strengthened your analysis to have monitoring of air quality right at the current LRS facility?
01:38:34PM A. Well, sure. That would be a benefit.
MR. WEINSTOCK: So I'll put this out, Hearing Officer, as a hypothetical based on -- contingent on facts we'll put in later.
BY MR. WEINSTOCK:
Q. If you had air monitoring data that showed existing levels of PM2.5 pollution at the LRS facility that exceeded the annual average level, for example, the current U.S. EPA level of 12, if you had air monitoring data from the
01:39:03PM LRS facility, say, as recent as a few weeks ago that showed levels well in excess of 12 micrograms per cubic meter, how would that

change -- how would you factor that into your conclusions?

MR. MUELLER: I'm going to object. Calls for speculation on a fact not in evidence.

HEARING OFFICER PRICE: He says he's going to tie it up. We'll see.

For now, overruled.

You can answer.

BY THE WITNESS:

01:39:24PM A. If the numbers were higher than the standard, then the site would be outside -- in violation of the ambient air quality standard.

Q. What would it mean to add additional diesel truck emissions -- I'm sorry. Let me finish.

What would it mean to add diesel truck emissions to an existing facility where it was already out of compliance with the national ambient air quality standards?

01:39:48PM A. It would make it even worse.

MR. WEINSTOCK: I think that's all I have.

HEARING OFFICER PRICE: Okay.
Mr. Mueller?
CROSS-EXAMINATION
BY MR. MUELLER:
Q. Mr. Powell, are you a professional engineer?
A. No.
Q. You know what a professional engineer is, right?
01:40:14PM A. Yes.
Q. They have to pass an exam and they are licensed?
A. Yes, sir.
Q. You have a credential that you call a qualified environmental professional. Is that something that is licensed?
A. I'm not sure I understand the question.
Q. Do you have to be licensed in any
01:40:46PM state to call yourself a qualified environmental professional?
A. It is U.S. based.

Q. Is there a licensing for it?
A. Yes.
Q. Did you have to take an exam?
A. Yes.
Q. When did that happen?
A. 1994.
Q. Have you had to take continuing education or update your credentials?
A. Yes.
01:41:09PM Q. How frequently?
A. Every five years.
Q. Are you a health physicist, sir?
A. No.
Q. Are you an expert in the health impacts of environmental emissions?
A. No.
Q. So you're assuming that there would be negative impacts from nitrogen oxide in the air, but you don't have any data to back that up, do
01:41:36PM you?
A. I'm not sure I understand what you're getting at.

Q. Well, the exercise here is to determine whether there's some negative public health, safety, and welfare impacts, correct?
A. Yes.
Q. For that, don't we need to know what those health impacts are going to be?
A. That's what the national ambient air quality standards were developed for.
Q. But you don't know what the health
01:42:06PM impacts would be from changing nitrogen oxide a little bit, do you?
A. I'm not sure I'm with you.
Q. Well, then I'll ask another question. I'll try to make them less hard.
A. Thank you. I'm not an engineer, so I don't understand.
Q. You modeled the potential emissions from the truck traffic at the site, correct?
A. Correct.
01:42:48PM Q. Now, how far do emissions travel from a truck?
A. It depends on the height of the

emissions from the truck, speed.

Q. In other words, if a truck is going down Main Street in front of this building --

A. Uh-huh.

Q. -- are we going to get those emissions in here?

A. In this building?

Q. Yes.

A. On the edge of the building, sure.

01:43:24PM Q. How about in the here?

A. It depends on the ventilation system in this building.

Q. You used something called a dispersion model?

A. Yes.

Q. What is that?

A. It's a mathematical representation of what the emission sources are going down a roadway and what the downwind distance is to a

01:43:46PM potential source, residents, another receptor, a human.

Q. How far from the source does your

dispersion model tell you there can be an impact?

A. The ones we saw were showing it on either side of the roadway into the residential areas.

Q. What residential areas did you look at specifically?

A. Along Kirk Road from North Avenue south to 88.

01:44:16PM Q. Did you look at any residential areas in West Chicago?

A. Yes.

Q. Which ones?

A. We looked at the Timber Lake Apartment area. Then also the Wegner Elementary School.

Q. Do you have the results of that modeling?

A. Yes.

Q. What did that show?

01:44:37PM A. Basically there's just a little bit of background levels. The key reason for that is we didn't model any of the emissions taking

place on the LRS site. We only modeled those -- the traffic along Powis to North. So we didn't include any of the trucks idling on LRS.

Q. Now you said that monitoring is more accurate than modeling because you have real data, correct?

A. Correct.

Q. Could you have monitored right in front of the LRS site on Powis Road?

01:45:15PM A. Sure.

Q. Why didn't you do it?

A. That wasn't what I was asked to do.

Q. There is another transfer station up the road operated by -- I think it's Waste Connections. Are you familiar with Waste Connections?

A. Yes.

Q. Are they the ones paying you here?

A. No.

01:45:35PM Q. Is Groot paying you? Groot?

A. No.

Q. Did you model the emissions from that

transfer station?
A. No.
Q. Do you expect they would have emissions?
A. Yes.
Q. In fact, their emissions would probably be more because they are handling more waste, right?
MR. MEZA: Objection; speculation.
01:45:58PM HEARING OFFICER PRICE: Overruled.
BY MR. MUELLER:
Q. Do you understand my question?
A. I didn't know I could answer.
HEARING OFFICER PRICE: Yes.
BY THE WITNESS:
A. I mean, if they are handling more waste. But their routing right now is going through downtown St. Charles with the transfer trucks. The routing you're talking about for
01:46:20PM LRS is going down a whole different route.
Q. Now, downtown St. Charles is an area with a lot of pedestrians and businesses right

on the road, right?

A. Yep.

Q. Would you consider it to be healthier to route your trucks down Kirk Road, which is a wide four-lane minimum road with minimal commercial activity along the side?

A. Generally, yes.

Q. By the way, do you agree with the applicant's findings with regard to reduced

01:46:56PM carbon dioxide emissions?

A. I don't have a position either way. I couldn't verify the calculations.

Q. Did you look at the appendices for Criterion 1?

A. No.

Q. Are you aware that some of that information and calculations were appended to Criterion 1?

A. I was tasked with looking at

01:47:19PM Criterion 2.

Q. So that's all you looked at?

A. Yes.

Q. You have heard the phrase with regard to modeling, "garbage in, garbage out," haven't you?
A. You bet.
Q. What that means is that the result of your modeling is only as good as the quality of the input?
A. Correct.
Q. Do you agree with that statement?
01:47:53PM A. Yes.
Q. You have never testified at a Section 39.2 siting hearing, have you?
A. No.
Q. Criterion 2 is whether the facility is -- Well, do you know what Criterion 2 says?
A. Yes.
Q. What's it say?
A. The facility is so designed, located, and proposed to be operated so that the public
01:48:38PM health, safety, and welfare will be protected.
Q. How would you change the design of this facility to improve the public health,

safety, and welfare?

A. I would change the type of trucks being used.

Q. What types of trucks would you use?

A. Go with electric.

Q. Electric trucks are not commonly available --

A. That's not true.

Q. -- in Illinois, are they?

01:49:02PM A. Yes, they are.

Q. Now, when you charge an electric truck, where does the electricity come from?

A. The electricity comes from Exelon.

Q. Where does Exelon get their electricity?

A. Nuclear.

Q. Do they also get it from coal-fired plants?

A. No, not Exelon.

01:49:30PM Q. So you're advocating that we use nuclear power rather than diesel?

A. I would. It's better for the

environment.

Q. What does a battery pack for an electric tractor -- in a semi tractor-trailer rig weigh?

A. No idea.

Q. Would it surprise you to know that those battery packs weigh -- can weigh 10,000 pounds?

A. It wouldn't surprise me.

01:50:12PM Q. Which means that they have a greater impact on roads, right?

A. Not on the air emissions.

Q. But they will have a harder impact on the pavement itself, wouldn't they?

A. I'm not a transportation engineer.

Q. So you can't even intuitively think that heavier trucks would be bad for the roads?

MR. MEZA: Objection; argumentative.

HEARING OFFICER PRICE: Overruled.

01:50:44PM You can answer, sir.

BY THE WITNESS:

A. Okay. Yeah, it's possible.

Q. Okay. If you get 3,000 feet away from an idling truck, you're not likely to get any of the emissions, are you?

A. I wouldn't expect so.

Q. You're aware that the nearest residential subdivision to the proposed facility is over 3,000 feet away?

A. That's what you're submittal indicated.

01:51:24PM Q. Do you have any reason to disagree with that?

A. Only thing -- I can't talk about it because it's in the subject I'm not supposed to talk about.

Q. To get the background emissions for this proposed site you went to Schiller Park and Naperville?

A. I didn't go there. That data is readily available on Illinois EPA's website.

01:52:04PM Q. You didn't try to establish actual background levels at the proposed site?

A. No. That would be CEC's

responsibility, not mine.

Q. Did you check background levels along Kirk Road?

A. No.

Q. The highest point you have is at the intersection of Kirk and Roosevelt, right?

A. Correct.

Q. Did you check background levels there?

A. No.

01:52:28PM Q. It would have been possible to go out with a monitoring rig and do it, right?

A. Yeah. But to collect appropriate data to get a comparable dataset is get a year's worth of data.

Q. How long do emissions stay at low altitude, meaning, you know, below a hundred feet after they've come out of a truck?

A. I don't have that information.

Q. Well, there is an issue of the

01:53:09PM duration of the emission, isn't it?

A. Uh-huh.

Q. You don't know what the duration of

those emissions might be?

A. I'd have to go back into the data and look at what we included, but no.

Q. You understand garbage has to go somewhere, right?

A. Correct.

Q. If it's not at this transfer station, it will be at another transfer station, right?

A. Correct.

01:54:05PM Q. Correct?

A. Yeah, that's what I said.

Q. And emissions would be the same issue there as here?

A. It depends on where the trucks are going.

Q. I mean, the best way to reduce truck emissions would be to reduce the amount of garbage that has to be trucked, right?

A. Sure.

01:54:28PM Q. The second best way would be to have all electric trucks?

A. It might be the second best way.

Q. Is there anything specifically wrong with the location that Lakeshore has proposed for this transfer station?
A. I'm not sure I understand the question.
Q. Well, the criterion is whether it's located so as to be protective of the public health, safety, and welfare. Is there anything specifically wrong with the proposed location?
01:55:12PM A. With the site itself?
Q. Yeah.
A. No.
Q. What coefficient of dispersion did you use in your modeling?
A. I'd have to go into the details. I don't have it off the top of my head.
Q. You didn't review that?
A. Before coming here?
Q. Yes.
01:55:50PM A. No.
Q. The answer is you didn't review it?
A. I said "no."

Q. Okay. You read the applicant's testimony or the report to indicate that they believe they are going to reduce overall emissions because there's going to be less mileage transferring waste using this location, correct?

A. Not based on what you just said. That's not what the basis is. It's based upon reducing the single-use truck traffic, not the transfer vehicles. It's only -- The only thing that was documented in the analysis was carbon dioxide.

Q. Do you agree with that documentation?

A. Those parameters, yes.

Q. If we're reducing carbon dioxide, wouldn't it be logical it would probably also be reducing nitrogen oxide in a similar amount?

A. For those trucks in particular, yes.

Q. If we're reducing carbon dioxide, wouldn't it also be logical that we're probably also reducing particulate emissions in a similar amount?

A. Yes.

MR. MUELLER: Thank you, sir.

HEARING OFFICER PRICE: City, Mr. Callaghan?

CROSS-EXAMINATION

BY MR. CALLAGHAN:

Q. The criterion that you talked about, it talks about --

HEARING OFFICER PRICE: I need you to speak up.

01:58:14PM

MR. CALLAGHAN: Sorry.

BY MR. CALLAGHAN:

Q. (Continuing.) -- it focuses on the facility, correct?

Go back to the criterion that you're testifying about?

A. For Criterion 2?

Q. Yes.

A. Yes.

01:58:26PM

Q. It doesn't say anything about trucks?

A. No.

Q. It doesn't say anything about

locations, other than where the facility is located, correct?

A. Not implicitly, no.

Q. It doesn't say explicitly either, does it?

A. Well, I mean, the way I interpreted it, it's how it's located. And part of the whole process is the trucks come in and the trucks come out. That's part of the process.

01:58:51PM Q. But the focus is on the facility?

A. That's very true.

Q. Do you know if there's a criterion that looks at traffic?

A. There was, yeah, Criterion 6.

Q. All right. Do you know that people have testified about Criterion 6?

A. Correct.

Q. And that has to do with the impact on traffic patterns?

01:59:13PM A. Correct, as I understand it.

Q. It doesn't say anything about pollutants coming from trucks?

A. No.
Q. Do you know what the definition of facility is in the Environmental Protection Act?
A. I do not.
Q. Now, the background levels that you provided, that means what's out there today?
A. Correct.
Q. And you did a model that came up with the cumulative impact, meaning adding this
01:59:56PM site -- the trucks from this site to the background level?
A. Correct.
Q. The trucks that you added, is that the total number of trucks from this facility?
A. No. Just the transfer trucks.
Q. Only transfer trucks?
A. Correct.
Q. And do you know which waste transfer stations LRS has been using because they don't
02:00:19PM have their own?
A. From what I gather, it's Batavia.
Q. Okay. Where is Batavia located?

A. South of the site and to the west.
Q. It's over by Kirk Road?
A. I'm not familiar with the site.
Q. You don't know where it's located?
A. No.
Q. What about Groot?
A. Groot is just north of LRS.
Q. So do you believe these are going to -- that this facility will create the need
02:00:46PM for more transfer trailer traffic in this area if it is approved?
A. Well, no one took a look at the reduction in transfer activities from all of the sites based upon this application, to the best of my knowledge. The other thing it didn't take into account were other sources that are new and not part of the background, such as Pheasant Run.
Q. I guess any -- You're familiar with
02:01:13PM this area where the proposed facility would be located?
A. Yes.

Q. Would you agree that it's an industrial area?
A. Where the site is the proposed?
Q. Yes.
A. Yes.
Q. Okay. And any use within this area zoned industrial is going to have trucks, correct?
A. I would say that's pretty apparent, yes.
Q. So when property is zoned industrial and I own the property and I want to use it, are you saying before I can use the property, I have to do an air dispersion model?
A. Yeah. Actually, I have a situation where I had a client that owned a piece of property in southern Illinois. He said I don't need permits to do this solar farm. Well, a core of engineers disagreed with him significantly.
Q. And they made him do an air dispersion model for --

A. Not an air dispersion model but he had to do an environmental impact study of solar farming.

Q. That is not a criterion --

A. I understand that. But I'm giving you an example. In the City of Chicago today if you were siting this same facility, you would have to do an air quality impact analysis today.

Q. Because this -- Because the city staff would tell you you have to do it?

02:02:28PM

A. No. There's an ordinance.

Q. That just passed, correct?

A. No. It's been out there for two years.

Q. That's what I mean, relatively recently?

A. Well, it's impacting my clients.

Q. But that's the City of Chicago, that's not here?

02:02:46PM

A. True.

Q. I guess the point on the other transfer stations is if this facility were to

take some of the waste from those, there would be a reduction in the overall impact of all the transfer stations, correct?

A. If they are ultimately reducing the location and where they are going with the waste, yes.

MR. CALLAGHAN: That's all I have. Thanks.

HEARING OFFICER PRICE: Mr. Walsh?

02:03:21PM MR. WALSH: No questions, Mr. Price.

HEARING OFFICER PRICE: Any redirect, Mr. Meza?

REDIRECT EXAMINATION

BY MR. MEZA:

Q. Let me just ask you this, Mr. Powell: The standards that you used, who came up with the standards?

A. U.S. EPA.

MR. MEZA: That's all.

02:03:36PM HEARING OFFICER PRICE: Any recross on that question, Mr. Mueller?

MR. MUELLER: No.

HEARING OFFICER PRICE: PODER?
MR. WEINSTOCK: No.
HEARING OFFICER PRICE: City?
MR. CALLAGHAN: None.
HEARING OFFICER PRICE: Thank you, Mr. Powell.
THE WITNESS: Thank you.
HEARING OFFICER PRICE: Mr. Meza, Mr. Leutkehans, any other witnesses?
02:03:52PM MR. LEUTKEHANS: One further witness.
MR. MEZA: We have one fact witness. We're going to call Colin Hale.
(Witness sworn.)
WHEREUPON:
COLIN HALE,
called as a witness herein, having been first duly sworn, was examined and testified as follows:
DIRECT EXAMINATION
BY MR. MEZA:
Q. Can you state your name for the record and say it loud enough so we can all hear you.

A. My name is Colin Hale. For the record, C-o-l-i-n, H-a-l-e.
Q. Where do you live, sir?
A. I live on National Street here in West Chicago.
Q. How long have you lived in West Chicago?
A. My entire life.
Q. Did your parents grow up in West
02:04:56PM Chicago?
A. They did not grow up here. They have lived in West Chicago since 1984.
Q. Where do you currently work, Colin?
A. I work at Blachford Acoustics Laboratory at 1445 Powis Road.
Q. Can you spell that for the court reporter, please.
A. Blachford is B-l-a-c-h-f-o-r-d.
Q. What do you do at Blachford Acoustics?
02:05:18PM A. I'm a new product introduction engineer for Blachford Acoustics Group but, like I said, I'm stationed at Blachford Acoustics

Laboratory. I have been there about seven years.

Q. What is the address again of that the location?

A. 1445 Powis.

Q. About how far away are you from 1655 Powis?

A. I think it's about 200 yards.

Q. Are you familiar with the current site at 1655 Powis? 02:05:45PM

A. To some extent, yes.

Q. Is that the current LRS site?

A. Yeah.

Q. Now, how long have you worked at Blachford Acoustics, how many years?

A. Nearly seven.

Q. Now, during that time period, did you have occasion to see or observe litter in or around your area, including by the LRS site?

A. On several occasions. Well, 02:06:15PM continually, yes, we have had quite an issue with litter around our property, which includes

a natural wetland area which is pretty well-peppered with trash. We found several occasions where, you know, we have got Lakeshore Recycling stickers that I think I submitted pictures of, as well as plenty of other stuff that blows out of trucks. I mean, personally witnessed, as well as other people at the company, blowing directly out of Lakeshore trucks, which are full and tarped, full and untarped, and then something I think that's generally unaccounted for here is the untarped vehicles that have the remainder of waste still blowing out of them, you know, little light things usually.

02:06:48PM

Q. Have you taken photographs of this waste?

A. I have.

Q. How are you able to tell that it's, in fact, LRS waste?

A. Like I said, on some occasions I have witnessed it. I just spent some time actually watching the trucks go by a few days ago to, you

02:07:06PM

know, refresh memory of this happening. But some of the pictures I have submitted, like I said, include Lakeshore Recycling stickers, which is pretty direct, I feel like.

Q. I'm going to show you what's been marked as Exhibit PWC 707. Can you tell us what Exhibit PWC 707 is?

(PWC Exhibit No. 707 marked for identification.)

02:07:48PM BY THE WITNESS:

A. These pictures were actually submitted to the city in April -- I think it was April 2021. And this is right after we were cited for litter on our property, and we argued this litter is not our litter. You know, we don't generate waste like this at the lab. We hardly generate any trash at all. This isn't even as bad as it was a few days ago. I just took some more pictures. I guess some of these

02:08:12PM at the end might be --

Q. Let's look at the picture on -- Picture 3 out of 14, Page 3 out of 14, tell us

what that depicts.

A. On page --

Q. Page 3 of 14.

A. Page 3. So this is back from April -- like I said, I think that was 2021. And that is the frontage -- I'm standing on Powis Road or maybe the shoulder and the driveway to the lab is just off and to the right out of view.

Q. All right. Can you flip to Page 4 of 14. What are we seeing on 4 of 14?

02:08:44PM

A. That is Powis Road, and I'm standing in the driveway of the lab.

Q. Do you see litter there?

A. Some there, yes.

Q. Now go to Page 4 of 14.

A. That's looking north on Powis. That's the lab on the right.

Q. 6 of 14?

A. This is just a poorly taken photograph of some of the trash that's in kind of like -- I don't know. I call it the meadow. It's just a brush natural area between the lab and Powis.

02:09:07PM

Q. Now, let's go ahead and flip to Page 9 of 14. Tell us what's depicted in 9 of 14?

A. 9 of 14 is a City of Geneva waste sticker and that is for Lakeshore Recycling Systems. It's one of the Lakeshore stickers.

Q. Where was this found?

A. That's in that same brush patch between the lab and Powis, which is probably 30 feet off the road, I'm guessing, maybe 50.

02:09:43PM Q. Go to Page 10 out of 14.

A. The location of that one is also -- actually I think -- This is just from a couple days ago. This is right across the street from the lab, looking south towards Hawthorne, I believe, but on Powis.

Q. Okay. Then the last couple photographs on 13 and 14, those, again, depict photos you took of the trash in and around the area; is that correct?

02:10:11PM A. Yeah. So 11 is also -- It's right across the street from the lab. 12 -- On Page 12, that is specifically, is in front of

the Lakeshore facility, also a couple of days ago. And then Page 13 -- I believe these were Thursday morning. 13 is at the lab from across the street and you can kind of see that natural area, which is just full of stuff, full of trash from blowing out of trucks. And then the wetland area I referenced is on the opposite side of the lab at that treeline there, which is maybe a hundred yards from the road. The last
02:10:42PM picture is also of the frontage of the lab from nearly the same position same day.

Q. Now, in addition to taking these photographs, have you communicated to the City of West Chicago and has your company communicated to the City of West Chicago?

A. So considering -- Considering this kind of stuff we're looking at here, Blachford Incorporated has been in contact with the City of West Chicago before. Basically what we were
02:11:09PM told is it's litter on your property, you're responsible for it, which made the president of our company pretty unhappy. That started kind

of a whirlwind of trying to hold people accountable, so we did end up getting Lakeshore to come help clean up on our property. And at that time also I think it must have -- a bunch of other people -- this is only a guess -- a bunch of other people must have gotten a citation because they were on both sides of the street everywhere helping to clean up. We were able to get their help that time but usually
02:11:45PM after at least a little bit of a struggle.

If it's pertinent, I also have a new --

Q. I want to show you what's been marked as Exhibit 706. Is this communication from your company to West Chicago relating to the litter?

(PWC Exhibit No. 706 marked for identification.)

BY THE WITNESS:

A. Yes. This is specifically on behalf
02:12:09PM of Blachford. There is a follow-up letter I just submitted, you know, maybe an hour ago that I do have a copy of, if that's also pertinent,

that describes a little more specifically relating to the litter issue. Yes, this is from Blachford Incorporated to the city.

MR. MEZA: Just a second, Mr. Hearing Officer.

BY MR. MEZA:

Q. Mr. Hale, just to clarify the photographs that are in the exhibit, I think it's 706 -- is that right -- 707.

02:13:06PM What were the dates of those photographs taken?

A. Until page -- Pages 1 through 9, those are from April of 2021. And then Pages 10 through 14 are from last Thursday.

Q. Okay. So 1 through 9 is from 2021 and then 10 through 14 are the most recent, right?

A. Yes.

MR. MEZA: We have no further questions.

02:13:33PM HEARING OFFICER PRICE: Thank you.

PODER?

CROSS-EXAMINATION

BY MR. WEINSTOCK:

Q. Hi, Mr. Hale. Thank you for being here. Just a couple questions.

You mentioned at the beginning of your testimony your job is -- about how far is it from the LRS facility where you work?

A. I think it's, like, 200 yards.

Q. It's on Powis Road as well?

02:13:51PM A. Yes, same side.

Q. Same side. Do you know if the zoning of the place where you work is also zoned industrial?

A. I don't know.

Q. Okay. Do you and the people you work with sometimes stand outside of your workplace?

A. Yes, regularly.

Q. Is that -- Does that happen more frequently in the morning, in the evening,

02:14:11PM coming and going at rush hours?

A. It depends. I often find myself out there, you know, midafternoon, 2:00/2:30.

Traffic usually ramps up a lot then, not specifically truck traffic. That seems pretty well random. To me, anyway. I haven't studied that.

Q. Fair enough. You do spend sometime -- Do you ever take lunch outside?

A. Yes.

Q. Do you know other people who do similar things?

02:14:36PM A. Yes.

Q. You mentioned before you're a resident of West Chicago?

A. Yes.

Q. I'm going to ask you a question that's going to sound really stupid. When you're standing outside, are you breathing in and out?

A. I try to.

Q. That's right. And are you breathing in and out, even though you're standing in what

02:14:50PM might be zoned an industrial property?

A. Sure. Yes.

MR. WEINSTOCK: Thank you. No further

questions.

HEARING OFFICER PRICE: Mr. Mueller?

CROSS-EXAMINATION

BY MR. MUELLER:

Q. Mr. Hale, how is it that you came to be a witness here?

A. I had contacted Protect West Chicago stating my interest in describing the issues that Blachford Incorporated has with the continual litter on our property.

02:15:16PM

Q. When did you first contact them?

A. Oh, I don't know. It was last week, I think. It was recent. I guess I have contacted them before learning from the mass e-mails probably months ago, but not in the relation to anything at these hearings. I have only been to this hearing and two before it.

Q. Who have you been dealing with at Protect West Chicago?

02:15:38PM

A. Mr. Meza. And then the person I was e-mailing with, his name was Nick. I don't remember his last name, but we have been in

contact a couple times completely unrelated to this.

Q. Ever deal with someone from Protect West Chicago named Mr. Biel (phonetic)?

A. I don't recognize that name.

Q. How far is your company from the Waste Connections site?

A. I'd only be guessing. I'm guessing it's, like, three quarters of a mile at 64 and Powis there.

02:16:16PM

Q. Now, you keep talking about there's trash and litter on the road, right?

A. Yes.

Q. Are you aware that Lakeshore does not haul trash to or from that site?

A. I can't speak to what Lakeshore is known to carry by whatever, you know -- whatever you guys are known to carry. What I know is from watching things blow out of trucks. I don't know what's supposed to be going to and from Lakeshore. I just know things blow in and out of the trucks.

02:16:53PM

Q. What kind of truck do things blow out of?

A. To give you the most recent example, on Thursday, watching from the roof of the lab, I was watching a truck that's orange on the top, white on the doors, more orange on the bottom. What I think used to be a Hoving truck but LRS must have purchased. It's colors just like those, but with the big blue LRS dumpster on the back. I watched some that were tarped with stuff in them and some that were untarped with what I would presume to be called and empty load. But I did witness on several occasions just Thursday smaller, lightweight pieces of trash blowing out of those empty containers, which is part of my concern and, of course, Blachford's concern, that those things aren't be accounted for.

02:17:15PM

02:17:38PM

And specifically referencing Page 2 -- sorry -- Criterion 2 on 2-31, my interest is the concept of litter blowing from those trucks. I understand that perhaps there

may be other trucks that litter and people who the litter and whatever else. I'm speaking specifically in relation to these hearings and what I see happening from Lakeshore and on behalf of Blachford that we have a big issue with that and we don't feel it's appropriately or entirely addressed as it stands right now.

Q. Let's look at your exhibits. Page 3 of -- Page 2 of 14.

02:18:16PM A. Sure.

Q. It looks like there's a COVID-style mask and a driver's license?

A. That's right.

Q. Whose license is that?

A. I don't know. We probably should have blurred that or something. Apparently his name is Daniel Duncan.

Q. Do you know whether he's an LRS employee?

02:18:41PM A. I have no idea.

Q. Could he be a Waste Connections employee?

A. He could be an employee of anybody.
Q. So you don't know where that license and surgical mask came from, do you?
A. I don't know where specifically any individual piece of this trash came from; however, I have pretty good reason to believe that the Lakeshore Recycling stickers probably originated from Lakeshore.
Q. Well, I'm not seeing a Lakeshore recycling sticker on 2 of 14. Am I missing something?
02:19:10PM
A. No, not on 2 of 14.
Q. Okay. 3 of 14.
A. Yes.
Q. Can you point to any specific piece of litter that you know came from a Lakeshore vehicle?
A. I cannot point to any specific piece of litter coming from a Lakeshore vehicle on that picture.
02:19:30PM
Q. All right. Let's go to 4 of 14. Can you point to any specific piece of litter that

you know came from a Waste Connections -- I mean, a Lakeshore vehicle?

A. Not on Page 4 of 14.

Q. Page 5 of 14, can you point to any specific litter that you know came from a Lakeshore vehicle?

A. For the sake of everybody's time, I'm going to point out --

Q. I didn't ask you about people's times. I asked if you can point to any specific litter that came from a Lakeshore truck?

02:20:03PM

A. No.

Q. Page 6 of 14. Can you identify anything from Lakeshore on there?

A. No.

Q. Page 7 of 14. Can you identify anything from Lakeshore on there?

A. As with any of these pages, I don't go out and write down exactly what piece of trash I saw fly out of what truck; however, as I have mentioned, I have watched trash fly out of Lakeshore trucks as recently as Thursday.

02:20:36PM

Q. So the answer to that question is, no, you can't identify anything in 7 of 14, right?
A. That's correct.
Q. Page 8 of 14. Do you know what that is?
A. It's some kind of plant information from a Planter's Palette.
Q. So it must have blown off a plant?
A. Must have blown off, presumably, the truck carrying the trash from Planter's Palette, but ...
Q. Do you know whether that was a Lakeshore vehicle?
A. I do not know.
Q. Now, on Page 9 of 14 there is a Lakeshore sticker depicted?
A. Yes.
Q. Is that a yard waste sticker, if you know?
A. It just says "waste sticker." I don't know if that's for yard waste or if it's like the stickers we used to have in West Chicago for

trash cans. I'm not sure. I don't use garbage stickers.

Q. Page 10 of 14. Can you identify anything that came from Lakeshore on that picture?

A. So on this picture, I can say that one of those things down there in that little culvert area, the lower area, one of those I know is because I watched it blow out. But, like I said, I did not specifically take count which one that was.

02:22:23PM

Q. Which one do you know that came -- that you saw blow off?

A. I know it was a sheet of paper-ish-sized white thing, and there's a few of those that I can see, so I can't say which one. Anywhere right in this little space is about where it would have landed based on what it looked like from the roof.

02:22:42PM

Q. Page 11 of 14. Anything you can link to Lakeshore there?

A. Not specifically.

Q. 12 of 14. Anything you can link to Lakeshore?

A. The thing I can link to Lakeshore that I didn't think to take a picture of at the time was the grime coming in and out of the driveway, but I was paying attention to trash than the grody stuff that leaks out of vehicles.

MR. MUELLER: Mr. Price, I'm going to move to strike that answer as nonresponsive.

02:23:13PM HEARING OFFICER PRICE: Overruled.

Move on.

BY MR. MUELLER:

Q. Page 13 of 14. Anything you can link to Lakeshore there?

A. Not specifically, no.

Q. So Exhibit 707 with its 14 pictures has one Lakeshore sticker and nothing else that you can link to Lakeshore, correct?

A. Other than one of those things on 02:23:53PM whatever page that was. Like I said, I'm not sure which one it might be, from Page 10.

Q. Now, the Waste Connections trucks go

up and down Powis Road, too, don't they?
A. Right. Yes.
Q. Do you know whether litter ever blows off of them?
A. They also have the same problem.
MR. MUELLER: That's all I have. Thank you, Mr. Hale.
HEARING OFFICER PRICE: Mr. Callaghan.
MR. CALLAGHAN: One question.
02:24:30PM CROSS-EXAMINATION
BY MR. CALLAGHAN:
Q. Across the street and a little bit south from the Blachford, there's a Secretary of State truck-driving test facility?
A. It was for a long time.
MR. CALLAGHAN: That's all I have.
CROSS-EXAMINATION
BY MR. WALSH:
Q. Mr. Hale, are you being paid to be
02:24:51PM here today?
A. No.
MR. WALSH: Thank you. That's all I

have.

HEARING OFFICER PRICE: Any redirect, Mr. Meza?

REDIRECT EXAMINATION

BY MR. MEZA:

Q. Mr. Hale, when did you first meet me?

A. I think it was Tuesday, right? Whatever the first meeting of last week during the week was.

02:25:04PM Q. And you understand I don't represent you; is that right?

A. Right.

Q. You asked to testify; is that correct?

A. Yes. To be perfectly clear, my interest is just that the litter coming out of trucks I don't think is being appropriately addressed in the way the text is currently and maybe even in the way that it's being legally enforced or not, and the accountability of,

02:25:24PM really, both waste handling companies but Lakeshore included. Since they are the topic of this hearing, that's the one I'm particularly

interested in at the moment. If we have the power to make sure that they are held accountable for whatever trash is associated with them in the future that we build that into conditions or things like that. I don't want to be unreasonable for anything. If something blows out of your truck, we do have ordinances which if you give me a second, I'll grab something from my phone. But we have multiple
02:25:52PM ordinances in place that are specifically related to if something blows out of your vehicle, you're responsible for it. I think Lakeshore's intention is as anybody's would be is to control their trash and not have it blow all over the town. The fact of the matter is that still happens.

So how dot we control that and what's the course of action once that has happened? Because I currently don't see either
02:26:15PM of those companies, but including Lakeshore, you know, walking up and down the street every so often. Street sweeping is not going to cover

that because we're not talking about the road surface but the culverts, recessed areas, and anywhere else that trash would blow around and collect. That's anywhere from a parking lot to natural wetland areas or, you know, it can blow into the residential areas or wherever you can point it. I think regular cleanup efforts should be considered.

Q. Did anybody try to convince you not to testify today?

02:26:43PM

A. No.

MR. MEZA: No further questions.

HEARING OFFICER PRICE: PODER?

MR. WEINSTOCK: No.

HEARING OFFICER PRICE: Mr. Mueller?

RECROSS-EXAMINATION

BY MR. MUELLER:

Q. Very briefly. Mr. Hale, you talked about street sweeping. You have seen the Lakeshore street sweeper out there on Powis Road, right?

02:26:58PM

A. I believe I have.

Q. Have you ever seen one from Waste Connections out there?

A. No. But what I also haven't seen would be, you know, hordes of people cleaning up the areas where the trash collects.

Q. I was going to ask you: Have you ever seen pickers in the ditch picking up paper?

A. On the one occasion that I mentioned in April of 2021 where we were cited and I think 02:27:23PM the surrounding companies were also cited for trash that was not ours.

Q. Lakeshore routinely sends pickers out there to try to keep the road and the berms clean, don't they?

A. I have not seen them, except for that the occasion.

MR. MUELLER: That's all I have. Thank you.

HEARING OFFICER PRICE: Mr. Callaghan?

02:27:42PM MR. CALLAGHAN: No questions.

HEARING OFFICER PRICE: Mr. Walsh?

MR. WALSH: Nothing. Thank you.

HEARING OFFICER PRICE: Thank you, Mr. Hale.

Does that conclude Protect West Chicago's case in chief?

MR. LEUTKEHANS: Yes, it does.

HEARING OFFICER PRICE: Then the exhibits introduced as part of the case in chief include 155, 156, 157, 51, 352, 800, 801, 602, 350, 603, 603-A, 49, 702, 707, and 706.

02:28:16PM Are there any objections to any of those being made part of the record?

MR. MUELLER: Nope.

HEARING OFFICER PRICE: They are all in, then. Thank you.

We now turn to PODER. It is your opportunity to put on your case in chief.

MR. WEINSTOCK: Thank you, Mr. Price. We will be calling two witnesses this afternoon. Before we do that, I might ask for a very brief

02:28:37PM break. The primary purpose for it is to send copies of Excel documents that are going to be attached to one of our exhibits to counsel in

the room and anybody who needs them, I suppose, so they have those electronic copies. They are Excel documents. Had we printed them, we would have been talking about --

HEARING OFFICER PRICE: Do you have them on a thumb drive and you can put them on the screen?

MR. WEINSTOCK: We don't plan to -- They are a technical backup for a document that we made a summary document. I wanted everyone to have them. I can send them out afterwards. We are not going to ask any questions about these documents. Frankly, they are hard to read but because they are the technical backup.

02:29:07PM

HEARING OFFICER PRICE: Send them later.

MR. WEINSTOCK: Could we have just a moment to use the restroom and get our witnesses ready?

02:29:21PM

HEARING OFFICER PRICE: We'll take ten minutes now, given the 4:30 stop, and we'll start again at 2:40.

(A short break was had.)

(Witness sworn.)

MR. WEINSTOCK: Good afternoon. My name is Robert Weinstock. I'm an attorney with the Northwestern University Environmental Advocacy Center. I'm appearing today for the limited purpose of helping the PODER witnesses present their direct testimony and to try to help them do so as efficiently as possible with
02:42:10PM a strong understanding of the legal process involved here as we can.

Before we begin, I do have two other introductory issues I just want to put on the record. First, as I was communicating with the hearing officer, I would just like to request a little bit of leeway in the direct testimony in terms of form and format from the PODER witnesses. Obviously, they are not used to testifying in this sort of forum, which, you
02:42:37PM know, I do recognize has more relaxed rules for testimony than a judicial forum. But I would appreciate the advanced patience and

flexibility, particularly, for our first witness, Ms. Garcia, which English is not her first language, but Ms. Garcia has been forced to participate in this hearing without the aid of Spanish interpretation at any point in the process. I would just ask for a little leeway. Ms. Garcia is ready and will do her best.

Second, I'd just like to note an objection for the record to this hearing being held on Dr. Martin Luther King, Jr., Day, which is, obviously, a national holiday during which time any witnesses or member of the public may have to, say, care for their children who are home from school and which is, of course, intended to honor and recognize the contributions of a civil rights leader for whom fighting the prejudicious effects of the solid waste transfer industry on minority communities was a key part of his legacy of work.

02:43:08PM

02:43:35PM

Recognizing that the hearing is being held today, we are prepared to participate and, as I said, I would just note that objection for the

record.

WHEREUPON:

JULIETA ALCÁNTAR-GARCIA,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. WEINSTOCK:

Q. Ms. Garcia, can you please state your name for the record?

02:43:49PM

A. My name is Julieta Alcántar-Garcia.

Q. Where do you live, Ms. Garcia?

A. I live in West Chicago.

Q. Could you talk a little bit more about your experience in West Chicago, how long you have lived here, that sort of thing?

A. Actually, I was born here. I was born December 20, 1969. My parents are Luis Alcántar and Carmen Alcántar. My mom is no longer with us, but my dad is. It's a lovely town. I love it. I love the community. We all get along so well. Everywhere I am, hello, no matter who it

02:44:17PM

is. Everybody comes together when we need to. We all have the same concern and worries regardless of what the our ethnic background is. We get together a lot.

I'm currently the BPAC president for West Chicago District 94, and I'm always for the community. I'm always -- That's the way I have been all my life. I like to do what is right for our community, especially West Chicago.

02:45:19PM

Q. You mentioned you're the board president for -- I didn't catch what the organization was?

A. BPAC is Bilingual Parents Advisory Committee. So our children bilingual, most parents are not. I am. So we try to have this community that the -- actually, ISBE encourages us to have. It's a very good environment here in West Chicago.

02:45:55PM

Q. So it sounds like that's one way you're involved in community affairs in West Chicago. Are you also involved in an

organization called People Opposing DuPage Environmental Racism?

A. Yes. Yes, I am. PODER is an environmental community for immigrants of the area of DuPage.

Q. You have to speak up a little bit.

A. Our mission is to educate, empower, and advocate for the struggle of Latino and immigrant communities.

02:46:39PM Q. When you say "Latino and immigrant communities," where -- are you talking about in West Chicago? Can you tell me a little bit more about who PODER and ISD represent?

A. Here in DuPage County this organization, Immigrants Solidarity DuPage, began in 2007, and I joined them in 2011. And then PODER began about 2012, 2013, when members of West Chicago came to us with a different issue.

02:47:24PM Q. So PODER formed -- Well, PODER was formed in response to concerns in West Chicago?

A. Yes.

Q. But the title of the organization talks about DuPage?

A. DuPage, yes.

Q. Can you explain that? If it's West Chicago focused, why are you identifying DuPage in the name of the organization?

A. Because DuPage County is a county where the largest population probably is Latino, it's an immigrant community. It's probably -- I want to say it's in the census. Unfortunately, in the census, not everybody was counted recently. But I am sure this is our status, in DuPage County we are a majority of Latinos and immigrant communities.

02:48:05PM

Q. West Chicagoans are?

A. Yes, West Chicagoans.

(PODER Exhibit No. 1 marked for identification.)

BY MR. WEINSTOCK:

Q. I'm going to ask you to pull up what's been marked PODER Exhibit 1. You mentioned a moment ago census data and the notion that West

02:48:28PM

Chicago is the center of many of the Hispanic or Latino community within DuPage as a whole. Is that what this exhibit depicts?

A. Pretty much. To an extent where I know so many of our community were not counted but, yes, we are at the top. I do agree we are the largest population, especially here in West Chicago.

Q. Is there anything else about this chart that you think reflects your experience in West Chicago and why PODER is organized the way it is?

02:49:14PM

A. Well, because it's a Latino community. It's an immigrant community. Also, there's low-income, people of low income, there's poverty, and many people who do not speak English at home.

Q. Thank you, Ms. Garcia. So fair to say that this chart, based on the census data that you asked your attorneys to prepare, reflects, in general, your experience of the way West Chicago compares to DuPage County overall?

02:49:56PM

A. Yes.
Q. Noting the point that the census likely undercounts the foreign-born person and Latino members?
A. Yes.
Q. As part of your work with PODER -- Well, strike that.
When -- We're here today, obviously, to talk about a proposal on the table
02:50:25PM from LRS. When and how did you become aware of the proposed LRS facility that's at issue in these hearings?
A. I became aware during the first time -- I believe they submitted the -- this LRS -- The permit for the siting, the first time they came around. I want to say it was before the pandemic, and members of West Chicago came discussing this issue, and they brought it to our attention. There were some meetings around
02:51:12PM 2019 where I listened in to what was being spoken of, and that's where I learned a little more of what the LRS was and what they were

planning to do.

Q. Those meetings in 2019, were they public meetings that LRS was presenting at? Were they meetings you were hosting? I'd just like to know --

A. It was a -- It was a community organization. It may have been the citizens advocacy but, later on, we had visits at our -- at our center in Wheaton of concerned West Chicagoans that were also concerned at this -- they were concerned, actually, at the silence after it appeared that they were not approved. So they were very concerned at the silence from anything, anything about this.

02:51:59PM

Q. So you became aware of this in 2019. And, after that, you expressed a concern about the fact that the public wasn't aware of what was going on with this after 2019 for some period?

02:52:28PM

A. Right. Exactly.

Q. At a certain point, did you become aware again of what was going on with this

proposal?

A. I did become aware a bit after the pandemic started. I did periodically listen to people or there were people presenting this where I would go shop at Jimenez here and there were concerned citizens about it there. That's where I started to say, This is happening. You know, this is coming up again. It interested me to make sure I knew and got involved.

02:53:24PM Q. So you mentioned meetings in 2019. You mentioned shortly after the start of the pandemic you heard about it from some other people in the community. Were any of those people affiliated, to your knowledge, with Protect West Chicago?

A. No. No.

Q. Have you -- Are you affiliated with Protect West Chicago?

A. Not at all. I mean -- I have heard of

02:53:52PM them recently because they are in this, but I have no idea who they were or whose funding them or anything.

Q. Do you, yourself, PODER or ISD have any official relationship or connection to Protect West Chicago?

A. We do not at all.

Q. How about to Waste Connections?

A. No. I guess that's Groot. I didn't even know they were Waste Connections.

Q. That was my next question. Any connections between yourself, PODER, or ISD with Groot? 02:54:24PM

A. No, not at all.

Q. You mentioned that members of PODER have concerns about the Lakeshore proposal at issue here today?

A. Yes.

Q. Would you just introduce, sort of in general terms, what are the concerns of PODER and its members with respect to the application of LRS?

A. Well, the impact. The impact it's going to have on our community. I do hear we're going to have more trucks coming in. I do 02:54:45PM

hear -- Listening here, there's so much in concern. So many red flags waving. My concern is we're not being listened to.

Q. Thank you, Ms. Garcia. PODER and its members had these concerns with the LRS facility. Did you -- Have you taken any steps to do any investigations on your own to understand what the -- what the affects of the facility might be?

02:55:44PM A. Very interested in this. We all -- PODER, our organization, we all started to do -- My physical participation was air monitoring and the counting of diesel trucks.

Q. We're going to take those one at a time. We're going to start with the counting of diesel trucks?

A. Okay.

Q. So, first, when you mention we did -- you were engaged in the counting of diesel

02:56:17PM trucks. Who specifically counted trucks?

A. Me.

Q. You, personally?

A. I did.
Q. Anybody else?
A. No.
Q. Could you maybe talk about, in general, how you counted the trucks, where were you, when, and we'll try to get a complete picture of it?
A. Well, I began counting trucks actually in the month of December. It was difficult for me -- I have kids, my oldest with autism -- to just go out and do all of this while they were going in school, but December seemed better. I was able to be there, like, for an hour, up to three hours sometimes, if it was possible. I would sit in the front of each facility LRS and Groot, and I would count the trucks that would come into their facility and out.
Q. So you counted entering and exit?
A. Yes.
Q. Did you take any notes while you were out there to make sure you were keeping tabs on what you were seeing?

A. Well, yeah. It was little tallies -- little notes with tallies so I wouldn't miss. That's what I would do, my own old-school style.

Q. I think that's pretty much how anybody counts trucks. Did you -- did you -- Can you take a look at Exhibit 2 -- what's in the folder as Exhibit 2. Just take a moment to flip through it. And my question for you, Ms. Garcia, is just going to be: Are those the handwritten notes you mentioned?

02:57:58PM

(PODER Exhibit No. 2 marked for identification.)

BY THE WITNESS:

A. Yes. Yes, they are.

Q. Thank you. When you were counting them, when you were marking them down -- So you would count separately at each of the two facilities; is that right?

A. Yes.

02:58:17PM

Q. So you would sit out front of the facility --

A. Yes.

Q. -- and just count the trucks coming and going.

How did you know they were exiting or entering a particular facility?

A. Watching them. Yeah.

Q. Understood. How did you know -- Could you describe the trucks? What kinds of trucks were coming in and out?

A. The garbage trucks that each company has, the semi trucks, they were pretty big trucks. And there were other companies, I guess. I couldn't -- Like, Groot had Republic and LRS had other trucks come in that probably were weren't LRS, but there were other, maybe, companies independent. I don't know.

02:58:44PM

Q. In your notes you counted every truck, no matter what sort of company name was on the side?

A. Yes. No matter what was, it's counted.

02:59:21PM

Q. You didn't differentiate between -- Let me ask that a different way. I'm sorry.

Did you differentiate in your counting between, like, 18-wheel semi trucks and garbage trucks you might see in the neighborhood, or did you just count every --

A. I just counted every truck.

Q. Did you count, like, passenger cars?

A. No. No. Just, you know, the garbage trucks and up, the big things -- big rigs.

Q. I think big rigs is about how I would describe it also. Thank you.

02:59:50PM

So I'm going to ask you now to look at what's been marked PODER Exhibit 3 and PODER Exhibit 4.

Do you see those in front of you?

(PODER Exhibit Nos. 3 and 4 marked for identification.)

BY THE WITNESS:

A. Yes.

Q. Do these appear to be summaries of the notes that we looked at as Exhibit 2 that you asked myself and my team to prepare for you?

03:00:05PM

A. Yes. Yes, they are.

Q. I'd like to just ask you to just to quickly, if you could --

MR. WEINSTOCK: Well, I guess, Hearing Officer Price, I would have her walk through and testify to the fact that she saw the number of trucks indicated on each day and maybe skip over that and move these into admission if that's more efficient for everybody.

HEARING OFFICER PRICE: Put on the case you want to put on. I'll have the objections at the end when you're done with your case in chief.

03:00:41PM

MR. WEINSTOCK: Thank you, sir.

BY MR. WEINSTOCK:

Q. Ms. Garcia, do you remember being out at the LRS facility on December 6, 2022?

A. Yes.

Q. Do you remember how many trucks -- Well, do you remember how long you were out at that facility on that day?

03:01:01PM

A. An hour, yes.

Q. Do you remember how many trucks you

saw go in and out?

A. 137.

Q. Same sets of questions: Were you there on December 7th at the LRS facility?

A. Yes.

Q. About how many trucks did you see either entering or exiting?

A. 132.

Q. I guess I'll stop and ask a question. Those numbers, 132, that's both going in and going out?

03:01:21PM

A. Yes.

Q. Maybe it's the same truck counted twice because it came in and out, maybe not; it's just the number of vehicles you saw go through the gate?

A. Right. Correct.

Q. On December 13th, were you at the LRS facility?

03:01:38PM

A. Yes.

Q. About how long were you there that day?

A. December 13th?
Q. Yes, ma'am.
A. I was there 90 minutes.
Q. About how many trucks did you see entering and exiting that day?
A. 153.
Q. How about December 19th, were you at the LRS that day?
A. Yes.
03:01:55PM Q. About how long?
A. 70 minutes.
Q. About how many trucks in that span?
A. 157.
Q. How about December 19th?
A. I was there for 62 minutes.
Q. About how many trucks did you see enter or exit during that time?
A. 148.
Q. Same question on December 28th,
03:02:14PM Ms. Garcia?
A. 64 minutes. And the trucks were 170 trucks.

Q. 1:45 in the afternoon, that's -- Do you know, offhand, is Powis Road generally really busy in the middle of a day like that?

A. It looked busy, yeah. I was shocked that at that time it was busy but, yes, it was pretty busy.

Q. On December 30th, 2022, were you at the LRS facility?

A. Yes.

03:02:50PM Q. About how long were you there that day?

A. I was there 62 minutes.

Q. About how many trucks did you observe?

A. 144.

Q. I'm going to ask you the same questions about Exhibit 4.

A. Yes.

Q. Exhibit 4 represents your notes from your truck watching at the Groot facility or the

03:03:09PM Waste Connections facility; is that right?

A. Yes. Exactly.

Q. Were you out there at that facility --

the Groot or Waste Connections facility on December 8th?

A. Yes, I was.

Q. For about how long?

A. 72 minutes.

Q. How many trucks did you observe entering or exiting?

A. 141.

Q. On December 12th, 2022, were you at the Groot or Waste Connections facility? 03:03:27PM

A. Yes.

Q. How many -- About how long were you there?

A. 100 minutes.

Q. About how many trucks -- Excuse me. How many trucks? Not about how many.

A. 173.

Q. On December 21st, were you at the Groot facility?

A. Yeah. I was only there 35 minutes because it was very freezing. 03:03:41PM

Q. I think we all remember the weather

that the day. How many trucks did you see in that 35-minute session in the morning?

A. 72.

Q. Did you go back out in the afternoon that day?

A. No. I wanted to, but there was no way. It was too cold. Wait a minute. Yes, I did. From -- I remember. From 1:39 to 2:45. It was 66 minutes. And I did count 202 cars -- trucks.

03:04:23PM

Q. Thank you.

A. I remember, because I was shocked, and I had a phone call from Cristobal and he was like, 202 trucks today?

Q. That's a lot of trucks in an hour on a cold day.

A. So yes.

Q. Did you go back out on December 29th to the Groot facility?

03:04:46PM

A. Yes, I did. 82 minutes and 166 trucks.

Q. Thank you, Ms. Garcia. You can put

down the exhibits now.

What -- When you were out there over the span of those days at the two facilities observing the trucks coming in and out, what were your impressions? What did these results mean to you?

A. They are alarming to me. It's a lot. Then learning that we're going to get more. How much more? And what the impact is going to be, you know, it's -- it's frightening for me.

03:05:26PM

Q. Are you aware -- Well, I'll put it this way: On Page 2 of the Criteria 6 submission from LRS, the KLOA report, LRS claims that their proposed facility will result in fewer trips by certain trucks because they are LRS trucks that currently deliver municipal waste somewhere else and then drive back to the facility on Powis Road to park overnight and LRS is claiming that those trucks wouldn't have to go somewhere else so there will be fewer entrances and exits at the Powis Road facility because LRS can just dump the transfer and park

03:06:07PM

them in the same location. LRS states that it's a reduction in truck traffic of a certain kind.

Do you believe that that change is a benefit to the community?

MR. MUELLER: I'm going to object to her beliefs.

HEARING OFFICER PRICE: She doesn't have a foundation for this either. Sustained.

BY MR. WEINSTOCK:

03:06:38PM Q. Ms. Garcia, did you review the LRS application materials?

A. Yes, I did.

Q. Did you look at their traffic study submitted by KLOA for Criterion 6?

A. I did.

Q. Did you observe that that report indicates what I mentioned a moment ago?

A. Yes.

Q. What was your reaction when you saw

03:07:00PM LRS's claim?

A. That's not going -- It's not convenient for the community. It's convenient

for LRS.

Q. So I understand that Powis Road runs through a relatively industrial area?

A. Yes.

Q. The fact that the Powis Road is not directly a residential road, does that address any of your concerns with the amount of truck traffic that you just described?

A. Not really. It does not. It's just that when I'm doing this observation, I do see that at various times it's very windy, it's very windy. You know, the emissions of trucks or anything that's there is not going to just stay idling there. There's wind. It's going to blow. Where is that wind blowing all of that pollution? That is my concern because there are respiratory issues, asthma, in children. So I am a mom and, also, where I do -- what I do with the schools, I hear lots of concern. It's -- It's sad to see that this issue is being ignored. So as a mom, I do worry. Fellow moms worry that this is going to multiply the

03:07:43PM
03:08:43PM

diseases of -- respiratory diseases in children are going to multiply.

Q. As someone who has reviewed the LRS application materials, as a community leader in the schools in West Chicago, as a mother, do you believe that LRS has addressed concerns about where diesel pollution from within their facility or the trucks driving to it, where that pollution would end up?

03:09:26PM MR. MUELLER: I'm going to object. She clearly is not qualified.

HEARING OFFICER PRICE: I agree, but she is not an expert and is not qualified to talk about the expert opinions rendered. But the question did limit her to her experience as a citizen of West Chicago and as a mom. With the very limited scope of the question as asked, I'm going to overrule your objection.

To be clear for the record, she is

03:09:52PM not an expert and not qualified to give opinions about other expert testimony.

BY MR. WEINSTOCK:

Q. From your perspective, Ms. Garcia, do you believe LRS has analyzed or addressed the concerns about where diesel pollution would end up from the their facility?

A. No, they have not.

Q. Let's move on now to the second action you took to investigate the LRS application yourself. You mentioned air monitoring?

03:10:26PM A. Yes.

Q. Can you tell us about the air monitoring efforts you undertook?

A. Yes. We were trained to use the AirBeam device that is downloaded on our phones, the application. And then we go out there, we make sure we fully charge our device, and then as we are out there to pick our site. We go to our app, we activate a reading -- we make it active. We put the area where it's at, the map

03:11:17PM comes up, and then we initiate the session.

Q. Okay.

A. We move around a bit so the device

starts to read. And it's going into our phones. It's an application that's keeping all the graphs and maps.

Q. Again, for the record, that's the AirCasting application?

A. Yes, it is.

Q. It connects to a sensor. Is that the AirBeam sensor?

A. Yes, it is.

03:11:47PM Q. Do you -- I'm going to ask you a couple questions about how that works building off of what you just said.

A. Uh-huh.

Q. First, you mentioned you charge the device. That means you charge both the sensor and your phone, I guess?

A. Yes, of course. Yeah.

Q. When you do that -- When you activate the app -- I think you said activate or turn it

03:12:10PM on -- do you have to do anything else when -- When you're out there to take monitoring on a particular day, let's say, what steps do you as

the user need to take to start to monitoring or actually do the monitoring?

A. Well, I have to take -- Like, I filled out the form, the temperature, how the wind is blowing, these little details, and I put it in the monitor where I'm doing my air monitoring, my name, and then basically that's it. When we're done, we have to finish the session, and then we keep that until we're able to e-mail to

03:13:00PM who we need to give us that information, those sheets.

Q. When you say "finish the session," what do you need to do to finish the session?

A. To finish it, well, send it. There's, like, three dots. When we're done, we push the three dots and finish recording.

Q. So just press a button and turn it off?

A. Uh-huh.

03:13:22PM Q. Did you receive any special training to use this app or do you have any technical background?

A. Yes. I don't have any technical background, but our forest preserve commissioner, Jeffrey Gahris, trained us to use this device and how to use it appropriately so it reads. This is -- He came to us for other matters, but also this came in at the right opportunity for what I wanted to do.

Q. So who paid for the app and the monitor itself?

03:14:00PM A. This was something that was donated to us -- I would want to say to PODER.

Q. Do you know who donated it?

A. Yes. Jeffrey Gahris from -- He's a forest preserve commissioner.

Q. So when you got the app, by the way, do you need any special license or do you have to interact with the company that does the app at all or can anyone just download it?

03:14:36PM A. Well, we had to have just the training but, like, one of our coordinators, Rafael Villa, he's the one that when we want to add someone else or recruit someone else, he downloads it,

he informs us how to use it and watches us use it, so when we're out there, we use it correctly so that it reads correctly.

Q. Based on what you have seen about this app and the materials you read -- Well, I guess, did you read any of the materials from the app or instructions from the app itself when you started using it?

A. Yes.

03:15:08PM Q. Based on the things you read from the app creator, do you believe this is a device that's intended for anyone to be able to use it or is it intended only for technically trained experts?

A. I believe it's intended for anyone to use it. There have been instances where we have heard other community organizations tell workers to use it where they are working to monitor the air quality there in other instances, not here.

03:15:46PM Q. Again, I just want to backtrack so we all have a clear understanding of how this monitoring works. So you have downloaded the

app, you have been trained on it, both by people who know how to use it and by reading the materials?

A. Yes. Correct.

Q. When you go out to monitor, you enter the air temperature?

A. When you go into the app, you know, you have to turn on the device. It has you connect first. Connecting the device has you do

03:16:25PM steps to connect your phone to the device.

Q. Like Bluetooth or something?

A. Yes, Bluetooth. Then there's a screen where you put your name, the place you're monitoring -- air monitoring, LRS or Groot, and the next -- there's a little -- where you can put if it's a certain intersection, if there's a light, or the temperature, you can put it's very windy today, it's very cold and all these details. Then you turn on the session.

03:17:07PM Q. Then you leave it on --

A. You leave it on.

Q. -- for a certain period of time?

A. Yes.

Q. During that time, the monitor -- do you know what the monitor is doing, just generally?

A. It's reading. We have to move around a little bit when we're walking, and then it starts reading. It's a very interesting device. It is.

Q. Can you see the readings as they are coming in?

03:17:34PM

A. Yes. Yes. When I'm looking on my phone sometimes, I look and make sure I see it's going on and it is. It's very interesting. Very interesting to see the spikes going up. And when we began doing this, I was out there without a mask. As a precaution, I wear a mask because there's a lot going on out there.

Q. For it to take the readings, do you have to do anything as the user or does the monitor just take them automatically?

03:18:20PM

A. It does it by itself.

Q. Do you know how often it takes a

reading?

A. Maybe a second and a half.

Q. Do you know what air pollutants it monitors?

A. The one that I know for sure is the PM2.5.

Q. Do you know anything about PM2.5?

A. I do know that it's -- Can I use this?

Q. Just try to answer first based on your knowledge, as you sit here today? 03:19:04PM

A. Well, it's -- It's what is being used because it impacts public health -- it affects public health and it's very dangerous if it exceeds a certain level.

Q. To get back to sort of the way the app works. It's automatically recording, the monitoring you think it's about every one second or one-and-a-half seconds?

A. Yes.

Q. It records Particulate Matter 2.5, among other things. Then I think you mentioned before, the app, then, saves the data in some 03:19:35PM

format; is that right?

A. Yes, it does.

Q. Are you able to export that data?

A. Yes. It's still there, everything I have. At any time I can export information.

Q. I'm going to ask you a little bit about the particulars of that data in a moment. Before we do that, I just want to tee up a couple things.

03:20:06PM Have you ever downloaded that data to some format you can share with other people?

A. Well, it does have the option for me to share data. In the past I did share the sessions to our forest preserve commissioner Jeffrey Gahris and then recently to our lawyers today.

Q. When you shared that data with me, did you change any of the data before you sent it to me?

03:20:43PM A. I don't think that's possible.

Q. Do you know how I received that data? You hit send on the app, I take it. Do you know

how it showed up for me?

A. Yeah. I sent it from my app. That's how I was told I could share it.

Q. So you -- Did you even download that data yourself?

A. No.

Q. It went directly from the app to me?

A. Yes.

MR. WEINSTOCK: I'd like to now ask you to look at what's been marked PODER Exhibit 5. I'll represent for the record that this exhibit is the automated messages that my office received from Ms. Garcia's app directly. What we did -- I'll ask Ms. Garcia to talk about what these numbers are in a moment.

But just for the record, what we did was download those files directly from the app. I believe the e-mail name was AirCasting.com where I received it from. Then we just packaged up what were extremely voluminous Excel files and put the numbers here. As I indicated before the break, we are happy to

provide those Excel files to all of the parties at the hearing. We just didn't believe anybody needed stacks of Excel paper that's misformatted.

MR. MUELLER: Mr. Price, maybe counsel should testify and not Ms. Garcia, since he's the one that prepared the exhibits.

HEARING OFFICER PRICE: Ask the witness.

03:22:19PM (PODER Exhibit No. 5 marked for identification.)

MR. WEINSTOCK: I was getting to that, Mr. Mueller.

BY MR. WEINSTOCK:

Q. Ms. Garcia, you took the data; is that right?

A. Yes.

Q. I'll start with this: On PODER Exhibit 5, you see there are two -- two tables,

03:22:37PM the top table says, "PM2.5 at the LRS facility."

Do you see that?

A. Yes.

Q. And then there are -- On the leftmost column, do you see where it says "date" and "time"?

A. Uh-huh.

Q. Going down that row, do you remember going to the LRS facility on December 6th at about 9:41 and starting one of these air monitoring sessions then?

A. Yes.

03:23:01PM Q. On December 7th, do you remember going to the LRS facility at about 10:07 a.m. and starting one of these AirBeam sessions then?

A. Yes.

Q. On December 8th, at about 12:36 p.m., do you remember going to the LRS facility and starting one of these AirBeam sessions then?

A. December 8th we were inside the LRS facility. Cristobal and I were asked to come in to talk to the people at LRS, and I had the

03:23:28PM monitor on.

Q. Oh. So December 8th, those readings reflect the air quality inside the LRS building?

A. Yes, inside.
Q. I see. Okay. December 13th, do you remember going to the LRS facility and initiating an AirBeam monitoring session around 10:31 a.m.?
A. Yes.
Q. On December 19th, do you remember going to the LRS facility and starting a monitoring session around 9:09 a.m.?
03:23:56PM A. Yes, I did.
Q. December 19th, do you remember starting another session around 11:22 a.m.?
A. Yes.
Q. On December 28th, do you remember going to the LRS facility and starting a session around 1:39 p.m.?
A. Yes.
Q. On December 30th, do you remember going to the LRS facility and starting a session
03:24:16PM around 10:56 a.m.?
A. Yes.
Q. For those -- Other than the

December 8th readings, could you generally describe where you were when you turned on the AirBeam monitor?

A. There's like this front -- I'm going to call it the front lot. The LRS -- There's a gate, and I would park a bit closet to the stop sign -- there's a stop sign there -- and that's where I was, in front of the facility.

Q. Outside the gate?

03:24:49PM A. Yes.

Q. Right in front of the facility?

A. Yes.

Q. I'm going to ask you same set of questions about the Groot facility just so we know these readings are your readings?

A. Sure.

Q. On December 8th, did you start a reading at the Groot facility around -- I think there's a typo there -- 9:19 a.m.?

03:25:11PM A. Yes.

Q. On December 12th, do you recall going to the Groot facility and starting an AirBeam

session around 1:30 p.m.?

A. Yes.

Q. On December 21st, do you remember going to the Groot facility and starting a session around 9:06 a.m.?

A. Yes, I do.

Q. On December 21st, I believe that was the very cold day, did you start another session at 1:37?

03:25:32PM A. Yes, I did.

Q. On December 29th, did you go to the Groot facility and start an AirBeam session around 10:36 a.m.?

A. Yes.

Q. Did you -- Do you remember ever going to either facility on another day and doing an AirBeam session?

A. No.

Q. Ms. Garcia, I'm going to ask you to

03:26:01PM help us interpret this chart a little bit. So we have been through the left-hand column. Each of those numbers in the left hand column

represents an AirBeam monitoring session that you, yourself, started on the date specified that began at the time specified?

A. Yes.

Q. And did it at the time specified?

A. Yes.

Q. Was at the facility that's specified at the top of the table?

A. Yes. Yes, correct.

03:26:24PM Q. The headers for the table and the header for the document says "PM2.5"?

A. Uh-huh.

Q. Let's take you all the way to the column on the right side that says "Maximum." What do you understand that column to be representing?

A. Well, the highest number of that particular pollutant in our air that is being in the air at that time.

03:26:52PM Q. How about the next column in, the one that says "Minimum" at the top, what did you understand that to be?

A. Well, again, it would be the minimum, the least amount of the 2.5 pollutant.

Q. How about one more column to the left, "Average"? What do you understand that to be representing?

A. The average. I mean, throughout the time I was there, that's what was present in the air that my monitor picked up.

Q. Can you explain how the monitor works? Do you know how the monitor works? 03:27:32PM

A. No. All I know is how to use it. I was trained to use it for air monitoring.

Q. So when you took these results and you looked at them, what did these results mean to you?

MR. MUELLER: I'm going to object.

HEARING OFFICER PRICE: Sustained.

BY MR. WEINSTOCK:

Q. Ms. Garcia, based on someone who lives in West Chicago, who is active in the community, who is a leader at the schools in the community, as a mother in the community, someone who is 03:27:58PM

trained to use this app, when you saw these numbers, what did they mean to you?

MR. MUELLER: I'm going to object again.

HEARING OFFICER PRICE: Sustained.

MR. WEINSTOCK: May I ask why, your Honor?

HEARING OFFICER PRICE: You may not ask why, but I'll tell you why. She's not a trained scientist. The app has not been recognized by any court in the land. I just did a search. None of this is scientifically relevant. I appreciate the effort. She did what she did. I can't stop it from coming in as comment or, in this case, testimony. But she is not qualified to talk about -- She doesn't even know how the app works. She said so. You just laid that foundation. And she's not shown to be an expert in any of these things. So we're moving on.

03:28:20PM

03:28:45PM

She's not going to render an opinion about the science. That's not her value here. Her value is as a mom, she has made it

clear she's concerned about the pollutants. She is not qualified to talk about how polluted the air is based on an app that no court has recognized yet. Until you bring in a scientist to cite the proper foundation using the proper educated formulas for how you get in expert testimony, we're not going to do it. No.

Sustained. Next question.

MR. WEINSTOCK: Thank you, your Honor.

03:29:17PM BY MR. WEINSTOCK:

Q. Ms. Garcia, are you aware of any federal agency that issues standards that determine how much Particulate Matter 2.5 in the air is too much for public health and welfare?

A. The United States EPA.

MR. WEINSTOCK: I'd like to point you to what's been marked as PODER Exhibit 6. Your Honor -- Hearing Officer Price, I'm sorry, that -- PODER Exhibit 6 is a U.S. EPA fact sheet

03:29:52PM that is published by U.S. EPA, by the agency. I would ask you to take administrative notice of the document.

(PODER Exhibit No. 6 marked for identification.)

HEARING OFFICER PRICE: Nope. It's a proposed rulemaking, which means it's not a regulatory standard yet and it's got, for some reason, in the columns on the side is the environmental justice stuff, which I've told you is not part of 39.2. So, no, I'm not taking any notice of PODER Exhibit 6.

03:30:16PM You can do what you want right now and when it comes time to determine whether I'm going to admitted it as a piece of evidence, we'll do that. I'm not taking notice of a proposed rulemaking.

MR. WEINSTOCK: I'm not asking you to take notice of the proposed rulemaking --

HEARING OFFICER PRICE: That's what this fact sheet is. On January 6th the U.S. EPA announced a proposed rulemaking. That was only

03:30:37PM a week ago.

MR. WEINSTOCK: I'm asking you to take notice of what the EPA is saying in the

document, how they are the describing the standards.

HEARING OFFICER PRICE: It's not a regulation yet. It's a proposed rulemaking. Bring me an expert who wants to testify as to what the recognized standard is and that with the proper measurement that's violated, do that, but that's not this witness.

MR. WEINSTOCK: Okay.

03:30:59PM BY MR. WEINSTOCK:

Q. Ms. Garcia, earlier today in this hearing there was a witness, Mr. Powell, who testified on behalf of PWC. I'll offer that Mr. Powell testified that the health-based primary U.S. EPA standard for PM2.5 was 12 µg/m3?

A. Yes.

Q. I believe the record will reflect that.

03:31:23PM A. Uh-huh.

Q. As a member of the community, as a mother, not as an expert, what is your reaction

when you compare the levels on this chart to Mr. Powell's testimony that 12 µg/m3 is what is necessary to protect health and welfare?

MR. MUELLER: I'm going to object again.

HEARING OFFICER PRICE: Sustained. There's really no basis that we know that it was over 12. She's concerned about pollution as a mom and as a member of the community. We have established that. She has no basis to talk about anything technical.

Sustained.

BY MR. WEINSTOCK:

Q. Ms. Garcia, I'm going to move on because that's what we're going to get there.

You testified earlier that you have been following this proposal from -- I believe you said 2019?

A. Roughly, yeah. From the last time that it didn't go through.

Q. So you have been following this proposal. Would you -- You're aware that

Criteria 2 of the statute indicates that LRS must prove that the facility would protect public health and welfare?

A. Yes.

Q. To your knowledge, as a leader in the community, someone who has followed this proposal for several years, what steps are you aware of that LRS has taken to determine what the public health or welfare is in West Chicago?

03:33:06PM A. I don't see they tried. I don't see they even tried to talk to the community.

Q. Are you aware of any instances by LRS to solicit input from the public or regarding the potential health, safety, and welfare effects of its proposed facility?

A. No.

Q. You did mention that you were invited on December 8th, I believe, for a meeting at the LRS facility?

03:33:35PM A. Yes, we were.

Q. Can you please describe your impressions of that meeting or your recollection

of that meeting?

A. I was in there, and then we had -- It was a table with many representatives from LRS. Cristobal and I came in to see a bit of pressure from a couple of our colleagues and elected officials, but we did come in. We thought, okay, let's see what they will say. They gave us, well, all this propaganda. There was coffee, there was cookies, there was food. But

03:34:27PM everybody was talking and Cristobal and I, we couldn't even get a comment in.

In the end, Cristobal had to leave, he had something -- you know, we're busy. I stayed, I listened, and we both suggested -- it wasn't that we told them to do it -- that they -- if they honestly wanted the community, to go out to the community, go out and reach out to them, make a forum and communicate what you're doing. It started where Cristobal and I

03:35:14PM received two e-mails and then that was done.

They apparently planned to make a community forum right before New Year's or after

Christmas. We were here in city hall advocating to have these public hearings these days in January, which, thankfully, that's what happened because the concern is our community -- I'm sorry. You know, it may bother people that I'm talking about Latino communities. But in our community we are very involved with Guadalupe, with many things we do as Catholics or Christians and believers that we are. We also
03:36:04PM go visit family, maybe in Mexico and everything. We we're not going to be able to be here between the dates of Christmas. We weren't going to be able to be here December 15th or something like that.

The idea to hold a community forum, probably -- what was it -- December 29th or something. I'm getting a text from two of our colleagues. It wasn't a phone call from LRS or something -- a professional protocol to come
03:36:48PM invite us. When we have a community forum, we are inviting people, we are putting it on Facebook, we are doing everything so people

come, and we're not the professionals, as I have been told. If we would have gotten a phone call, we would have brought the community to this as much as we could. Okay. But that was the sole intention of not allowing our community to come and listen.

Then this -- These public hearings right here, I wish our Latino was included. I wish this was all in Spanish and there was every effort to go out there so that my community knows what's going on here. I may not be a professional, as I have been told.

I am a mom. I am a Latina. Born and raised in West Chicago. There's every effort to silence me because I am voicing my community. I'm sorry. I got really sentimental here but I don't know what else to do today and I just hope that what Martin Luther King once said, When it's time to do the right thing, do the right thing. Do it. There's always time to do the right thing.

03:37:39PM

03:38:31PM

MR. WEINSTOCK: Thank you, Ms. Garcia.

I'm sorry. Does someone have a tissue? I don't have one with me. I'm sorry.

BY MR. WEINSTOCK:

Q. Thank you for that, Ms. Garcia. I do have just a couple more questions. And this is going to seem really trivial at this point, but you mentioned a couple of times you attended a meeting with someone named Christoval. Can you just say who he is?

03:39:12PM A. He's our coordinator, one of the founders of Immigrant Solidarity DuPage and --

Q. Just a couple more questions. I promise. As a person who has followed this closely since 2019 -- around about 2019, as a leader in the community, are you aware of any effort made by LRS to understand how the public health, safety, and welfare impacts of its proposed facility might interact or combine with other current or historic pollution sources in

03:40:08PM the West Chicago community?

A. I'm sorry, but I have not.

MR. MUELLER: I'm going to object to

that.

HEARING OFFICER PRICE: She got her answer in.

Overruled.

BY MR. WEINSTOCK:

Q. In your opinion, as a community leader, not as an expert of any sort, do you believe it would have been important for LRS to examine the potential impacts of its proposed facility in connection and in combination with other stressors -- environmental stressors, past and current, on the community of West Chicago?

A. Yes.

Q. LRS claims that overall truck traffic will be reduced sort of overall because some of the trucks that currently drive to a facility in Batavia will now drive to this facility in West Chicago. I think the record has reflected that.

What is your -- As a resident of West Chicago, the public that this facility will be located next to, what is your reaction to the argument that it's in the public benefit because

trucks will no longer go to Batavia but will come to West Chicago instead?

A. This will benefit LRS, not our community. The idea, if I understood correctly, there will be times these trucks are going to be parked there, so, you know, that's not what we -- what we want. You know, their trucks park here. This is -- It's not it's not convenient for our community at all. Everything is

03:42:09PM community -- for LRS, the company who wants to cut costs.

Q. Ms. Garcia, you have followed this application, you said, for a long time, do you happen to know what day the application was submitted to formally kick start this process?

A. September -- I think like -- oh, gosh. A week -- A week after -- I want to say the Monday after they had the Mexican Independence Day festival, which was only one day, on

03:42:51PM Saturday. The Monday, I believe, that's when -- In September, that's when it came out. That's when I -- That week I read it came out on the

West Chicago city website.

MR. WEINSTOCK: Ms. Garcia, time is short. I want to thank you very much for your testimony today. Some of the other lawyers may have questions for you. I'll be sitting right over there.

HEARING OFFICER PRICE: Protect West Chicago?

MR. MEZA: No questions.

03:43:24PM HEARING OFFICER PRICE: Mr. Mueller.

MR. MUELLER: Can I have 60 seconds outside with my client and Mr. Hock, just to maybe cut all of this short?

HEARING OFFICER PRICE: Sure.

(Discussion off the record.)

HEARING OFFICER PRICE: Mr. Mueller?

MR. MUELLER: Thank you.

CROSS-EXAMINATION

BY MR. MUELLER:

03:45:18PM Q. Ms. Garcia, you said LRS gave you propaganda?

A. Yes.

Q. That was in the form of coffee and cookies?
A. If that's what they want to say it was, sure.
Q. But they invited you in and answered your questions and were pretty friendly, weren't they?
A. They were friendly, yes.
Q. Do you remember being telephoned by
03:45:48PM Katie Neary and talking to her briefly?
A. Nope.
Q. When you were taking readings at the Groot facility, they did not invite you in, did they?
A. No.
Q. They asked you for ID and made you feel unwelcome, right?
A. There was the one time I was asked for ID, but I thought that was fine, you know.
03:46:32PM Q. How far do you live from the LRS facility?
A. I personally live on Center Street

here in West Chicago.

Q. All right. Did you ever take any readings at your house?

A. No, because I wasn't told to take readings of my house.

Q. Okay. And the person that trained you on this device is a forest preserve commissioner?

A. Yes, Jeffrey Gahris.

03:47:07PM Q. You don't know what specialized knowledge he has, do you?

A. He is part of the Sierra Club, and he also -- he's in public health.

Q. You said he's with the Sierra Club?

A. Well, I see him with -- collaborating with the Sierra Club and he collaborates with us on other issues.

Q. You're aware the Sierra Club supports this proposal?

03:47:45PM A. Recently, yes.

MR. MUELLER: Thank you, Mr. Garcia. I have nothing else.

HEARING OFFICER PRICE: Mr. Callaghan?
MR. CALLAGHAN: No questions.
HEARING OFFICER PRICE: Mr. Walsh.
MR. WALSH: No questions.
HEARING OFFICER PRICE: Mr. Weinstock, any redirect?

REDIRECT EXAMINATION

BY MR. WEINSTOCK:

Q. Just a really quick question because I think something may have been lost in your testimony. Mr. Mueller said that -- Mr. Mueller said that when LRS invited you in, that they answered your questions.

Do you remember when Mr. Mueller just said that?

A. Yeah.

Q. When you went in to LRS, did LRS actually answer any questions that you asked?

A. They were just talking -- They presented the PowerPoint and they were all talking, but we really couldn't ask questions. It's not that maybe -- I don't know. Maybe they

just didn't think of allowing us to speak. Maybe the pressure that we were in there. But Cristobal and I weren't asked to ask questions, to address our concerns to them. We just saw everything they were planning to do.

MR. WEINSTOCK: That's all I have, Mr. Price.

HEARING OFFICER PRICE: Protect?

MR. MEZA: No.

03:49:10PM HEARING OFFICER PRICE: Mr. Mueller?

MR. MUELLER: No, thank you.

HEARING OFFICER PRICE: All right. Thank you, Ms. Garcia.

MR. WEINSTOCK: PODER is going to ask Mr. Steve DeLaRosa to testify.

(Witness sworn.)

MR. WEINSTOCK: Thank you, Mr. Price.

WHEREUPON:

STEVE DeLaROSA,

called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. WEINSTOCK:

Q. Mr. DeLaRosa, can you please state your full name for the record and introduce yourself?

A. My name is Steve DeLaRosa. I'm a long-time DuPage County resident.

Q. Are you active in PODER?

A. Yes, I am. Because I am a volunteer with Immigrant Solidarity DuPage. It's been a local award-winning community organization that has received awards from the City of Wheaton for being a good community partner. And basically I have known them since their beginning, from when I was a board member of the Citizen's Advocacy Center, which I'm no longer on.

03:50:24PM

Q. As part of your work with ISD and PODER, did you become aware -- At some point, did you become aware of the proposed LRS facility we're all here talking about?

03:51:09PM

A. Basically it came to my attention in the fall of 2022, when we became aware that the

City of West Chicago was planning to host public meetings addressing the permitting process here in the City of West Chicago.

Q. After you learned about the LRS proposal in the fall of 2022, did you take any steps to learn about the proposal?

A. Yes, I did.

Q. Could you describe those steps, please?

03:51:53PM A. Basically I began to bolster up my knowledge about how DuPage County has historically produced a solid waste plan for DuPage County.

Q. Did you also look at any of LRS's materials related to the proposed operations of the facility?

A. I really didn't have any access to any of the Lakeside -- Lakeshore information because I wasn't an attorney privileged to get discovery

03:52:35PM items that have been shared with the other members of the city and besides being represented here. As a public citizen it sure

would have been nice to have those documents. As a resident, my uncle lives in West Chicago, I have other family members that live in West Chicago, and I, myself, am impacted by the permitting process which we're talking about here today.

Q. You're aware, though, that LRS did -- I guess the city posted LRS's application materials on the website?

03:53:26PM A. Yes.

Q. Did you review those posted application materials?

A. Yes, I did. But let me just say that while I may have reviewed those documents on the city website, you have to remember I am a private citizen and I am not an employee of the City of West Chicago, nor am I an attorney retained to process this quasi judicial process that we're involved in.

03:54:04PM Q. Mr. DeLaRosa, you looked at the application materials on the website. And as you were looking at them, understanding you're a

private citizen, didn't have the access to all of the materials that maybe were exchanged earlier in the hearing, did you have any professional background, though, that helped you understand what LRS was proposing?

A. Well, yes. I retired from being a manufacturing wrench supervisor/manager in the food processing industry in the greater Chicagoland area for a number of years in Burr Ridge, also a municipality of DuPage County; here in West Chicago, a municipality, as we all know, of DuPage County; and other places that have basically given me training and knowledge about how to take care of employees and how to motivate employees and how to keep employees in the same shape that they came into the building so they can go home to their families. That's how I've trained myself to act as a manager because it's a principal idea in my mind, because I have been on both sides of the table working as a wrench, as a maintenance mechanic, trained in electronics and PLC controls and HVAC

03:54:55PM
03:55:51PM

systems. I worked for Chiquita brands in Franklin Park, where we utilized different ways to clean fresh vegetables that we packaged and produced for home consumption under the Chiquita and Fresh Express label. And for a time at Chiquita, we worked in partnership with Praxair to develop a process for ozone sanitation of fresh vegetables as a way to get away from using the chemicals that we were using at the time to process these vegetables. I learned a lot working in that partnership with Praxair.

03:56:56PM

Q. Just so I have it right, the project with Praxair, that was about indoor air quality in the workspace; do I have that right?

A. Well, specifically it was dealing with the creation of and generating of ozone as a chemical property to topically apply to the surface of fresh vegetables. But I can recall Mr. Hock talking about the viability of the ozone HVAC process that he alluded to in his testimony of rooftop units to be used in the proposed facility.

03:57:37PM

Does anybody have a glass -- a bottle of water? There isn't a drinking fountain out there, and I don't want to squeak at you. I don't want to give you too much comedy -- I'm sorry. I lost my place.

Q. Maybe that was a good place, actually, for me to ask another question. I guess, can you -- You don't have it in front of you. I'm bringing you what's been marked PODER Exhibit 7, 03:58:51PM which everyone else should have in their folders.

Is that a copy of your most recent -- I'm sorry. Mr. DeLaRosa, is Exhibit 7 a copy of your most recent resume?

(PODER Exhibit No. 7 marked for identification.)

BY THE WITNESS:

A. Yes, it is my most recent resume.

Q. I'm going to ask the question that I 03:59:21PM know Mr. Mueller asked a couple nights ago.

Why does it stop in 2011?

A. Well, I didn't want to work anymore

and thought I should retire, so I did that the in 2018. I retired from being a maintenance mechanic with M&M Mars in Burr Ridge where I worked a total of ten years before I retired from them. While I was with M&M Mars, I was a part of an incipient fire brigade that was made up of volunteer employees who said that they wanted to get trained in the use of subcutaneous breathing apparatuses because we warehoused over
04:00:15PM 100,000 pounds of liquid ammonia onsite to refrigerate our ice cream manufacturing line.

Pardon me while I take a sip here.

Q. Please. So you were at Mars from 2011 to 2018, you had been there previously, as reflected on your resume; is that right?

A. Let me just take another look at this because this really is the resume that I used to come back to Mars.

Q. Sure.

04:00:54PM A. Because I worked for Mars from '90 to '95 in my first stint, and then Mars -- as corporate employees typically do at certain

points in time, is they eliminate half of their workforce in order to generate profits or, in the Mars instance, for the family; and in corporate instances, for their shareholders. So I was eliminated. Then I went onto find work for other food processors as the resume attests to.

I was just going to say that -- Because I wanted to follow up about the incipient fire brigade. So that fire brigade training, we were trained by the Illinois Fire Protection Service in air quality and monitoring because we had processes that can deplete oxygen within a confined space in a process line.

We used liquid nitrogen to freeze down ice cream to take it from soft serve to rock hard within a minute using liquid nitrogen being sprayed over the ice cream in a tunnel. When you run a process like that, you have to have air quality monitoring because the nitrogen isn't 100 percent contained in this vessel. So we had oxygen sensors within this room to

04:01:44PM
04:02:35PM

basically tell us when it was alarm time and people needed to leave. Because if the oxygen dropped beneath 19 percent, it's not good for humans and it's time for them to leave. So we had alarms set up that would go off, red lights flashing, horns sounding to get the heck out of there no matter what you were doing. Leave the line running if you want, shut it down, whatever, but leave the room to protect yourself as an employee.

04:03:22PM

I was struck by Mr. Hock's testimony about the state-of-the-art proposed facility that was going to be -- that is proposed to be built for this transfer station because I wondered --

Q. Mr. DeLaRosa, if I may stop you there for just one moment. I'm going to ask you to go back to that. I just want to ask -- Just to stay with your experience for just one more moment.

04:04:02PM

Have you -- So you described a number of experiences, professional experiences,

practical experiences. Have you received any training or certifications that relate in any way to indoor air quality issues in workplaces?

A. Yes, I have. Over the years, as my resume shows, I have received specific trainings and also I have just recently completed an OSHA 300 course regarding safety in the workplace and have a certificate from OSHA testifying to that training.

04:04:45PM MR. WEINSTOCK: I'm sorry. Mr. Price, we were unable to find the certificate. I'm going to show it to Mr. DeLaRosa to get him to authenticate it. I'll pass it around to everyone as soon as we can. We didn't have a chance to make copies.

(PODER Exhibit No. 8 marked for identification.)

HEARING OFFICER PRICE: This is 8?

MR. WEINSTOCK: This will be 8. I

04:05:04PM didn't want to put the sticker on because it's his only copy.

BY MR. WEINSTOCK:

Q. While I'm chauffeuring the certificate around, want to tell us what that certificate means, what did you do in order to obtain it?

A. Sure. This OSHA training basically was a refresher for me because I had received other OSHA training in my past work life. But this is the most recent one that I have taken because as a retired guy, and I don't know how many of you out there are getting close to the point of being -- I'm not looking at you --

04:05:54PM

MR. WEINSTOCK: I move to strike that discussion of retirement-aged individuals in the room.

(Laughter.)

HEARING OFFICER PRICE: Time is expiring. Let's focus, please.

BY THE WITNESS:

A. You pick and choose the things that you want to do. That's one of the joys of being retired. But it also is part of my work-life experience in terms of wanting to gain knowledge

04:06:12PM

about what the keeps people safe in a workplace. That's really why I was empowered to take this training and it was offered to me through Immigrant Solidarity DuPage because we had a benefactor that provided this training for us, because it's not cheap and you have to commit to being there for a whole week and you have to get up at a regular period of time and be there. And when you're retired, that's something special.

04:07:03PM

Q. You mentioned a benefactor paid for it. Do you know who that was?

A. You know, I don't -- I don't recall the name of the person who donated the training to Immigrant Solidarity DuPage, but I'm sure I can produce it if required.

Q. Do you know how much it costs, the training, roughly?

A. I think it was $1,200 per individual.

04:07:30PM

Q. Do you have any reason to believe that the individual who provided that funding has any connection to Protect West Chicago?

A. Well, seeing as I can't remember his name, I don't think that -- I can't say because I don't even remember what his name is, so it's like -- I can't answer that.

MR. WEINSTOCK: That's fair enough. I think Mr. Price would probably sustain that objection.

HEARING OFFICER PRICE: By the witness to his own testimony.

04:08:03PM BY MR. WEINSTOCK:

Q. Mr. DeLaRosa, with all that background on your experience, I'd now like to ask you to provide your reaction to the LRS proposal, the application materials you reviewed from the website, and Mr. Hock's testimony that you listened to at the hearings these past couple of weeks.

MR. MUELLER: I would object. He's not qualified as an expert in anything.

04:08:24PM HEARING OFFICER PRICE: I agree. It's very limited based on his experience. All we have asked for here is his reaction. He's not

purporting to provide an expert opinion and testimony. It's just based on his reaction. He is a participant, so I'm going to allow this question to be answered.

Overruled for now.

MR. WEINSTOCK: Thank you.

BY THE WITNESS:

A. Can you restate the question, please?

Q. Based on the professional experience you just described, the certifications you obtained, your review of the LRS materials on the website, and listening to Mr. Hock's testimony the past couple weeks on the hearings, I just want to know, simply, your reaction to their application materials?

04:08:50PM

MR. MUELLER: Same objection.

HEARING OFFICER PRICE: The objection is noted. For the record, Mr. DeLaRosa hasn't been present for all of Mr. Hock's testimony. But based on just his limited experience, I'm going to let him answer.

04:09:15PM

So, please, answer the question,

Mr. DeLaRosa.

BY THE WITNESS:

A. Okay. So I'm going to answer from the perspective of being a worker who has to perform functions in a facility where air quality is a primary concern, because you talked about having a state-of-the-art filtration system to protect your workers. But I know that you have the ability to have six different diesel operated machines indoors all running at the same time producing beaucoups -- a lot of noxious fumes in a facility. And I didn't -- I know as a worker, I'd want to know that there are air safety monitoring in place to know that the interior atmosphere within that room -- you don't have to be an expert to know this, because we're humans.

04:10:04PM

04:10:49PM

If you don't have 19 percent oxygen, you're going to start going faint you're going to start -- you're going to start not feeling normal and you could fall down trying to leave an area like that.

If I was working in a place as I

heard described and there were big front-end loaders working around me spewing stuff into the air, six different trucks coming in performing motions, tipping, dumping waste, waiting, and no system of operation for the doors to open and close. It's because -- From what I heard, they were going to rely on somebody pushing a button to open and close a door. To me, that's not very protective. Running a big front-end loader
04:11:50PM in an enclosed space that's -- with workers trying to do the best job that they can for the company. Wow. Having to keep their eyes and wits about them so that they don't run over anybody is a real challenge.

So -- And I know, from my work experience, that rooftop units only do so much work. Every time you open and close a door, you're creating an enormous inrush of air and you don't have to be an expert to know that.
04:12:29PM That's common sense. I mean, who doesn't tell their kid, Close that door or you're letting all the air-conditioning out or you're letting the

heat out. Who doesn't do that? I'm sorry. Maybe I'm a bad dad, but I do that. It's like I don't want to heat the neighborhood, I don't want to cool the neighborhood; and that same air that you're letting out, is the same air that you're talking about having ozone treat to get rid of odors and to take out particulate. So I would wonder about that.

Q. Mr. Gahris -- DeLaRosa -- I'm so sorry, Mr. DeLaRosa. 04:13:13PM

Mr. DeLaRosa, you -- noting that you haven't been able to be present for every moment of Mr. Hock's testimony, you were here -- I believe it was Tuesday night, when Mr. Hock testified --

HEARING OFFICER PRICE: We're not going to do this. He's not qualified to comment on Mr. Hock's testimony. Ask a real question.

MR. WEINSTOCK: Okay.

BY MR. WEINSTOCK: 04:13:42PM

Q. You mentioned a moment ago, Mr. DeLaRosa, that you were concerned about the

indoor air quality, based on your experience and based on your review of the application materials, what you had seen. One of the things I think you said --

MR. MUELLER: I'm going to object. That's not what his testimony was.

HEARING OFFICER PRICE: His testimony was what it was.

Ask a question.

04:13:59PM MR. WEINSTOCK: Yes, sir.

BY MR. WEINSTOCK:

Q. Diesel trucks will be inside this facility with the doors shut, maybe with the doors open. If the doors are shut, you expressed a concern about indoor air quality with those emissions; is that right?

A. Yes. I would be concerned, because as a manager -- And I had people working in a facility like that. As a manager and as a past

04:14:25PM safety officer, who I think the building manager for this site was sited to wear two hats: As a building manager and a safety manager. For a

safety manager, you really got to be on the work floor all the time because people that you have working for you do stupid things and you need to be around to see what's happening so nobody gets hurt. I know we used to keep an OSHA 300 log because we were required to keep an OSHA 300 log in our cafeteria or at a prominent site to be able to identify how many cuts, scrapes, and bruises took place within this facility within a
04:15:19PM year's time.

That was used to basically determine how safe of an organization we were creating. As a manager, that was important to me.

Q. Mr. DeLaRosa, understanding that you're not testifying here as an expert, but based on, again, the professional experience you described, the certifications you received, your review of the testimony and of the application
04:15:46PM materials, are there any measures you believe LRS should take to ensure the welfare of its workers and the people who may pass by or be

near the facility?

MR. MUELLER: He's not qualified to opine.

HEARING OFFICER PRICE: Sustained.

MR. WEINSTOCK: Mr. DeLaRosa, thank you very much. That's all I have.

HEARING OFFICER PRICE: Protect West Chicago?

MR. MEZA: No questions.

04:16:13PM HEARING OFFICER PRICE: Mr. Mueller?

CROSS-EXAMINATION

BY MR. MUELLER:

Q. Mr. DeLaRosa, you got that OSHA certificate this past December, right?

A. Yes.

Q. Was that because you wanted to be able to have that when you testified here?

A. Not at all.

Q. It's just a coincidence that you got

04:16:33PM it in December?

A. I'd be happy to answer that question.

Q. My question is: Was it just a

coincidence?

A. Can you ask that again?

Q. Was it a coincidence that you happened to get your three-day OSHA course in December? Or was that intended to help you at this hearing?

A. I had no idea I would be testifying at this hearing when I took the OSHA course.

Q. And you have been retired for a number of years, right? 04:17:10PM

A. Yes, since 2018.

Q. Mr. DeLaRosa, what is ozone?

A. Ozone? Ozone is an extra oxygen atom added to the oxygen particle.

Q. What's the chemical formula for it?

A. 03.

Q. You are not familiar with the technology that LRS proposes to use for air cleaning at their facility, are you?

A. Are you telling me or asking me? I don't understand the question. 04:18:08PM

Q. Are you familiar with the technical

aspects of their technology?

A. No. Because it hasn't been stated, except in general terms talking about ozone.

Q. At first, when you testified, you said that you didn't have access to all the information here, right?

A. Correct.

Q. But then you also said that you did have access to the entire application, which was online, right?

04:18:42PM

A. I don't recall specifically saying that, but I do recall looking online at what was available but not having access to all of these documents that I was able to receive coming for testimony. I didn't have access to that as a private citizen, no.

Q. You didn't register as a participant either, did you?

A. Yes, we did.

Q. PODER -- Who is "we"?

04:19:20PM

A. PODER.

Q. PODER has had access to all of the

documents that have been handed out in the hearing, right?

A. Within the hearing, but not before the hearing.

Q. What documents that were handed out before the hearing are you aware of that the public didn't have access to?

A. Everything that was given out at the hearing, produced by evidentiary proceedings

04:19:54PM that I'm thinking took place before the hearings took place, because you produced documents, Protect West Chicago produced documents. The city hasn't but ...

Q. PODER has gotten all those documents, right?

A. Well, we have gotten all of the documents at the hearings, yes.

Q. And you can't tell me a specific document that was released before the hearings

04:20:24PM that you didn't get, can you?

A. Not before the hearings, no.

MR. MUELLER: That's all I have.

HEARING OFFICER PRICE: Mr. Callaghan?
MR. CALLAGHAN: No questions.
HEARING OFFICER PRICE: Mr. Walsh?
MR. WALSH: Nothing, Mr. Price.
HEARING OFFICER PRICE: Redirect, Mr. Weinstock?

REDIRECT EXAMINATION

BY MR. WEINSTOCK:

Q. Mr. DeLaRosa, just a question on Mr. Mueller's question about ozone. Where did you learn about what ozone is and what the chemical formula is?

A. The joint venture that Fresh Express did with Fresh Express, Chiquita, Ready Cut did with Praxair. We had the availability of working with state-of-the-art vegetable cleaning at corporate, which the used ozone, and that's where I developed the background for my familiarity with ozone.

04:20:42PM

04:21:17PM

Q. Ozone is one of the indoor air pollutants that LRS has identified as being a problem in their potential -- Let me rephrase

that.

Is ozone one of the indoor air pollutants that LRS has identified as being relevant inside their proposed facility?

A. Well, they haven't identified it as a pollutant, but it can be. They have identified it as a component of their rooftop units that are supposed to scrub the air within this vast amount of space that's contained within the proposed site.

04:22:00PM

MR. WEINSTOCK: I understand now. Thank you. That's all I have.

HEARING OFFICER PRICE: Protect?

MR. LEUTKEHANS: Nothing.

HEARING OFFICER PRICE: Mr. Mueller?

MR. MUELLER: No, thank you.

HEARING OFFICER PRICE: Thank you, Mr. DeLaRosa.

MR. DeLaROSA: You're very welcome. And thank you for the water.

04:22:15PM

HEARING OFFICER PRICE: Do you have another witness, Mr. Weinstock?

MR. WEINSTOCK: That's it for PODER.
HEARING OFFICER PRICE: Mr. Callaghan, you would be next?
MR. CALLAGHAN: No witnesses.
HEARING OFFICER PRICE: All right. Does the city intend to call any?
MR. WALSH: No.
HEARING OFFICER PRICE: All right. What that means, unless the -- Applicant, do you
04:22:41PM intend to call anybody in rebuttal, Mr. Mueller?
MR. MUELLER: I don't believe so.
HEARING OFFICER PRICE: All right. What that means, then, is the evidentiary portion of the hearing is concluded. We'll be moving onto public comment. I'm going to excuse Mr. Walsh because he's got a prior commitment -- scheduled meeting.
The public comment will take place for the balance of the time today. That's until
04:23:16PM 5:00 o'clock. And then we'll resume Thursday at 1:00 in this room. Again, public comment is for those people who signed up for it, and I'll be

happy to take that. There's none of the usual time limits or anything on that. It's not subject to any cross. It's information that will be presented to you as part of the record to the city council.

And as a reminder to everybody, following the conclusion on Thursday of the oral public comment period, in receipt of that commentary, there will be -- I will close the hearing and there will be 30 days from Thursday for anyone and everyone to submit written comment to city council. 30 days includes a postmark on the 30th day, so if you mail it in if you're not here or something.

04:23:52PM

From there, stay tuned for the schedule of what the special meetings will be. I'm informed city council will have special meetings. That's not my call. That's the city council and their attorney's call. At the end of the 30 days, they are going to send me their proposed -- I'll set a schedule on Thursday -- their proposed findings of fact, their proposed

04:24:24PM

conclusions of law. I gather those things together in addition to them going to city council, I make a report and recommendation. And then, from there, city council does its job.

I thank everyone for coming. I know it's a holiday, the Open Meetings Act to the extent it applies, allows us to meet on special occasions on these holidays where a meeting is already scheduled, as it is today.

04:24:59PM With all of that, then, I know there were two people -- I'd like to handle them first -- who had to testify -- do their public commentary today. That was Ms. Layman's and -- I wrote it down -- and Mr. Dzierzanowski? Did you have to go today? Was there someone else that had to go today that talked to me earlier? Is there anybody here who needs to go today besides Ms. Laimins?

(No response.)

04:25:46PM All right. We'll go as long as we can go. Madame Court Reporter, we're on to public comment. And we'll begin with

Ms. Laimins.

MS. LAIMINS: My name is Barbara Laimins, L-a-i-m-i-n-s, a resident of West Chicago. Just to provide some background, my husband and I chose to raise our family in West Chicago over 50 years ago. We chose West Chicago so our son would grow up in a community that was culturally and economically diverse with excellent schools, a city government that welcomes citizen input, and had city (inaudible) that would provide a good quality of life.

04:26:23PM

While West Chicago has grown over the years, it has maintained the feeling of a small town where people care about each other. It is a community that celebrates and embraces its diversity. Excellent planning and vision by success of city leadership has grown our industrial base that has benefitted the citizens of West Chicago by maintaining our low property taxes, which are the envy of surrounding communities.

04:26:52PM

I learned about the proposed waste

transfer station through a headline in the Daily Herald that stated, West Chicago citizens fear their city will become the garbage capital of the western suburbs, experience lower home prices, and affect the quality of life for the citizens. Shortly after, a mass mailing arrived at home filled with assertions of increased odors, lower property values, and damage to our environment and encouraged residents to attend
04:27:21PM meetings.

As a result, I have attended all of the hearings. I have listened to the petitioner and the opponents and have concluded that the fear mongering, unfounded, unsubstantiated concerns raised by the opposition are more the danger to the perceptions held about West Chicago than the transfer station itself.

Testimony has been presented that demonstrated that the petitioner has met the
04:27:45PM required criteria for the siting of the transfer station and are willing to agree with additional caveats that have been identified. In fact, the

petitioner proposes a state-of-the-art facility that would seemingly exceed the procedures and practicing of the current transfer facility located a quarter mile away from the proposed site.

Importantly, the petitioner has shown there will be no increased odors, environmental impacts, or traffic on residential streets of West Chicago. The transfer station will support the DuPage County Solid Waste Plan of 2022 and the environment by increasing recycling opportunities for homeowners and those who live in apartments. West Chicago, DuPage County, and the DuPage Airport will benefit financially from the negotiated host agreements, which will, in turn, keep residential property taxes low.

04:28:16PM

The establishment of the waste transfer station will also allow for competition in the waste industry that will ultimately bring benefits to consumers through lower prices due to competitive bidding on waste hauling

04:28:41PM

contracts. A second waste transfer station located in the established industrial area of West Chicago will not negatively impact the property values of West Chicago residents. It is those who continue to malign West Chicago by negatively labeling the community as the garbage capital of the western suburbs that will do that.

My only concern and disappointment after attending the hearings is that the opposition group, Protect West Chicago, have not been transparent about their membership or released any financial information regarding donors and/or funding that would explain how they can support two lawyers, multiple experts, signs, and mass mailings. My request to the organization for this information has gone unanswered and, therefore, has created a lack of trust in my mind and in the minds of many about whose interest they are actually protecting.

In contrast, I have found the City of West Chicago to be fully transparent and, in

fact, the City of West Chicago has been commended by the Daily Herald for their efforts to inform and engage the community on this issue. As a result, I have faith and trust the City of West Chicago will do their due diligence in supervising the construction and operation of the facility to see that the site is developed and operated as proposed; therefore, the project has my full support and I will encourage my
04:30:15PM neighbors and friends in West Chicago to do the same. Thank you.

HEARING OFFICER PRICE: Thank you. The person who had contacted me was Nic Dzierzanowski. Is Nick here? Then I'll go -- People signed up. So I'll go in the order they signed up to see if they want to go today.

Bob Molenhouse.

MR. MOLENHOUSE: Here.

HEARING OFFICER PRICE: Want to got
04:30:42PM today?

MR. MOLENHOUSE: Just to let everybody know, I'm Bob Molenhouse. I was in the garbage

business --

HEARING OFFICER PRICE: Spell it.

MR. MOLENHOUSE: M-o-l-e-n-h-o-u-s-e, Robert.

(Continuing.) -- but my background is I was in the garbage business a lot of my life. I started the business with my brother Molenhouse Enterprises years ago, and I was out of it but I was back into it. And we,

04:31:12PM actually -- My brother sold the business to Lakeshore Recycling last year, and I actually worked as a contractor on the transition for them. I'm not on their payroll, never have been, but, you know, I was getting paid to do the transition, like, collect the revenues that were due.

Anyway, since I was in the business for a lot of years, I have a lot of knowledge about the business. And I, actually, heard

04:31:49PM years ago that Lakeshore in West Chicago was going to try to develop and open a waste transfer station. I was glad to hear this

because I was in the business, and it would create a much-needed competition. Free enterprise is the American way. I actually remember consciously thinking, Man, I'm impressed with West Chicago that they are even willing to consider this. Because a lot of places are like, no, I don't want that in my backyard. I also thought the location of the transfer station is perfect. It's an industrial
04:32:23PM park. It backs a rail line. It's next to an airport. It already has trucks driving to the many industrial buildings in the area. And there's no residential homes in the area, for the most part.

Why would you want another transfer station? Because I live in DuPage County, and I don't want to pay higher weekly disposal rates at my home in Wheaton because there's no competition. Over the many years Molenhouse
04:32:50PM Enterprises was in the waste hauling business and it was more and more difficult to survive. The industry has consolidated control of waste

disposal so much in DuPage County that it's very difficult to get competitive prices at the closest transfer stations. And, of course, higher dumping costs equal higher costs for DuPage and West Chicago residents.

I also care about the environment and I believe that a local transfer station -- and this is my, you know -- I'm not an expert in this, but it will help save the environment. As a former operator, I know how we operated. We would look for the best dumping rates to save money. If the closest transfer station costs too much, we would look to the next closest transfer station, which would inevitably be outside of DuPage County. We had to look at the costs to drive to the next closest site, we had to pay for labor, insurance, repairs, et cetera, and the big variable is fuel. If it was even a little bit cheaper to drive to the next closest transfer station, we would do it. How does this affect the environment? Well, Molenhouse was burning more fuel to go to a further dump site.

04:33:23PM
04:33:53PM

So do transfer stations, you know, they have to still take it to the dump. Well, because Molenhouse would save fuel, the transfer station -- at the transfer station, our disposal load is then combined with other garbage truckloads and loaded onto a transfer trailer. And I just asked somebody at Lakeshore: How many truckloads, like, from a residential truck can you fit into a transfer truck? It's
04:34:32PM basically three. So you can put three trucks' worth of garbage into one transfer trailer. So it's way cheaper per gallon or per ton for, you know, your mileage because you're getting three truckloads put in there.

Actually, when they showed that first thing about how -- the modeling and stuff. I'm like that modeling thing, to me, proves that it's worse to not have the transfer trailers because you can basically take and make it three
04:35:08PM times worse because you would have three times as many trucks running, you know, and all things equal. So it's way more efficient and way less

particulates blowing up into the air into our area around here. The fact of the matter is you have to have garbage service right now. We have a lot of garbage and that's just -- you know, you have to do it.

Anyway, basically -- I'll just tell you why -- I didn't believe this -- I thought it was very surprising, but a transfer trailer, it's just a big aluminum box. Most of them

04:35:45PM are -- There's no hydraulics on them. A transfer trailer, actually -- and truck weighs less than a garbage truck, believe it or not. You're like, hey, that thing is three times as big. It's because there's no hydraulics on it. There's no hydraulic cylinders. That all weighs a lot. That's why they can put three garbage truckloads into the thing and bring it to the dump. You know, that's a big -- a big plus for the environment.

04:36:15PM You know, in close, I just want to say they are just moving garbage from one truck to another truck. That's all they are doing.

And a smaller-capacity truck to a larger. They are not, like, storing garbage outside, and it's not blowing all over. With that being said, I fully support at second transfer station to keep our environment better and the competition better. Thanks.

HEARING OFFICER PRICE: Next one is Ms. Kathy Leski? Not here. All right.

Then I have Joshua Connell.

04:37:11PM MR. CONNELL: Good afternoon. My name is Josh Connell. Last name is C-o-n-n-e-l-l.

I am one of the cofounders and a current independent board member of LRS. What I wanted to do -- I have been here for every night of the hearings, listened to testimony, not only from our company and representatives, but also from the opposition. I just wanted to give a little history on the company.

At our roots, we are a small

04:37:43PM business. Are we today? No. I started Lakeshore Waste Services with one truck over 20 years ago. Also, my partners started their

company, Recycling Systems, a little over 20 years ago with one truck. We put our two companies together in 2012 to form Lakeshore Recycling Systems.

We have been a disrupter over the years. You know, we founded the company based on a need for necessary competition. In the late '90s, we had significant consolidation in the waste and recycling business.

04:38:18PM Mr. Molenhouse just elaborated on some of it. So we created a company based on great customer experience and we were a disrupter. We were very good at what we did. And for that reason, we have seen, you know, our -- at least one competitor put a lot of money and effort into fighting this facility.

Over the years -- And back in 2012, when we put the companies together, we did bring on private equity. Having private equity

04:38:47PM allowed us to build the facilities in the Chicago market. When you look at the Chicago market -- And we had great testimony on both

sides that I think said the same thing. In DuPage County we just don't have enough competition. On the periphery we do. We have a little bit of competition, our sites included. When you look at the vast majority of DuPage County, it's just not there. It's as close to a duopoly as you can have in a major metropolitan area.

When you look at the need -- and I can just tell you this from experience, when we grew our business in DuPage County starting in 2016, with residential contracts in Wheaton and Lisle and St. Charles and Geneva in Kane County, we did that because there was more competition at the time. We were able to secure good dumping rates at transfer stations in Batavia that were owned by Advanced Disposal.

You heard our testimony. When those facilities were bought by Waste Management, we have had nothing but massive price increases since. We have a neighbor that has capacity. We can't dump there. We have

04:39:17PM
04:39:47PM

never been able to dump at the Waste Connections facility that's a few hundred yards away. Believe me. I'd love to not spend 10 to $15 million on a waste transfer facility when we can go to our neighbor's facility. If that were the reality, we wouldn't be here having these hearings over the last couple of weeks. But it is necessary. And, as Mr. Molenhouse pointed out, it is necessary not only for West Chicago and its residents but also for DuPage County.

04:40:22PM

When you look at LRS, you know, one thing that we have done very, very well, and we'll continue to do, is be part of the community. We're always going to be a good neighbor. Are the we perfect? No, we're not perfect. Are there going to be situations where whether it's our litter or somebody else's litter, perceived litter, that's coming from our trucks, we want to be a good corporate citizen and make sure that we're taking care of those scenarios. Also, we'll do the same thing not only for our employees, but any of the residents

04:40:52PM

that are going to visit our facility for some of the free drop-offs and other benefits that this facility will bring.

At the end of the day, though, this facility is already there. All we're doing is adding another commodity, making, you know, huge upgrades to the facility that will make it better than it currently is while just bringing garbage into the facility. That's all we're doing. So I think it's a huge benefit for the City of West Chicago.

04:41:22PM

The revenue that they haven't seen before, added revenue to the community, which will help the tax base. And we'll be a good corporate citizen. We are a middle -- I guess, a middle range sized company now. We're not the small company that -- you know, from our roots but, you know, we're big enough to have the resources to solve problems and still be a disrupter in the market but small enough to know you and take care of problems and be available to the community as well.

04:41:52PM

Obviously, I support it. And I want to make myself available after the hearings for any questions or comments from concerned citizens or others. Thank you.

HEARING OFFICER PRICE: Thank you.

Next I have is Joy Rifkin.

MS. RIFKIN: Good afternoon, everyone, and happy Martin Luther King Day. My name is Joy Rifkin, R-i-f-k-i-n, and it's a pleasure to be with you all to offer a few words of support for our application to expand within West Chicago.

04:42:32PM

These are my independent comments in favor of the LRS expansion. At LRS, I help lead our sustainability, diversity, equity, and inclusion and social impact partnerships across the communities we serve.

I visit our West Chicago facility often because of our early employment program. As part of the program we mentor and train future mechanics that are currently in school at Universal Technical Institute. Our West Chicago

04:42:57PM

mechanics shop provides invaluable experience to these students allowing them to get hands-on job training on our diverse fleet of vehicles. When the students finish school and are hired full-time, we will provide up to $20,000 of tuition reimbursement, $4,000 a year for up to five years, and stable jobs with good benefits. We have already hired three of these students full-time at LRS, and I'm really proud of this program.

04:43:36PM

Combatting the climate crisis is one of the greatest challenges we'll face this generation, and I'm dedicated to being a part of this fight. Waste is an inextricably linked to climate change, and we are all part of the problem. We all create waste.

In fact, the average American creates over four-and-a-half pounds of waste a day. What happens to that waste is key. LRS prioritizes innovation and circularity. We cannot continue with business as usual. The West Chicago expansion offers an opportunity to

04:44:04PM

reduce greenhouse gas emissions, protect natural resources for future generations by recycling, and combat climate change.

Of course, we all want new projects to be net zero emissions, but the fact of the matter is we aren't there yet. We have to face the issues of our time with the resources at our fingertips. Electric garbage trucks are not readily available, as Mr. Powell mentioned incorrectly earlier.

04:44:40PM

Also, mining for lithium for batteries for electrification of trucks involves intense degradation of the environment. These trucks also don't have the battery capacity to manage the trash and recycling that we generate as American citizens. When electric trucks are readily available, environmentally sound, and have a longer battery life, LRS will be at the forefront of that transition.

04:45:08PM

City council members, I respectfully ask you to please vote yes for LRS. We are a major local employer and a recognized

leader in environmental sustainability and the repurposing material away from ethane emitting landfills. Thank you so much for your time.

MR. BRZOSKA: My name is Dale Brzoska, B-r-z-o-s-k-a. I am one of the longest serving street sweepers operators for LRS Clean Sweep. I have been a street sweeper for more than 25 years. Today our crews clean and beautify more than 60 municipalities throughout Chicagoland. We have called West Chicago our home base since I was employed back in 2007 for K. Hoving.

04:45:55PM

The management employees are hands-on locally based and live in the communities that we service. LRS cares about their employees and the environment's wellbeing. They encourage diversity and provide well-run essential services all out of our West Chicago facilities.

04:46:22PM

I encourage the city council to vote yes today. This is a win-win for west Chicago's residents, businesses, the city, and

the county. Thank you.

HEARING OFFICER PRICE: Thank you.

Next I have Christina Grano.

MS. GRANO: Good afternoon. My name is Christina Grano, G-r-a-n-o. I have been with LRS for six years working as an internal operations administrator in our West Chicago location. I'm very passionate about recycling, and that is one of the many reasons I work for LRS.

04:47:03PM

LRS is passionate about recycling, too, with reusing and finding a second and third use for material we receive from scrap metal and wood to drywall and other building materials. This is an issue that's personally important to me and with a yes vote from the council, West Chicago will be not known as the garbage capital, but as a trusted environmental leader.

I couldn't be more excited and proud to hear that our LRS will be also offering West Chicago residents free recycling drop-off six days a week. Recycling is not an option, as

04:47:32PM

well as free electronic waste drop-off for the West Chicago residents, so please vote yes.

HEARING OFFICER PRICE: Thank you.

Next I have Jennifer Tormey.

MS. TORMEY: Good evening. My name is Jennifer Tormey, T, as in Tom, o-r-m, as in Mary, e-y.

I worked in the transportation and trucking and logistics industry for more than 20 years, and I currently run our all women-run street sweeping division. LRS Clean Sweep has built its reputation operating from West Chicago earning the trust and confidence for more than 60 municipal customers across -- and hundreds of commercial businesses across Chicagoland, and continuously growing year after year.

From the pandemic to changing weather patterns, we wake up extremely early and work very long days to safely clean and dispose of the street sweeping material. This includes the buildup of debris from winter salt residue, falling seedlings from the trees in the spring

to fine particulates and piles of leaves in the fall.

The majority of our crew is dispatched from West Chicago, and we all work very long hours doing an extremely tough job, and LRS couldn't be more proud to offer a valuable career path with the outstanding benefits.

I am truly grateful to be employed
04:48:59PM by LRS and to be operating from our West Chicago facility in an extremely fast-paced operations environment. I wholeheartedly encourage city council to vote an approval for this upgraded facility. LRS is committed to keeping West Chicago a clean community and we already clean Powis Road and several of our other areas -- other roads in the area on a regular basis.

As part of this application, we committed to regular and daily sweeps of Powis
04:49:26PM Road, ensuring the areas surrounding our facility and within our facility is clean. I also -- as a mom who has stepchildren who live

in West Chicago and my child goes to school nearby, I fully support this measure, and I hope you do, too. Please vote yes.

HEARING OFFICER PRICE: Thank you.

Next I have Jennifer Quinn Morales.

MS. QUINN MORALES: Hi, good afternoon. My name is Jennifer Quinn Morales. I joined LRS earlier this year -- Sorry.

Q-u-i-n-n, space, no hyphen, M-o-r-a-l-e-s. I'll start over.

04:50:09PM

Good afternoon. My name is Jennifer Quinn Morales. I joined LRS earlier this year as one of our HR directors. I have since fallen in love with the culture and the people that we have been building across our sites and with the incredible benefits to attract and retain our union and nonunion employees.

Our company is growing rapidly and we are excited to be able to expand and grow in West Chicago. I recently had the chance to speak with many West Chicagoans recently at

04:50:34PM

St. Andrew Lutheran Church at Frosty Fest last month. As we talked -- We sponsored a heated tent there and we talked recycling, best practices, and job opportunities in West Chicago, as well as the whole LRS -- the sites nationwide.

I am proud of the many inroads we have made to support and uplift the people of West Chicago.

04:51:04PM I am also bilingual, so I would like to do this in Spanish, so our Spanish speakers in the audience can understand it. Bear with me. I am not a native speaker, but I am bilingual.

(Comments made by Ms. Quinn Morales in Spanish.)

HEARING OFFICER PRICE: Thank you. I think we're going to call it there. I have ten left for Thursday.

04:52:19PM The ten I have left are: George Strom, Jim Engineer, Joseph Lucarelli, Travis Ralph, Brian Clinite, Andy Ferrer, Jose Franco,

Ricky Reyes, Mr. Dzierzanowski, and Ms. Leski.

Mr. Dzierzanowski, did you want to do yours tonight?

MR. DZIERZANOWSKI: Yes.

HEARING OFFICER PRICE: I called you a couple of times.

MR. DZIERZANOWSKI: I had to work. I'm sorry.

HEARING OFFICER PRICE: We'll conclude
04:52:57PM with Mr. Dzierzanowski. And you're going to need to spell that.

MR. DZIERZANOWSKI: It's Nicolas, with a C. Dzierzanowski is, D, like David, z, like zebra, i-e-r-z-a-n-o-w-s-k-i.

City council members, I stand in front of you with thousands and thousands of our citizens of West Chicago in opposition to this transfer station. During the hearings the words "need" and "want" seemed to be interchangeable
04:53:27PM with Mr. Hock, Mr. Mueller, and the cofounder. Is it needed for our community? Absolutely not. We already have two that are servicing in our

area, but it's needed by LRS to increase their corporate profits on the backs of our citizens, and that is ridiculous. There is no need. There is plenty of capacity. As it was stated under oath, a 122 percent more capacity is available for our community. That's No. 1., there is no need.

Number 8, the zoning. I sat on the City Council of West Chicago for 10 years, 10 years on the Development Committee. Time and time again developers would come in front of us and use the zoning to get what they wanted. Well, this time, it's zoned residential within a thousand feet. Yes, it is railroad crossing. Can it be developed? Probably not. But that doesn't matter. It's zoned residential. That precludes it from that as well.

As my council members know, you have to adhere to the zoning at the time that the application is put in. The city council -- I, by the way, voted to have that railroad right of way changed to residential to protect our

04:54:10PM
04:54:41PM

borders from nuisance businesses. And here we are, ten years later, with a nuisance business trying to expand on our border.

20 years ago another company tried to build another transfer station within our community. Again, thousands and thousands of residents got together and voiced their opposition to it. The last I checked, only three residents that live in the actual
04:55:18PM community of West Chicago support this transfer station.

Thousands and thousands of residents of West Chicago have communicated to the city council through various e-mails and letters that they are in opposition to this. The community doesn't want it. The community doesn't need it. It is not right to put this in our community.

City council members, if you look
04:55:42PM at the facts as stated in these hearings, the truth will come out. It is not needed, nor is it zoned properly for it to be sited there.

Thank you, city council members, for your consideration. Thank you.

HEARING OFFICER PRICE: All right. We will call it there for the evening. Thursday at 1:00 o'clock for the rest of those names I had.

Again, if you hadn't signed up to do public comment, it's not timely to allow you to do oral public comment. You're welcome to submit the written public comment in the 30-day period.

04:56:17PM

With that, we're concluded for this evening, and I'll see most of you on Thursday.

(WHEREUPON, the above-entitled cause was continued to January 19, 2023 at 1:00 p.m.)

STATE OF ILLINOIS)
) ss:
COUNTY OF DU PAGE)

I, KRISTI LANDOLINA, Certified Shorthand Reporter, Notary Public in and for the County DuPage, State of Illinois, do hereby certify that previous to the commencement of the examination and testimony of the various witnesses herein, they were duly sworn by me to testify the truth in relation to the matters pertaining hereto; that the testimony given by said witnesses was reduced to writing by means of shorthand and thereafter transcribed into typewritten form; and that the foregoing is a true, correct and complete transcript of my shorthand notes so taken aforesaid.

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my electronic signature this 30th day of January, A.D. 2023.

/s/ Kristi Landolina
KRISTI LANDOLINA
C.S.R. No. 84-4611
Notary Public, DuPage County

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BEFORE THE CITY COUNCIL OF THE CITY OF WEST CHICAGO SITTING AS A POLLUTION CONTROL SITING AUTHORITY

In the Matter of:)
)
APPLICATION FOR LOCAL SITING)
APPROVAL FOR LAKESHORE)
RECYCLING RECYCLING SYSTEMS,)
LLC, FOR THE WEST DU PAGE)
RECYCLING AND TRANSFER)
STATION, 1655 POWIS ROAD,)
WEST CHICAGO.)

REPORT OF PROCEEDINGS had and testimony taken at the hearing of the above-entitled matter, at 475 Main Street, West Chicago, Illinois, on the 19th day of January, A.D. 2023, at the hour of 1:00 p.m.

PRESENT:

MR. DERKE PRICE, Hearing Officer;

MR. DENNIS WALSH, City Council Attorney;

MR. PHILLIP A. LUETKEHANS, Attorney for Protect West Chicago;

MR. RICARDO MEZA, Attorney for Protect West Chicago;

MR. GEORGE MUELLER, Attorney for Lakeshore Recycling Systems, LLC.

I N D E X

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E X H I B I T S

(NO EXHIBITS MARKED)

HEARING OFFICER PRICE: Good afternoon. It is 1:00 o'clock, the appointed hour for continuation of the hearing on the application for the transfer station. Today we are here to hear oral public comment from those persons who properly registered to provide the same and haven't done so to date.

As a reminder, if you're interested in providing comment, even if you haven't signed
01:00:38PM up to do oral public comment, after the close of the hearing today you will have until February 18th to submit written comment. Anything postmarked, if you're mailing it, with a date of February 18th or earlier, will become part of the record, so everybody can submit whatever written comment they'd like. We'll talk about the time line again at the end.

For the attorneys in the room, I'd like for post findings, conclusions of law, and
01:01:06PM proposed conditions, if any, to me by the 21st, and then I will provide my report to council by the end of the 24th, then council will take it

from there.

I know the meeting dates are fluid at the moment. They are the trying to work out everybody's schedule. So stay tuned on those meeting dates. I'm sure that they will be posted on the website and they will be publicized. That's the schedule going forward.

With that, then, let's turn to the persons who are remaining who had registered for
01:01:44PM oral public comment.

We'll begin with Ms. Kathy Leski.

MS. LESKI: Hi. Thanks for letting me comment today. So, first, a couple of comments -- I made them earlier -- about transparency and the transcripts. I know it's a lot to go through and publish, but I'm happy to hear that they are going to start to be published from the earlier hearings.

The second point that I wanted to
01:02:13PM make is I'm really disappointed, even though they didn't have to attend, in our representatives not participating in these

hearings. The amount of transcripts that you're going to produce, as well as the hearings today, are a lot to go through and a lot to read and I don't have a lot of confidence that that's going to happen. I just want to make that comment.

It's a big thing for West Chicago and the residents. It appears that West Chicago has already made their decision on the direction they want to go in.

01:02:41PM Now, based on the testimony and the documents that were posted by LRS in their submission, I want to go through a few points and then I'll go into what I think, if it is going to be pushed through, of some of the things that need to be considered and put in place.

First, there's an argument made that they are not the big three companies, the public companies, that exist. But LRS is No. 4

01:03:08PM in size in the country. In fact, they are the No. 1 -- They tout the fact that they are No. 1 on roll-offs in the country. They have no -- I

mean, every company has an aspiration to grow and acquire, and they have been growing at the biggest clip of those four companies in the U.S. in the last two years. So I don't think that's an argument to be made and that somehow translates into financial benefit for the residents of West Chicago. I heard no numbers about what those numbers would look like, even for the residents of West Chicago, and how long
01:03:42PM those would be, and any commitment to stay public versus -- sorry -- stay private and not go public. So those arguments, to me, are to be not considered.

The other thing is LRS has a record of putting this kind of facility in very high-minority neighborhoods. West Chicago -- I'm proud to say I moved here because it's diverse. I have been here as a resident for ten years. I live just off of Hawthorne, so the
01:04:15PM closeness and proximity to this waste transfer station is a personal interest to me, but it should be to all residents of West Chicago for

that reason.

A couple of examples: Maywood has an 83 percent population that's diverse and Forest View has a 75 percent. And those are two transfer stations that LRS owns.

Now, on the topic of good for the environment and all of the recommendation letters that were submitted. There are very few that come from residents of West Chicago. If
01:04:51PM those counties and if those cities are interested in putting in a waste transfer station and believe that that should be done, another one is needed in DuPage, then where are they in offering up land? The only benefit to this station being West Chicago is to LRS. That is the only party in this that's going to benefit.

The thing about two hours of savings in truck traffic, I have looked for that
01:05:18PM report in the documents. I didn't see it. I'd like to request that it be posted when the transcripts get posted, because I don't buy the

two hours.

The purposeful description of the route the trucks would take when they leave LRS's transfer station takes them north on Powis, left on North to drive through the commercial section, to Kirk Road, and then over. The better route and the shorter route is to go south on Powis to Hawthorne to Kress, and then you can go to Kirk from Roosevelt or Kirk from
01:06:04PM the highway there. I can't think of the highway. Sorry. To me, that was a tactical decision or a strategic decision on their part, because the other waste station is not too far from that route.

The other thing I would challenge them with is their review of the HolyGrail 2.0 Initiative. I'm not even sure they probably even know about it, but it has to do with recyclability. I'd be interested that if this
01:06:36PM is going to be put into West Chicago, that it's done so with those lofty goals in mind, which means equipment that can stand plastics for

easier sorting and more reputable sorting.

All right. One last note on the traffic pattern. Again, they talked about the trucks leaving and to go up North Avenue. They didn't talk about the trucks coming in. I take Powis a lot because I live off of Hawthorne. So during these hours, that is heavy congested traffic. It is a two-lane road. There's no left turning lane to go into their facility. So
01:07:15PM where are the trucks going to come from? Are they going to have to go all the way around to Kress and come back up to Powis? Are they going to come down Hawthorne, which, actually, at the beginning of Hawthorne from 59 is a no-truck route. Not that the semis don't ignore that, but that causes damages. And that goes right through the city residential area proper. So I'd like to see that addressed.

The other part that was testified
01:07:44PM to is that, you know, the truck doors will close as soon as the -- you know, the sorting facility's doors will close. I have spent time

between these hearings looking at the practices. Right now, today -- and I know it's different type of material that you're sorting -- those doors don't close. They leave them open the entire time and there's no commitment that I see, other than these hearings, to say, yes, and we'll go through an audit to make sure we're doing it, an independent audit, or, better yet, have a residential council partnered with our
01:08:21PM own council to audit their practices to ensure that everything that they are promising will be committed to in practice. It's a lot of gum flapping, right, until it actually starts.

Of that, I would like to see and ensure that there are negative air systems within the facility, that there are misting devices to lower the dust and spread of smell and garbage throughout the area. I would like to see high-speed doors or loaders that close in
01:08:59PM seconds, rather than the speed at which you have now, which, obviously, is not fast enough because you leave them open the entire time.

The industrial area comment -- For those who live here, we know that West Chicago is made up of a combination of industrial and residential, but they have been very symbiotic in their living arrangements, I'll say, and very acceptable. I mean, industry brings tax revenue into the city and that should help offset our own personal property taxes.

This, on the other hand, is going to lower our property value. There was testimony earlier during these hearings that concluded, whether it's true or by perception, that property values will go down if this is instituted.

01:09:37PM

Is the environment a core driver? I mention that again. I believe that if the city approves this, some of the other things they should consider is a moratorium on cost increases for 10 to 15 years to West Chicago and real benefits down to the taxpayers.

01:10:14PM

So those are my comments. I thank you very much. And I'll turn it over to the

next person.

HEARING OFFICER PRICE: Thank you, Ms. Leski.

The next person is Jose Franco. I understand Mr. Franco will be using an interpreter.

MR. LUNA: Hi. My name is Jonathan Luna. I'm the MRF manager at West Chicago. I'm here to translate for Jose.

01:10:43PM (WHEREUPON, Jonathan Luna translated from English into Spanish.)

MR. FRANCO: Hi. My name is Jose Franco. As a MRF operator, I move materials to trailers out of the West Chicago facility. I have been employed by LRS and Prairie City Withholding for more than 22 years. I enjoy working with my colleagues. It is a great company to work for. I like my salary,

01:12:13PM attention to safety, and doing our emergency action plan to make sure we keep up with the best safety practices.

While I could have gone to work for other employers, I choose to stay at LRS because I love working with my colleagues, have a short commute, I love the industry, and I'm grateful for LRS. Please vote yes for LRS and all the facts. Thank you.

HEARING OFFICER PRICE: Thank you, Mr. Franco.

Next is George Strom.

01:12:38PM MR. STROM: My name is George Strom, S-t-r-o-m. Greetings and thank you for your time today. My name is George Strom, and I'm the vice president of municipal services for LRS. I'm also a DuPage County resident, who has spent nearly my entire life living in unincorporated DuPage County.

In my day-to-day role with the organization, I oversee all of the municipal waste hauling agreements. Until two years ago, 01:13:17PM I had spent my entire life working for my family's waste hauling company, Roy Strom, based out of Maywood, Illinois. I was the fourth

generation of the Strom legacy that was celebrating 76 years of business when we chose to sell our organization to LRS.

Over the past five years, the waste industry has consolidated into a group of either large national waste haulers: Waste Connections, locally known as Groot, $4.2 billion in revenue; Waste Management, $15 million in revenue; and Republic Services, 01:13:53PM $10 billion in revenue; or there are a few remaining local private remaining waste haulers, LRS and Flood Brothers.

While this industry has consolidated, the control of the transfer stations and landfills has drastically shrunk. Waste Connections, Waste Management, and Republic Services control all but one landfill in the Chicago region. That one landfill is owned by LRS in Atkinson, Illinois, about 01:14:22PM 145 miles away from here.

When you are a family business without a transfer station, it is becoming a

requirement to have a landfill to control your long-term disposal costs. If you think that getting a transfer station is hard based on this hearing, let me tell you, getting a landfill is next to impossible.

Roy Strom saw the writing on the wall when Waste Management and Advanced Disposal, one and, I think, four of the largest companies were allowed to merge. We believe
01:14:52PM that we would no longer be able to get favorable disposal rates from any of the large national providers, and LRS's landfill was too far away. We made the decision to sell our organization to someone who would continue with the tradition of quality service at a fair price. LRS was that partner. They kept all of our employees and have taken great care of our customers.

I believe it is unfortunate that this industry has been allowed to consolidate so
01:15:23PM drastically, because it tends to lead to a much higher price for the customer.

In my role at LRS I take great

pride in delivering value to my customers, who are municipalities and its residents. LRS, while not being the fourth largest company in the United States, we are a disrupter and we are growing, and we are always looking for ways to save money for our customers. Specifically, what I like to call "my residents" because I care for our customers.

In the past two years, while I have helped lead the municipal group, we have been able to use our close proximity of our operated and owned transfer station to win large municipal agreements. These new municipal agreements have delivered millions of dollars in savings to the municipalities and its residents. Some of the examples include the Village of Maywood. They were delivered a large savings and are located within one of our sites that has a transfer station. The Village of Oak Park, $2.8 million saved over five years, three miles away from the LRS transfer station; the Village of Schaumburg, $3.3 million saved over

01:15:57PM
01:16:28PM

five years, four miles away from the LRS transfer station; the City of Elmhurst, $2.5 million saved over five years, seven miles away from the LRS transfer station. These four municipalities have saved a combined $8.6 million. Might I add, none of them are located in DuPage County. This is due to the fact that in order for LRS to deliver large savings to its municipal clients, we must have been vertically integrated with a close LRS transfer station for the waste to get back to our LRS landfill.

01:17:07PM

If LRS were to be approved for this expansion to include a waste transfer station at our already existing facility located here in West Chicago, we would be able to deliver much more competitive rates to DuPage County and possibly, in the future, West Chicago. By being more competitive, we are able to deliver large savings to the residents of DuPage County making it that much more attractive of a place to live.

01:17:34PM

One worthwhile note, in all of but

one of those examples I provided, LRS was the only bidder versus the incumbent large corporation. If we were not here to bid, who would be the company keeping the prices fair and competitive? That might explain why so much attention and financial resources have been pumped into this hearing.

I know firsthand what the opposition is going to do to keep smaller companies from securing a transfer station. Years ago, when we attempted to gain a transfer station, a competitor hired people to go door-to-door to speak against Roy Strom and the transfer station we were trying to build. In the end, we were awarded the permit and we were able to deliver savings and continued to serve our customers for 13 more years until we were sold to LRS.

01:18:07PM

In closing, I ask you to see past the large national waste influence and think about the local influence and the support that they have expressed for this expansion. From

01:18:35PM

key stakeholders, such as Senator Villa, local union teamsters, the West Suburban Chamber of Commerce, the Sierra Club, and many others. And also look to the value that LRS is able to provide to you, West Chicago; to you, DuPage County; and to you, the residents.

I thank you very much for your time. I would ask you to strongly consider and vote yes for this new state-of-the-art recycling and waste transfer station. Thank you very much.

01:19:13PM

HEARING OFFICER PRICE: Thank you, Mr. Strom.

Next is Travis Ralph.

MR. RALPH: Good afternoon, everyone. My name is Travis Ralph, R-a-l-p-h, and I am the operations supervisor at our West Chicago facility. Part of my daily responsibilities are ensuring our residential, commercial, and roll-off drivers not only do their job but return home safely to their families. We are proud to hire local and deliver our services

01:19:46PM

safely without any disruption to the communities and neighborhoods that we serve.

I'm also super proud to be employed by LRS. I started six years ago with this company as a customer service representative; and through the growth through the years, I have since risen through the ranks thanks to the opportunities this company has provided me. We are excited about the possibility of finally
01:20:19PM being able to compete on a level playing field here in West Chicago and I wholeheartedly support our application to expand at our own facility based on our dramatic growth and the need for fair competition.

I urge the city council to vote yes for LRS. Thank you.

HEARING OFFICER PRICE: Thank you.

Next is Joseph Lucarelli.

MR. LUCARELLI: Good afternoon. My
01:20:52PM name is Joseph Lucarelli, and that's spelled L-u-c-a-r-e-l-l-i. Currently I serve as the operations manager for the West Chicago and

Elburn facilities. At West Chicago we currently employ over 125 people. And I am very proud to say it is a very diverse workforce that represents a wide variety of ethnicities and cultural backgrounds. We are also proud to say that we have had generations of families working for us over the years in various job functions.

LRS has been an outstanding, responsible corporate citizen, not only employing locally, but also investing locally as well in the communities that we serve and operate in.

A yes vote on our West DuPage Recycling and Transfer Station will help us operate more efficiently, will help reduce local and regional diesel fuel emissions, and allow us to compete fairly against our much larger competition. Thank you.

HEARING OFFICER PRICE: Thank you.

01:22:04PM Next is Brian Clinite.

MR. CLINITE: Clinite, C-l-i-n-i-t-e. My name is Brian Clinite. I'm an area safety

manager for LRS. I have been in the waste industry for over 25 years, going on 5 years with LRS. I currently live in Bartlett. I have lived in Bartlett for over 25 years. And since Bartlett is close to West Chicago, I spend the majority of my time at the West Chicago facility.

I want to talk to you today a little bit about LRS safety and compliance. LRS
01:22:40PM has an award-winning safety program called Lift Safety. Our Lift Safety slogan can be found on our safety apparel and posted at all of our different facilities. The slogan says, "Safety is more than a priority. It's a value." Priorities can change but values do not, so safety is our core value. The Lift Safety program targets all employees, their families, and the general public. Our marketing department mails safety materials out to
01:23:06PM employees' homes and we post information on the web for the general public.

Why do we do this? Because

accidents and injuries don't just happen at work. They can happen anywhere. All right. Some of the things that they put out are articles on driving safety. Okay. Distracted driving, cell phone use, okay, winter driving. We put out things about ladder safety. Statistics show that most ladder accidents happen at home. All right. Then, most recently, they put out something on space heater safety in the winter here.

01:23:35PM

My job, first and foremost, is to keep employees, customers, and the general public safe. All right. We want all employees finishing their workdays not having harmed themselves or anyone else. Any new hire that has on-boarded with LRS is told that safety is absolutely their No. 1 concern. Safety is always more important than productivity, always more important than customer service. They are told that if they can't do something safely, they are not to do it. They are to call their supervisor. That applies to all aspects of

01:23:56PM

their job, whether it be driving, sorting, collecting, lifting, et cetera. They are told that no job, no company, and no customer is more important than their safety, their health, and their wellbeing.

Safety training is part of my job, okay, a large part of it. I send out training materials to every LRS site weekly so that they have training materials they need to conduct the following week's safety meeting.

Another big part of my job is compliance. I work to ensure that every LRS site that I oversee is compliant with DOT, OSHA, and EPA regulations. I have a moral and a legal obligation to make sure that my sites are compliant. All right.

It is my opinion that a company like LRS that values and supports a good environmental health and safety program exercises good business sense. I know that LRS upper management cares about their employees, the people, and the communities that we service

and the environment.

As I stated earlier, I have been in the waste industry for over 25 years and, to date, LRS is the most environmentally conscious company that I have ever worked for. They have been on the cutting edge of technology in the industry. They are always seeking innovative solutions to decades-old industry problems, including environmental health and safety issues. I am positive that if this proposal is approved, LRS will have a facility that causes no harm to its employees, residents of West Chicago, or to the environment.

01:25:15PM

When I hear people say that LRS does not care about people or the environment, my opinion is that they are either misinformed or that they truly don't know LRS or truly don't know LRS employees.

So I'd like to thank each and every one of you for your time today. I encourage you to vote yes on this proposal. Thank you very much.

01:25:39PM

HEARING OFFICER PRICE: Thank you.
Next is Andy Ferrer.
MR. ENGINEER: I guess he's not here.
HEARING OFFICER PRICE: Then, that leaves you, Mr. Engineer.
MR. ENGINEER: My name is Jim Engineer, E-n-g-i-n-e-e-r. I'm a manager of environmental social governance initiative of LRS, as well as government affairs and communications.
01:26:18PM Before I start, LRS -- And this has not been mentioned publicly at the hearings yet, so I wanted to do that for a second. When we filed our application on September 16th, we launched a web page. I wanted to make that available. It's in English and Spanish. But want to let people know who are here today that if they go to www.LRSrecycles.com, click on the resources tab in the upper right corner, and then click on the West DuPage RTS page. And
01:26:49PM Jonathan will just translate that briefly in Spanish.

(WHEREUPON, Jonathan Luna translated from English to Spanish.)

MR. ENGINEER: I also want to add that I am delivering these remarks on my own behalf, as I'm a passionate DuPage County resident and a resident of the 25th and 49th Districts.

It's a pleasure to be with you during the week we observe and pay tribute to the life and legacy of Dr. Martin Luther King, Jr. Dr. King came to Memphis in 1968 to advocate for mistreated and grossly underpaid sanitation workers, who simply wanted more than $0.65 an hour to collect garbage in the City of Memphis. How things have changed since.

My family immigrated to the U.S. from the U.K. and India back in 1982, and we have been DuPage County residents since 1984. I attended Naperville Central High School from '84 to '88, when the student population was more than 95 percent white. Today, more than 35 years later, my daughters attend District 204

01:27:36PM
01:28:07PM

schools in Aurora where Indian-Americans today make up the majority of the student population. How things have changed. And I have no doubt that Dr. King is looking down and smiling at just how diverse and integrated our society has become.

Things also continue to change dramatically here in West Chicago. Where a Latino native has brought considerable economic
01:28:38PM growth and development and raised the standard of living. It is here where a West Chicago born and raised Latina became your state rep in 2019, and in the last election went on to be reelected as your state senator in the 25th District. And recently where the first Latina congresswoman won the 3rd Congressional District extending from Chicago's northwest side, all the way here to West Chicago. Dr. King sure would be proud. He also would be proud to see West Chicago
01:29:06PM recognized by Fortune Magazine as the ninth best place to live for families in the United States.

I have been with LRS since the

company was formed in 2013, and had the honor of working in our West Chicago facility from 2019 to 2022. For the past year, I have helped lead up the company's environmental social governance initiatives, which include our diversity, equity, and inclusion and community social impact programs. Our company's roots run deep as a sustainability industry pioneer in our use of the circular operating model, meaning the more we divert from the waste stream, the more material we reuse and repurpose back into the local economy.

01:29:43PM

In DuPage County, now home to more than one-million people, LRS is committed to increasing community access to recycling services, including free household recycling and electronic waste drop-off for West Chicago residents.

In order to provide our essential frontline services, we need a yes vote on the siting application. We are simply asking for a competitive level playing field and have more

01:30:07PM

than proven and met all nine criteria required to site a new transfer station. Friends, LRS is not a nuisance business, as the lead of Protect West Chicago told the Daily Herald in late December. On the contrary, we are in the essential and honorable business of collecting, sorting, and repurposing waste and recycling week after week. In fact, I'd argue that we divert more waste from landfills in proportion
01:30:42PM to any other provider.

Free market capitalism and innovation. That's what forms the bedrock of who we are, how we advance, and how we lift each other up. It's also how we keep prices in check, by encouraging competition. Folks, capitalism without competition is nothing more than crony capitalism driven by misinformation, fear mongering, lobbyists, marketing mailers, and special interest groups.

01:31:08PM The city and the people of West Chicago deserve better and have everything to gain by voting yes to LRS. Together, through

true public-private collaborations, we can make West Chicago and DuPage County the region's beacon for waste diversion, recycling, and environmental stewardship. Alderman, seize this critical moment for future generations of West Chicagoans. It starts by voting yes for LRS. Thank you.

HEARING OFFICER PRICE: Thank you, Mr. Engineer.

01:31:37PM Again, last call for Mr. Ferrer.

(No response.)

So that concludes those who have registered to provide oral public comment. Unless there's something from one of the parties, that will bring us to the conclusion of the hearing portion of the application process.

Mr. Mueller?

MR. MUELLER: Mr. Price, I want to file a memo that has been in my folder the entire
01:32:24PM length of the hearing. It has to do with the railroad zoning issue. I just figured it's easier to just give it to people now than to

mail it in.

That's all that the applicant has by way of supplemental information.

HEARING OFFICER PRICE: Anything from Protect?

MR. LEUTKEHANS: We'll respond to this in the proposed findings of fact and the conclusions of law, if that's acceptable.

HEARING OFFICER PRICE: Sure. That works.

Anything else for the good of the order? If not, then, I'm going to declare the hearing concluded, commencing the 30-day written comment period. Again, those dates are anything postmarked before February 18th would be accepted as written public comment that can be provided. Thereafter, I'm looking to have the proposed findings of fact and conclusions of law to me by the end of the 21st, and then I will be getting my report to the council by the end of the day on the 24th.

With that, then, I will adjourn the

hearing on the application and be on the lookout for the next meeting dates in front of the council.

Thank you, all.

(Which were all of the proceedings in the above-entitled cause.)

STATE OF ILLINOIS)
) ss:
COUNTY OF DU PAGE)

I, KRISTI LANDOLINA, Certified Shorthand Reporter, Notary Public in and for the County DuPage, State of Illinois, do hereby certify that previous to the commencement of the examination and testimony of the various witnesses herein, they were duly sworn by me to testify the truth in relation to the matters pertaining hereto; that the testimony given by said witnesses was reduced to writing by means of shorthand and thereafter transcribed into typewritten form; and that the foregoing is a true, correct and complete transcript of my shorthand notes so taken aforesaid.

IN TESTIMONY WHEREOF I have hereunto set my hand and affixed my electronic signature this 30th day of January, A.D. 2023.

/s/ Kristi Landolina
KRISTI LANDOLINA
C.S.R. No. 84-4611
Notary Public, DuPage County

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