



September 13, 2021

Mr. Michael Squire  
New York State Department of Environmental Conservation  
625 Broadway  
Remedial Bureau C, 11<sup>th</sup> Floor  
Albany, New York 12233-7014

**RE: Former Farrington Street Manufactured Gas Plant Site (Site No. 241208)  
Supplemental Remedial Investigation Work Plan (SRIWP)**

Dear Mr. Squire:

The letter serves as the Supplemental Remedial Investigation Work Plan (SRIWP) for the Former Farrington Street Manufactured Gas Plant (the “Site”), located in Flushing, New York ([Figure 1](#)). The Site consists of Parcel 1 that includes a Stop and Shop grocery and pharmacy, various stores, and a paved parking area and Parcel 2 that includes a mixed paved and gravel lot that is utilized as an equipment storage, trailer storage, and material lay down area by Consolidated Edison Company of New York, Inc. (Con Edison). The *Draft Alternatives Analysis Report (AAR) for the Farrington Street Gas Works Site, Queens, New York* (Parsons, 2020) was submitted to the New York State Department of Conservation (NYSDEC) on February 28, 2020. The Site remedy proposed in the draft AAR included non-aqueous phase liquid (NAPL) recovery, monitored natural attenuation (MNA), and institutional and engineering controls. However, following subsequent in-depth discussions the NYSDEC approved of the proposed remedy for Parcel 1 but requested that Con Edison evaluate a more intrusive remedial alternative [i.e., *in-situ* soil stabilization and solidification (ISS)] for Parcel 2. Given the presence of significant subsurface remnant structures from former Site operations at Parcel 2, additional delineation of these subsurface features is warranted as they can adversely affect the implementation of a more intrusive remedy. Additionally, during a recent and ongoing capital improvement project at the Site, polychlorinated biphenyls (PCBs) were detected in Site soils, which will require further characterization as part of the Supplemental Remedial Investigation (SRI) scope of work. Therefore, the purpose of this SRI is to obtain additional Site data at Parcel 2 via the following:

- Collection of additional subsurface data regarding the nature and extent of subsurface remnant structures present at the Site;
- Delineation of the extent of NAPL present within the subsurface at the Site, to the extent practicable based on identified data gaps;
- Sampling of NAPL for characterization of physical properties;
- Collection of laboratory analytical data for an overall PCB Site Characterization and waste characterization for waste management;

- Collection of necessary geotechnical design data for the evaluation of excavation supporting and/or bracing systems, if deemed necessary, and to further discern the implementability of an intrusive, viable remedial alternative (e.g., ISS) for Parcel 2;
- Completion of a bench scale treatability study of various design mixes for potential ISS applications;
- Evaluation of NAPL recovery characteristics (where encountered) in groundwater monitoring wells; and
- Repair, replacement, and supplementation of the existing groundwater monitoring well network.

Subsurface data detailing the nature and extent of subsurface remnant structures, geotechnical data collection, and the bench scale treatability study will be utilized to assess the implementability of potential ISS at Parcel 2. In addition, the further delineation of NAPL at the Site and the enhancement of the Site's groundwater monitoring well network will further refine the conceptual site model for Parcel 2.

During the third quarter of 2020, Con Edison began construction of a perimeter security fence at Parcel 2 to replace an outdated fencing system. As part of the scope of work, manual excavations were completed along the perimeter of Parcel 2 for the installation of curbing and fence posts, which extended to depths of up to 5-feet below ground surface (bgs). During excavation activities, two (2) open abandoned pipes approximately 12-inches in diameter were discovered on the eastern boundary of Parcel 2, along Farrington Street, and were found to contain prior construction debris, Tyvek suits, and oily residue. The material found within the pipes was collected and submitted to an analytical laboratory for waste characterization purposes, at which time it was determined that the material contained elevated PCB concentrations. In response, and in concurrence with NYSDEC, the abandoned pipes were sealed in place with a grout mixture. Concurrently, waste characterization laboratory analyses determined that stockpiled soils at the Site, containing soils excavated during fence installation activities, also contained elevated concentrations of PCBs. As such, included in the scope of work for this SRI is Site Characterization (SC) of PCBs in Site soils in accordance with 40 CFR Part 761 Subpart N.

A summary of proposed field activities associated with the SRI is provided as follows.

#### **Supplemental Remedial Investigation Scope of Work and Objectives**

The purpose of the SRI is to collect additional Site data to support the evaluation of an intrusive remedial alternative at Parcel 2. These additional Site data include the following:

- Subsurface feature delineation;
- In-situ soil sampling for PCB and waste characterization analysis;
- Geotechnical data analysis;
- Benchscale treatability study;
- Delineation and characterization of Site NAPL;
- Evaluation of NAPL recovery, and
- Evaluation, repair, and replacement of the groundwater monitoring well network.

Details pertaining to each objective are further described in the following sections.

### **Subsurface Feature Delineation**

Former Manufactured Gas Plant (MGP) structures existed at the Site in various configurations between 1892 and 1944 when operations were discontinued and were present at the Site until as late as 1954 (Figure 2). Many of the above ground surface structures were dismantled and removed with the majority of the subsurface features remaining at and/or below grade. Test pitting activities performed as part of the 2009 Site Characterization (SC) encountered several subsurface structures at the Site, including brick walls, metal walls, metal coal tar bins, slabs, and other features attributed to MGP operations. Additionally, during the initial phase of the fence construction project, initiated during the third quarter of 2020, work completed along the Site perimeter encountered numerous subsurface obstructions and features.

As the complete nature and extent of subsurface structures are unknown, potential obstructions to intrusive remedies will need to be delineated to assess the implementability of an intrusive remedial alternative such as ISS at Parcel 2. The complete scope of the SRI includes hand clearances at locations throughout the entirety of Parcel 2. As such, hand clearances advanced for the purposes of waste characterization, geotechnical investigation, PCB SC, or otherwise, will be utilized to verify the presence of buried historical structures and obstructions. Each location will be hand cleared to a minimum depth of 5-feet bgs or until an obstruction is identified. Should no subsurface obstructions or features be encountered during the hand clearing above 5-feet bgs, the subsequent drilling will proceed as planned. Should a subsurface feature or obstruction be encountered during the hand clearing above 5-feet bgs then other soft dig techniques will be evaluated in an attempt to advance the hand clearing to a minimum depth of 5-feet bgs so that the subsequent drilling can proceed as planned while complying with Con Edison's utility clearance procedures.

### **In-Situ Soil Sampling Waste Characterization Analysis**

In-situ waste characterization sampling will be performed during the SRI field activities to characterize Site soils and subsurface structures anticipated to be excavated and transported off-Site for disposal during potential ISS implementation. Volume expansion occurs during implementation of ISS due to swelling of the reagent in the subsurface. In order to contain this swelling during potential ISS implementation, it is anticipated that Site soils within Parcel 2 would be removed to a depth of approximately 4 feet bgs prior to implementation of ISS, totaling approximately 12,000 cubic yards. Based on the anticipated volume of soils to be removed from the Site, a total of sixteen (16) waste characterization samples will be submitted for laboratory analysis. Soil sampling areas in which waste characterization sampling will be completed as detailed on Figure 3 which depicts a general sampling grid of 75 feet by 75 feet except on the west side of Parcel 2 where the western boundary of Parcel 2 required modifications of this sampling grid. Specific sampling locations will coincide with soil sampling activities conducted for Site characterization of PCBs, further detailed below.

Waste characterization samples will be submitted to TestAmerica of Edison, New Jersey for laboratory analysis of Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) metals, cyanide, toxicity characteristic leaching procedure (TCLP) VOCs, TCLP SVOCs, TCLP metals, TCLP pesticides, TCLP herbicides, and Resource Conservation and Recovery Act (RCRA) characteristics (ignitability, corrosivity, and reactivity).

## **PCB Site Characterization**

As proposed in the PCB sampling work plan submitted to the NYSDEC in May 2021, in-situ soil sampling was conducted in Parcel 2 in June 2021 to characterize areas to be disturbed in order to make the parcel safe and secure from potential external access. The original scope of the security fence upgrade project was to upgrade the perimeter fence system at Parcel 2 to a higher and more secure system that also included perimeter concrete curbing, re-grading and automated access gates. Con Edison will not complete the original scope of the security fence upgrade project until a full SC field program for PCB impacts is implemented at Parcel 2. In the interim, Con Edison is completing specific limited aspects of the upgrade project to the extent necessary to make Parcel 2 safe and secure from potential access.

During the PCB in-situ soil sampling conducted in June 2021, a total of sixty (60) samples, to include field duplicates, were collected from thirty-five (35) locations (Areas AA-AF and Areas A-X), as indicated on [Figure 4](#). Sampling locations were restricted to perimeter locations where interim intrusive activities were planned by Con Edison. Soil samples were collected from 0.5-foot intervals at depths ranging from 0.5-feet bgs to 1.5-feet bgs. Soil samples were submitted to TestAmerica of Edison, New Jersey for analysis of PCBs via EPA Method 8082A using the Soxhlet extraction. Laboratory analytical results were validated by a third party in accordance with USEPA data validation procedures.

Laboratory analytical results indicated that PCBs were detected at total concentrations ranging from 0.008 mg/kg to 52.0 mg/kg. Total PCBs were detected at concentrations less than 1 mg/kg in forty-seven (47) samples in twenty-seven (27) locations. Total PCBs were detected at concentrations greater than 1 mg/kg and less than 10 mg/kg in eight (8) samples, in six (6) locations. Total PCBs were detected at concentrations greater than 10 mg/kg and less than 50 mg/kg in four (4) samples, in two (2) locations (Areas M and R), located on the southern edge of the Site adjacent to 32<sup>nd</sup> Avenue. Total PCBs were detected at concentrations slightly greater than 50 mg/kg in one (1) sample, within Area M, at 52 mg/kg. Laboratory analytical results are summarized in [Table 1](#).

Based on the concentrations of PCBs detected in Site soils during initial security fence installation construction completed at the Site, a PCB SC will be implemented during completion of the SRI field activities. Soil sampling for PCBs will be completed in accordance with 40 CFR Part 761 Subpart N, with the sampling scheme specified in 40 CFR §761.265(a) modified to utilize a 30-foot (approximately 9-meter) grid based on existing PCB analytical data. Soil sampling will be completed in a total of one-hundred and seventeen (117) sampling grid areas, as presented on [Figure 5](#). Two (2) soil samples will be collected from each sampling location, as follows:

- One (1) sample will be collected from the 6-inch interval directly below the surface, or the 6-inch interval directly below the subbase material, and
- One (1) sample will be collected from the 3.5- 4.0-foot interval, based on anticipated excavation depth to accommodate reagent swell of soils.

Sampling at each location will be completed via hand clearance methods. Soil samples for PCB Site Characterization will be submitted to TestAmerica of Edison, NJ for analysis of PCBs via EPA Method 8082A. Additionally, soil samples will be collected from the subsequent drilling activities at deeper

depths and submitted to the above laboratory and put on hold for potential future PCB analyses depending on the results of the shallower samples. The collection of the deeper soil samples will be as follows:

- Outside of the proposed remediation area, soil samples will be collected during the advancement of the soil boring at 6-inch intervals to the proposed depth of the soil boring, and
- Within the proposed remediation area, one (1) soil sample will be collected during the advancement of the soil boring at the 6-inch interval directly below the proposed depth of remediation at the soil boring location.

Outside the remediation area, laboratory analysis for PCBs will be conducted in iterations based on the PCB concentrations of each successive soil sampling interval until a soil sample with a PCB concentration less than 1 mg/kg is identified based on laboratory results. Within the remediation areas, laboratory analysis for PCBs will be conducted on the soil sample collected at the 6-inch interval directly below the proposed remediation depth at that location. This subsequent laboratory analyses for PCBs will be conducted on the collected deeper soil samples only if the PCB concentrations for the soil samples collected from the 3.5 - 4.0 foot interval are analyzed to be greater than 1 mg/kg.

### **Soil Sampling for Geotechnical Testing**

Geotechnical soil samples will be collected from a total of twenty-nine (29) soil borings during the SRI field activities, based on the anticipated remediation area, as detailed on [Figure 6](#). The anticipated total boring depths for geotechnical sample collection are detailed on [Table 2](#), and are based on the potential total depth of potential ISS as identified during development of the AAR. Soil samples that are representative of subsurface stratigraphy and materials within the remediation areas, as determined during soil boring advancement, will be selected for geotechnical laboratory testing. The geotechnical laboratory testing will consist of Atterberg Limits (ASTM D4318), moisture content (ASTM D2216), Sieve (ASTM D6913), Sieve with Hydrometer (ASTM D6913/D7928), USCS Classification (ASTM D2487), Specific Gravity (ASTM D854), and organic content (ASTM D2974).

Based on previous investigations, the soils encountered at the Site are composed of fill material in the upper 8- to 10-feet of soil, underlain by an unknown depth of predominantly sands with lenses of sand and gravel or silts and sands.

The proposed soil borings where soil samples will be collected for geotechnical information will generally coincide with the anticipated remediation areas. This geotechnical data will be used in the evaluation and potential design of an intrusive remedial alternative (i.e., ISS) for Parcel 2.

Soil borings for the purpose of geotechnical sample collection will be advanced via sonic drilling methods. Each boring, with exception of soil boring SB-98, will be advanced to 2-feet below the anticipated depth of potential ISS in that location, as detailed in [Table 2](#). Soil boring SB-98 will be advanced to a depth of 35-feet bgs, below previously observed NAPL depths, as requested by NYSDEC. Soil samples will be collected continuously to the bottom of each boring using 5-foot discrete samplers, collected in sampling liners. Soil samples retrieved from each boring will be visually classified for soil type, grain size, texture, moisture content, and visible evidence of staining or impacts. In addition, a representative sample from each sampling interval will be collected in a sealed plastic bag and the sample headspace will be screened for the presence of volatile organic compounds (VOCs) with a photoionization detector (PID).

Investigation derived waste (IDW) generated during soil boring activities will be managed as detailed in the section below.

### **ISS Bench Scale Treatability Study**

The goal of the bench scale treatability study is to assess the treatability and effectiveness of mixing NAPL-impacted Site soils with various ISS reagent design mixes in order to determine an effective reagent design mix(es) and dose requirements for achieving established performance criteria.

It is anticipated that the performance criteria for potential ISS will include hydraulic conductivity and unconfined compressive strength, which are identified below:

- Hydraulic conductivity <  $1 \times 10^{-6}$  cm/sec
- Unconfined compressive strength > 50 psi at 28 days

Two (2) discrete soil types have been identified in the subsurface. For the bench-scale testing, 10 to 15 gallons (i.e., two to three five-gallon buckets) of each Site soil representing the two assumed lithologies will be collected within the anticipated potential ISS footprint during field sampling activities. These samples are to be representative of the soils that could be encountered over the depth of ISS operations. Both average and hot-spot contamination and soil conditions will be considered in collection of this sample. Average and hot-spot locations will be selected based on visual observations of NAPL, photoionization detector (PID) readings, and percent fines. It is possible that the collected soil samples will be mixed with NAPL in the field prior to being shipped to GSI for the treatability study.

The treatability study will be performed in three (3) steps:

- Step 1 – Soil Index Testing;
- Step 2 – Initial Mixture Development, and
- Step 3 – Final Mixture Development and Confirmation Testing.

During Step 1, prior to developing reagent mixtures, each of the two (2) soil composite samples will be analyzed for:

- As received moisture content;
- Sieve Analysis with visual classification;
- Loss On Ignition (Total Organic Content);
- Soil pH;
- Soil Density (Single Point Proctor), and
- Water Testing (pH, Hardness, and Total Dissolved Solids)

Based on the results of Step 1, reagent mixtures will be developed for testing during Step 2. Up to six (6) selected soil reagent combinations will be applied to each of the two (2) composite soil samples, for a total of twelve (12) mixes. The following analysis will be performed on the mixes:

- Standard grout tests (e.g., pH and temperature; viscosity and density);

- Slump (visual or mini slump cone) and density;
- Early Unconfined Compressive Strength (UCS) development monitoring using pocket penetrometer;
- UCS testing following 3- and 7-day curing period; and
- Hydraulic conductivity testing following 7- and 14-day curing period.

Based on the results of Step 2, four (4) mixes, two (2) from each composite soil type, will be selected for additional testing during Step 3. The following are components of Step 3 testing to finalize mixture development:

- USC testing following 14- and 28-day curing periods;
- Hydraulic conductivity testing after samples have cured for 28-day, and
- Slake Immersion with no UCS.

Additionally, Step 3 mixtures will be submitted for laboratory analysis of the following:

- Final leachate pH for synthetic precipitation leaching procedure (SPLP) analysis;
- Total SPLP VOCs;
- Total SPLP SVOCs; and
- Total SPLP metals.

In order to expedite the duration of the bench scale treatability study, the ISS samples for the design mixes will be created at the beginning of the bench scale treatability study and additional ISS samples will not be subsequently created during the study.

Design mixes will be cast into 2-inch by 4-inch cylinders for UCS testing and 3-inch by 6-inch cylinders for permeability testing. All cylinders will be capped, labeled, and stored at room temperature to cure until their scheduled test time.

The scope of the ISS bench scale treatability study and the number of ISS design mixes may be modified during the soil sampling and treatability study preparation activities based on the characteristics of the composite soil samples and the early results of the hydraulic conductivity and/or unconfined compressive strength testing.

### **Characterization of NAPL**

In order to further refine the conceptual site model (CSM), NAPL present at the Site will be sampled and submitted for laboratory analysis of NAPL characteristics. One (1) soil boring will be advanced in the vicinity of MW-25 to a depth of approximately 40-feet bgs. This location has been selected based on NAPL observed during previous investigation activities. Continuous soil cores will be collected using a sonic drill rig with an auto-hammer and Macro-core sampler attachment containing an inner acetate sleeve. A 4-foot long, 3-inch diameter core sample will be collected at the target interval containing NAPL, as identified in the field. The Macro-core will be capped at the ends and immediately flash frozen using dry ice in the field upon retrieval from the bore hole to minimize the loss of fluids from the core.



The frozen core will be shipped on dry ice to Integrated Geoscience Laboratories, LLC in Houston, TX for characterization of NAPL and NAPL mobility using the following analyses:

- White and Ultraviolet (UV) light photography;
- Pore fluid (NAPL and water) saturations via Dean Stark extraction;
- Porosity (total and air-filled);
- Grain density;
- Dry bulk density;
- Moisture Content, and
- Grain Size.

### **Delineation of NAPL**

Impacts in the form of NAPL were encountered within twenty (20) soil boring advanced at Parcel 2 during implementation of the 2009 Site Characterization (SC) (Parsons, 2107) and the 2011-2015 Remedial Investigation (RI) (Parsons, 2017). Depths at which NAPL is encountered within Parcel 2 range in from 9-feet bgs (MW-25, SB-39, and SB-45) to 44-feet bgs (MW-25). Intervals of NAPL ranged in thickness from 1-foot (SB-23, SB-26, SB-38) to 13.5-feet (MW-25).

In order to further delineate the presence of NAPL at the Site, up to twelve (12) additional soil borings will be advanced via direct push drill rig, as presented on [Figure 7](#). Each boring, with the exception of SB-108 and SB-111, will be advanced to 2-feet below the anticipated depth of potential ISS in that location, as detailed in [Table 2](#). Soil borings SB-108 and SB-111 will be advanced to a depth of 35-feet bgs, below previously observed NAPL depths, as requested by NYSDEC. If free or residual NAPL is observation during installation of each soil boring, the presence of NAPL will be verified via the installation of a temporary groundwater monitoring well. Each temporary monitoring well will be left to equilibrate for a period of 12- to 24-hours to allow for the potential recharge and identification of NAPL in the subsurface. The apparent thickness of NAPL will be quantified using the following process:

- A 2-inch temporary monitoring well will be installed in borings where LNAPL was observed;
- The temporary well will be fitted with a 10-foot, 0.020 slot, schedule 40 polyvinyl chloride screen and appropriate length of riser pipe;
- The screen will be installed across the apparent groundwater table, approximately 2-feet above and 8-feet below the saturated zone;
- The temporary well will be left to equilibrate for a period of 24 hours;
- NAPL, if present, will be gauged with an oil-water interface probe 12- to 24-hours after installation;
- If NAPL is not detected during gauging, the temporary well will be removed, and the boring will be abandoned in place. If NAPL is detected after the waiting period, the LNAPL will be removed to the extent practicable, and the temporary well will be allowed to stabilize for up to 24 additional hours to determine whether the detected NAPL was a small localized quantity or part of a larger impact, and



- After the additional 24 hours, the temporary well will be gauged, NAPL will be removed to the extent practicable, and the temporary well will be abandoned in place.

### **Evaluation of NAPL Characteristics and Recovery**

Where encountered in either existing groundwater monitoring wells or temporary groundwater monitoring wells installed during SRI field activities, NAPL will be collected and submitted for laboratory analysis. NAPL samples will be submitted for analysis of density, viscosity, and interfacial tension. Double check-valve hand bailers will be utilized to collect representative NAPL samples. If sufficient NAPL is observed within a permanent or temporary groundwater monitoring well, a short term NAPL transmissivity test will be conducted.

### **Groundwater Monitoring Well Repair and Replacement**

Due to operational activities within the Con Edison facility, several groundwater monitoring wells utilized in the continued development of the CSM have been damaged or covered and may no longer be suitable for use. Additionally, based on the anticipated location of remedial construction activities within Parcel 2, it is anticipated that the groundwater monitoring well network currently present at the Site will need to be enhanced.

#### **Monitoring Well Repair or Replacement**

Two (2) previously installed groundwater monitoring wells, MW-22 and CMW-37 located on the western side of the Market Area to the north of Parcel 2, have been damaged or covered over ([Figure 8](#)). These monitoring wells will be located and their condition will be assessed. If the monitoring wells are not compromised, their surface finishes will be repaired. If the monitoring wells are deemed compromised, they will be abandoned in place in accordance with NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy, and replaced as follows:

- MW-22 replaced with new MW-33: location will be finished as a flush-mount road box with a heavy-duty manhole. This location experiences a high volume of vehicle traffic, which resulted in damage to the original surface installation. Monitoring well will be installed to a depth of 17-feet bgs to replicate the original monitoring well, and
- CMW-37 replaced with new MW-32: location will be finished as a regular flush-mount road box. The surface finish at this location was damaged by vehicle traffic on the southwestern corner of the shopping center, therefore this location will be moved approximately 25 to 50 feet to the east, avoiding continuous vehicle traffic. Monitoring well will be installed to a depth of 21-feet bgs to replicate the original monitoring well.

#### **Supplemental Monitoring Well Installation**

A total of four (4) additional groundwater monitoring wells will be installed to supplement the groundwater monitoring well network at the Site, as presented on [Figure 8](#). One (1) groundwater monitoring well (MW-33) will provide an additional monitoring location upgradient to impacts detected within Parcel 2. Three (3) groundwater monitoring wells (MW-34 through MW-36) will provide monitoring locations down-gradient to Parcel 2, as most previously installed monitoring wells within the Parcel have been damaged or destroyed, and it is anticipated that the remaining monitoring wells will be destroyed during remedial construction activities. Additional groundwater monitoring wells will be installed to a depth of 35-feet bgs to replicate other downgradient groundwater monitoring wells

The monitoring wells installed via sonic drill rig, or similar, and will be constructed of two-inch diameter schedule 40 polyvinyl-chloride (PVC) riser with 0.02-inch slotted PVC screen. The screened interval for each well may vary based on subsurface conditions encountered during installation. The annular space between the monitoring well and the borehole wall will be filled with silica sand to the height of approximately one to two feet above the top of the screen. A two-foot thick bentonite seal will be placed above the sand pack. The remaining annulus will be grouted to the ground surface using a bentonite/cement grout.

After a minimum of 24-hours following installation, the monitoring wells will be developed with surge and over pumping techniques until reasonably free of sediment and until turbidity measurements are less than 50 nephelometric turbidity units (NTUs), if possible, and/or the measurements of water quality parameters (i.e., pH, temperature, and conductivity) stabilize.

### **Management of Investigation Derived Waste**

IDW generated during the field investigation will be containerized. Soils will be placed in 55-gallon Department of Transportation (DOT) approved drums and labeled appropriately. Plastic sheeting and personal protective equipment will be consolidated in DOT-approved drum(s). Fluids will be placed in DOT-approved fluid drums with closed tops.

PCBs have been detected in Site soils at concentrations greater than 50 parts per million. As such, soil generated during investigation activities will be contained in individual contractor bags, labeled with the soil boring ID and depth interval, tied closed, and stored in appropriately labeled 55-gallon drums. All drums will be staged on-site for testing prior to off-site disposal, and handled as if potentially hazardous pending laboratory analysis. Soils generated during investigation activities will be handled as appropriate following receipt of laboratory analytical data.

Used plastic sheeting from the drum storage pad and decontamination efforts, personal protective equipment, and disposable sampling equipment not decontaminated will be consolidated in DOT-approved drum(s) and disposed off-site as PCB soil greater than 50 mg/kg at a Con Edison approved disposal facility for TSCA chemical waste. The drums will be staged on a drum storage pad consisting of pallets located on plastic (minimum 3 millimeters thick) and bermed with timber or plastic piping. The drum storage pad will be in a secure area of the Site as determined by Con Edison and facility representatives prior to proper characterization and disposal. Liquids generated during investigation activities will be managed in accordance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation.

### **Community Air Monitoring Plan**

The proposed investigation and sampling activities may generate fugitive dust or organic vapors. Worker breathing zone and perimeter air monitoring will be conducted as described below. The Site-specific Health and Safety Plan (HASP) will provide air monitoring action levels and corresponding response actions.

The NYSDOH Generic Community Air Monitoring Plan (CAMP) will be utilized during soil sampling activities to monitor for airborne particulates and VOCs. Included in the CAMP is a description of methods that may be used to control odors during investigation activities, if deemed necessary.

Air monitoring of the worker breathing zone will be conducted during all sampling activities to assure proper health and safety protection for the team and any occupants of the facility. Readings will be taken prior to start of intrusive work at the Site to establish background conditions, and air monitoring will be conducted at each sampling location. If air monitoring identifies the presence of dust, VOCs or

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combustible gases in the worker breathing zone, guidelines in the HASP will be followed regarding action levels, permissible exposure, engineering controls, and personal protective equipment. The following equipment will be used to conduct air monitoring:

- A multi-gas meter (RaeSystems or equivalent) will be used to monitor for organic vapors, carbon monoxide, LEL, and oxygen; and,
- A MiniRAM Portable Aerosol Monitor will be used to monitor particulate dust and aerosolized vapors.

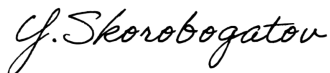
Air monitoring results will be recorded in the field book during investigation activities and made available for NYSDEC and New York State Department of Health (NYSDOH) review.

#### **Supplemental Remedial Investigation Report**

The data generated during the field investigation will be presented, evaluated, and summarized in a Supplemental Remedial Investigation Report, and further utilized in the evaluation and development of potential remedies for the Site.

Please call me at (718) 204-4205 should you have any comments or questions regarding this submittal.

Sincerely,



Yelena Skorobogatov  
Technical Specialist  
EH&S Remediation

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Enclosures:

Table 1 – Sampling Location Rationale

Table 2 – PCB Laboratory Analytical Results – June 2021

Figure 1 – Site Location Map

Figure 2 – Approximate Locations of Historical Structures 1897-1951

Figure 3 – Waste Characterization Sampling Area

Figure 4 – PCB Sampling Locations and Summary of Analytical Results > 1 mg/kg

Figure 5 – PCB Site Characterization Sampling Areas

Figure 6 – Proposed Geotechnical Boring Locations

Figure 7 – Proposed NAPL Delineations Boring Locations

Figure 8 – Proposed Groundwater Monitoring Well Replacement and Installation Locations

cc: Anthony Perretta, NYSDOH  
Ken Kaiser, Con Edison

# **TABLES**

Table 1  
PCB Laboratory Analytical Results - June 2021  
Farrington Street Former Manufactured Gas Plant Site  
Supplemental Remedial Investigation Work Plan

Location ID: Depth (ft): Sample ID: Sample Type: Matrix: SDG: Lab Sample ID: Sampled:				PCB-A 0 - 0.5 PCB-A_0.0-0.5_06152021 N SO 4602366161 460-236616-11 6/15/2021		PCB-A 0.5 - 1 PCB-A_0.5-1.0_06152021 N SO 4602366161 460-236616-12 6/15/2021		PCB-B 0 - 0.5 PCB-B_0.0-0.5_06152021 N SO 4602366161 460-236616-9 6/15/2021		PCB-B 0.5 - 1 PCB-B_0.5-1.0_06152021 N SO 4602366161 460-236616-10 6/15/2021		PCB-C 0 - 0.5 PCB-C_0.0-0.5_06152021 N SO 4602366161 460-236616-7 6/15/2021		PCB-C 0.5 - 1 PCB-C_0.5-1.0_06152021 N SO 4602366161 460-236616-8 6/15/2021	
Method	CAS_RN	Chemical Name	Unit												
SW8082A	12674-11-2	PCB-1016 (AROCLOR 1016)	mg/kg	0.044	U	0.026	U	0.021	U	0.021	U	0.022	U	0.022	U
SW8082A	11104-28-2	PCB-1221 (AROCLOR 1221)	mg/kg	0.044	U	0.026	U	0.021	U	0.021	U	0.022	U	0.022	U
SW8082A	11141-16-5	PCB-1232 (AROCLOR 1232)	mg/kg	0.044	U	0.026	U	0.021	U	0.021	U	0.022	U	0.022	U
SW8082A	53469-21-9	PCB-1242 (AROCLOR 1242)	mg/kg	0.044	U	0.026	U	0.021	U	0.021	U	0.022	U	0.022	U
SW8082A	12672-29-6	PCB-1248 (AROCLOR 1248)	mg/kg	0.044	U	0.026	U	0.021	U	0.021	U	0.022	U	0.022	U
SW8082A	11097-69-1	PCB-1254 (AROCLOR 1254)	mg/kg	0.044	U	0.026	U	0.021	U	0.021	U	0.022	U	0.056	
SW8082A	11096-82-5	PCB-1260 (AROCLOR 1260)	mg/kg	0.2		0.1		0.18		0.17		0.04		0.083	
SW8082A	37324-23-5	PCB-1262 (AROCLOR 1262)	mg/kg	0.044	U	0.026	U	0.021	U	0.021	U	0.022	U	0.022	U
SW8082A	11100-14-4	PCB-1268 (AROCLOR 1268)	mg/kg	0.044	U	0.026	U	0.021	U	0.021	U	0.022	U	0.022	U
<b>Total PCBs</b>				<b>mg/kg</b>		<b>0.2</b>		<b>0.1</b>		<b>0.18</b>		<b>0.17</b>		<b>0.04</b>	

Notes:

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Table 1  
PCB Laboratory Analytical Results - June 2021  
Farrington Street Former Manufactured Gas Plant Site  
Supplemental Remedial Investigation Work Plan

Location ID: Depth (ft): Sample ID: Sample Type: Matrix: SDG: Lab Sample ID: Sampled:				PCB-D1 0 - 0.5 PCB-D1_0.0-0.5_06152021		PCB-D1 0.5 - 1 PCB-D1_0.5-1.0_06152021		PCB-D2 0 - 0.5 PCB-D2_0.0-0.5_06152021		PCB-D2 0.5 - 1 PCB-D2_0.5-1.0_06152021		PCB-E 0 - 0.5 PCB-E_0.0-0.5_06152021		PCB-E 0.5 - 1 PCB-E_0.5-1.0_06152021	
Method	CAS_RN	Chemical Name	Unit												
SW8082A	12674-11-2	PCB-1016 (AROCOLOR 1016)	mg/kg	0.021	U	0.025	U	0.022	U	0.022	U	0.023	U	0.022	U
SW8082A	11104-28-2	PCB-1221 (AROCOLOR 1221)	mg/kg	0.021	U	0.025	U	0.022	U	0.022	U	0.023	U	0.022	U
SW8082A	11141-16-5	PCB-1232 (AROCOLOR 1232)	mg/kg	0.021	U	0.025	U	0.022	U	0.022	U	0.023	U	0.022	U
SW8082A	53469-21-9	PCB-1242 (AROCOLOR 1242)	mg/kg	0.021	U	0.025	U	0.022	U	0.022	U	0.023	U	0.022	U
SW8082A	12672-29-6	PCB-1248 (AROCOLOR 1248)	mg/kg	0.021	U	0.025	U	0.022	U	0.022	U	0.023	U	0.022	U
SW8082A	11097-69-1	PCB-1254 (AROCOLOR 1254)	mg/kg	0.021	U	0.025	U	0.022	U	0.022	U	0.023	U	0.022	U
SW8082A	11096-82-5	PCB-1260 (AROCOLOR 1260)	mg/kg	0.44		0.031		0.17		0.2		0.42		0.18	
SW8082A	37324-23-5	PCB-1262 (AROCOLOR 1262)	mg/kg	0.021	U	0.025	U	0.022	U	0.022	U	0.023	U	0.022	U
SW8082A	11100-14-4	PCB-1268 (AROCOLOR 1268)	mg/kg	0.021	U	0.025	U	0.022	U	0.022	U	0.023	U	0.022	U
<b>Total PCBs</b>				<b>mg/kg</b>		<b>0.44</b>		<b>0.031</b>		<b>0.17</b>		<b>0.2</b>		<b>0.42</b>	

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PCB Laboratory Analytical Results - June 2021  
Farrington Street Former Manufactured Gas Plant Site  
Supplemental Remedial Investigation Work Plan

Location ID: Depth (ft): Sample ID: Sample Type: Matrix: SDG: Lab Sample ID: Sampled:				PCB-F 0 - 0.5 PCB-F_0.0-0.5_06142021		PCB-F 0 - 0.5 CB-F_0.0-0.5_06142021-DU		PCB-F 0.5 - 1 PCB-F_0.5-1.0_06142021		PCB-G 0 - 0.5 PCB-G_0.0-0.5_06142021		PCB-G 0.5 - 1 PCB-G_0.5-1.0_06142021		PCB-H 0 - 0.5 PCB-H_0.0-0.5_06142021	
				N		FD		N		N		N		N	
				SO		SO		SO		SO		SO		SO	
				4602365141		4602365141		4602365141		4602365141		4602365141		4602365141	
				460-236514-13		460-236514-14		460-236514-15		460-236514-11		460-236514-12		460-236514-9	
				6/14/2021		6/14/2021		6/14/2021		6/14/2021		6/14/2021		6/14/2021	
Method	CAS_RN	Chemical Name	Unit												
SW8082A	12674-11-2	PCB-1016 (AROCOLOR 1016)	mg/kg	0.021	U	0.022	U	0.023	U	0.042	U	0.024	U	0.021	U
SW8082A	11104-28-2	PCB-1221 (AROCOLOR 1221)	mg/kg	0.021	U	0.022	U	0.023	U	0.042	U	0.024	U	0.021	U
SW8082A	11141-16-5	PCB-1232 (AROCOLOR 1232)	mg/kg	0.021	U	0.022	U	0.023	U	0.042	U	0.024	U	0.021	U
SW8082A	53469-21-9	PCB-1242 (AROCOLOR 1242)	mg/kg	0.021	U	0.022	U	0.023	U	0.042	U	0.024	U	0.021	U
SW8082A	12672-29-6	PCB-1248 (AROCOLOR 1248)	mg/kg	0.021	U	0.022	U	0.023	U	0.042	U	0.024	U	0.021	U
SW8082A	11097-69-1	PCB-1254 (AROCOLOR 1254)	mg/kg	0.021	U	0.022	U	0.023	U	0.042	U	0.024	U	0.021	U
SW8082A	11096-82-5	PCB-1260 (AROCOLOR 1260)	mg/kg	0.099	J	0.058	J	0.21		0.041	J	0.26		0.45	
SW8082A	37324-23-5	PCB-1262 (AROCOLOR 1262)	mg/kg	0.021	U	0.022	U	0.023	U	0.042	U	0.024	U	0.021	U
SW8082A	11100-14-4	PCB-1268 (AROCOLOR 1268)	mg/kg	0.021	U	0.022	U	0.023	U	0.042	U	0.024	U	0.021	U
<b>Total PCBs</b>				<b>mg/kg</b>		<b>0.099</b>		<b>0.058</b>		<b>0.21</b>		<b>0.041</b>		<b>0.26</b>	

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Farrington Street Former Manufactured Gas Plant Site  
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Location ID: Depth (ft): Sample ID: Sample Type: Matrix: SDG: Lab Sample ID: Sampled:				PCB-H 0.5 - 1 PCB-H_0.5-1.0_06142021 N SO 4602365141 460-236514-10 6/14/2021		PCB-I 0 - 0.5 PCB-I_0.0-0.5_06142021 N SO 4602365141 460-236514-7 6/14/2021		PCB-I 0.5 - 1 PCB-I_0.5-1.0_06142021 N SO 4602365141 460-236514-8 6/14/2021		PCB-J 0 - 0.5 PCB-J_0.0-0.5_06142021 N SO 4602365141 460-236514-5 6/14/2021		PCB-J 0.5 - 1 PCB-J_0.5-1.0_06142021 N SO 4602365141 460-236514-6 6/14/2021		PCB-K 0 - 0.5 PCB-K_0.0-0.5_06142021 N SO 4602365141 460-236514-3 6/14/2021	
Method	CAS_RN	Chemical Name	Unit												
SW8082A	12674-11-2	PCB-1016 (AROCLOR 1016)	mg/kg	0.11	U	0.022	U	0.02	U	0.022	U	0.022	U	0.1	U
SW8082A	11104-28-2	PCB-1221 (AROCLOR 1221)	mg/kg	0.11	U	0.022	U	0.02	U	0.022	U	0.022	U	0.1	U
SW8082A	11141-16-5	PCB-1232 (AROCLOR 1232)	mg/kg	0.11	U	0.022	U	0.02	U	0.022	U	0.022	U	0.1	U
SW8082A	53469-21-9	PCB-1242 (AROCLOR 1242)	mg/kg	0.11	U	0.022	U	0.02	U	0.022	U	0.022	U	0.1	U
SW8082A	12672-29-6	PCB-1248 (AROCLOR 1248)	mg/kg	0.11	U	0.022	U	0.02	U	0.022	U	0.022	U	0.1	U
SW8082A	11097-69-1	PCB-1254 (AROCLOR 1254)	mg/kg	2.6		0.022	U	0.02	U	0.022	U	0.022	U	0.1	U
SW8082A	11096-82-5	PCB-1260 (AROCLOR 1260)	mg/kg	0.84		0.093		0.86		0.032		0.21		0.99	
SW8082A	37324-23-5	PCB-1262 (AROCLOR 1262)	mg/kg	0.11	U	0.022	U	0.02	U	0.022	U	0.022	U	0.1	U
SW8082A	11100-14-4	PCB-1268 (AROCLOR 1268)	mg/kg	0.11	U	0.022	U	0.02	U	0.022	U	0.022	U	0.1	U
<b>Total PCBs</b>				<b>mg/kg</b>		<b>3.44</b>		<b>0.093</b>		<b>0.86</b>		<b>0.032</b>		<b>0.21</b>	

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Table 1  
PCB Laboratory Analytical Results - June 2021  
Farrington Street Former Manufactured Gas Plant Site  
Supplemental Remedial Investigation Work Plan

Location ID: Depth (ft): Sample ID: Sample Type: Matrix: SDG: Lab Sample ID: Sampled:				PCB-K 0.5 - 1 PCB-K_0.5-1.0_06142021 N SO 4602365141 460-236514-4 6/14/2021	PCB-L 0 - 0.5 PCB-L_0.0-0.5_06142021 N SO 4602365141 460-236514-1 6/14/2021	PCB-L 0.5 - 1 PCB-L_0.5-1.0_06142021 N SO 4602365141 460-236514-2 6/14/2021	PCB-M 0 - 0.5 PCB-M_0.0-0.5_06112021 N SO 4602363211 460-236321-4 6/11/2021	PCB-M 0.5 - 1 PCB-M_0.5-1.0_06112021 N SO 4602363211 460-236321-5 6/11/2021	PCB-M 0.5 - 1 PCB-M_0.5-1.0_06112021-DU FD SO 4602363211 460-236321-6 6/11/2021
Method	CAS_RN	Chemical Name	Unit						
SW8082A	12674-11-2	PCB-1016 (AROCLOR 1016)	mg/kg	0.24 U	0.21 U	0.22 U	4.2 U	2.1 U	2.2 U
SW8082A	11104-28-2	PCB-1221 (AROCLOR 1221)	mg/kg	0.24 U	0.21 U	0.22 U	4.2 U	2.1 U	2.2 U
SW8082A	11141-16-5	PCB-1232 (AROCLOR 1232)	mg/kg	0.24 U	0.21 U	0.22 U	4.2 U	2.1 U	2.2 U
SW8082A	53469-21-9	PCB-1242 (AROCLOR 1242)	mg/kg	0.24 U	0.21 U	0.22 U	4.2 U	2.1 U	2.2 U
SW8082A	12672-29-6	PCB-1248 (AROCLOR 1248)	mg/kg	0.24 U	0.21 U	0.22 U	4.2 U	2.1 U	2.2 U
SW8082A	11097-69-1	PCB-1254 (AROCLOR 1254)	mg/kg	0.24 U	0.21 U	0.22 U	4.2 U	2.1 U	2.2 U
SW8082A	11096-82-5	PCB-1260 (AROCLOR 1260)	mg/kg	1.7	1.9	3.8	52	46	47
SW8082A	37324-23-5	PCB-1262 (AROCLOR 1262)	mg/kg	0.24 U	0.21 U	0.22 U	4.2 U	2.1 U	2.2 U
SW8082A	11100-14-4	PCB-1268 (AROCLOR 1268)	mg/kg	0.24 U	0.21 U	0.22 U	4.2 U	2.1 U	2.2 U
<b>Total PCBs</b>				<b>1.7</b>	<b>1.9</b>	<b>3.8</b>	<b>52</b>	<b>46</b>	<b>47</b>

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Table 1  
PCB Laboratory Analytical Results - June 2021  
Farrington Street Former Manufactured Gas Plant Site  
Supplemental Remedial Investigation Work Plan

Location ID: Depth (ft): Sample ID: Sample Type: Matrix: SDG: Lab Sample ID: Sampled:				PCB-N 0 - 0.5 PCB-N_0.0-0.5_06092021 N SO 4602361361 460-236136-11 6/9/2021		PCB-N 0.5 - 1 PCB-N_0.5-1.0_06092021 N SO 4602361361 460-236136-12 6/9/2021		PCB-O 0 - 0.5 PCB-O_0.0-0.5_06102021 N SO 4602362101 460-236210-1 6/10/2021		PCB-O 0.5 - 1 PCB-O_0.5-1.0_06102021 N SO 4602362101 460-236210-2 6/10/2021		PCB-P 0 - 0.5 PCB-P_0.0-0.5_06092021 N SO 4602361361 460-236136-10 6/9/2021		PCB-Q 0 - 0.5 PCB-Q_0.0-0.5_06092021 N SO 4602361361 460-236136-8 6/9/2021	
Method	CAS_RN	Chemical Name	Unit												
SW8082A	12674-11-2	PCB-1016 (AROCLOR 1016)	mg/kg	0.23	U	0.023	U	0.021	U	0.021	U	0.022	U	0.12	U
SW8082A	11104-28-2	PCB-1221 (AROCLOR 1221)	mg/kg	0.23	U	0.023	U	0.021	U	0.021	U	0.022	U	0.12	U
SW8082A	11141-16-5	PCB-1232 (AROCLOR 1232)	mg/kg	0.23	U	0.023	U	0.021	U	0.021	U	0.022	U	0.12	U
SW8082A	53469-21-9	PCB-1242 (AROCLOR 1242)	mg/kg	0.23	U	0.023	U	0.021	U	0.021	U	0.022	U	0.12	U
SW8082A	12672-29-6	PCB-1248 (AROCLOR 1248)	mg/kg	0.23	U	0.023	U	0.021	U	0.021	U	0.022	U	0.12	U
SW8082A	11097-69-1	PCB-1254 (AROCLOR 1254)	mg/kg	0.23	U	0.023	U	0.021	U	0.021	U	0.022	U	0.12	U
SW8082A	11096-82-5	PCB-1260 (AROCLOR 1260)	mg/kg	4.5		1.9		0.043		0.038		0.47		3.4	
SW8082A	37324-23-5	PCB-1262 (AROCLOR 1262)	mg/kg	0.23	U	0.023	U	0.021	U	0.021	U	0.022	U	0.12	U
SW8082A	11100-14-4	PCB-1268 (AROCLOR 1268)	mg/kg	0.23	U	0.023	U	0.021	U	0.021	U	0.022	U	0.12	U
<b>Total PCBs</b>				<b>mg/kg</b>		<b>4.5</b>		<b>1.9</b>		<b>0.043</b>		<b>0.038</b>		<b>0.47</b>	

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Location ID: Depth (ft): Sample ID: Sample Type: Matrix: SDG: Lab Sample ID: Sampled:				PCB-Q 0.5 - 1 PCB-Q_0.5-1.0_06092021 N SO 4602361361 460-236136-9 6/9/2021	PCB-R 0 - 0.5 PCB-R_0.0-0.5_06092021 N SO 4602361361 460-236136-6 6/9/2021	PCB-R 0.5 - 0.9 PCB-R_0.5-0.9_06092021 N SO 4602361361 460-236136-7 6/9/2021	PCB-S 0 - 0.5 PCB-S_0.0-0.5_06092021 N SO 4602361361 460-236136-4 6/9/2021	PCB-S 0.5 - 1 PCB-S_0.5-1.0_06092021 N SO 4602361361 460-236136-5 6/9/2021	PCB-T 0 - 0.5 PCB-T_0.0-0.5_06092021 N SO 4602361361 460-236136-1 6/9/2021
Method	CAS_RN	Chemical Name	Unit						
SW8082A	12674-11-2	PCB-1016 (AROCOLOR 1016)	mg/kg	0.023	U	0.55	U	0.65	U
SW8082A	11104-28-2	PCB-1221 (AROCOLOR 1221)	mg/kg	0.023	U	0.55	U	0.65	U
SW8082A	11141-16-5	PCB-1232 (AROCOLOR 1232)	mg/kg	0.023	U	0.55	U	0.65	U
SW8082A	53469-21-9	PCB-1242 (AROCOLOR 1242)	mg/kg	0.023	U	0.55	U	0.65	U
SW8082A	12672-29-6	PCB-1248 (AROCOLOR 1248)	mg/kg	0.023	U	0.55	U	0.65	U
SW8082A	11097-69-1	PCB-1254 (AROCOLOR 1254)	mg/kg	0.023	U	0.55	U	0.65	U
SW8082A	11096-82-5	PCB-1260 (AROCOLOR 1260)	mg/kg	0.91		13		25	
SW8082A	37324-23-5	PCB-1262 (AROCOLOR 1262)	mg/kg	0.023	U	0.55	U	0.65	U
SW8082A	11100-14-4	PCB-1268 (AROCOLOR 1268)	mg/kg	0.023	U	0.55	U	0.65	U
<b>Total PCBs</b>				<b>mg/kg</b>		<b>0.91</b>		<b>13</b>	

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Farrington Street Former Manufactured Gas Plant Site  
Supplemental Remedial Investigation Work Plan

Location ID: Depth (ft): Sample ID: Sample Type: Matrix: SDG: Lab Sample ID: Sampled:				PCB-U 0 - 0.5 PCB-U_0.0-0.5_06092021 N SO 4602361361 460-236136-2 6/9/2021		PCB-U 1 - 1.5 PCB-U_1.0-1.5_06092021 N SO 4602361361 460-236136-3 6/9/2021		PCB-V 0 - 0.5 PCB-V_0.0-0.5_06112021 N SO 4602363211 460-236321-2 6/11/2021		PCB-W 0 - 0.5 PCB-W_0.0-0.5_06112021 N SO 4602363211 460-236321-3 6/11/2021		PCB-X 0 - 0.5 PCB-X_0.0-0.5_06112021 N SO 4602363211 460-236321-1 6/11/2021		PCB-AA 0 - 0.5 PCB-AA_0.0-0.5_06102021 N SO 4602362101 460-236210-15 6/10/2021	
Method	CAS_RN	Chemical Name	Unit												
SW8082A	12674-11-2	PCB-1016 (AROCLOR 1016)	mg/kg	0.023	U	0.023	U	0.021	U	0.02	U	0.021	U	0.03	U
SW8082A	11104-28-2	PCB-1221 (AROCLOR 1221)	mg/kg	0.023	U	0.023	U	0.021	U	0.02	U	0.021	U	0.03	U
SW8082A	11141-16-5	PCB-1232 (AROCLOR 1232)	mg/kg	0.023	U	0.023	U	0.021	U	0.02	U	0.021	U	0.03	U
SW8082A	53469-21-9	PCB-1242 (AROCLOR 1242)	mg/kg	0.023	U	0.023	U	0.021	U	0.02	U	0.021	U	0.03	U
SW8082A	12672-29-6	PCB-1248 (AROCLOR 1248)	mg/kg	0.023	U	0.023	U	0.021	U	0.02	U	0.021	U	0.03	U
SW8082A	11097-69-1	PCB-1254 (AROCLOR 1254)	mg/kg	0.023	U	0.023	U	0.021	U	0.02	U	0.021	U	0.03	U
SW8082A	11096-82-5	PCB-1260 (AROCLOR 1260)	mg/kg	0.11		0.021	J	0.62		0.3		0.083		0.28	
SW8082A	37324-23-5	PCB-1262 (AROCLOR 1262)	mg/kg	0.023	U	0.023	U	0.021	U	0.02	U	0.021	U	0.03	U
SW8082A	11100-14-4	PCB-1268 (AROCLOR 1268)	mg/kg	0.023	U	0.023	U	0.021	U	0.02	U	0.021	U	0.03	U
<b>Total PCBs</b>				<b>mg/kg</b>		<b>0.11</b>		<b>0.021</b>		<b>0.62</b>		<b>0.3</b>		<b>0.083</b>	

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Location ID: Depth (ft): Sample ID: Sample Type: Matrix: SDG: Lab Sample ID: Sampled:				PCB-AA 0.5 - 1 PCB-AA_0.5-1.0_06102021		PCB-AB 0 - 0.5 PCB-AB_0.0-0.5_06102021		PCB-AB 0.5 - 1 PCB-AB_0.5-1.0_06102021		PCB-AC 0 - 0.5 PCB-AC_0.0-0.5_06102021		PCB-AC 0.5 - 1 PCB-AC_0.5-1.0_06102021		PCB-AD 0 - 0.5 PCB-AD_0.0-0.5_06102021	
Method	CAS_RN	Chemical Name	Unit												
SW8082A	12674-11-2	PCB-1016 (AROCLOR 1016)	mg/kg	0.027	U	0.031	U	0.024	U	0.023	U	0.021	U	0.027	U
SW8082A	11104-28-2	PCB-1221 (AROCLOR 1221)	mg/kg	0.027	U	0.031	U	0.024	U	0.023	U	0.021	U	0.027	U
SW8082A	11141-16-5	PCB-1232 (AROCLOR 1232)	mg/kg	0.027	U	0.031	U	0.024	U	0.023	U	0.021	U	0.027	U
SW8082A	53469-21-9	PCB-1242 (AROCLOR 1242)	mg/kg	0.027	U	0.031	U	0.024	U	0.023	U	0.021	U	0.027	U
SW8082A	12672-29-6	PCB-1248 (AROCLOR 1248)	mg/kg	0.027	U	0.031	U	0.024	U	0.023	U	0.021	U	0.027	U
SW8082A	11097-69-1	PCB-1254 (AROCLOR 1254)	mg/kg	0.027	U	0.031	U	0.63		0.023	U	0.021	U	0.027	U
SW8082A	11096-82-5	PCB-1260 (AROCLOR 1260)	mg/kg	0.22		0.12		0.59		0.49		0.56		0.51	
SW8082A	37324-23-5	PCB-1262 (AROCLOR 1262)	mg/kg	0.027	U	0.031	U	0.024	U	0.023	U	0.021	U	0.027	U
SW8082A	11100-14-4	PCB-1268 (AROCLOR 1268)	mg/kg	0.027	U	0.031	U	0.024	U	0.023	U	0.021	U	0.027	U
<b>Total PCBs</b>				<b>mg/kg</b>		<b>0.22</b>		<b>0.12</b>		<b>1.22</b>		<b>0.49</b>		<b>0.56</b>	

Notes:

U = compound not detected above laboratory detection limit

J = estimated value

mg/kg = milligrams per kilogram



Table 1  
PCB Laboratory Analytical Results - June 2021  
Farrington Street Former Manufactured Gas Plant Site  
Supplemental Remedial Investigation Work Plan

Location ID: Depth (ft): Sample ID: Sample Type: Matrix: SDG: Lab Sample ID: Sampled:				PCB-AD 0.5 - 1 PCB-AD_0.5-1.0_06102021		PCB-AE 0 - 0.5 PCB-AE_0.0-0.5_06102021		PCB-AE 0 - 0.5 PCB-AE_0.0-0.5_06102021-D		PCB-AE 0.5 - 1 PCB-AE_0.5-1.0_06102021		PCB-AF 0 - 0.5 PCB-AF_0.0-0.5_06102021		PCB-AF 0.5 - 1 PCB-AF_0.5-1.0_06102021	
				N		N		FD		N		N		N	
				SO		SO		SO		SO		SO		SO	
				4602362101		4602362101		4602362101		4602362101		4602362101		4602362101	
				460-236210-9		460-236210-5		460-236210-6		460-236210-7		460-236210-3		460-236210-4	
				6/10/2021		6/10/2021		6/10/2021		6/10/2021		6/10/2021		6/10/2021	
Method	CAS_RN	Chemical Name	Unit												
SW8082A	12674-11-2	PCB-1016 (AROCLOR 1016)	mg/kg	0.022	U	0.023	U	0.023	U	0.021	U	0.031	U	0.022	U
SW8082A	11104-28-2	PCB-1221 (AROCLOR 1221)	mg/kg	0.022	U	0.023	U	0.023	U	0.021	U	0.031	U	0.022	U
SW8082A	11141-16-5	PCB-1232 (AROCLOR 1232)	mg/kg	0.022	U	0.023	U	0.023	U	0.021	U	0.031	U	0.022	U
SW8082A	53469-21-9	PCB-1242 (AROCLOR 1242)	mg/kg	0.022	U	0.023	U	0.023	U	0.021	U	0.031	U	0.022	U
SW8082A	12672-29-6	PCB-1248 (AROCLOR 1248)	mg/kg	0.022	U	0.023	U	0.023	U	0.021	U	0.031	U	0.022	U
SW8082A	11097-69-1	PCB-1254 (AROCLOR 1254)	mg/kg	0.022	U	0.023	U	0.023	U	0.021	U	0.031	U	0.022	U
SW8082A	11096-82-5	PCB-1260 (AROCLOR 1260)	mg/kg	0.66		0.33	J	0.55		0.9		0.55		0.85	
SW8082A	37324-23-5	PCB-1262 (AROCLOR 1262)	mg/kg	0.022	U	0.023	U	0.023	U	0.021	U	0.031	U	0.022	U
SW8082A	11100-14-4	PCB-1268 (AROCLOR 1268)	mg/kg	0.022	U	0.023	U	0.023	U	0.021	U	0.031	U	0.022	U
<b>Total PCBs</b>				<b>mg/kg</b>		<b>0.66</b>		<b>0.33</b>		<b>0.55</b>		<b>0.9</b>		<b>0.55</b>	

Notes:

U = compound not detected above laboratory detection limit

J = estimated value

mg/kg = milligrams per kilogram

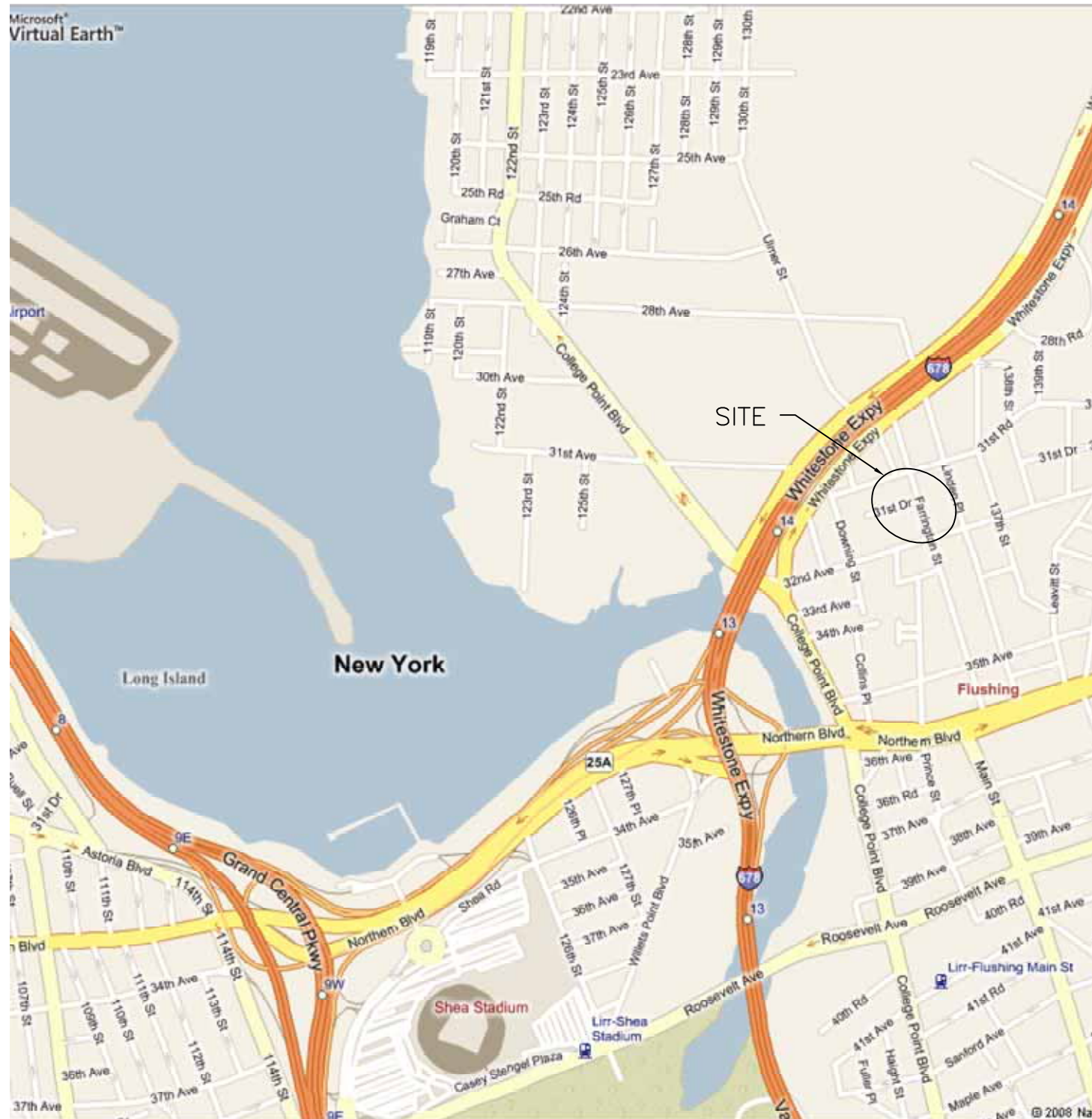
Table 2  
Sampling Location Rationale  
Farrington Street Former Manufactured Gas Plant Site  
Supplemental Remedial Investigation Work Plan

Scope of Work	Proposed Boring Location	Approximate Depth of Boring (feet bgs)	Co-Located Scope of Work
Geotechnical Boring Locations	SB-201	25	PCB Site Characterization
	SB-202	25	None
	SB-203	25	None
	SB-204	25	PCB Site Characterization
	SB-205	28	PCB Site Characterization
	SB-206	28	PCB Site Characterization
	SB-207	24	None
	SB-208	25	None
	SB-209	49	None
	SB-210	37	None
	SB-211	24	PCB Site Characterization
	SB-212	24	PCB Site Characterization
	SB-213	24	PCB Site Characterization
	SB-214	37	None
	SB-215	29	None
	SB-86	29	None
	SB-87	34	None
	SB-88	24	PCB Site Characterization
	SB-89	24	None
	SB-90	26	None
	SB-91	24	None
	SB-92	25	PCB Site Characterization
	SB-93	49	PCB Site Characterization
	SB-94	37	PCB Site Characterization
	SB-95	25	PCB Site Characterization
	SB-96	37	PCB Site Characterization
	SB-97	29	PCB Site Characterization
	SB-98	35	PCB Site Characterization NAPL Delineation
	SB-99	25	PCB Site Characterization

Table 2  
Sampling Location Rationale  
Farrington Street Former Manufactured Gas Plant Site  
Supplemental Remedial Investigation Work Plan

Scope of Work	Proposed Boring Location	Approximate Depth of Boring (feet bgs)	Co-Located Scope of Work
Replacement/ Supplemental Groundwater Monitoring Well	MW-31	17	None
	MW-32	21	None
	MW-33	35	None
	MW-34	35	None
	MW-35	35	None
	MW-36	35	None
NAPL Delineation Location	SB-183	25	PCB Site Characterization
	SB-185	25	PCB Site Characterization
	SB-187	25	PCB Site Characterization
	SB-178	25	PCB Site Characterization
	SB-170	25	PCB Site Characterization
	SB-147	24	PCB Site Characterization
	SB-108	35	PCB Site Characterization
	SB-111	35	PCB Site Characterization
	SB-98	35	PCB Site Characterization Geotechnical Investigation
	SB-155	25	PCB Site Characterization
	SB-164	25	PCB Site Characterization
	SB-173	25	PCB Site Characterization
Waste Characterization Sampling Location	SB-110	4	PCB Site Characterization
	SB-113	4	PCB Site Characterization
	SB-116	4	PCB Site Characterization
	SB-213	4	PCB Site Characterization
	SB-210	4	PCB Site Characterization
	SB-96	4	PCB Site Characterization
	SB-135	4	PCB Site Characterization
	SB-207	4	PCB Site Characterization
	SB-154	4	PCB Site Characterization
	SB-156	4	PCB Site Characterization
	SB-159	4	PCB Site Characterization
	SB-161	4	PCB Site Characterization
	SB-172	4	PCB Site Characterization
	SB-174	4	PCB Site Characterization
	SB-202	4	PCB Site Characterization
	SB-186	4	PCB Site Characterization

## **FIGURES**



BASE MAP FROM MSN LIVE  
SEARCH MAPS 2008.



FIGURE 1

CONSOLIDATED EDISON  
FORMER FARRINGTON STREET GAS WORKS  
QUEENS, NEW YORK

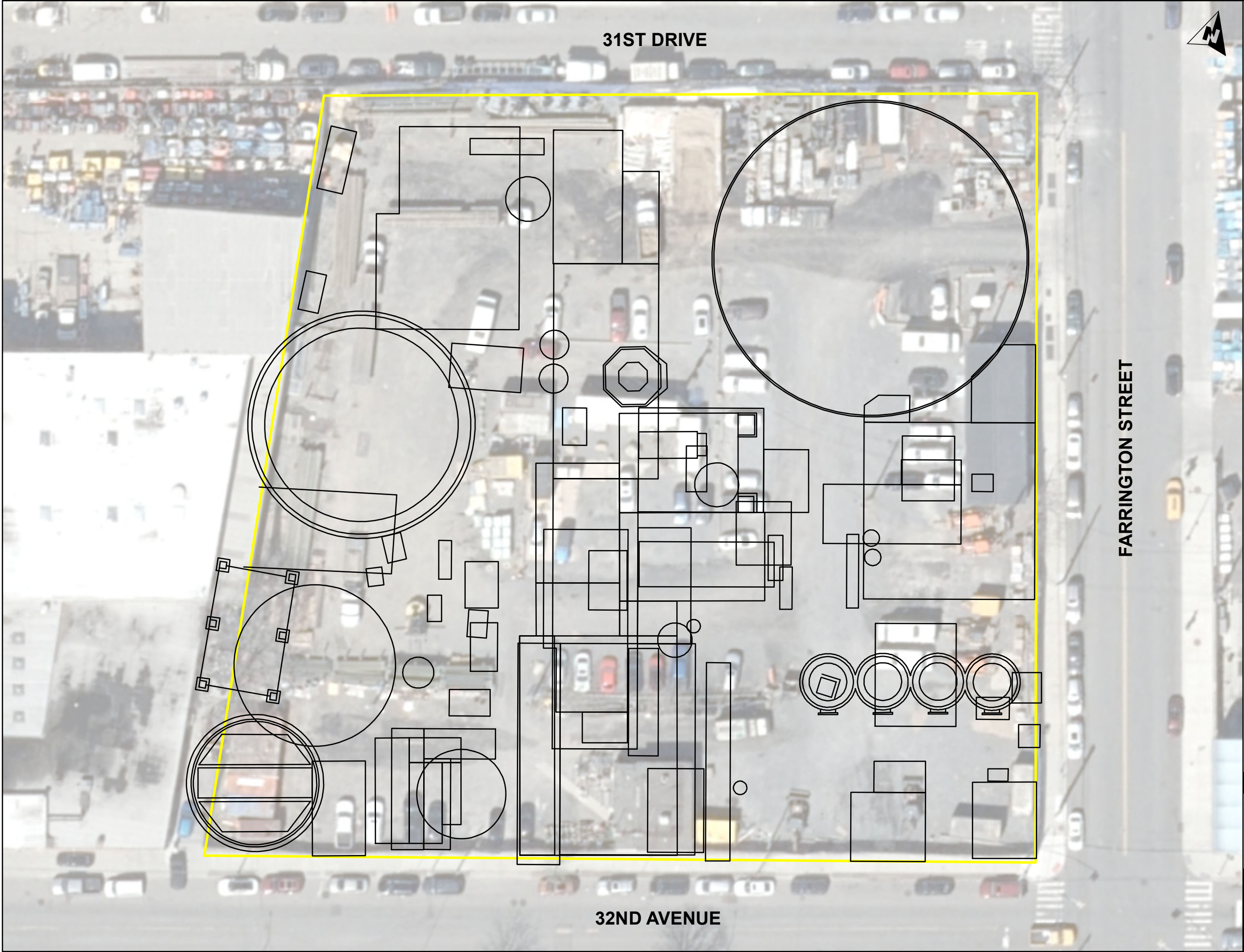
SITE LOCATION MAP

**PARSONS**

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, N.Y. 13212, PHONE: 315-451-9560



FILE NAME: C:\Users\p005740b\OneDrive - Parsons Corp\Documents\ArcGIS\Farrington\SR\WP\Figure 2 - Former MGP Structures.mxd  
CREATED BY: S. Liberatore 7/3/2021



- HISTORICAL STRUCTURES
- ▭ PARCEL 2 BOUNDARY

NOTES:

1) LOCATIONS OF HISTORIC STRUCTURES BASED ON FIGURE 4 IN THE SITE HISTORY REPORT (ENSR, 2003) WITH ONE EXCEPTION. THE LOCATION OF THE FORMER STEEL GAS HOLDER IN THE NORTHEASTERN PORTION OF PARCEL 2 HAS BEEN SHIFTED BASED ON OBSERVATIONS DURING THE SITE CHARACTERIZATION. ALL HISTORIC STRUCTURES AND ROAD LOCATIONS SHOULD BE CONSIDERED APPROXIMATE IN THIS FIGURE.

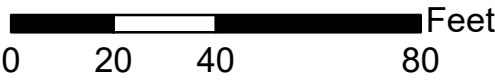




FIGURE 2
CONSOLIDATED EDISON OF NEW YORK FARRINGTON STREET FORMER MGP SUPPLEMENTAL INVESTIGATION WORK PLAN FLUSHING, NEW YORK
APPROXIMATE LOCATIONS OF HISTORICAL STRUCTURES 1897 - 1951
<b>PARSONS</b> 301 PLAINFIELD ROAD, SUITE 350, SYRACUSE NY 13212





 PARCEL 2 BOUNDARY  
 WASTE CHARACTERIZATION SAMPLING AREAS

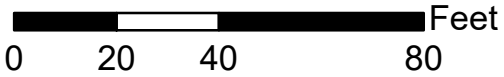


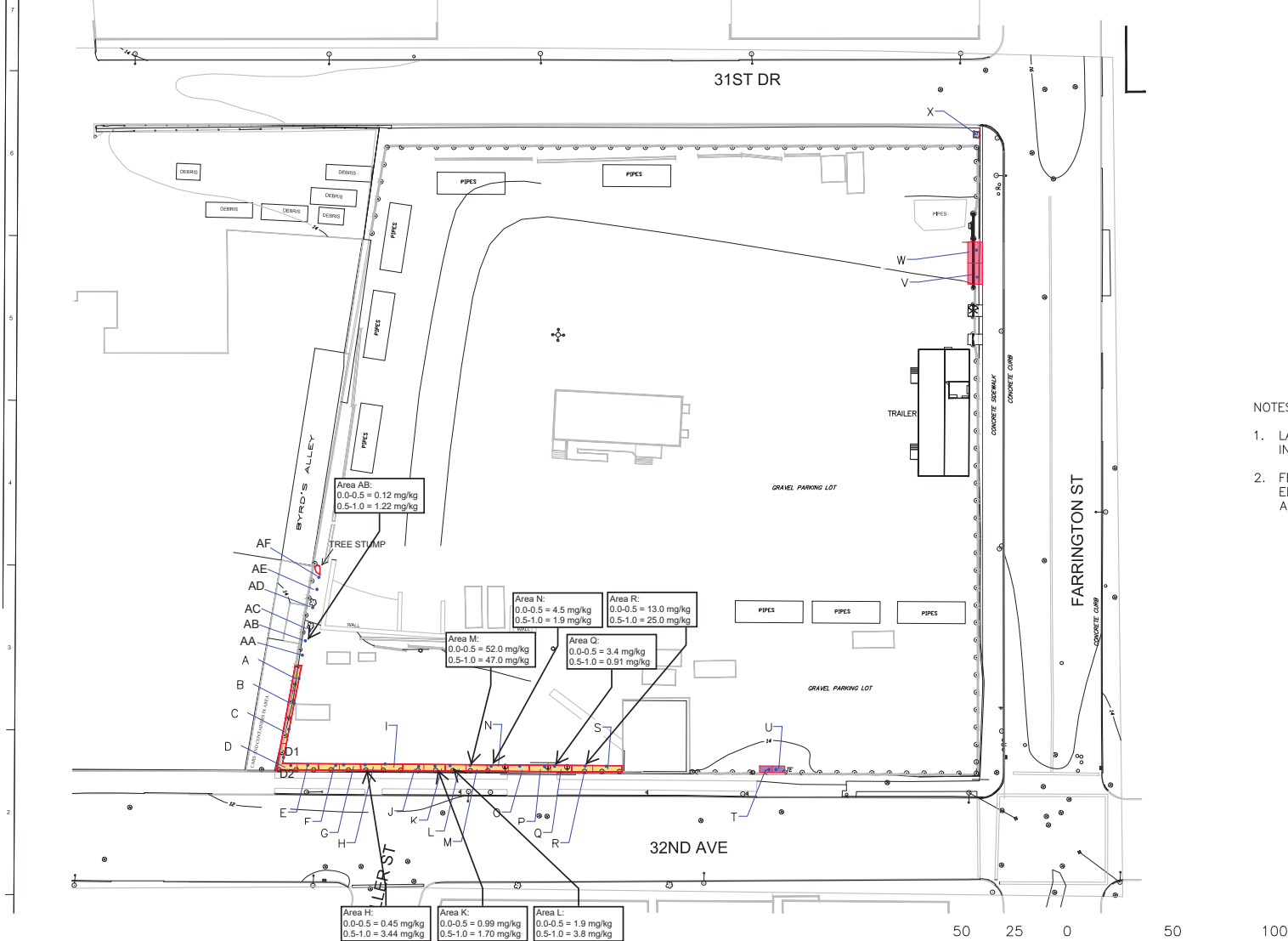
FIGURE 3

CONSOLIDATED EDISON OF NEW YORK  
FARRINGTON STREET FORMER MGP  
SUPPLEMENTAL INVESTIGATION  
WORK PLAN  
FLUSHING, NEW YORK

WASTE CHARACTERIZATION  
SAMPLING AREAS

**PARSONS**  
301 PLAINFIELD ROAD, SUITE 350, SYRACUSE NY 13212





LEGEND:

- REGRADE SAMPLING AREA (AREAS AF THROUGH S)
- CURB SAMPLING (AREA T & U)
- ENTRANCE GATE SAMPLING AREA (AREAS V & W)
- TREE STUMP AREA (AREA X)
- SAMPLING COMPLETED
- PRELIMINARY ANALYTICAL DATA RECEIVED

NOTES:

1. LABELS ATTRIBUTED TO GRID CELLS INDICATE THE AREA IN-SITU SAMPLE ANALYTICAL DATA WILL BE ATTRIBUTED TO.
2. FENCE POST LOCATIONS SHOWN AS SPECIFIED IN CON EDISON DRAWING 604291-00 AND DO NOT REPRESENT AS-BUILT CONDITIONS AT THE SITE.

FIGURE 4

CON EDISON  
FORMER FARRINGTON STREET WORKS  
QUEENS, NEW YORK

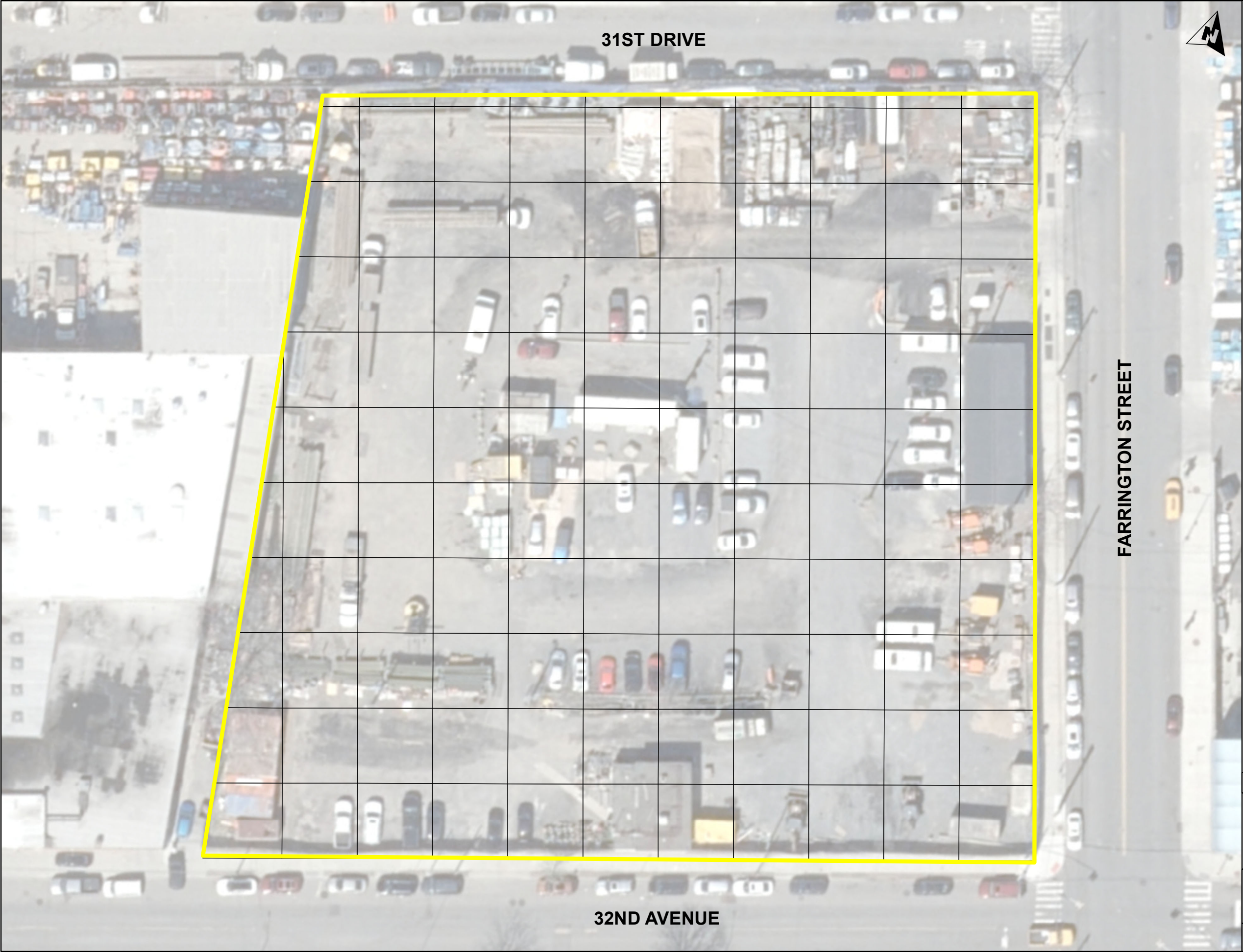
PCB SAMPLING LOCATIONS AND SUMMARY OF  
ANALYTICAL RESULTS > 1 MG/KG

**PARSONS**

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NEW YORK 13212 PHONE:315-451-9560



SCALE: 1"=50'



- PARCEL 2 BOUNDARY
- PCB SITE CHARACTERIZATION SAMPLING GRID

NOTES:  
1) GRID DIMENSIONS ARE APPROXIMATELY 30-FEET BY 30-FEET.  
2) DISCRETE SAMPLING LOCATION WITHIN EACH GRID DEPENDENT UPON NEED FOR CO-LOCATION OF HAND CLEARANCE FOR COMPLETION OF ADDITIONAL TASK (E.G., ADVANCEMENT OF GEOTECHNICAL BORING), AND SITE ACCESS CONDITIONS.

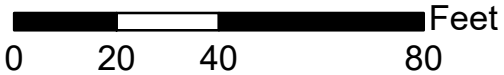


FIGURE 5

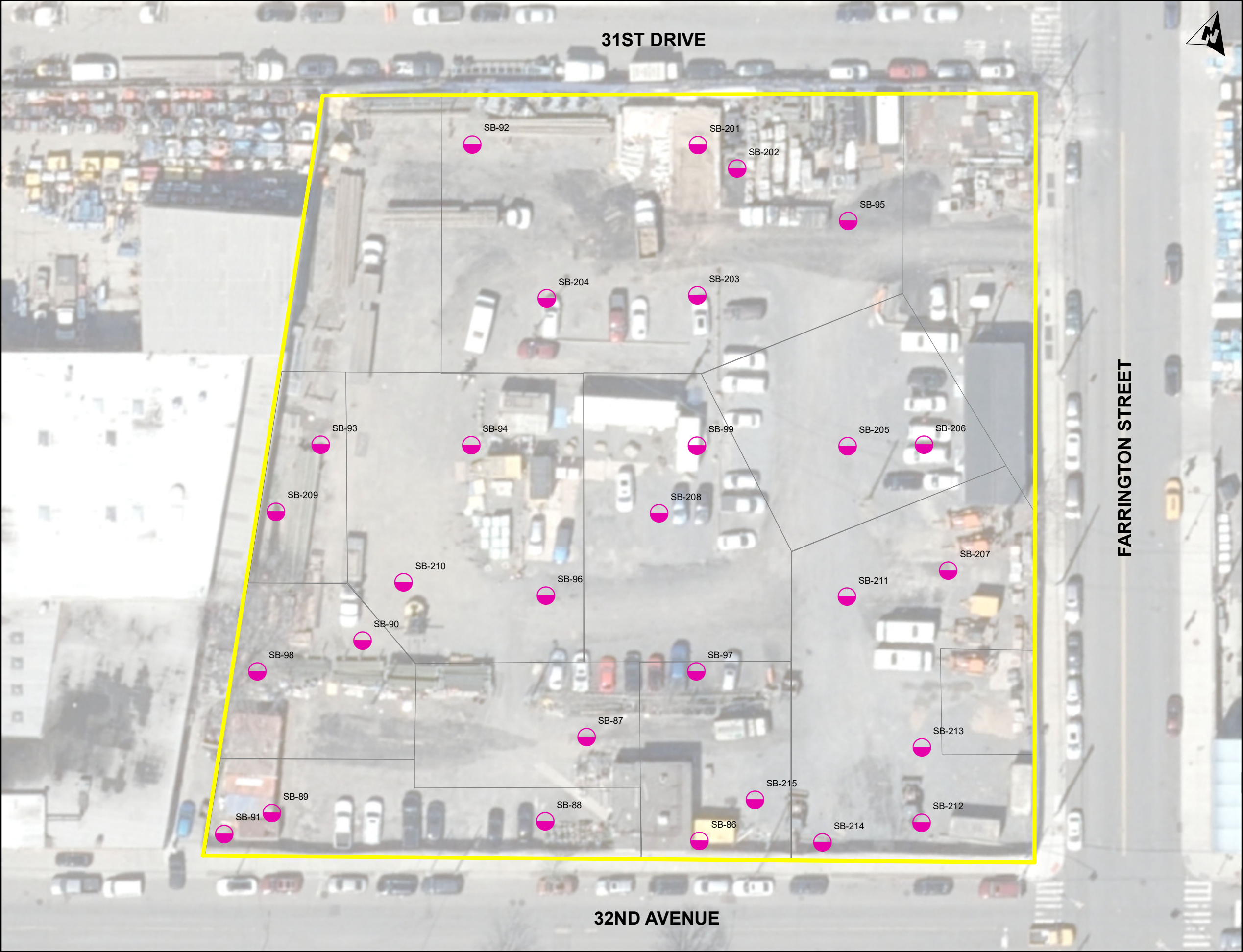
CONSOLIDATED EDISON OF NEW YORK  
FARRINGTON STREET FORMER MGP  
SUPPLEMENTAL INVESTIGATION  
WORK PLAN  
FLUSHING, NEW YORK

PCB SITE CHARACTERIZATION  
SAMPLING AREAS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE NY 13212



FILE NAME: C:\Users\p005740b\OneDrive - Parsons Corp\Documents\ArcGIS\Farrington\SR\WPI\Figure 6 - Geotechnical Boring.mxd  
CREATED BY: S. Liberator 7/21/2021



- PARCEL 2 BOUNDARY
- PROPOSED GEOTECHNICAL BORING LOCATIONS
- PRELIMINARY REMEDIATION BOUNDARIES

NOTES:

1) PRELIMINARY REMEDIAL BOUNDARIES BASED OFF OF SOIL BORING OBSERVATIONS GENERATED DURING SITE CHARACTERIZATION AND REMEDIAL INVESTIGATION FIELD ACTIVITIES, AS DOCUMENTED IN THE SITE CHARACTERIZATION REPORT (PARSONS, 2015) AND THE REMEDIAL INVESTIGATION REPORT (PARSONS, 2015). BOUNDARIES SUBJECT TO CHANGED BASED ON COLLECTION AND ANALYSIS OF ADDITIONAL SITE DATA.

2) PROPOSED BORING LOCATIONS BASED ON KNOWN SUBSURFACE CONDITIONS ENCOUNTERED DURING PREVIOUS SOIL BORING ACTIVITIES, AND ON AREAS OF APPARENT SUBSURFACE CONDITION DATA GAPS.

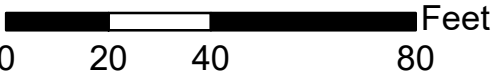


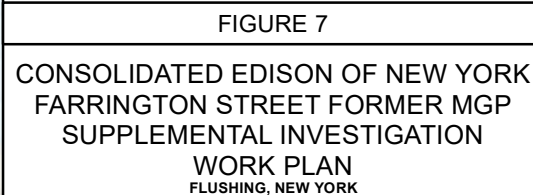
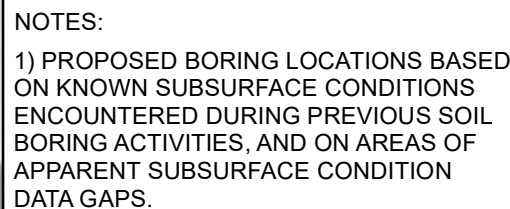
FIGURE 6

CONSOLIDATED EDISON OF NEW YORK  
FARRINGTON STREET FORMER MGP  
SUPPLEMENTAL INVESTIGATION  
WORK PLAN  
FLUSHING, NEW YORK

PROPOSED GEOTECHNICAL  
BORING LOCATIONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE NY 13212





## PROPOSED NAPL DELINEATION BORING LOCATIONS





- PROPOSED REPLACEMENT/NEW MONITORING WELL LOCATION
- LOST/DAMAGED GROUNDWATER MONITORING WELL LOCATIONS
- EXISTING GROUNDWATER MONITORING WELL LOCATIONS
- PARCEL 2 BOUNDARY

NOTES:  
1) PROPOSED MONITORING LOCATIONS BASED ON FORMER MONITORING WELL LOCATIONS AND ADDITIONAL LOCATIONS FOR THE PURPOSE OF DOWNGRAIDENT MONITORING OF GROUNDWATER CONDITIONS.

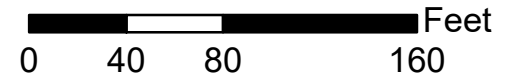


FIGURE 8

CONSOLIDATED EDISON OF NEW YORK  
FARRINGTON STREET FORMER MGP  
SUPPLEMENTAL INVESTIGATION  
WORK PLAN  
FLUSHING, NEW YORK

PROPOSED GROUNDWATER  
MONITORING WELL REPLACEMENT  
AND INSTALLATION LOCATIONS