Weaver Consultants Group

January 9, 2026

Public Building Commission of Chicago
50 West Washington Street Room 200
Chicago, Illinois 60602
Attn: Mr. Jose Barajas
jose.barajas@cityofchicago.org

Re: DWM Operations Facility
Project No. 04029
4825 West Lawrence Ave, Chicago, Illinois 60630
Ground Penetrating Radar (GPR) Survey Summary Report

Dear Mr. Barajas:

Per your request, **Weaver Consultants Group North Central, LLC** (WCG) has prepared this Ground Penetrating Radar (GPR) Survey Summary Report for the above-referenced property (the subject property). The following provides background information and outlines the field activities conducted to assess and identify potential buried metallic objects that may represent underground storage tanks (USTs), buried drums, former foundations, footings, underground debris, or other potential obstructions that may be present on the subject property.

Background

The subject property is located at 4825 West Lawrence Avenue in Chicago, Illinois. The subject property generally lies north of West Wilson Avenue, east of Milwaukee District North rail line, south of West Lawrence Avenue, and west of Cicero Avenue. The subject property consists of approximately 7.8 acres of land with approximately 480 feet of frontage along West Lawrence Avenue.

The subject property is described as four parcels in Chicago, Cook County, Illinois (see **Figure 1 - Subject Property Location Map**). Parcel Index Number (PIN) information obtained from the Cook County Assessor's Office Parcel Viewer website is shown below:

PIN	Address	Square Footage
13-16-207-003-0000	4825 West Lawrence Avenue	116,906
13-16-207-005-0000	4640 North Cicero Avenue	--
13-16-207-007-0000	4819 West Lawrence Avenue	137,005
13-16-207-008-0000	4610 North Cicero Avenue	22,703

The subject property is improved with an approximately 15,000-square foot, one-story industrial building and two trailers. The building has two office spaces; a truck and equipment storage area with two commercial garage doors; two locker room/restroom areas; a miscellaneous equipment storage area; and

an area for truck oil and chemical storage. The areas located south and east of the building are improved with either an asphalt- or concrete-paved parking lot. A gravel-surfaced area located north of the building is utilized for personnel vehicle and equipment storage. A salt storage pile and at least fifty (50) 64-gallon waste bins are located in the eastern-central portion of the subject property. Two rail spurs extend onto the subject property in the southeast portion, but do not appear to be in use as portions are paved over and/or blocked. The subject property is currently occupied by the Chicago Department of Water Management (CDWM) and the City of Chicago Streets and Sanitation Department as a meeting area, for equipment storage and upkeep, and for material storage. Equipment and material storage on the subject property includes portable water tanks, garbage trucks, dump trucks, snowplow trucks, asphalt grindings, sand, stone, backhoes, dozers, and skid steers.

WCG conducted Phase I Environmental Site Assessment (ESA) at the subject property and prepared a Phase I ESA report dated April 8, 2025. At the time of the Phase I ESA, the subject property was improved in its current configuration and had been occupied by the City of Chicago for approximately five to ten (10) years. The Phase I ESA identified four recognized environmental conditions (RECs) in connection with the subject property related to the use of the subject property for vehicle maintenance, impacts identified during a previous subsurface investigation, former USTs and Leaking Underground Storage Tank (LUST) incidents, and the historical industrial use of the subject property.

Based on the results of the Phase I ESA, WCG conducted a Phase II ESA at the subject property on July 23-24, 2025 and prepared a Phase II ESA report dated November 12, 2025. The Phase II ESA included the advancement of ten (10) soil probes, and the installation of three groundwater monitoring wells and two soil-gas implants for soil, groundwater, and soil-gas sample collection (refer to **Figure 2 – Approximate Sample Location Map** for the sample locations). According to the analytical results, concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and Resource Conservation and Recovery Act (RCRA) metals were below laboratory reporting limits, Tier 1 Soil Remediation Objectives (SROs), Tier 1 Groundwater Remediation Objectives (GROs), Tier 1 Soil Gas Remediation Objectives (S-GROs), Background Concentrations within Metropolitan Statistical Areas (Backgrounds), and/or 95% Percentile Backgrounds for Polynuclear Aromatic Hydrocarbons (PNAs) within the City of Chicago and inorganics provided by the Illinois Environmental Protection Agency (IEPA), with the exception of arsenic, mercury, benzene, carbazole, and lead in soil; arsenic, barium, cadmium, and lead in groundwater; and chloroform in soil gas.

In addition, a limited GPR survey was conducted as part of the Phase II ESA to assess for the presence of magnetic anomalies that may be indicative of a UST system or other subsurface features in an

approximately 1,500-square foot area in the northern portion of the subject property. On July 22, 2025, Ground Penetrating Radar Systems (GPRS) of Chicago, Illinois conducted the GPR survey using GPR and electromagnetic (EM) pipe and cable locators. The area was surveyed on a maximum grid spacing of four feet to ensure adequate coverage. The GPRS report indicated the effective depth range of the GPR equipment was approximately three feet.

Results of the limited GPR survey indicated that GPRS observed an anomaly that appeared to be indicative of a former foundation and/or former rail spurs in the vicinity of soil probe/temporary well location SP-1/TW-2. GPRS observed additional anomalies in the vicinity of soil gas implants SG-01 and SG-02 and soil probes SP-6 and SP-8 that appeared to be indicative of former rail spurs and/or former foundations. No additional anomalies were detected during the GPR Survey. A copy of the GPR Survey report prepared by GPRS is included as **Appendix A – Ground Penetrating Radar Survey Report July 2025**.

Upon issuance of the Phase II ESA report, PBC requested that WCG conduct a GPR survey on the entire subject property. WCG received authorization for this work from Mr. Jose Barajas of PBC on November 13, 2025. Details of the additional GPR survey are described in the section below.

November 2025 GPR Survey

A GPR survey was conducted on the entire subject property, as accessible, on November 24-26, 2025 by GPRS. GPRS was accompanied by Ms. Audrey Johnson of WCG. The accessible areas of the subject property were surveyed on a maximum grid spacing of four feet to ensure adequate coverage. The GPRS report indicated the effective depth range of the GPR equipment was approximately two to three feet. During the GPR Survey, the east-central portion and the northeast portion of the subject property could not be surveyed due to the existing salt pile and soil piles. Additionally, areas with standing water were unable to be scanned. The locations of the areas that could not be surveyed are shown on **Figure 3 – GPRS Findings Map**.

As part of the survey, GPRS located utilities including electric, natural gas, water, storm sewer, and sanitary sewer. GPRS was unable to locate communication lines due to a lack of tracer wires and inaccessible communication lines within existing the building. GPRS also identified potential underground foundations north of the existing building, railroad tracks along the eastern perimeter, and possible prior excavations on the northern portion of the subject property. No indications of existing USTs were identified as part of the survey. The utilities and underground structures were marked with spray paint and are shown on **Figure 3**. A copy of the November 2025 GPRS report is included as **Appendix B – Ground Penetrating Radar Survey Report November 2025**.

Interpretation and Conclusion

GPRS located anomalies that appear to be indicative of buried metal railroad spurs located within similar areas as shown in historical Sanborn fire insurance maps between 1940 and 2004. Based on the GPRS survey, the former on-site railroad spurs appear to have been removed on the northern portion and buried or left in-place on the southern portion of the subject property. Additionally, as shown on **Figure 3**, the GPRS survey identified anomalies that appear to be indicative of buried foundations or other buried building demolition debris on the subject property. At least two of these anomalies appear to correlate with historical structures on the subject property including the "concrete pillar" and "possible foundations" anomalies which appear to be located in the vicinity of the former "MAYFAIR LUMBER CO" building footprint, and the "possible foundation" anomaly located north of the existing building, which may be associated with the building that appeared improved in this area in historical aerial imagery between at least 1962 and 2019.

As previously noted, no anomalies indicative of existing USTs were identified; however, the "possible previous excavation" and "unknown metal pipe" anomalies identified by GPRS in the northwestern portion of the subject property appear to potentially correlate with the location of the historical 1,000-gallon and 500-gallon USTs.

Based on the findings of the Phase II ESA and GPR Surveys and WCG's experience with similar sites, no further assessment/investigation at the subject property appears warranted at this time. However, please note that based on our subsurface observations during the July 2025 Phase II ESA, the subject property is underlain by urban fill material up to eleven (11) feet below ground surface (bgs). In addition, according to GPRS, the maximum effective depth of GPR signal was three feet bgs. Therefore, although not anticipated, unexpected conditions may be encountered during redevelopment activities including, but not limited to, areas of soil and/or groundwater contamination, USTs, dry wells, catch basins, remnant subsurface foundations, and other similar structures.

We trust the above meets with your needs at this time. If you should have any questions or comments, please feel free to contact us at (312)-922-1030.

Sincerely,

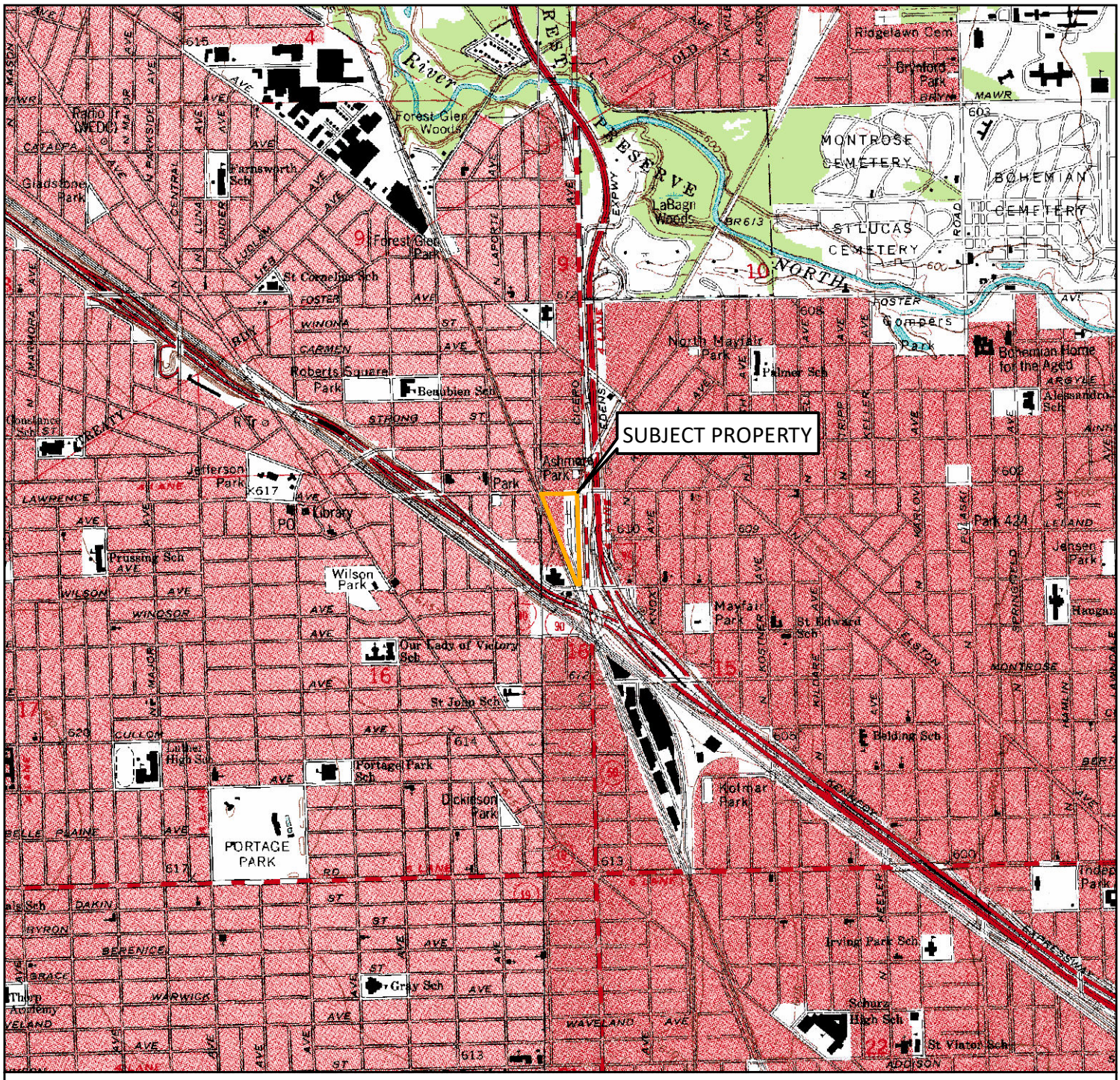
Weaver Consultants Group North Central, LLC

Audrey Johnson	Jeana Burke	Allison Fournier
Staff Geologist	Project Manager	Senior Project Manager

Enclosures: Figure 1 – Subject Property Location Map
Figure 2 – Approximate Sample Location Map
Figure 3 – GPRS Findings Map

Appendix A – Ground Penetrating Radar Survey Report July 2025
Appendix B – Ground Penetrating Radar Survey Report November 2025

FIGURES



Topo Source: INHS/USGS 7.5-minute DRG, Chicago Loop 1:24,000 Quadrangle, 1998

PREPARED FOR:

CITY OF CHICAGO
PBC AND CDWM

SUBJECT PROPERTY LOCATION MAP

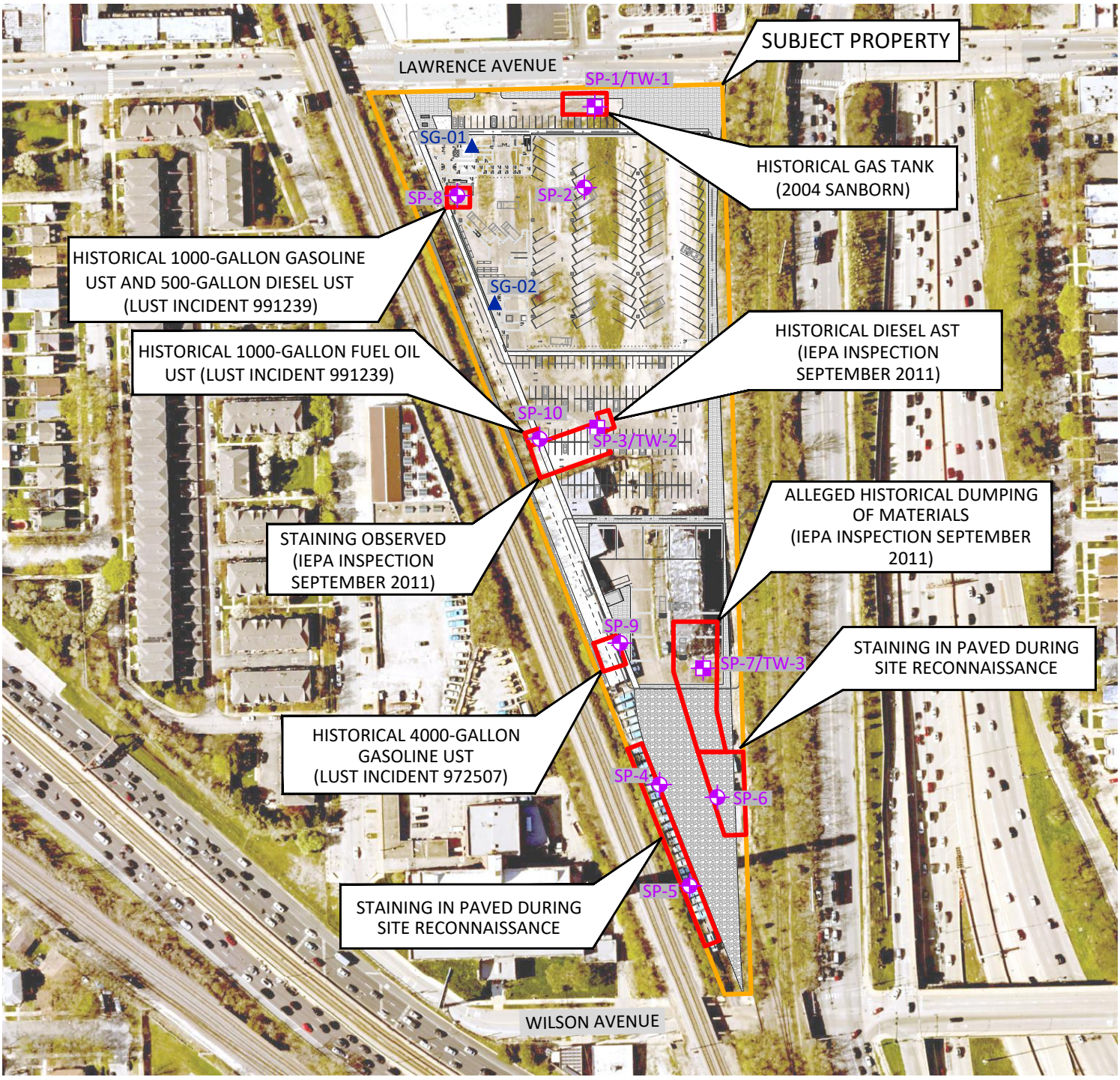
4825 WEST LAWRENCE AVENUE
CHICAGO, ILLINOIS

Weaver Consultants Group
CHICAGO, ILLINOIS
(773) 922-1030 www.wcgrp.com

DRAWN BY:	HC
REVIEWED BY:	CP
DATE:	1/8/2025
FILE:	1012-335
CAD:	335_Topo.mxd

FIGURE 1

J:\Projects\1000-1099\1012\335 4825 Lawrence Ave\Phase II ESA\CAD\1012-335-03-02 FIG 2.dwg, FIG 2



LEGEND

- APPROXIMATE SOIL PROBE
- APPROXIMATE SOIL PROBE/TEMPORARY MONITORING WELL
- APPROXIMATE SOIL GAS IMPLANT

APPROXIMATE GRAPHIC SCALE

200 0 100 200 400

1 inch = 200 ft.

N

AERIAL SOURCE: ESRI ONLINE WORLD IMAGERY, 2023

PREPARED FOR:

CITY OF CHICAGO
PBC AND CDWM

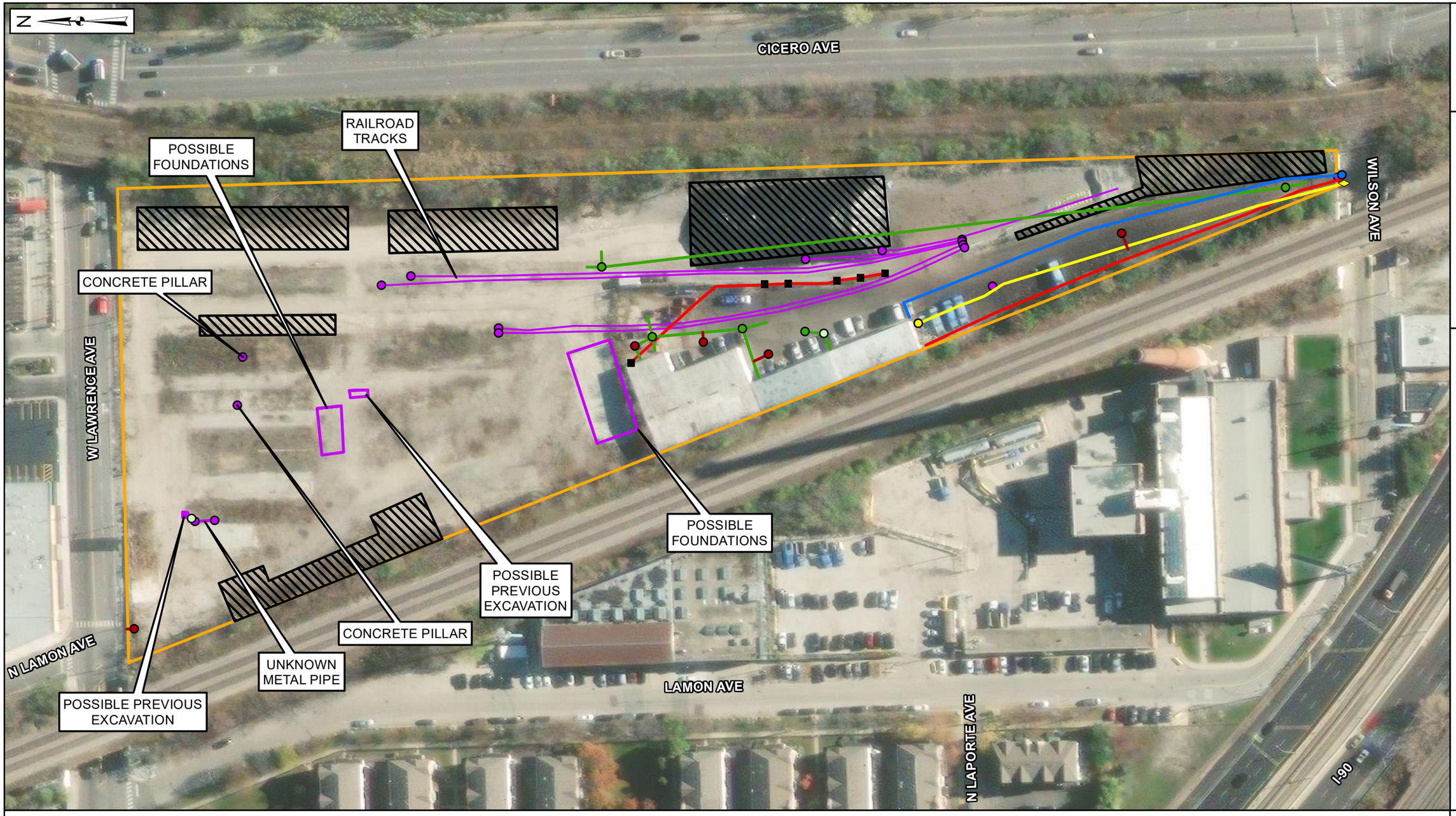
APPROXIMATE SAMPLE LOCATION MAP

4825 WEST LAWRENCE AVENUE
CHICAGO, ILLINOIS

Weaver Consultants Group
CHICAGO, ILLINOIS
(312) 922-1030 www.wcgrp.com

DRAWN BY: JEB
REVIEWED BY: CP
DATE: 8/15/2025
FILE: 1012-335-03-02
CAD: 1012-335-03-02 FIG 3.dwg

FIGURE 2



LEGEND

- SUBJECT PROPERTY BOUNDARY
- WATER MANHOLE
- WATER LINE
- STORMWATER CATCH BASIN
- STORM LINE
- SAN MANHOLE
- SAN CLEANOUT
- SANITARY LINE
- GAS METER
- GAS VALVE
- GAS LINE
- ELECTRICAL LINE BOX
- ELECTRICAL LINE
- MISC/UNKNOWN
- MISC/UNKNOWN
- AREA COULD NOT BE SURVEYED

Aerial Source: ESRI Online World Imagery, 2023

0 50 100 200

1 inch = 100 feet

DRAWN BY:	HC
REVIEWED BY:	JB
DATE:	12/15/2025
FILE:	1012-335-02
CAD:	335_GPRS.mxd
FIGURE	3

Weaver Consultants Group
CHICAGO, ILLINOIS
(773) 922-1030 www.wcgrp.com

GPRS FINDINGS MAP

4825 WEST LAWRENCE AVENUE
CHICAGO, COOK COUNTY, ILLINOIS

PREPARED FOR:
CITY OF CHICAGO
PBC AND CDWM

APPENDIX A –

GROUND PENETRATING RADAR SURVEY REPORT JULY 2025

JOB SUMMARY REPORT

Order Number:	Work Order #806702	**Job Date:**	Jul 22, 2025 12:14:00 PM
Customer:	31893 [CTN] WEAVER CONSULTANTS GROUP LLC : WEAVER CONSULTANTS GROUP - CHICAGO IL	**Billing Address:**	WEAVER CONSULTANTS GROUP LLC 35 E WACKER DR STE 1250 CHICAGO IL 60601 United States

JOB DETAILS

Jobsite Location	4825 West Lawrence Avenue, Chicago, Illinois, 60630
Work Order Number	Work Order #806702
Job Number	
PO Number	1012-335-03-02

GPRS Project Manager: Jon Barry

Thank you for using GPRS on your project. We appreciate the opportunity to work with you. If you have questions regarding the results of this scanning, please contact the lead GPRS project manager on this project.

EQUIPMENT USED

The following equipment was used on this project:

- **Underground GPR Antenna:** This GPR Antenna uses frequencies ranging from 250 MHz to 450 MHz and is mounted in a stroller frame that rolls over the surface. Data is displayed on a screen and marked in the field in real time. The surface needs to be reasonably smooth and unobstructed to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the efficacy of GPR. The total effective scan depth can be as much as 8’ or more with this antenna but can vary widely depending on the soil conditions and composition. Some soil types, such as clay, may limit maximum depths to 3’ or less. As depth increases, targets must be larger to be detected, and non-metallic targets can be challenging to locate. The depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **EM Pipe Locator:** Electromagnetic Pipe and Cable Locator. Detects electromagnetic fields. Used to actively trace conductive pipes and tracer wires, or passively detect power and radio signals traveling along conductive pipes and utilities. For more information, please visit: Link

JOB SUMMARY REPORT

WORK PERFORMED

UNDERGROUND UTILITY	
Client Provided Drawings	Yes
Client completed 811 locate request	No
Scope of Work	Clear 12 soil borings
Soil Borings (qty)	11
Approximate GPR Effective Depth (ft)	3
Utilities Located	- Unknown
Utilities NOT Located	- Electric - Communication - Natural Gas - Water - Storm Sewer - Sanitary Sewer
Details on Non-locatable Utilities	No visible features, and utilities in scan area.
Limitations Encountered	- Surface obstructions - Not enough area to perform scan - Soil conditions not suitable for GPR at time of scanning - Other
Limitations Encountered - Other	Certain areas had uneven or irregular terrain, which affected the ability to maintain consistent contact between the GPR equipment and the ground, reducing data accuracy and coverage. Some soil types encountered during the scan were not conducive to effective GPR penetration, limiting the depth and clarity of subsurface imaging. There was line of sight obstruction: A sanitary manhole was located near Scan Area 11. However, the manhole was full at the time of inspection, preventing the ability to obtain a clear line of sight or conduct any visual confirmation or alignment using the manhole as a reference. Two zones within the project limits were previously marked in pink and had excavation.
Marking Medium	- Spray Paint
Results Notes	GPRS successfully cleared 12 soil boring locations. GPR and passive sweep scans were done to find unknown lines were detected at depths ranging from 1 to 3 feet and have been marked in pink on-site. GPRS did not find electric, gas, storm/sanitary, water, and communications. Unable to see a sanitary manhole nearby scan area 11 due to being full. Other utilities were unable to be located due to no visible site features and utilities not in scan area. Certain areas had uneven or irregular terrain, which affected the ability to maintain consistent contact between the GPR equipment and the ground, reducing data accuracy and coverage. Some soil types encountered during the scan were not conducive to effective GPR penetration, limiting the depth and clarity of subsurface imaging. There was line of sight obstruction: A sanitary manhole was located near Scan Area 11. However, the manhole was full at the time of inspection, preventing the ability to obtain a clear line of sight or conduct any visual confirmation or alignment using the manhole as a reference. Two zones within the project limits were previously marked in pink and had excavation.

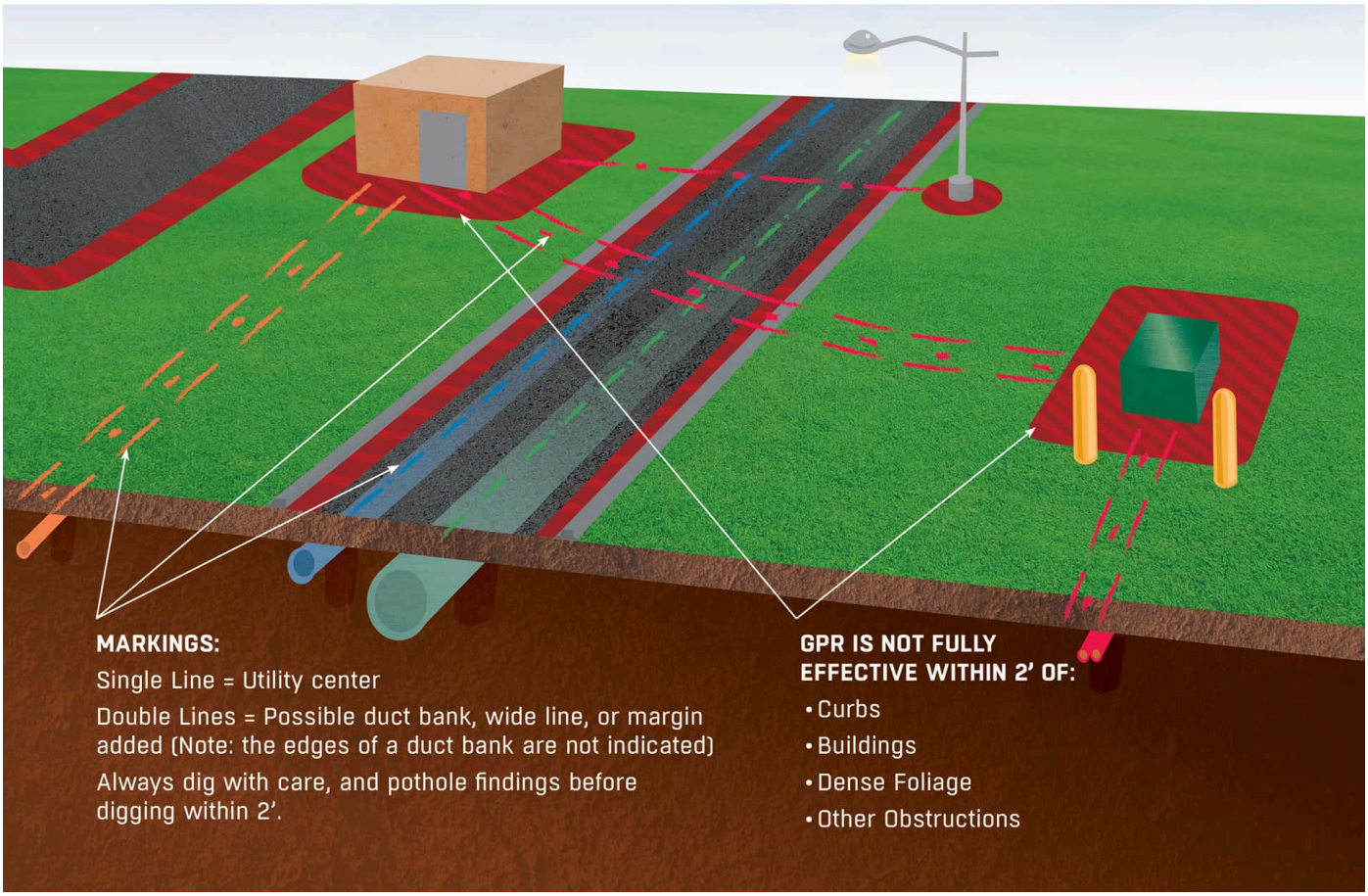
	No penetration should occur outside scan area. No penetration should occur 3’ off markings.

JOB SUMMARY REPORT

SUPPLEMENTAL INFORMATION

COMMON UTILITY LOCATING LIMITATIONS

There are many limitations to locating utilities, due to a variety of factors, with several more common examples illustrated here.

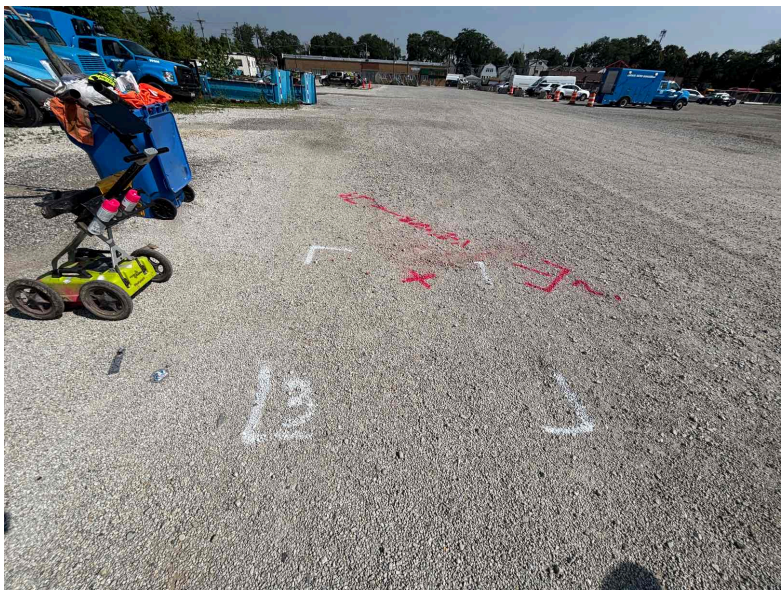


JOBSITE IMAGES

Jobsite Photo #1

Jobsite Photo #2

Jobsite Photo #3



Jobsite Photo #4

Jobsite Photo #5

Jobsite Photo #6

Jobsite Photo #7

Jobsite Photo #8

Jobsite Photo #9

Jobsite Photo #10

Jobsite Photo #11

Jobsite Photo #12

Jobsite Photo #13

Jobsite Photo #14

Jobsite Photo #15

Jobsite Photo #16

JOB SUMMARY REPORT

CONTACT / SIGNATURE INFORMATION

SIGNATURE

Contact Information

Contact Name	Ben Levy	**Email**	blevy@wcgrp.com

TERMS & CONDITIONS

http://www.gprsinc.com/termsandconditions.html

APPENDIX B –

GROUND PENETRATING RADAR SURVEY REPORT NOVEMBER 2025

JOB SUMMARY REPORT

Order Number:	Work Order #854099	**Job Date:**	Nov 27, 2025 9:51:00 AM
Customer:	31893 [CTN] WEAVER CONSULTANTS GROUP LLC : WEAVER CONSULTANTS GROUP - CHICAGO IL	**Billing Address:**	WEAVER CONSULTANTS GROUP LLC 35 E WACKER DR STE 1250 CHICAGO IL 60601 United States

JOB DETAILS

Jobsite Location	4825 W Lawrence Ave, Chicago, Illinois, 60290
Work Order Number	Work Order #854099
Job Number	
PO Number	1012-335-03-02

GPRS Project Manager: Jesse Halverson

Thank you for using GPRS on your project. We appreciate the opportunity to work with you. If you have questions regarding the results of this scanning, please contact the lead GPRS project manager on this project.

EQUIPMENT USED

The following equipment was used on this project:

- **Underground GPR Antenna:** This GPR Antenna uses frequencies ranging from 250 MHz to 450 MHz and is mounted in a stroller frame that rolls over the surface. Data is displayed on a screen and marked in the field in real time. The surface needs to be reasonably smooth and unobstructed to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the efficacy of GPR. The total effective scan depth can be as much as 8’ or more with this antenna but can vary widely depending on the soil conditions and composition. Some soil types, such as clay, may limit maximum depths to 3’ or less. As depth increases, targets must be larger to be detected, and non-metallic targets can be challenging to locate. The depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **EM Pipe Locator:** Electromagnetic Pipe and Cable Locator. Detects electromagnetic fields. Used to actively trace conductive pipes and tracer wires, or passively detect power and radio signals traveling along conductive pipes and utilities. For more information, please visit: Link
- **GPS:** This handheld unit offers accuracy down to 4 inches; however, the accuracy achieved will depend on the satellite environment at the time of collection and is not considered survey-grade. Features can be collected as points, lines, or areas and then exported as a KML/KMZ or overlaid on a CAD drawing. For more information, please visit: Link

JOB SUMMARY REPORT

WORK PERFORMED

UNDERGROUND UTILITY	
Client Provided Drawings	Yes
Client completed 811 locate request	No
Scope of Work	GPRS scanned for utilities and anomalies within proposed scan area measuring approximately 7-acres.
Large Area Scan (acres)	7
Approximate GPR Effective Depth (ft)	3
Utilities Located	- Electric - Natural Gas - Water - Storm Sewer - Sanitary Sewer
Utilities NOT Located	- Communication
Details on Non-locatable Utilities	Communication lines could not be located due to no tracer wires and no access to communication lines exiting the building.
Limitations Encountered	- Surface obstructions - Other
Limitations Encountered - Other	Standing water.
Marking Medium	- Spray Paint
Results Notes	GPRS used GPR and EM locator to locate any utilities and anomalies within proposed scan area measuring approximately 7-Acres. The effective depth of GPR will vary throughout a site depending on surface and soil conditions. In this area, the maximum effective GPR depth was approximately 2’-3’. GPRS was able to locate electric, water, gas, sanitary, and storm. Electric lines were sounds at approximately 1’-3’ deep and were marked in red spray paint. Water lines were found at approximately 4’-6’ deep and were marked in blue spray paint. Gas lines were found at approximately 2’-4’ deep and were marked in yellow spray paint. Sanitary lines were found at approximately 4’-6’ deep and were marked in green spray paint. Sanitary and storm lines were only able to be seen via line of sight. Storm drains were found at approximately 1’-4’ deep and were marked in green spray paint. Communication lines were unable to be found due to no tracer wires and no access to the communication lines existing the building. Stay of at least 3’ off all marks. GPRS was able to find possible underground foundations, rail road tracks, and previous excavations. GPRS was able to locate underground foundations just north of the garages and was marked out in white spray paint. The foundations are marked as “Miscellaneous outline structure” on the map. Railroad tracks were found at approximately 6”-1’ deep and were marked in white and pink spray paint. Railroad tracks were marked as “Miscellaneous Utility Line” on the map. Previous excavations were marked in pink spray paint and were found at approximately 2’-3’ deep. Previous excavations were marked as “unknown structure outline” on the map.

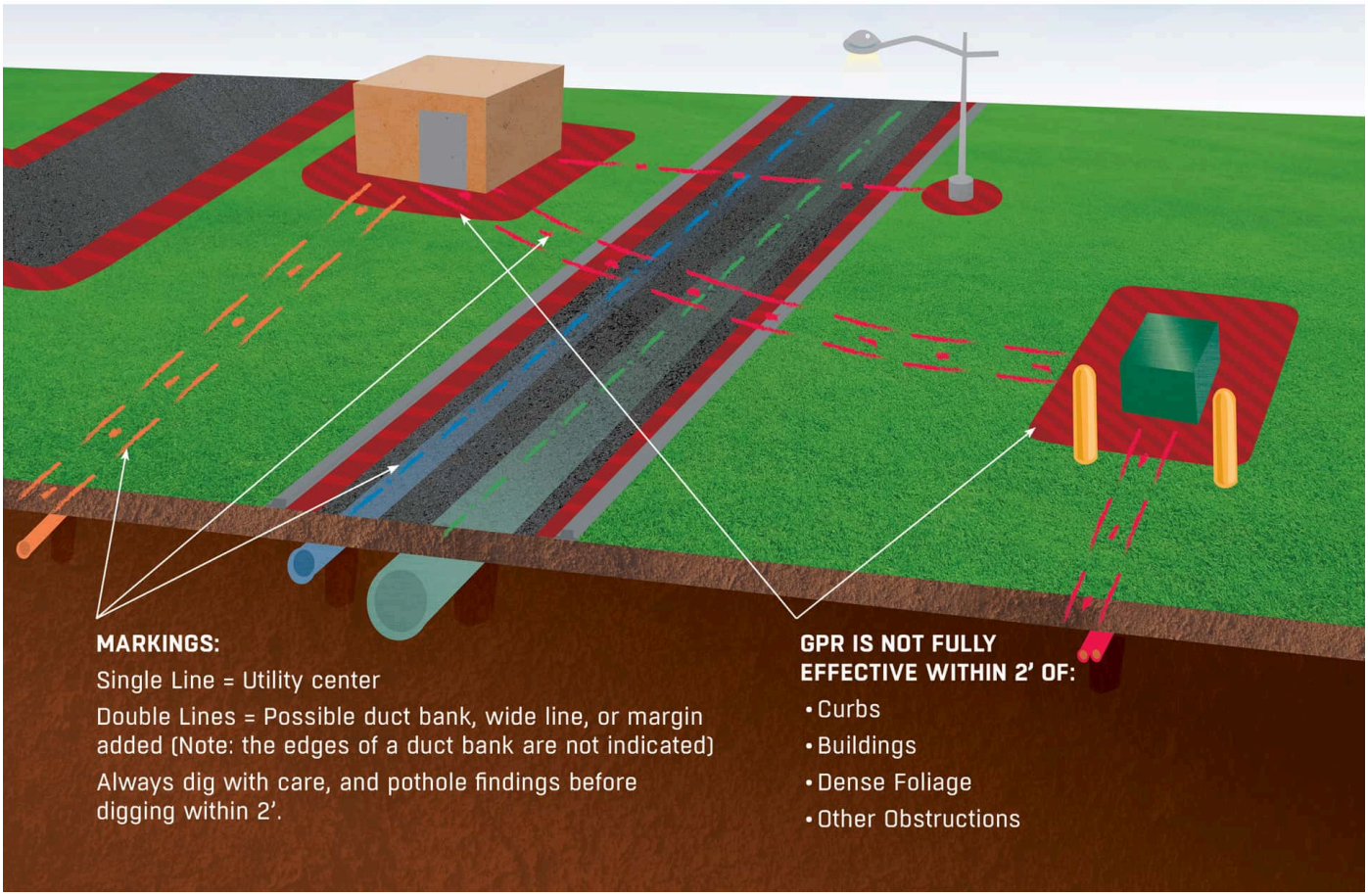
	GPRS had some limitations while scanning. There was standing water in multiple areas. GPRS was also unable to scan near the rock and dirt bays. The bays could not be moved. Public utilities were not marked by others. GPRS recommends calling in public to mark out public utilities before digging. GPRS located what we could given to the site conditions.

JOB SUMMARY REPORT

SUPPLEMENTAL INFORMATION

COMMON UTILITY LOCATING LIMITATIONS

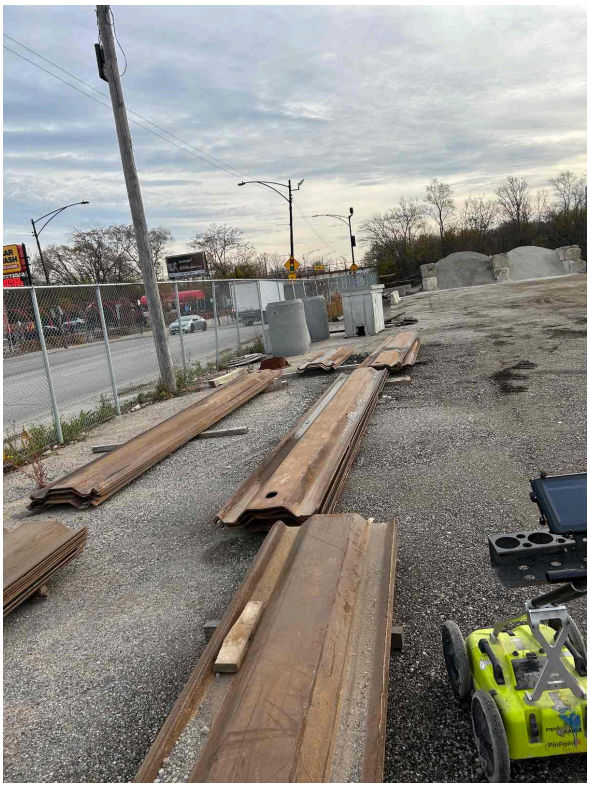
There are many limitations to locating utilities, due to a variety of factors, with several more common examples illustrated here.



JOB SUMMARY REPORT

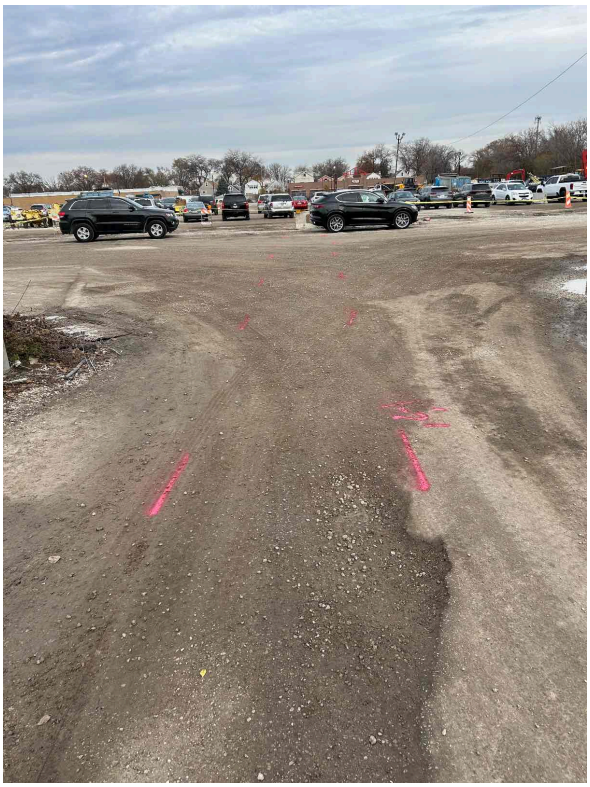
JOBSITE IMAGES

Jobsite Photo #1

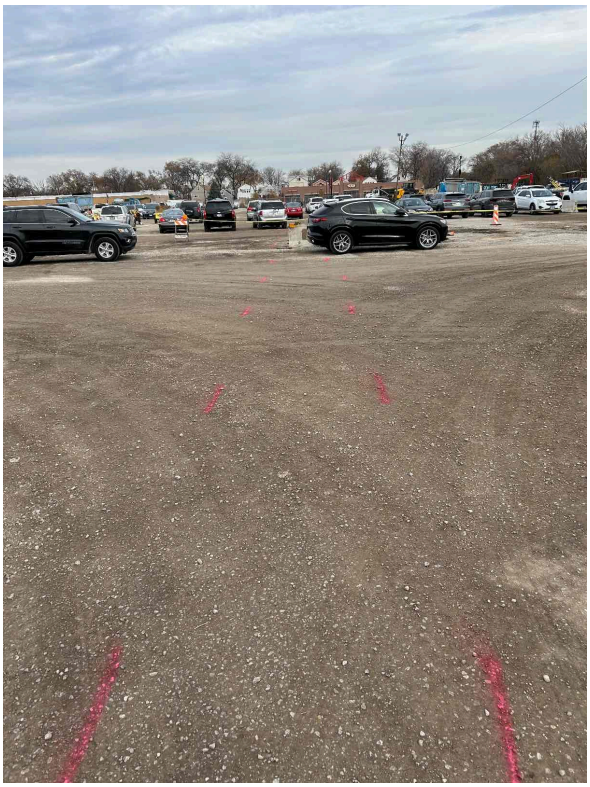


Jobsite Photo #2

Jobsite Photo #3



Jobsite Photo #4



Jobsite Photo #5

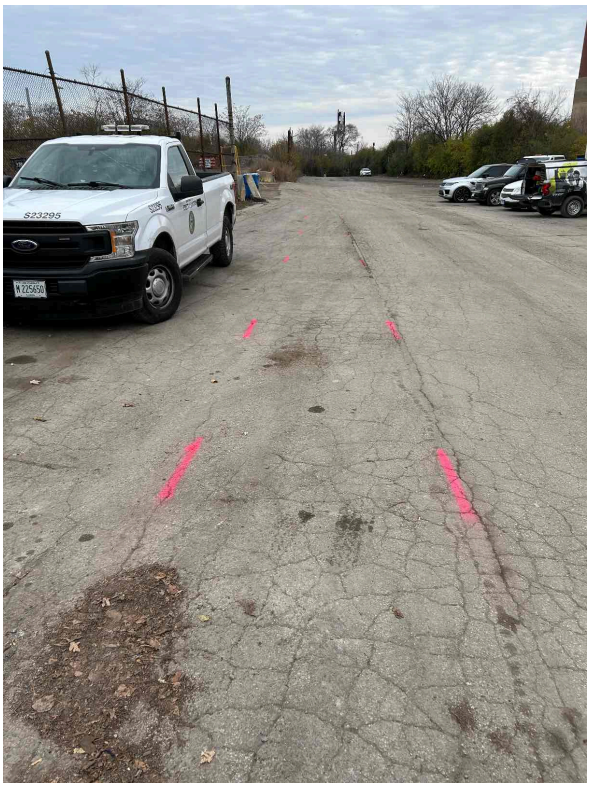
Jobsite Photo #6

Jobsite Photo #7

Jobsite Photo #8

JOB SUMMARY REPORT

Jobsite Photo #9



Jobsite Photo #10

Jobsite Photo #11

Jobsite Photo #12

Jobsite Photo #13

Jobsite Photo #14

Jobsite Photo #15

Jobsite Photo #16

Jobsite Photo #17