180 EAST 132ND STREET

BRONX, NEW YORK

Remedial Action Work Plan

Revision 1

NYSDEC BCP Number: C203118

Prepared for:

Carnegie Management
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Prepared by:

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MAY 2021

CERTIFICATIONS

I, Ernest Hanna, certify[1] that I am currently a NYS registered professional engineer and that this Remedial Action Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

065440-01	May 13, 2021	
NYS Professional Engineer #	Date	Signature

It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.

[1] - Certify is not intended to mean or imply a guarantee or warranty; rather it is defined as a statement of a professional opinion based on the information, data and/or facts gathered and reviewed as part of the investigation.

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LIST OF ACRONYMS

Acronym	Definition
AOC	Area of Concern
AGV	Air Guidance Values
ASTM	American Society for Testing and Materials
AWQS	Ambient Water Quality Standards
BCA	Brownfield Clean-up Agreement
BGS	Below Ground Surface
BOA	Brownfield Opportunity Area
CAMP	Community Air Monitoring Plan
CHASP	Construction Health and Safety Plan
Cr^{6+}	Hexavalent Chromium
CSOP	Contractors Site Operation Plan
CVOCs	Chlorinated Volatile Organic Compounds
DCR	Declaration of Covenants and Restrictions
DER	Department of Environmental Remediation
DNAPL	Dense Non-Aqueous Phase Liquid
DUSR	Data Usability Summary Report
ECs/ICs	Engineering and Institutional Controls
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FER	Final Engineering Report
ft	Feet
ft^2	Square Feet
GC	General Contractor
GPS	Global Positioning System
GZA	GZA GeoEnvironmental of New York
HASP	Health and Safety Plan
HAZWOPER	Hazardous Waste Operations and Emergency Response
IRM	Interim Remedial Measure
LNAPL	Light Non-Aqueous Phase Liquid
MCG/M^3	Micrograms per Cubic Meter
NOC	Notice of Completion
NYC VCP	New York City Voluntary Clean-up Program
NYC DEP	New York City Department of Environmental Protection
NYC DOB	New York City Department of Buildings
NYC DOF	New York City Department of Finance
NYC OER	New York City Office of Environmental Remediation
NYCRR	New York Codes Rules and Regulations
NYS DEC	New York State Department of Environmental Conservation

NYS DOH	New York State Department of Health
NYS DOT	New York State Department of Transportation
NYS ELAP	Environmental Laboratory Accreditation Program
ORP	Oxygen Release Compound
OSHA	United States Occupational Health and Safety Administration
PBS	Petroleum Bulk Storage
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethene
PE	Professional Engineer
PID	Photo Ionization Detector
PPE	Personal Protective Equipment
PPM	Parts Per Million
QA/QC	Quality Assurance/ Quality Control
QEP	Qualified Environmental Professional
QHHEA	Qualitative Human Health Exposure Assessment
RAOs	Remedial Action Objectives
RAWP	Remedial Action Work Plan
RECs	Recognized Environmental Condition
RI	Remedial Investigation
RIR	Remedial Investigation Report
RMZ	Residual Management Zone
Sanborn	Sanborn Fire Insurance Map
SCOs	Soil Cleanup Objectives
SCG	Standards, Criteria and Guidance
SMP	Site Management Plan
SHWS	Solid Hazardous Waste Site
SMMP	Soil/ Materials Management Plan
SQ FT	Square Feet
SVI	Soil Vapor Intrusion (Guideline)
SVOC	Semi-Volatile Organic Compound
TCE	Trichloroethene
TOGS	Technical and Operational Guidance Series
UST	Underground Storage Tank
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

Carnegie Management Inc. (Carnegie) has entered into an agreement with the New York State Department of Environmental Conservation (NYSDEC) under the New York State Brownfield Cleanup Program (NYS BCP) as a "volunteer" to investigate and remediate a property located at 180 East 132nd Street in the Mott Haven section of the Bronx, New York (Site). The Site is designated by NYSDEC as BCP Site No. C203118. A remedial investigation (RI) was conducted in accordance with the October 2019 Revised Remedial Investigation Work Plan prepared by Goldberg-Zoino Associates of New York P.C. d/b/a GZA GeoEnvironmental of New York (GZA) and approved by NYSDEC in a letter dated October 22, 2019. The remedial action described in this document addresses the findings of the remedial investigation and provides for the protection of public health and the environment consistent with the intended property use, complies with applicable environmental standards, criteria, and guidance, and conforms to applicable laws and regulations.

Site Description/Physical Setting/Site History

The Site is located at 180 East 132nd Street in the Mott Haven section in the Bronx, New York and is identified as Block 2260 and Lot 180 on the New York City Tax Map. **Figure 1** shows the Site location. The Site is approximately 29,449-square feet (SF) and is bounded by vacant NYDOT property and the Pulaski Park to the north, Amtrak and railroads to the south, vacant NYDOT property to the east, and the Harlem River Terminal Station historical landmark to the west. A map of the site is shown in **Figure 2**. Currently, the Site is leased by Flatrate Moving and contains an asphalt-paved parking lot on which trucks are stored.

Summary of the Remedial Investigation

The RI work was performed from February 2018 through February 2020.

The following is a brief presentation of the RI findings[1]:

[1] Sample and well locations noted herein are depicted in **Figures 3 through 5**.

1. Ground Surface elevation of the property ranges from 10 to 22 feet (ft) above Mean Sea Level.

2. Depth below ground surface to groundwater ranges from 3 to 13 ft at the Site.

3. Groundwater flow is generally to the southeast-south beneath the Site.

4. Sound bedrock was not encountered during the remedial investigation; however, explorations were stopped at sampler refusal which could be apparent bedrock. The stratigraphy of the Site consists of primarily fill material underlain by weathered bedrock, then sound bedrock likely consisting of Fordham Gneiss. Refusal was encountered at several locations during the installation of the boring and monitoring wells.

5. The soil exceedances encountered at the Site in 2020 indicate metals and polycyclic aromatic hydrocarbon (PAH) exceedances of the NYSDEC Part 375 UUSCO (Unrestricted Use Soil Cleanup Objective [SCO]) and RRSCO (Restricted Residential SCO). PAHs were not detected in soil above the applicable standards in 2020 deeper than 2 ft below ground surface (bgs). Metals were detected above the RRSCO standards to 14.5 ft bgs. In 2018 and 2019, various additional organochlorine pesticides, SVOCs, volatile organic compounds (VOCs), and total metals exceeded the NYS Unrestricted Use Soil Cleanup Objectives. There were no exceedances of PCBs. The extent of soil impacts has been delineated through the RI sampling activities.

6. Groundwater impacts observed at the Site in 2020 included metals and PAHs exceeding the AWQS. The metals exceedances of iron, manganese, magnesium, and sodium are considered background and are not contaminants of concern for remediation. The combined observations of the 2018 temporary wells and 2020 monitoring wells RI sampling activities are sufficient to delineate groundwater impacts at the Site.

7. Soil vapor samples collected in 2020 exhibited benzene and tetrachloroethene detected at low levels. Soil vapor intrusion is not considered a concern at the Site and will not require remedial action.

Qualitative Human Health Exposure Assessment (QHHEA)

The QHHEA identified soil and groundwater as impacted media and a possible source of contaminants of potential concern (COPCs). Residents, commercial workers, and business patrons are not a likely receptor population for dermal or ingestion pathways. Construction or utility workers conducting intrusive subsurface activates could be exposed to PAHs and metals in historic urban fill, and Site-specific COPCs in soils and groundwater. Off-site exposure is not considered to be a concern for soil or groundwater.

Summary of the Remedy

The proposed remedial action for the Site is a Track 1 cleanup with an option for Track 2. The proposed remedial action will consist of the following:

1. Establishment of Track 1 Part 375 Unrestricted-Use SCOs;
2. Excavation and disposal of soils to a depth of about 10 to 15 feet to accommodate building foundations and Site infrastructure. The total quantity of soil/fill expected to be excavated and disposed off-Site is approximately 14,200 cubic yards (CY) or 17,000 tons (using a 1.2 tons/CY conversion factor). This volume of material approximates the entirety of the Site from surface to final construction depth. In situ waste characterization will be performed and waste facility disposal approval will be obtained prior to excavation of soils. This will reduce the need to stockpile soils and facilitate direct off-loading for transport and disposal. Disposal facilities will be reported to NYSDEC when they are identified and prior to the start of remedial action.
3. If necessary, should the Track 1 clean-up be deemed not readily feasible and the Track 2 clean-up implemented, the remedy shall also include:
    a. Maintenance of an engineered composite cover over the entire Site, consisting of the proposed Site-building concrete floor slab, to prevent human exposure to residual contaminated soil/fill remaining under the Site;
    b. Preparation of a Site Management Plan for long term management of residual contamination, as may be required by an Environmental Easement, including plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting; and
    c. Recording of an Environmental Easement, including Institutional Controls, to prevent future exposure to residual contamination remaining at the Site [a copy of the Environmental Easement will be provided in the Site Management Plan ("SMP")];

4. Submittal of a Final Engineering Report (FER) that describes the remedial activities, certifies that the remedial requirements have been achieved, describes all Engineering and Institutional Controls to be implemented at the Site, and describes any deviation from the RAWP;
5. All responsibilities associated with the Remedial Action, including permitting requirements and pretreatment requirements, will be addressed in accordance with all applicable Federal, State and local rules and regulations.

REMEDIAL ACTION WORK PLAN

1.0 INTRODUCTION

Carnegie Management Inc. (Carnegie) has entered into an agreement with the New York State Department of Environmental Conservation (NYSDEC) under the New York State Brownfield Cleanup Program (NYS BCP) as a "volunteer" to investigate and remediate a property located at 180 East 132nd Street in the Mott Haven section of the Bronx, New York (Site; NYSDEC Site No. C203118). **Figures 1 and 2** present the Site Location Plan and Site Plan, respectively.

A Remedial Investigation (RI) has been performed by Goldberg-Zoino Associates of New York P.C. d/b/a GZA GeoEnvironmental of New York (GZA), to compile and evaluate Site data and information necessary to develop this Remedial Action Workplan in a manner that will render the Site protective of public health and the environment consistent with the contemplated end use. The final remedy for the Site is anticipated to be Cleanup Track 1, Unrestricted-Use SCOs.

This Remedial Action Work Plan (RAWP) summarizes the nature and extent of contamination as determined from data gathered during the Remedial Investigation (RI), performed between February 2018 and February 2020 and is subject to the limitations described in **Appendix A**. It provides an evaluation of a Track 1 Cleanup and other applicable Remedial Action alternatives, their associated costs, and the recommended and preferred remedy. The remedy described in this document is consistent with the procedures defined in DER-10 and complies with applicable standards, criteria, and guidance. The remedy described in this document also complies with applicable Federal, State, and local laws, regulations, and requirements.

1.1 SITE LOCATION AND DESCRIPTION

The Site is located at 180 East 132nd Street in the Mott Haven section in the Bronx, New York and is identified as Block 2260 and Lot 180 on the New York City Tax Map. **Figure 1** shows the Site location. The Site is approximately 29,449-square feet (SF) and is bounded by vacant NYDOT property and the Pulaski Park to the north, Amtrak and railroads to the south, vacant NYDOT property to the east, and the Harlem River Terminal Station historical landmark to the west. A map of the Site is shown in **Figure 2**. Currently, the Site is leased by Flatrate Moving and contains an asphalt-paved parking lot on which trucks are stored.

1.2 PROPOSED REDEVELOPMENT PLAN

The proposed future use of the Site will consist of development of a five-story commercial building and two 15-story residential buildings. Layout of the proposed site development is presented in **Appendix B**. The current zoning designation is M1-5/R8A (MX-1 Mixed Use-1, Port Morris, BX), M3-1. The proposed use is consistent with existing zoning for the property.

The development plan includes the construction of one five-story commercial building and two 15-story residential buildings. The construction will also include a cellar for parking. Excavation will extend down to approximately 10-15 feet bgs for the cellar, footings and foundation. The total new residential gross floor area will be 170,246 SF, the total new office gross floor area will be 22,964 SF, and the total gross floor area of the building including the cellar will be 222,659 SF. The total commercial zoning floor area will be 177,283 SF. The two residential buildings will be 176 feet in height and comprised of 15 floors each. The commercial building will be 70 feet in height and comprised of five floors. The cellars for car parking will be constructed beneath the buildings. The cellars will be accessible by car ramps and will be about 9’ 10” below grade. Each residential building will have four units per floor, with the exception of the first floor which will have common spaces. The buildings do not require setback from the property line and will therefore be the same width as the property. There will be approximately 86’6” between the two residential buildings.

1.3 DESCRIPTION OF SURROUNDING PROPERTY

Adjoining properties are generally commercial. To the north is a NYSDOT property, currently vacant and overgrown. This property extends to the east of the Site. North of the NYSDOT property is the Pulaski Park. South of the property are railroad tracks on property owned by Amtrak, and south of this property is the Bronx Waste Management Center. West of the Site is the Harlem River Terminal Station, which is now a historical landmark and is not currently used. Other vicinity properties not adjoining are generally residential and commercial. There are no schools, hospitals, or day care centers within a 250 to 500-foot radius around the Site.

2.0 DESCRIPTION OF REMEDIAL INVESTIGATION FINDINGS

The Site was investigated in accordance with the scope of work presented in the NYSDEC-approved Remedial Investigation (RI) Work Plan. The investigation was conducted between

February 2018 and February 2020. The RIWP was submitted to NYSDEC on October 21, 2019 and approved by NYSDEC on October 22, 2019. A Phase I Environmental Assessment was conducted by GZA in October 2017. The findings from the investigation were summarized in the October 2019 RIWP and are provided below in **Section 2.2.2**. The Remedial Investigation Report (RIR) is included in **Appendix C** for reference.

2.1 SUMMARY REMEDIAL INVESTIGATIONS PERFORMED

The remedial investigation summarized here was conducted between February 2018 and February 2020.

2.1.1 RI Activities and Samples Collected

The following remedial investigation activities were performed at the Site:

- Geophysical survey;
- Advancement of 21 soil borings and the collection of 52 grab soil samples;
- Installation of five temporary groundwater wells and four permanent monitoring wells and collection of nine groundwater samples; and
- Installation of 11 subsurface soil gas points and the collection of 11 sub-surface soil gas samples.

2.1.2 Chemical Analytical Work Performed

The following chemical analyses were performed on the samples collected during the RI:

		Monitoring Well	Soil Boring	Temporary Well	Subsurface Soil Gas
		Groundwater	Soil	Groundwater	Soil Gas
Analytical Method	VOCs Method TO-15	-	-	-	11
	TCL VOCs Method 8260	3	32	6	-
	TCL SVOCs Method 8270	3	53	6	-
	TAL Metals Method 6010/7470	3	53	6	-
	Pesticides Method 8081	3	30	6	-
	PCBs Method 8080	3	30	6	-
	1,4-Dioxane Method 8270-SIM	3	9	-	-
	PFCs Method 537	3	9	-	-

2.1.3 Geophysical and Well Surveys

A geophysical survey was conducted by Goldstar Environmental Services, Inc., of Phillipsburg, New Jersey, on January 31, 2018. Goldstar used Ground Penetrating Radar (GPR) and a metal

detector to identify USTs, utilities, and anomalies. The survey identified one storm sewer system and three large metallic anomalies, suggestive of concrete rebar. The geophysical report completed by Goldstar is included in **Appendix D**.

2.1.4 Documentation

GZA developed the following environmental work plans and reports for the Site:

- Phase I Environmental Site Assessment – 82 Willis Avenue, Bronx, New York. November 15, 2017.
- Phase II Work Plan – 180 East 132nd Street, Block 2260, Lot 180, Bronx, New York. December 22, 2017.
- Remedial Investigation Report – 180 East 132nd Street, Block 2260, Lot 180, Bronx, New York. November 2, 2018.
- Brownfield Cleanup Program Application. GZA, December 4, 2018.
- Remedial Investigation Work Plan – 180 East 132nd Street, Block 2260, Lot 180, Bronx, New York, NYSDEC Site No. C203118. October 21, 2019.
- Brownfield Cleanup Program Citizen Participation Plan – 180 East 132nd Street, Block 2260, Lot 180, Bronx, New York, NYSDEC Site No. C203118. September 3, 2019.
- Remedial Investigation Report – 180 East 132nd Street, Block 2260, Lot 180, Bronx, New York, NYSDEC Site No. C203118. June 2020, revised July 2020.

A summary of RI findings can be found in **Table 1**, **2**, and **3**, and on **Figure 3**, **4**, and **5**. For more detailed results, consult the RIR included in **Appendix C**.

2.2 SITE HISTORY

The following sections outline the Site History, including previous environmental assessments of the Site and surrounding area.

2.2.1 Past Uses and Ownership

Past uses and ownership is discussed below in **Section 2.4.1**.

2.2.2 Phase I and Remedial Investigation Reports

Carnegie Management provided a Phase I Environmental Site Assessment report to GZA that had been prepared by Singer Environmental Group LTD on April 20, 2005. At the time of the inspection in 2005, a building was still present on the Site. An aboveground storage tank (AST) was observed and was noted to be in good condition. Asbestos in the building was in good/fair condition. Recommendations of the site inspection included testing paint of the building for lead, using ground penetrating radar/magnetometer to assess the presence of underground storage tanks (USTs), and conducting a Phase II Subsurface Investigation to assess the presence of soil/groundwater contamination. There is no indication as to whether these activities were conducted.

GZA visited the Site on October 18, 2017. Carnegie Management accompanied GZA during the Site reconnaissance. No evidence of aboveground or underground storage tanks was observed. There were some small garbage containers on site and no dumpsters. There were no floor drains, trenches, or sumps, no open pipe discharges, no oil/water separator systems, no hydraulic equipment, and no production or monitoring wells. At the time of the reconnaissance, the property was leased by FlatRate Moving Company, and the asphalt-paved lot was used to store the company vans. To the rear of the Site (the southeast portion of the property), drums containing vehicle-related materials such as diesel, urea, and engine coolant were staged. These drums were staged on pavement that was in good condition, and there were no pathways to the subsurface nearby. Additional containers contained degreasers, spray paints, and gasoline. A few of these containers exhibited staining on and around the storage area. Grease drums in this area were significantly stained. One storm water drain on the property leads to another directly adjacent, which then leads to the Harlem River. The water and sanitary services currently supplied to the property are public systems.

The Remedial Investigation Reports listed in **Section 2.1.4** are summarized here.

GZA performed an initial scope of work in 2018, which included:

1. Conducted a Site inspection to identify AOCs and physical obstructions (i.e. structures, buildings, etc.);
2. Installed 15 soil borings across the project Site, and collected 31 soil samples for chemical analysis from the soil borings to evaluate soil quality;

3. Installed five (5) groundwater temporary wells across the Site to establish groundwater flow and collected groundwater samples from each well for chemical analysis to evaluate groundwater quality; and

4. Installed eight (8) soil vapor probes around the Site perimeter and collected samples for chemical analysis from each vapor probe.

The 2018 RI Report is included as Appendix E of the 2020 RI Report located in **Appendix C.**

GZA performed the following additional scope of work in 2020:

1. Advanced four (4) soil borings along the centerline of the Site from the northwest to southeast Site boundary, and collected 10 soil samples for chemical analysis from the soil borings to evaluate soil quality;

2. Converted four (4) soil borings into permanent groundwater monitoring wells on the Site to establish groundwater flow and collected groundwater samples from each well for chemical analysis to evaluate groundwater quality; and

3. Installed three (3) soil gas sample probes within the Site and collected samples for chemical analysis from each vapor probe.

Summary of Environmental Findings

1. Ground Surface elevation of the property ranges from 10 to 22 feet above Mean Sea Level.

2. Depth below ground surface to groundwater ranges from 3 to 13 feet at the Site.

3. Groundwater flow is generally to the southeast-south beneath the Site.

4. Sound bedrock was not encountered during the remedial investigation; however, explorations were stopped at sampler refusal which could be apparent bedrock. The stratigraphy of the Site consists of primarily fill material underlain by weathered bedrock, then sound bedrock likely consisting of Fordham Gneiss. Refusal was encountered at several locations during the installation of the boring and monitoring wells.

5. Soil samples collected during the 2020 RI exhibited exceedances of both the NY Unrestricted Use Soil Cleanup Objectives and the NY Restricted Residential Use Soil Cleanup Objectives for semivolatile organic compounds (SVOCs), specifically polycyclic

aromatic hydrocarbons (PAHs), and metals. These compounds include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, total barium, total mercury, and total nickel. There were no exceedances of polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs) or per- and polyfluoroalkyl substances (PFAS).

6. Groundwater samples collected during the RI showed exceedances of the NYS Ambient Water Quality Standards in SVOCs (PAHs only) and total metals. There were no exceedances of pesticides, PCBs, PFAS, 1,4-dioxane or VOCs.

7. Soil vapor samples collected during the RI showed exceedances of the NYS Department of Health Matrix Standards in one sample during the 2018 investigation. The two compounds exceeding standards were cis-1,2-dichloroethene and vinyl chloride. There were no exceedances in 2020.

2.3 GEOLOGICAL AND HYDROGEOLOGICAL CONDITIONS

Based on a review of the U.S. Geological Survey 7.5-minute Topographic Quadrangle Map titled Central Park 2013, the Site is at an approximate elevation of 20 feet above mean sea level. The Site slopes downward towards the northwest. The nearest body of water is the Harlem River, which is located approximately 500 feet to the southwest of the Site.

2.3.1 Stratigraphy/Hydrogeology

Based on a review of map data obtained from the United States Geologic Survey (USGS) of New York state, bedrock near the Site consists of Precambrian (middle Proterozoic) Fordham Gneiss. The surface soil is classified as variable urban land material. The primary materials observed in the soil borings are sand, gravel, and fill material likely resulting from backfill placed on the Site when the building was removed. Based on local topography and surface water flow patterns, the inferred direction of groundwater flow is to the southeast-south. However, the localized direction of groundwater flow near the Site might vary because of underground utilities, subsurface preferential pathways, variations in weather or heterogeneous geological and/or anthropogenic conditions.

A table of water level data for the monitoring wells is included below.

Monitoring Well Details					
Location	**Date**	**Installation Depth (ft)**	**Depth to Groundwater (ft)**	**Latitude/ Longitude**	**Measuring Point Elevation (ft above MSL)**
MW-1	1/27/2020	20	9.02	40°48'16.81"/ 73°55-32.61"	11.72
MW-2	1/27/2020	9	NE	40°48'15.23"/ 73°55'29.03"	19.29
MW-3	1/27/2020	14.5	9.46	40°48'16.25"/ 73°55'31.41"	16.66
MW-4	1/27/2020	12	12.21	40°48'15.88"/ 73°55'30.56"	18.25

The property slopes down to the northwest and groundwater depth varies across the Site. The depth to groundwater is approximately 8 ft bgs toward the western end of the Site, and approximately 13 ft bgs at higher elevations toward the eastern end of the site. A map of groundwater level elevations with groundwater contours and inferred flow lines is shown in **Figure 6**. Groundwater flow is to the southeast-south based on the potentiometric surface measured during the 2018 RI[2].

2.4 CONTAMINATION CONDITIONS

The following sections detail the contamination conditions that exist at the Site in soil, groundwater, and air.

2.4.1 Summary of Past Uses of Site and Areas of Concern

The NYC Department of Finance website lists the following deed transfers:

Date	**Party 1**	**Party 2**
11/16/1978	Penn Central Transportation Company	Owasco River Railway
6/12/1990	Commissioner/Finance/NYC	City of New York

[2] Two out of the four permanent monitoring wells installed in 2020 did not have sufficient groundwater volume available to gauge.

1/28/2003	82 Willis Avenue Corp/Nominee	82 Willis Avenue Realty, LLC
1/2/2004	82 Willis Avenue Realty, LLC	82, Inc.
9/27/2005	82, Inc.	82 Willis, LLC

The historical Sanborn maps provided by Environmental Data Resources (EDR) indicate the Site had one building sometime prior to 1891 until 2006. The building had been used for a passenger station and offices for the adjacent railroad.

The AOCs identified for this site include:

- A NYC E-Designation pertaining to potential hazardous materials contamination and noise attenuation.
- A drum storage area exhibiting significant staining.

2.4.2 Identification of Standards, Criteria and Guidance

The following Standards, Criteria, and Guidance documents were used to assess contamination conditions:

- 6 NYCRR Part 375 - Environmental Remediation Programs;
- TOGS 1.1.1 - Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations; and
- NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York.

2.4.3 Summary of Soil Data

A summary table of 2020 data for chemical analyses performed on soil samples is included in **Table 1** and is shown on **Figure 3.** The following sections discuss the soil analytical results for each RI.

2.4.3.1 2018 RI Summary

The soil samples from borings SB-1 through SB-10 were analyzed for organochlorine pesticides, PCBs, SVOCs, VOCs, and total metals. The soil samples from borings SB-11 through SB-15 were analyzed for polycyclic aromatic hydrocarbons (PAHs) and total metals. Soil analytical results were compared to the NY Unrestricted Use Soil Cleanup Objectives (UUSCO or NYS-UNRES) and the NY Restricted Residential Use Soil Cleanup Objectives (RRSCO or NYS-RESR). For organochlorine pesticides, 4,4'-DDT exceeded the UUSCO of 0.0033 milligrams per kilogram

(mg/kg) in the samples collected from borings SB-3, SB-4, SB-5, SB-6, SB-7, SB-9, and SB-10 from 0.5-2 ft bgs, with the exception of SB-5, which also exceeding the UUSCO at its deeper soil sample (9.5-10). 4,4'-DDE exceeded the NYS-UNRES of 0.0033 mg/kg in the samples collected from SB-3, SB-4, SB-5, SB-6, SB-9, and SB-10 at 1-2 ft bgs, with the exception of SB-5, which also exceeded the value at its deeper soil sample (9.5-10). 4,4'-DDD exceeded the NYS-UNRES standard of 0.0033 mg/kg in soil samples collected from SB-5, SB-6, SB-9, and SB-10 at 1-2 ft bgs.

Various SVOCs and PAHs exceeded both the RRSCO and the UUSCO. Benzo(a)anthracene exceeded its RRSCO of 1 mg/kg in samples SB-5 (1-2), SB-7 (0.5-1), and SB-13 (3-4), which had concentrations of 1.7, 6.6, and 1.2 mg/kg, respectively. Benzo(a)pyrene exceeded the RRSCO of 1 mg/kg in these same samples, with concentrations of 1.7, 7, and 1.2 mg/kg, respectively. Benzo(b)fluoranthene exceeded the standards of 1 mg/kg in SB-5 (1-2) and (9.5-10), SB-7 (0.5-1), SB-12 (0-1), and SB-13 (3-4). These results ranged from 1.1 to 7 mg/kg. Benzo(k)fluoranthene exceeded the UUSCO standard of 0.8 mg/kg and the RRSCO standard of 1 mg/kg in SB-7 (0.5-1) with a result of 2.8 mg/kg. Chrysene exceeded the standards of 1 mg/kg in SB-5 (9.5-10), SB-7 (0.5-1), and SB-13 (3-4), with results of 1.6, 6.8, and 1.2 mg/kg, respectively. Dibenzo(a,h)anthracene exceeded the standards of 0.33 mg/kg in SB-7 (0.5-1) with a result of 1 mg/kg. Indeno(1,2,3-cd) pyrene exceeded the standards of 0.5 mg/kg in SB-5 (1-2) and (9.5-10), SB-7 (0.5-1), SB-12 (0-1), and SB-13 (3-4). Results ranged from 0.56 to 4.8 mg/kg.

Barium exceeded both the standards of 350 mg/kg in SB-2 (10.5-11) with a result of 865 mg/kg. Copper exceeded the UUSCO standard of 50 mg/kg in SB-1 (0-2), SB-2 (10.5-11), SB-3 (7-7.5), SB-4 (13-13.5), SB-6 (1-2), SB-7 (0.5-1), SB-10 (1-2), SB-11 (5-5.5), SB-13 (3-4), and SB-14 (9-10). These values ranged from 50.4 to114 mg/kg. Lead exceeded the UUSCO standard of 63 mg/kg in SB-1 (0-2), SB-3 (1-2), SB-4 (1-2), SB-5 (1-2) and (9.5-10), SB-6 (1-2), SB-7 (0.5-1), SB-9 (1-2), SB-10 (1-2), SB-11 (5-5.5), SB-13 (1-2) and (3-4), SB-14 (0-1), and SB-15 (0-1). These values ranged from 67.1 to 315 mg/kg. Mercury exceeded the UUSCO standard of 0.18 mg/kg in SB-3 (1-2), SB-4 (1-2), SB-5 (1-2) and (9.5-10), SB-7 (0.5-1), SB-8 (10.5-11), SB-10 (1-2), SB-13 (1-2), (3-4), and (5-6), and SB-15 (0-1). These values ranged from 0.18 to 0.795 mg/kg. Four samples exceeded the RRSCO for mercury of 0.81 mg/kg in addition to the UUSCO, SB-1 (0-2), SB-6 (1-2), SB-9 (1-2), and SB-11 (5-5.5). These values ranged from 0.83 to 1.2

mg/kg. Nickel exceeded the UUSCO standard of 30 mg/kg in SB-14 (9-10) with a result of 45.8 mg/kg, and it exceeded both the UUSCO standard and the RRSCO standard of 140 mg/kg in SB-4 (13-13.5), with a result of 164 mg/kg. Zinc exceeded the UUSCO standard of 109 mg/kg in SB-1 (0-2), SB-3 (1-2), SB-4 (1-2) and (13-13.5), SB-5 (1-2), SB-6 (1-2), SB-7 (0.5-1), SB-9 (1-2), SB-10 (1-2), SB-11 (5-5.5), SB-13 (1-2), (3-4), and (5-6), SB-14 (9-10), and SB-15 (0-1). These values ranged from 110 to374 mg/kg.

Xylenes exceeded the UUSCO standard of 0.26 mg/kg in SB-10 (1-2) with a result of 0.47 mg/kg. PCBs were either undetected or did not exceed the standards in any of the samples. Many of the pesticide, SVOC, and metal exceedances were found in samples taken from shallower depths, indicative of the presence of fill material.

2.4.3.2 2020 RI Summary

The soil samples from borings SB-1A, SB-2A, SB-3A, and SB-4A were analyzed for organochlorine pesticides, PCBs, SVOCs, VOCs, total metals, total mercury and PFAS. Soil analytical results were compared to the UUSCO / NYS-UNRES) and the RRSCO / NYS-RESR. The soil sample analytical results are discussed in detail below.

SVOCs, specifically PAHs, were detected above the applicable standards in the shallow soil sample (1.5-2 ft bgs) collected from soil boring SB-2A. Benzo(a)anthracene was detected above the RRSCO and UUSCO standards (both 1 mg/kg) at a concentration of 5.8 mg/kg, benzo(a)pyrene was detected above the RRSCO and UUSCO standards (both 1 mg/kg) at a concentration of 4.8 mg/kg, benzo(b)fluoranthene was detected above the RRSCO and UUSCO standards (both 1 mg/kg) at a concentration of 8.7 mg/kg, benzo(k)fluoranthene was detected above the RRSCO and UUSCO standards (1 mg/kg and 0.8 mg/kg, respectively) at a concentration of 2.7 mg/kg, chrysene was detected above the RRSCO and UUSCO standards (both 1 mg/kg) at a concentration of 6 mg/kg, dibenzo(a,h)anthracene was detected above the RRSCO and UUSCO standards (both 0.33 mg/kg) at a concentration of 0.94 mg/kg, and indeno(1,2,3-cd)pyrene was detected above the RRSCO and UUSCO standards (both 0.5 mg/kg) at a concentration of 4.3 mg/kg. SVOCs were not detected above either soil standard for the deep sample (8-8.5 ft bgs) for SB-2A or for the remaining samples collected from SB-1A, SB-3A and SB-4A.

Metals were not detected above the RRSCO standard in SB-1A, SB-2A, SB-3A and SB-4A. Copper was detected above the UUSCO standard (50 mg/kg) in the shallow soil sample (1.5-2 ft bgs) collected from soil boring SB-2A at a concentration of 178 mg/kg, and the deep soil sample (14-14.5 ft bgs) collected from soil boring SB-4A at a concentration of 55.6 mg/kg. Lead was detected above the UUSCO standard (63 mg/kg) in the shallow soil sample (1.5-2 ft bgs) collected from soil boring SB-2A at a concentration of 126 mg/kg. Nickel was detected above the UUSCO standard (30 mg/kg) in the deeper soil sample (13-13.5 ft bgs) collected from soil boring SB-3A at a concentration of 51.9 mg/kg, and the deeper soil sample (14-14.5 ft bgs) collected from soil boring SB-4A at a concentration of 60 mg/kg. Zinc was detected above the UUSCO standard (109 mg/kg) in the shallow soil sample (1.5-2 ft bgs) collected from soil boring SB-2A at a concentration of 193 mg/kg, and the deeper soil sample (14-14.5 ft bgs) collected from soil boring SB-4A at a concentration of 235 mg/kg.

VOCs, pesticides, and PCBs were not detected above the applicable standards in samples collected from SB-1A, SB-2A, SB-3A and SB-4A. PFAS compounds were not detected in samples collected from SB-1A, SB-2A, SB-3A and SB-4A above 1 microgram per kilogram (ug/kg), the concentration threshold outlined in the *January 2020 NYSDEC Guidelines for Sampling and Analysis of PFAS Under NYSDEC's Part 375 Remedial Programs*.

2.4.4 Summary of Groundwater Data

A summary table of 2020 data for chemical analyses performed on groundwater samples is included in **Table 2** and is shown on **Figure 4.** The results were compared to the NY Ambient Water Quality Standards (NY-AWQS). Exceedances of the applicable groundwater standards are discussed below.

2.4.4.1 2018 RI Summary

Five (5) temporary monitoring well groundwater samples were analyzed for organochlorine pesticides, PCBs, SVOCs, VOCs, total metals, and dissolved metals. Benzo(a)anthracene exceeded the standard of 0.002 micrograms per liter (ug/L) in each of the samples and the duplicate. Benzo(a)pyrene exceeded the standard of 0.002 ug/L in TW-1 and TW-3, with values of 0.05 and 0.13 ug/L, respectively. Benzo(b)fluoranthene exceeded the standard of 0.002 ug/L in samples TW-1, TW-4, TW-5, TW-6, the duplicate sample, and the field blanks. The field blanks

indicated a concentration of 0.03 ug/L. TW-6 exhibited exceedances of benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene at concentrations of 0.05, 0.07, and 0.07 ug/L, respectively.

Several of the total metals exceeded their standards in the groundwater samples. Antimony exceeded the standard of 3 ug/L in TW-5 and TW-6, with concentrations of 3.59 and 9.68 ug/L, respectively. TW-5 exhibited exceedances of arsenic (42.64 ug/L), barium (3,680 ug/L), beryllium (5.41 ug/L), cadmium (12.89 ug/L), copper (1,044 ug/L) and zinc (2,126 ug/L). Chromium exceeded the standard of 50 ug/L in TW-4 and TW-5, with results of 302.2 and 173.7 ug/L. Iron exceeded the standard of 300 ug/L in all samples, ranging from 1,660 to 130,000 ug/L. Lead exceeded the standard of 25 ug/L in TW-1, TW-4, TW-5, and TW-6, ranging from 34.22 to 8,526 ug/L. Magnesium exceeded the standard of 35,000 ug/L in TW-4 and TW-5, with values of 69,000 and 349,000 ug/L, respectively. Manganese exceeded the standard of 300 ug/L in all the samples, ranging from 310.8 to 10,740 ug/L. Mercury exceeded the standard of 0.7 ug/L in TW-6, with a concentration of 0.78 ug/L. Nickel exceeded the standard of 100 ug/L in TW-4 and TW-5, with results of 171.2 and 190.4 ug/L. Selenium exceeded the standard of 10 ug/L in TW-1, TW-4, and TW-5, ranging from 12.1 to 14.1 ug/L. Sodium exceeded the standard of 20,000 ug/L in each water sample collected, ranging from 80,700 ug/L to 229,000 ug/L. Thallium exceeded the standard of 0.5 ug/L in TW-4 and TW-5 with values of 0.52 ug/L and 1.47 ug/L.

Various dissolved metals exceeded the standards in the samples. Dissolved antimony exceeded the standard of 3 ug/L in TW-6, with a value of 11.25 ug/L. Dissolved iron exceeded the standard of 300 ug/L in the duplicate sample collected from TW-9, with a value of 382 ug/L. Dissolved magnesium exceeded the standard of 35,000 ug/L in TW-4 and TW-5, with values of 37,200 and 182,000 ug/L, respectively. Dissolved manganese exceeded the standard of 300 ug/L in TW-6 with a value of 1,031 ug/L. Dissolved sodium exceeded the standard of 20,000 ug/L in each of the samples, ranging from 85,600 to 233,000 ug/L.

Pesticides, PCBs, and VOCs in the groundwater samples were either undetected or detected at concentrations below the standards.

2.4.4.2 2020 RI Summary

Four (4) permanent monitoring wells were installed to be sampled. MW-2 and MW-4 were not sampled due to not encountering groundwater and insufficient volume, respectively.

Groundwater samples collected from MW-1 and MW-3 were analyzed for pesticides, PCBs, SVOCs, VOCs, total metals, 1,4-dioxane and PFAS. The duplicate sample, DUP02042020, was collected from MW-1.

SVOCs, specifically PAHs, were detected above the AWQS in both MW-1 and MW-3. Benzo(a)anthracene was detected above the AWQS (0.002 ug/L) at a concentration of 0.03 ug/L in MW-3, benzo(a)pyrene was detected above the AWQS (any detection) at a concentration of 0.02 ug/L in MW-3, benzo(b)fluoranthene was detected above the AWQS (0.002 ug/L) at a concentration of 0.04 ug/L in MW-3 and 0.01 ug/L in the duplicate sample collected from MW-1[3], benzo(k)fluoranthene was detected above the AWQS (0.002 ug/L) at a concentration of 0.02 ug/L in MW-3, chrysene was detected above the AWQS (0.002 ug/L) at a concentration of 0.01 ug/L in MW-3, and indeno(1,2,3-cd)pyrene was detected above the AWQS (0.002 ug/L) at a concentration of 0.03 ug/L in MW-3.

Total metals were detected above the AWQS in both MW-1 and MW-3. Iron was detected above the AWQS (300 ug/L) at a concentration of 2,970 ug/L in MW-1 and 8,810 ug/L in MW-3, magnesium was detected above the AWQS (35,000 ug/L) at a concentration of 68,600 ug/L in MW-1, manganese was detected above the AWQS (300 ug/L) at a concentration of 464.5 ug/L in MW-1 and 677.2 ug/L in MW-3, and sodium was detected above the AWQS (20,000 ug/L) at a concentration of 199,000 ug/L in MW-1 and 105,000 ug/L in MW-3. No other metals exceeded the AWQS in MW-1 or MW-3

Pesticides, PCBs, 1,4-dioxane, and VOCs were not detected above the AWQS in MW-1 and MW-3. PFAS compounds were not detected above 1 nanogram per liter (ng/L), the concentration threshold outlined in the *January 2020 NYSDEC Guidelines for Sampling and Analysis of PFAS Under NYSDEC's Part 375 Remedial Programs* in either monitoring well.

2.4.5 Summary of Soil Gas Data

[3] The field blank had a detection of 0.01 ug/L of benzo(b)fluoranthene, the concentration detected the duplicate sample of MW-1 may not be indicative of the groundwater impacts for that compound.

Soil vapor samples collected during the RI were compared to the New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York and Soil Vapor/Indoor Air decision matrices A through C (updated May 2017). A summary table of 2020 data for chemical analyses performed on the soil vapor samples is included in **Table 3** and shown on **Figure 5.**

2.4.5.1 2018 RI Summary

Only SG-3, collected in the northwest portion of the Site, exhibited exceedances of VOCs. At SG-3: cis-1,2-Dichloroethene was detected at a concentration of 20.1 micrograms per cubic meter (ug/m^3), exceeding the Matrix A Sub-slab Vapor Concentrations Criteria (SSVCC) of 6 ug/m^3; and vinyl chloride was detected at a concentration of 102 ug/m^3, exceeding the Matrix C SSVCC of 6 ug/m^3.

2.4.5.2 2020 RI Summary

Three soil gas samples were collected along the southwest side of the property. Benzene and tetrachloroethene was detected at low levels in the three samples, ranging from 1.46 to9.01 ug/m^3 and 2.59 to27.5 ug/m^3, respectively.

2.5 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT (QHHEA)

Environmental Media & Exposure Route	Human Exposure Assessment
Direct contact with surface soils (and incidental ingestion)	• People are not coming into contact because contaminated surface soils are currently covered with pavement. • People are not coming into contact because public access to the site, to areas with contaminated surface soils, is restricted by fencing and security. • People can come into contact if they trespass on the Site. • Off-Site exposure is not considered to be a concern.
Direct contact with subsurface soils (and incidental ingestion)	• People can come into contact if they complete ground-intrusive work at the Site. • Off-Site exposure is not considered to be a concern.
Ingestion of groundwater	• Contaminated groundwater is not being used for drinking water, as the area is served by the public water supply. • There are no known domestic water supply wells in the area. • Off-Site exposure is not considered to be a concern.
Direct contact with groundwater	• People can come into contact if they complete ground intrusive work at the site. • Off-site exposure is not considered to be a concern.
Inhalation of air (exposures related to soil vapor intrusion)	• Soil vapor intrusion is not considered a concern at the Site and the Site will not require remedial action. • Off-site exposure is not considered to be a concern.

2.6 REMEDIAL ACTION OBJECTIVES

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAOs) have been identified for this Site.

2.6.1 Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- .

2.6.2 Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

2.6.3 Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site.

DESCRIPTION OF REMEDIAL ACTION PLAN

2.7 EVALUATION OF REMEDIAL ALTERNATIVES

The goal of the remedy selection process is to select a remedy that is protective of human health and the environment taking into consideration the current, intended, and reasonably anticipated future use of the property. The remedy selection process begins by establishing RAOs for media in which chemical constituents were found in exceedance of applicable standards, criteria, and guidance values (SCGs). A remedy is then developed based on the following criteria:

- Protection of human health and the environment;
- Compliance with standards, criteria, and guidelines (SCGs);
- Short-term effectiveness and impacts;
- Long-term effectiveness and permanence;
- Reduction of toxicity, mobility, or volume of contaminated material;
- Implementability;
- Cost effectiveness;
- Community acceptance; and
- Land use.

The following Remedial Action standards, criteria, and guidance used to develop these remedial alternatives are described below:

- 6 NYCRR Part 375-6 Soil Cleanup Objectives

  These soil cleanup objectives are used to develop and implement remedial programs for soil and other media in the BCP

- NYSDEC Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations – TOGS 1.1.1

  This document provides a compilation of ambient water quality guidance values for use when there are no standards and includes the standards in 6 NYCRR 703.5; it was used to develop remedial alternatives.

- NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, May 2010

This guidance document provides an overview for the remediation process for the NYSDEC remedial programs, including the BCP.

- NYSDEC DER-31 Green Remediation, January 2011

  This guidance document provides an approach to remediating sites in the context of the larger environment and to promote the use of more sustainable remediation practices and technologies.

- New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan

  This document describes the protocol for real-time monitoring for VOCs and particulates at and around designated work areas when certain activities are in progress at contaminated sites.

Alternative 1

- Track 1 Part 375 Unrestricted Use SCOs, with an option to achieve Track 2 with Restricted Residential SCOs;
- Excavation of soils exceeding Unrestricted Use SCOs across the Site to approximately 10 to 15 feet bgs and approximately 73 feet wide by 404 feet longto accommodate building foundations and Site infrastructure. The total quantity of soil/fill expected to be excavated and disposed off-Site is approximately 14,200 cubic yards (CY) or 17,000 tons (using a 1.2 tons/CY conversion factor). This volume of material approximates the entirety of the Site from surface to final construction depth. In situ waste characterization will be performed and waste facility disposal approval will be obtained prior to excavation of soils. This will reduce the need to stockpile soils and facilitate direct off-loading for transport and disposal. Disposal facilities will be reported to NYSDEC when they are identified and prior to the start of remedial action. Excavated soil is expected to be non-hazardous. End point samples will be collected at a frequency of 1 per 900 ft^2 and along the sidewall at a frequency of 1 per 30 feet, for a total of 64 samples. The excavation plan is presented in **Figure 7**.
- Perform over-excavation to address soil contamination deeper than the 13-foot excavation.

Alternative 2

- Establishment of Track 4 SCOs as Part 375 Restricted-Residential SCOs;
- Excavation of soils from 10-15 feet bgs and placement of concrete slab cover as part of the building foundation.

- Maintenance of the cover system over the entire Site to prevent exposure to remaining contaminated soil, if present;
- Establishment of an approved SMP to provide long-term management of these engineering and institutional controls, including the performance of periodic inspections and certification that the controls are performing as they were intended; and
- Placement of an environmental easement to memorialize the remedial action and the Engineering and Institutional Controls to document that future owners of the site continue to maintain these controls as required.

The following is a detailed description of the alternatives analysis and remedy selection to address impacted media at the Site. As required, a minimum of two remedial alternatives (including a Track 1 scenario) are evaluated, as follows:

2.7.1 Protection of Human Health and the Environment

This criterion is an evaluation of the remedy's ability to protect public health and the environment, and an assessment of the way risks posed through each existing or potential pathway of exposure are prevented, reduced, or controlled through the removal, treatment, and implementation of Engineering Controls or Institutional Controls (ECs/ICs). Protection of public health and the environment must be achieved for all approved remedial actions.

The two alternatives proposed will protect human health and the environment by eliminating or reducing levels of contamination, and/or reducing potential pathways of exposure.

2.7.2 Compliance with Standards, Criteria, and Guidelines (SCGs)

The proposed remedies for the Site aim to ultimately achieve relevant and/or applicable standards and soil cleanup objectives. **Alternative 1** has demonstrated effectiveness for removing contaminated soils. **Alternative 2** has demonstrated effectiveness for removing contaminated soils. Engineering controls, such as surface covers over the entire Site to prevent exposure to remaining contaminated soil/fill, if present.

2.7.3 Short-Term Effectiveness and Impacts

This evaluation criterion assesses the effects of the alternative during the construction and implementation phase until remedial action objectives are met. Under this criterion, alternatives are evaluated with respect to their effects on public health and the environment during implementation of the remedial action, including protection of the community, environmental

impacts, time until remedial response objectives are achieved, and protection of workers during remedial actions.

Alternative 1 and **Alternative 2** will have negligible short-term impacts.

2.7.4 Long-Term Effectiveness and Permanence

This evaluation criterion addresses the results of a remedial action in terms of its permanence and quantity/nature of waste or residual contamination remaining at the Site after response objectives have been met, such as permanence of the remedial alternative, magnitude of remaining contamination, adequacy of controls including the adequacy and suitability of ECs/ICs that may be used to manage contaminant residuals that remain at the Site and assessment of containment systems and ICs that are designed to prevent exposures to contaminants, and long-term reliability of EC.

Each of the proposed on-Site remedies has the potential to effectively and permanently reduce subsurface contamination in soil. Confirmatory monitoring is included in each of the proposed remedies. **Alternative 1** would achieve long-term effectiveness and permanence related to on-Site contamination by removing urban historic fill. **Alternative 2** would achieve long-term effectiveness and permanence related to on-Site contamination by removing urban historic fill to the building excavation depth and by capping areas where soil contamination above the Restricted-Residential SCO remains.

2.7.5 Reduction of Toxicity, Mobility, or Volume of Contaminated Material

This evaluation criterion assesses the remedial alternative's use of remedial technologies that permanently and significantly reduce toxicity, mobility, or volume of contaminants as their principal element. The following is the hierarchy of source removal and control measures that are to be used to remediate a Site, ranked from most preferable to least preferable: removal and/or treatment, containment, elimination of exposure and treatment of source at the point of exposure. It is preferred to use treatment or removal to reduce contaminants at a Site, reduce the total mass of toxic contaminants, cause irreversible reduction in contaminants mobility, or reduce of total volume of contaminated media.

The proposed remedies reduce toxicity, mobility, and/or volume of contamination via removal. **Alternative 1** and **Alternative 2** would remove the toxicity, mobility, and volume of Site-specific contaminants through physical removal.

2.7.6 Implementability

This evaluation criterion addresses the technical and administrative feasibility of implementing an alternative and the availability of various services and materials required during its implementation, including technical feasibility of construction and operation, reliability of the selected technology, ease of undertaking remedial action, monitoring considerations, administrative feasibility (e.g. obtaining permits for remedial activities), and availability of services and materials.

Alternative 1 and **Alternative 2** can both be implemented at the Site. Local permits may be required prior to implementing these remedies. The implementability of both remedial options is excellent, both are easily implemented and are low impact.

2.7.7 Cost Effectiveness

This evaluation criterion addresses the cost of alternatives, including capital costs (such as construction costs, equipment costs, disposal costs, and engineering expenses) and Site management costs (costs incurred after remedial construction is complete) necessary to meet the continued effectiveness of a remedial action.

The remedial options identified were quantitatively compared to one another in terms of overall costs including capital costs (e.g. equipment) and longer-term operation and maintenance costs (e.g. monitoring and system inspections).

The capital costs for **Alternative 1** are higher than **Alternative 2**. Higher costs are driven by material, construction, and energy expenditures associated with a larger excavation. Total costs for **Alternative 1** is estimated at $3,500,000 and for **Alternative 2** is estimated at $ 3,000,000.

2.7.8 Community Acceptance

This evaluation criterion addresses community opinion and support for the remedial action. Observations here will be supplemented by public comment received on the RAWP.

Similar remedial actions to the ones proposed in this Work Plan have been used elsewhere in New York State and/or at similar sites, with acceptance by local communities and regulatory authorities. The NYSDEC will notify the public that this BCP Remediation Work Plan is available for comment for a 30-day period through notice in the Environmental Notice Bulletin (ENB).

Alternative 1 and **Alternative 2** are expected to have minor potential community impact including increased traffic around the Site and noise during construction.

2.8 SELECTION OF THE PREFERRED REMEDY

The preferred remedial alternative is **Alternative 1** with an option to achieve **Alternative 2**. This alternative is the most protective of human health.

2.9 LAND USE FACTOR EVALUATION

The following land use factor evaluation examines whether **Alternative 1** is acceptable based on the following criteria as required by Article 27, Title 14 of the Environmental Conservation Law 27-1415. This evaluation addresses the proposed use of the property and has considered reasonably anticipated future uses of the Site.

2.9.1 Zoning

The proposed use of the Site post-remediation is consistent with the existing zoning of Mixed Use for commercial and residential for the property.

2.9.2 Applicable Comprehensive Community Master Plans or Land Use Plans

There are no known proposed or current Community Master Plans or Land-Use Plans for the Site and surrounding area.

2.9.3 Surrounding Property Uses

Mixed commercial residential use is proposed for the property. The Site is bounded by a vacant New York State Department of Transportation (NYSDOT) property and the Pulaski Park to the north, Amtrak and railroads to the south, a vacant NYSDOT property to the east, and the Harlem River Terminal Station historical landmark to the west. The proposed remedial strategy will not affect the surrounding property uses.

2.9.4 Citizen Participation

A Citizen Participation Plan was submitted to NYSDEC in September 2019 and accepted in September 2019. The Plan outlines the activities that will be undertaken to address public interests/concerns about the project. The Plan is being kept at the Mott Haven Library in Bronx, New York which has agreed to act as repository for this and other public notification documents. The proposed remedial strategy is compatible with the current Citizen Participation Plan.

2.9.5 Environmental Justice Concerns

The remedial program for this site has been selected with due consideration of the current, projected and reasonably anticipated future land uses of the parcel and adjacent surroundings, per

ECL 27 1415, which stipulates the remediation and land use must meet the requirements of this section including the extent to which the proposed use may reasonably be expected to cause or increase a disproportionate industrial burden on the community in which the site is located. To this end, the proposed usage is not viewed as an increased burden of industrial usage on the community.

2.9.6 Land Use Designations

The parcel is not related to any state or federal designation including special purpose and limited height districts, Restrictive and Environmental Declarations, historic and scenic boundaries, historic Homes, landmarked locations, or green spaces.

2.9.7 Population Growth Patterns

The proposed plan for mixed commercial and residential use is expected to contribute to population growth at the Site.

2.9.8 Accessibility to Existing Infrastructure

The property is accessible to existing infrastructure including public water, sewer, and stormwater. This accessibility will not be affected by the proposed remediation strategy.

2.9.9 Proximity to Cultural Resources

There are no identified historic and or scenic boundaries, historic homes, or landmarked locations within ½ mile of the site. This cultural resource is not expected to be impacted by the proposed remedial strategy.

2.9.10 Proximity to Natural Resources

Harlem River and Bronx Kill are located within ¼ mile of the Site. Pulaski Park is located within ¼ mile of the Site. There are no identified wildlife refuges or critical habitats of endangered or threatened species identified within ½ mile of the Site. These natural resources are not expected to be impacted by the proposed remedial strategy.

2.9.11 Proximity to Floodplains

The Site is not located within floodplains. Flood Zone AE 11’ elevation is located south of the Site.

2.9.12 Geography and Geology of the Site

Site geography and geology is consistent with surrounding area. See **Section 2.3**.

2.9.13 Current Institutional Controls

There currently are no Institutional Controls on the site.

2.10 SUMMARY OF SELECTED REMEDIAL ACTIONS

1. Establishment of Track 1 and Track 4 SCOs as Part 375 Unrestricted Use SCOs;
2. Removal of contaminated soils via excavation to 10-15 ft bgs for cellar, building and foundation construction and deeper where required to address soil contamination above the Unrestricted Use SCOs;
3. Maintenance of a surface cover over the entire Site to prevent exposure to remaining contaminated soil/fill, if present;
4. If necessary, establishment of an approved Site Management Plan (SMP) to provide short-term (less than five years) management of these engineering and institutional controls, including the performance of periodic inspections and certification that the controls are performing as they were intended.
5. Submittal of a FER that describes the remedial activities, certifies that the remedial requirements have been achieved, describes all Engineering and Institutional Controls to be implemented at the site, and describes any deviation from the RAWP;
6. If necessary, placement of an environmental easement to memorialize the remedial action and the Engineering and Institutional Controls to document that future owners of the site continue to maintain these controls as required.
7. All responsibilities associated with the Remedial Action, including permitting requirements and pretreatment requirements, will be addressed in accordance with all applicable Federal, State and local rules and regulations.

Remedial activities will be performed at the Site in accordance with this NYSDEC-approved RAWP and the Department-issued Decision Document. All deviations from the RAWP and/or Decision Document will be promptly reported to NYSDEC for approval and fully explained in the FER.

3.0 REMEDIAL ACTION PROGRAM

The remedial action program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and Site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials;
- Reducing waste, increasing recycling and increasing reuse of materials that would otherwise be considered a waste;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes that balance ecological, economic, and social goals; and
- Integrating the remedy with the end-use where possible and encouraging green and sustainable re-development.

3.1 GOVERNING DOCUMENTS

Copies of governing documents are included in full in **Appendix E**. These documents are described below.

3.1.1 Site Specific Health & Safety Plan (HASP)

The Site-Specific Health and Safety Plan is provided in **Appendix E**. The Site Safety Coordinator has not yet been selected. A resume will be provided to NYSDEC prior to the start of remedial construction. All remedial work performed under this plan will be in compliance with governmental requirements, including Site and worker safety requirements mandated by Federal OSHA. The Participant and associated parties preparing the remedial documents submitted to the State and those performing the construction work, are responsible for the preparation of an appropriate Health and Safety Plan and for the appropriate performance of work according to that

plan and applicable laws. The Health and Safety Plan (HASP) and requirements defined in this Remedial Action Work Plan pertain to the remedial and invasive work performed at the Site until the issuance of a Certificate of Completion.

3.1.2 Quality Assurance Project Plan (QAPP)

A QAPP has been prepared that describes the quality control components and will ensure the proposed remedy accomplishes the remedial action objectives. The QAPP is attached in **Appendix E.**

3.1.3 Soil/Materials Management Plan (SoMP)

Materials generated while excavating for the building foundation are to be addressed as described here.

3.1.3.1 Soil Screening Methods

Visual, olfactory and PID soil screening and assessment will be performed by a qualified environmental professional or experienced field geologist under the direction of the Remedial Engineer during all remedial and development excavations into known or potentially contaminated material. Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during the remedy and during development phase, such as excavations for foundations and utility work, prior to issuance of the COC.

The primary contaminant sources (including, but not limited to, tanks and hotspots) identified during Site Characterization, Remedial Investigation, and Remedial Action will be surveyed by a surveyor licensed to practice in the State of New York. This information will be provided on maps in the Final Engineering Report.

Screening will be performed by qualified environmental professionals. Resumes will be provided for all personnel responsible for field screening (i.e. those representing the Remedial Engineer) of invasive work for unknown contaminant sources during remediation and development excavation work.

3.1.3.2 Materials Excavation and Load Out

The Remedial Engineer or a qualified environmental professional under his/her supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The Participant and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the Site has been investigated by the Remedial Engineer. It has been determined that no risk or impediment to the planned work under this Remedial Action Work Plan is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and other applicable transportation requirements).

The Participant and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are responsible for the safe performance of all invasive work, the structural integrity of excavations, and for structures that may be affected by excavations (such as building foundations and bridge footings).

The Remedial Engineer will document that Site development activities will not interfere with, or otherwise impair or compromise, remedial activities proposed in this Remedial Action Work Plan.

Development-related grading cuts and fills will not be performed without NYSDEC approval and will not interfere with, or otherwise impair or compromise, the performance of remediation required by this plan.

Mechanical processing of historical fill and contaminated soil on-Site is prohibited.

The primary contaminant sources (including, but not limited to, tanks and hotspots) identified during Site Characterization, Remedial Investigation, and Remedial Action will be surveyed by a surveyor licensed to practice in the State of New York. The survey information will be shown on maps to be reported in the Final Engineering Report.

3.1.3.3 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site.

Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

The trucks will be washed prior to leaving the Site. Truck wash waters will be collected and disposed of off-Site in an appropriate manner.

3.1.3.4 Materials Disposal Off-Site

The disposal locations will be established at a later date and will be reported to the NYSDEC Project Manager.

All soil/fill/solid waste excavated and removed from the Site will be treated as contaminated and regulated material and will be disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this Site is proposed for unregulated disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to NYSDEC's Project Manager. Unregulated off-Site management of materials from this Site is prohibited without formal NYSDEC approval.

Material that does not meet Track 1 Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

The following documentation will be obtained and reported by the Remedial Engineer for each disposal location used in this project to fully demonstrate and document that the disposal of material derived from the Site conforms with all applicable laws: (1) a letter from the Remedial Engineer or BCP Participant to the receiving facility describing the material to be disposed and requesting formal written acceptance of the material. This letter will state that material to be disposed is contaminated material generated at an environmental remediation Site in New York State. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of the chemical data for the material being transported (including Site Characterization data); and (2) a letter from all receiving facilities stating it is in receipt of the correspondence (above) and is approved to accept the material. These documents will be included in the FER.

Non-hazardous historic fill and contaminated soils taken off-Site will be handled, at a minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2

Historical fill and contaminated soils from the Site are prohibited from being disposed at Part 360-16 Registration Facilities (also known as Soil Recycling Facilities).

Soils that are contaminated but non-hazardous and are being removed from the Site are considered by the Division of Materials Management (DMM) in NYSDEC to be Construction and Demolition (C/D) materials with contamination not typical of virgin soils. These soils may be sent to a permitted Part 360 landfill. They may be sent to a permitted C/D processing facility without permit modifications only upon prior notification of NYSDEC Region 2 DMM. This material is prohibited from being sent or redirected to a Part 360-16 Registration Facility. In this case, as dictated by DMM, special procedures will include, at a minimum, a letter to the C/D facility that

provides a detailed explanation that the material is derived from a DER remediation Site, that the soil material is contaminated and that it must not be redirected to on-Site or off-Site Soil Recycling Facilities. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include, as an attachment, a summary of the chemical data for the material being transported.

The Final Engineering Report will include an accounting of the destination of all material removed from the Site during this Remedial Action, including excavated soil, contaminated soil, historic fill, solid waste, and hazardous waste, non-regulated material, and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. This information will also be presented in a tabular form in the FER.

Bill of Lading system or equivalent will be used for off-Site movement of non-hazardous wastes and contaminated soils. This information will be reported in the Final Engineering Report.

Hazardous wastes derived from on-Site will be stored, transported, and disposed of in full compliance with applicable local, State, and Federal regulations.

Appropriately licensed haulers will be used for material removed from this Site and will be in full compliance with all applicable local, State and Federal regulations.

Waste characterization will be performed for off-Site disposal in a manner suitable to the receiving facility and in conformance with applicable permits. Sampling and analytical methods, sampling frequency, analytical results and QA/QC will be reported in the FER. All data available for the soil/material to be disposed at a given facility must be submitted to the disposal facility with suitable explanation prior to shipment and receipt.

3.1.3.5 Backfill from Off-Site Sources

All soil or crushed rock materials proposed for import onto the Site for use as backfill will be approved by the Remedial Engineer and will be in compliance with provisions in this RAWP prior to receipt at the Site.

Material from industrial sites, spill sites, other environmental remediation sites or other potentially contaminated sites will not be imported to the Site.

The Final Engineering Report will include the following certification by the Remedial Engineer: *"I certify that all import of soils from off-Site, including source evaluation, approval and sampling, has been performed in a manner that is consistent with the methodology defined in the Remedial Action Work Plan".*

All imported soils will meet NYSDEC approved backfill or cover soil quality objectives for this Site. These NYSDEC approved backfill or cover soil quality objectives are the lower of the protection of groundwater or the protection of public health soil cleanup objectives for residential use as set forth in Table 375-6.8(b) of 6 NYCRR Part 375. Non-compliant soils will not be imported onto the Site without prior approval by NYSDEC. Nothing in the approved Remedial Action Work Plan or its approval by NYSDEC should be construed as an approval for this purpose.

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Nothing in this Remedial Action Work Plan should be construed as an approval for this purpose.

Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers.

3.1.3.6 Contingency Plan

If underground tanks or other previously unidentified contaminant sources are found during on-Site remedial excavation or development related construction, sampling will be performed on product, sediment and surrounding soils, etc. Chemical analytical work will be for full scan parameters (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs). These analyses will not be limited to STARS parameters where tanks are identified without prior approval by NYSDEC. Analyses will not be otherwise limited without NYSDEC approval.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to NYSDEC's Project Manager. These findings will be also included in daily and periodic electronic media reports.

3.1.3.7 Community Air Monitoring Plan

Exceedances observed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers and included in the Daily Report. Please refer to **Section 3.1.5** for the CAMP.

3.1.3.8 Odor, Dust and Nuisance Control Plan

The Final Engineering Report will include the following certification by the Remedial Engineer: "I certify that all invasive work during the remediation and all invasive development work were conducted in accordance with dust and odor suppression methodology defined in the Remedial Action Work Plan."

3.1.3.8.1 Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-Site. If nuisance odors are identified, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of all other complaints about the project. Implementation of all odor controls, including the halt of work, will be the responsibility of the Participant's Remedial Engineer, who is responsible for certifying the Final Engineering Report.

All necessary means will be employed to prevent on- and off-Site nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

Where odor nuisances have developed during remedial work and cannot be corrected, or where the release of nuisance odors cannot otherwise be avoided due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering excavation and handling areas under tented containment structures equipped with appropriate air venting/filtering systems.

3.1.3.8.2 Dust Control Plan

A dust suppression plan that addresses dust management during invasive on-Site work, will include, at a minimum, dust suppression through available on-Site water at suitable supply and pressure for use in dust control.

3.1.4 Stormwater Pollution Prevention Plan (SWPPP)

A SWPPP has not been prepared as the Site area is smaller than the minimum requirement of 1 acre to implement a SWPPP. Standard erosion control measures, including a gravel truck washdown area at the Site entrance, will be implemented.

3.1.5 Community Air Monitoring Plan (CAMP)

The CAMP is provided in **Appendix E**. Periodic monitoring for VOCs will be performed during non-intrusive activities, such as the collection of groundwater samples from existing monitoring wells. Periodic monitoring during sample collection, for instance, will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location.

Depending upon the proximity of potentially exposed individuals, continuous monitoring may be performed during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence. Exceedances of action levels observed during performance of the CAMP will be reported to the NYSDEC Project Manager and included in the Daily Report.

3.1.5.1 VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis during invasive work. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown.
- All 15-minute readings will be recorded and be available for NYSDEC personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

3.1.5.2 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will

be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.
- All readings will be recorded and be available for NYSDEC personnel to review.

3.1.6 Contractors Site Operations Plan (SOP);

The Remedial Engineer will review all plans and submittals for this remedial project (including those listed above and contractor and sub-contractor document submittals) prior to commencement and will confirm that they are in compliance with this RAWP. The Remedial Engineer is responsible to ensure that all later document submittals for this remedial project, including contractor and sub-contractor document submittals, are in compliance with this RAWP.

3.1.7 Citizen Participation Plan

The Citizen Participation Plan (CPP) for this project is attached in **Appendix E.**

A certification of mailing will be sent by the Participant to the NYSDEC project manager following the distribution of all Fact Sheets and notices that includes: (1) certification that the Fact Sheets were mailed, (2) the date they were mailed; (3) a copy of the Fact Sheet, (4) a list of recipients (contact list); and (5) a statement that the repository was inspected on (specific date) and that it contained all of the applicable project documents.

No changes will be made to approved Fact Sheets authorized for release by NYSDEC without written consent of the NYSDEC. No other information, such as brochures and flyers, will be included with the Fact Sheet mailing.

Document repositories have been established at the following locations and contain all applicable project documents:

Mott Haven Library

321 East 140th Street

Bronx, NY, 10454

Attn: Jeanine Cross

Phone: (718) 579-4244

Hours: Monday-Saturday 10AM-7PM, Closed Sunday.

3.2 GENERAL REMEDIAL CONSTRUCTION INFORMATION

3.2.1 Project Organization and Oversight

Principal personnel who will participate in the remedial action include staff of GZA GeoEnvironmental as the Environmental Consultant. Subcontractors will be identified upon acceptance of the RAWP.

The Professional Engineer (PE) and Qualified Environmental Professional (QEP) for this project are Ernest Hanna and David Winslow, respectively. Both Mr. Hanna and Dr. Winslow are professionals with GZA. Resumes of key personnel involved in the Remedial Action will be provided upon acceptance of the RAWP.

3.2.2 Remedial Engineer

The Remedial Engineer for this project will be Ernest Hanna. The Remedial Engineer is a registered professional engineer licensed by the State of New York. The Remedial Engineer will have primary direct responsibility for implementation of the remedial program for the 180 East 132nd Street Site (NYSDEC BCA Site No. C203118). The Remedial Engineer will certify in the Final Engineering Report that the remedial activities were observed by qualified environmental professionals under his supervision and that the remediation requirements set forth in the Remedial Action Work Plan and any other relevant provisions of ECL 27-1419 have been achieved in conformance with that Plan. Other Remedial Engineer certification requirements are listed later in this RAWP.

The Remedial Engineer, or his representative, will coordinate the work of other contractors and subcontractors involved in the remedial construction including, air monitoring and emergency spill response services. The Remedial Engineer will be responsible for all appropriate communication with NYSDEC and NYSDOH.

The Remedial Engineer will review all pre-remedial plans submitted by contractors for compliance with this Remedial Action Work Plan and will certify compliance in the Final Engineering Report.

The Remedial Engineer will provide the certifications listed in Section 10.1 in the Final Engineering Report.

3.2.3 Remedial Action Construction Schedule

The proposed Remedial Action schedule presented below is contingent upon concurrence of this RAWP by the NYSDEC and NYSDOH in September 2021.

Task	Description	Estimated Date
1.	Begin Site construction mobilization	September 2022
2.	Support of Excavation	September 2022 – November 2022
3.	Foundation Excavation	November 2022 – August 2023
4.	File Environmental Easement (if required)	June 2023
5.	Draft Site Management Plan (if required)	August 2023
6.	Draft Final Engineering Report	October 2023

3.2.4 Work Hours

The hours for operation of remedial construction will be from 7 a.m. to 5 p.m., Monday through Friday. These hours conform to the New York City Department of Buildings (NYCDOB) construction code requirements. Any deviations to this schedule may require additional permitting from the NYCDOB.

The hours for operation of remedial construction will conform to the New York City Department of Buildings construction code requirements or according to specific variances issued by that agency. DEC will be notified by the Participant of any variances issued by the Department of Buildings. NYSDEC reserves the right to deny alternate remedial construction hours.

3.2.5 Site Security

Site access will be controlled by construction fencing, gates and a construction security company.

3.2.6 Worker Training and Monitoring

Site excavation workers will be required, at a minimum, to have completed 29 CFR 1910.120 HAZWOPER, Site safety training, and medical monitoring for Site workers. Other Site workers will have OSHA 30-Hour Construction Training or OSHA 10-Hour Construction Training.

3.2.7 Agency Approvals

The Participant has addressed all SEQRA requirements for this Site. All permits or government approvals required for remedial construction have been, or will be, obtained prior to the start of remedial construction.

The planned end use for the Site is in conformance with the current zoning for the property as determined by New York City Department of Planning. A Certificate of Completion will not be issued for the project unless conformance with zoning designation is demonstrated.

A complete list of all local, regional, and national governmental permits, certificates or other approvals or authorizations required to perform the remedial and development excavation work, which will contain a citation of the law, statute or code to be complied with, the originating agency, and a contact name and phone number in that agency, will be included in the Final Engineering Report.

No planned remedial or construction work will occur in regulated wetlands or adjacent areas.

3.2.8 NYSDEC BCP Signage

A project sign will be erected at the main entrance to the Site prior to the start of any remedial activities. The sign will indicate that the project is being performed under the New York State Brownfield Cleanup Program. The sign will meet the detailed specifications identified and provided by the NYSDEC Project Manager.

3.2.9 Pre-Construction Meeting with NYSDEC

A pre-construction meeting with the NYSDEC will take place prior to the start of any major construction activities or as required by the NYSDEC.

3.2.10 Emergency Contact Information

An emergency contact sheet with names and phone numbers will be provided upon acceptance of this RAWP. That document will define the specific project contacts for use by the NYSDEC and NYSDOH in case of a day or night emergency.

3.2.11 Remedial Action Costs

The total estimated cost of the Remedial Action is between $2,081,840 and $3,533,840. The estimated cost will be revised and provided upon acceptance of the RAWP. The final actual cost of remediation will be submitted as an Appendix to the FER.

3.3 SITE PREPARATION

3.3.1 Mobilization

Mobilization will be conducted as necessary for each phase of work at the Site. Mobilization includes field personnel orientation, equipment mobilization (including securing all sampling equipment needed for monitoring), marking/staking sampling locations and utility mark-outs. Each field team member will attend an orientation meeting to become familiar with the general operation of the Site, health and safety requirements, and field procedures.

3.3.2 Utility Marker and Easements Layout

The presence of utilities and easements on the Site will be investigated prior to the performance of invasive work, such as excavation or drilling, under this plan by using, at a minimum, the One-Call System (811). Underground utilities may pose an electrocution, explosion, or other hazard during excavation or drilling activities. All invasive activities will be performed in compliance with applicable laws and regulations to assure safety. Utility companies and other responsible authorities will be contacted to locate and mark the locations, and a copy of the Mark-out Ticket will be retained by the contractor prior to the start of drilling, excavation or other invasive subsurface operations. Overhead utilities may also be present within the anticipated work zones. Electrical hazards associated with excavating and/or drilling in the vicinity of overhead utilities will be prevented by maintaining a safe distance between overhead power lines and equipment masts.

Proper safety and protective measures pertaining to utilities and easements, and compliance with all laws and regulations will be employed during invasive and other work contemplated under this RAWP. The integrity and safety of on-Site and off-Site structures will be maintained during all invasive, excavation or other remedial activity performed under the RAWP.

The Participant and its contractors are solely responsible for the identification of utilities that might be affected by work under the RAWP and implementation of all required, appropriate, or necessary health and safety measures during performance of work under this RAWP. The Participant and its contractors are solely responsible for safe execution of all invasive and other work performed under this RAWP. The Participant and its contractors must obtain any local, State or Federal permits or approvals pertinent to such work that may be required to perform work under this RAWP. Approval of this RAWP by NYSDEC does not constitute satisfaction of these requirements.

The presence of utilities and easements on the Site will be investigated by the Remedial Engineer, or his representative, to determine that no risk or impediment to the planned work under this Remedial Action Work Plan is posed by utilities or easements on the Site.

3.3.3 Equipment and Material Staging

Equipment and materials will be stored and staged in a manner that complies with applicable laws and regulations. The location of proposed equipment and material staging areas and other pertinent remedial management features will remain on-Site or in the allotted space designated by the NYCDOB or the New York City Department of Transportation (NYCDOT) permitting.

3.3.4 Demobilization

Demobilization will include:

- As necessary, restoration of temporary access areas and areas that may have been disturbed to accommodate support areas (e.g., staging areas, decontamination areas, storage areas, temporary water management areas, and access area);
- Equipment decontamination; and
- General refuse disposal.

Equipment will be decontaminated and demobilized at the completion of field remedial activities. In addition, all investigation and remediation derived waste will be appropriately disposed.

3.4 REPORTING

All daily and monthly Reports will be included in the Final Engineering Report.

3.4.1 Daily Reports

Daily reports will be submitted to NYSDEC and NYSDOH Project Managers weekly following the reporting period and will include:

- An update of progress made during the reporting day;
- Locations of work;
- References to alpha-numeric map for Site activities;
- A summary of any and all complaints with relevant details (names, phone numbers);
- A summary of CAMP finding, including excursions;
- An explanation of notable Site conditions; and
- Photograph of notable Site conditions and activities.

Daily reports are not intended to be the mode of communication for notification to the NYSDEC of emergencies (accident, spill), requests for changes to the RAWP or other sensitive or time critical information. However, such conditions must also be included in the daily reports. Emergency conditions and changes to the RAWP will be addressed directly to NYSDEC Project Manager via personal communication.

Daily Reports will include a description of daily activities keyed to an alpha-numeric map for the Site that identifies work areas. These reports will include a summary of air sampling results, odor and dust problems and corrective actions, and all complaints received from the public.

The NYSDEC assigned project number will appear on all reports.

3.4.2 Monthly Reports

Monthly reports will be submitted to NYSDEC and NYSDOH Project Managers within one week following the end of the month of the reporting period and will include:

- Activities relative to the Site during the previous reporting period and those anticipated for the next reporting period, including a quantitative presentation of work performed;
- Description of approved activity modifications, including changes of work scope and/or schedule;
- Sampling results received following internal data review and validation, as applicable; and

- An update of the remedial schedule including the percentage of project completion, unresolved delays encountered or anticipated that may affect the future schedule, and efforts made to mitigate such delays.

3.4.3 Other Reporting

Photographs will be taken of the remedial activities and submitted to NYSDEC in digital (JPEG) format. Photos will illustrate the remedial program elements and will be of acceptable quality. Representative photos of the Site prior to any Remedial Actions will be provided. Representative photos will be provided of each contaminant source, source area and Site structures before, during and after remediation. Photos will be included in the daily reports as needed, and a comprehensive collection of photos will be included in the Final Engineering Report.

Job-site record keeping for all remedial work will be appropriately documented. These records will be maintained on-Site at all times during the project and be available for inspection by NYSDEC and NYSDOH staff.

3.4.4 Complaint Management Plan

All complaints from citizens will be promptly reported to the NYSDEC. Complaints will be addressed and outcomes will also be reported to NYSDEC in daily reports. Notices to NYSDEC will include the nature of the complaint, the party providing the complaint, and the actions taken to resolve any problems.

3.4.5 Deviations from the Remedial Action Work Plan

All changes to the RAWP will be reported to the NYSDEC Project Manager and will be documented in daily reports and reported in the Remedial Action Report. The process to be followed, if there are any deviations from the RAWP, will include a request for approval for the change from NYSDEC noting the following:

- Reasons for deviating from the approved RAWP;
- Effect of the deviations on overall remedy; and
- Determination that the remedial action with the deviation(s) is protective of public health and the environment.

4.0 THE RESIDUAL CONTAMINATION TO REMAIN ON-SITE

Should residual contaminated soil remain beneath the Site after the remedy is complete, Engineering and Institutional Controls (ECs and ICs) are required to protect human health and the environment. These ECs and ICs are described hereafter. Long-term management of EC/ICs and of residual contamination will be executed under a Site-specific Site Management Plan (SMP) that will be developed and included in the FER.

ECs will be implemented to protect public health and the environment by appropriately managing residual contamination. The Controlled Property's (the Site) primary EC system will be the composite cover system.

The FER will report residual contamination on the Site in tabular and map form. This will include presentation of exceedances of both Track 1, or if applicable Track2, and Track 4 SCOs.

5.0 ENGINEERING CONTROLS: COMPOSITE COVER SYSTEM

Exposure to residual contaminated soils, if any, will be prevented by an engineered, composite cover system that will be maintained on the Site. The proposed composite cover system is presented in **Figure 8**. Any Site redevelopment will maintain a Site cover, which may consist either of the structures such as buildings, pavement, concrete and/or sidewalks comprising the Site development. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

If necessary, a Soil and Underground Utilities Management Plan will be created and included in the Site Management Plan and will be provided upon the acceptance of this RAWP. The Soil Management Plan will outline the procedures to be followed in the event that the composite cover system and underlying residual contamination are disturbed after the Remedial Action is complete. If necessary, maintenance of this composite cover system will be described in the Site Management Plan in the FER.

6.0 CRITERIA FOR COMPLETION OF REMEDIATION/TERMINATION OF REMEDIAL SYSTEMS

6.1 COMPOSITE COVER SYSTEM

The composite cover system, if necessary, is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

7.0 INSTITUTIONAL CONTROLS

After the remedy is complete and if the Site will have residual contamination remaining in place, Engineering Controls (ECs) for the residual contamination will be incorporated into the remedy to render the overall Site remedy protective of public health and the environment. Two elements have been designed to ensure continual and proper management of residual contamination in perpetuity: an Environmental Easement and a Site Management Plan.

All record (as-built) drawings, diagrams, calculation and manufacturer documentation for treatment systems will be presented in the FER. If necessary, a Site -specific Environmental Easement will be recorded with Bronx County to provide an enforceable means of ensuring the continual and proper management of residual contamination and protection of public health and the environment in perpetuity or until released in writing by NYSDEC. It requires that the grantor of the Environmental Easement and the grantor's successors and assigns adhere to all Engineering and Institutional Controls (ECs/ICs) placed on this Site by this NYSDEC-approved remedy. ICs provide restrictions on Site usage and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. The Site Management Plan (SMP) describes appropriate methods and procedures to ensure compliance with all ECs and ICs that are required by the Environmental Easement. Once the SMP has been approved by the NYSDEC, compliance with the SMP is required by the grantor of the Environmental Easement and grantor's successors and assigns.

7.1 ENVIRONMENTAL EASEMENT

An Environmental Easement, as defined in Article 71 Title 36 of the Environmental Conservation Law, is required when residual contamination is left on-Site after the Remedial Action is complete. As part of this remedy, if necessary, an Environmental Easement approved by NYSDEC will be filed and recorded with the Bronx County Office of the City Register. The Environmental Easement will be submitted as part of the Final Engineering Report.

The Environmental Easement renders the Site a Controlled Property. The Environmental Easement must be recorded with the Bronx County Office of the City Register before the Certificate of Completion can be issued by NYSDEC. A series of Institutional Controls are required under this remedy to implement, maintain and monitor these Engineering Control systems, prevent future exposure to residual contamination by controlling disturbances of the subsurface soil and restricting the use of the Site to commercial or residential use(s) only. These Institutional Controls are requirements or restrictions placed on the Site that are listed in, and required by, the Environmental Easement. Institutional Controls can, generally, be subdivided between controls that support Engineering Controls, and those that place general restrictions on Site usage or other

requirements. Institutional Controls in both of these groups are closely integrated with the Site Management Plan, which provides the methods and procedures to be followed to comply with this remedy.

The Institutional Controls that support Engineering Controls are:

- Compliance with the Environmental Easement by the Grantee and the Grantee's successors and adherence of all elements of the SMP is required;
- All Engineering Controls must be operated and maintained as specified in the SMP;
- A composite cover system consisting of concrete building slabs must be inspected, certified and maintained as required in the SMP;
- All Engineering Controls on the Controlled Property must be inspected and certified at a frequency and in a manner defined in the SMP;
- Groundwater, soil vapor, and other environmental or public health monitoring must be performed, if applicable, as defined in the SMP;
- Data and information pertinent to Site Management for the Controlled Property must be reported at the frequency and in a manner defined in the SMP;
- On-Site environmental monitoring devices, including, if applicable, but not limited to, groundwater monitor wells and soil vapor probes, must be protected and replaced as necessary to ensure proper functioning in the manner specified in the SMP; and
- Engineering Controls may not be discontinued without an amendment or extinguishment of the Environmental Easement.

Adherence to these Institutional Controls for the Site is mandated by the Environmental Easement and will be implemented under the Site Management Plan (discussed in the next section). The Controlled Property (Site) will also have a series of Institutional Controls in the form of Site restrictions and requirements. The Site restrictions that apply to the Controlled Property are:

- Vegetable gardens and farming on the Controlled Property are prohibited;
- Use of groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for its intended purpose;
- All future activities on the Controlled Property that will disturb residual contaminated material are prohibited unless they are conducted in accordance with the soil management provisions in the Site Management Plan;

- The Controlled Property may be used for restricted residential or commercial use(s) only, provided the long-term Engineering and Institutional Controls included in the Site Management Plan are employed;
- The Controlled Property may not be used for a higher level of use, such as unrestricted use without an amendment or extinguishment of this Environmental Easement; and
- Grantor agrees to submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow. This time period must be certified by an expert that the NYSDEC finds acceptable.

7.2 SITE MANAGEMENT PLAN

Site Management is the last phase of remediation and begins with the approval of the Final Engineering Report and issuance of the Certificate of Completion (COC) for the Remedial Action. The Site Management Plan is submitted as part of the FER but will be written in a manner that allows its removal and use as a complete and independent document. Site Management continues in perpetuity or until released in writing by NYSDEC. The property owner is responsible to ensure that all Site Management responsibilities defined in the Environmental Easement and the Site Management Plan are performed.

The SMP is intended to provide a detailed description of the procedures required to manage residual contamination left in place at the Site following completion of the Remedial Action in accordance with the Brownfield Clean-up Agreement (BCA) with the NYSDEC. This includes: (1) development, implementation, and management of all Engineering and Institutional Controls; (2) development and implementation of monitoring systems and a Monitoring Plan; (3) development of a plan to operate and maintain any treatment, collection, containment, or recovery systems (including, where appropriate, preparation of an Operation and Maintenance Manual); (4) submittal of Site Management Reports, performance of inspections and certification of results, and demonstration of proper communication of Site information to NYSDEC; and (5) defining criteria for termination of treatment system operation.

To address these needs, this SMP will include four plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; (3) an Operation and Maintenance Plan for implementation of remedial collection, containment, treatment, and recovery systems; and (4) a Site Management Reporting Plan for submittal of data, information, recommendations, and certifications to NYSDEC. The SMP will be prepared in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation and the guidelines provided by NYSDEC.

The Institutional and Engineering Control Plan will identify all use restrictions and engineering controls for the site and detail the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional controls:

- The Environmental Easement discussed above.

Engineering controls:

- The site cover discussed above.

The SMP will include, but may not be limited to:

- Excavation plan which details the provision for management of future excavations in area of remaining contamination;
- Description of the provision of the environmental easement including any land use, and groundwater use restrictions;
- Provision for management and inspection of the identified engineering controls;
- Maintaining site access controls and Department (NYSDEC) notification; and
- The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

The Monitoring Plan will assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- Monitoring of site cover to assess the performance and effectiveness of the remedy; and
- A schedule of monitoring and frequency of submittals to the Department.

The Operation and Maintenance (O&M) plan will ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

- Compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- Maintaining Site access controls and Department notification; and
- Providing the Department access to the site and O&M records.

Site management activities, reporting, and EC/IC certification will be scheduled on a certification period basis. The certification period will be biennially. The Site Management Plan will be based on a calendar year and will be due for submission to NYSDEC by March 1 of the year following the reporting period.

The Site Management Plan in the Final Engineering Report will include a monitoring plan for groundwater at the down-gradient Site perimeter to evaluate Site-wide performance of the remedy. No exclusions for handling of residual contaminated soils will be provided in the Site Management Plan (SMP). All handling of residual contaminated material will be subject to provisions contained in the SMP.

8.0 FINAL ENGINEERING REPORT

A Final Engineering Report (FER) will be submitted to NYSDEC following implementation of the Remedial Action defined in this RAWP. The FER provides the documentation that the remedial work required under this RAWP has been completed and has been performed in compliance with this plan. The FER will provide a comprehensive account of the locations and characteristics of all material removed from the Site including the surveyed map(s) of all sources. The Final Engineering Report will include record drawings for the remedial specific constructed elements, calculation and manufacturer documentation for treatment systems, certifications, manifests, bills of lading as well as the complete Site Management Plan (formerly the Operation and Maintenance Plan). The FER will provide a description of the changes in the Remedial Action from the elements provided in the RAWP and associated design documents. The FER will provide a tabular summary of all performance evaluation sampling results and all material characterization results and other sampling and chemical analysis performed as part of the Remedial Action. The FER will provide test results demonstrating that all mitigation and remedial systems are functioning properly. The FER will be prepared in conformance with DER-10.

Where determined to be necessary by NYSDEC, a Financial Assurance Plan will be required to ensure the sufficiency of revenue to perform long-term operations, maintenance and monitoring tasks defined in the Site Management Plan and Environmental Easement. This determination will be made by NYSDEC in the context of the Final Engineering Report review.

The Final Engineering Report will include written and photographic documentation of all remedial work performed under this remedy.

The FER will include an itemized tabular description of actual costs incurred during all aspects of the Remedial Action.

The FER will provide a summary of all identified residual contamination left on the Site after the remedy is complete, if necessary. Residual contamination includes contamination that exceeds the Track 1 Unrestricted Use SCO in 6NYCRR Part 375-6. A table that shows exceedances from Track 1 Unrestricted SCOs for soil/fill remaining at the Site after the Remedial Action and a map that shows the location and summarizes exceedances from Track 1 Unrestricted SCOs for soil/fill remaining at the Site after the Remedial Action will be included in the FER.

The FER will provide a summary of all identified residual contamination that exceeds the SCOs defined for the Site in the RAWP and must provide an explanation for why the material was not removed as part of the Remedial Action. A table that shows residual contamination in excess of

Site SCOs and a map that shows residual contamination in excess of Site SCOs will be included in the FER.

The Final Engineering Report will include an accounting of the destination of all material removed from the Site, including excavated contaminated soil, historic fill, solid waste, hazardous waste, non-regulated material, and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. It will provide an accounting of the origin and chemical quality of all material imported onto the Site.

Before approval of a FER and issuance of a Certificate of Completion, all project reports must be submitted in digital form on electronic media (PDF).

8.1 CERTIFICATIONS

The following certification will appear in front of the Executive Summary of the Final Engineering Report. The certification will be signed by the Remedial Engineer, Ernest Hanna, who is a Professional Engineer registered in New York State. This certification will be appropriately signed and stamped. The certification will include the following statements:

I, Ernest Hanna, am currently a registered professional engineer licensed by the State of New York. I had primary direct responsibility for implementation of the remedial program for the 180 East 132nd Street Site (NYSDEC BCP Site No. C203118).

I certify that the Site description presented in this FER is identical to the Site descriptions presented in the Environmental Easement, the Site Management Plan, and the Brownfield Cleanup Agreement for 180 East 132nd Street Site and related amendments.

I certify that the Remedial Action Work Plan dated March 2021 approved by the NYSDEC were implemented and that all requirements in those documents have been substantively complied with.

I certify that the remedial activities were observed by qualified environmental professionals under my supervision and that the remediation requirements set forth in the Remedial Action Work Plan and any other relevant provisions of ECL 27-1419 have been achieved.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and all operation and maintenance requirements applicable to the Site are contained in an Environmental Easement created and recorded pursuant ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded. A Site Management Plan has been submitted by the Participant for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site, including the proper

maintenance of all remaining monitoring wells, and that such plan has been approved by the NYSDEC.

I certify that the export of all contaminated soil, fill, water or other material from the property was performed in accordance with the Remedial Action Work Plan, and were taken to facilities licensed to accept this material in full compliance with all Federal, State and local laws.

I certify that all import of soils from off-Site, including source approval and sampling, has been performed in a manner that is consistent with the methodology defined in the Remedial Action Work Plan.

I certify that all invasive work during the remediation and all invasive development work were conducted in accordance with dust and odor suppression methodology and soil screening methodology defined in the Remedial Action Work Plan.

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

9.0 SCHEDULE

Our anticipated schedule is:

Task	Description	Estimated Date
1.	Begin Site construction mobilization	September 2022
2.	Support of Excavation	September 2022 – November 2022
3.	Foundation Excavation	November 2022 – August 2023
4.	File Environmental Easement (if required)	June 2023
5.	Draft Site Management Plan (if required)	August 2023
6.	Draft Final Engineering Report	October 2023

TABLES

Table 1
Soil Boring Analytical Results - 2018 and 2019
180 East 132nd Street
Bronx, New York

LOCATION	NY-RESR	NY-UNRES	DUP-SOIL		SB-1		SB-1		SB-1		SB-10		SB-10		SB-2		SB-2		SB-3		SB-3		SB-4		SB-4		SB-5		SB-5		SB-6		SB-6		SB-7	
SAMPLING DATE			2/27/2018		2/26/2018		2/26/2018		2/26/2018		2/27/2018		2/27/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/27/2018	
LAB SAMPLE ID			L1806944-09		L1806702-09		L1806702-09 R1		L1806702-10		L1806944-07		L1806944-08		L1806702-11		L1806702-12		L1806702-13		L1806702-14		L1806702-15		L1806702-16		L1806702-17		L1806702-18		L1806702-06		L1806702-07		L1806944-01	
UNIT			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
SAMPLE DEPTH (ft.)			0-2		0-2		0-2		12-12.5		1-2		9.5-10		1-2		10.5-11		1-2		7-7.5		1-2		13-13.5		1-2		9.5-10		1-2		9.5-10		0.5-1	
			Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
General Chemistry																																				
Solids, Total			92.6		92.4		-	-	91.2		86.6		84.7		88.3		96.3		89.8		98		87.8		78.4		87.8		88.8		88.7		85.9		89.2	
Organochlorine Pesticides by GC																																				
4,4'-DDD	2.6	0.0033	0.0017	U	0.00172	U	-	-	0.00168	U	0.017		0.00184	U	0.00173	U	0.0016	U	0.000967	J	0.00161	U	0.00179	U	0.002	U	0.0517		0.00289		0.0185		0.00179	U	0.00174	U
4,4'-DDE	1.8	0.0033	0.0017	U	0.00172	U	-	-	0.00168	U	0.00824		0.00184	U	0.00173	U	0.0016	U	0.00739		0.00161	U	0.00442	P	0.002	U	0.0149		0.00508		0.0333		0.00179	U	0.00185	
4,4'-DDT	1.7	0.0033	0.00318	U	0.00322	U	-	-	0.00316	U	0.0208		0.00344	U	0.00325	U	0.003	U	0.0359		0.00303	U	0.0276		0.00374	U	0.0117		0.00773	P	0.0387		0.00336	U	0.00733	P
Aldrin	0.019	0.005	0.0017	U	0.00172	U	-	-	0.00168	U	0.00183	U	0.00184	U	0.00173	U	0.0016	U	0.00169	U	0.00161	U	0.00179	U	0.002	U	0.00178	U	0.00175	U	0.00174	U	0.00179	U	0.00174	U
Alpha-BHC	0.097	0.02	0.000706	U	0.000716	U	-	-	0.000702	U	0.000763	U	0.000765	U	0.000723	U	0.000667	U	0.000702	U	0.000673	U	0.000746	U	0.000831	U	0.00074	U	0.000729	U	0.000725	U	0.000746	U	0.000726	U
Beta-BHC	0.072	0.036	0.0017	U	0.00172	U	-	-	0.00168	U	0.00183	U	0.00184	U	0.00173	U	0.0016	U	0.00169	U	0.00161	U	0.00179	U	0.002	U	0.00178	U	0.00175	U	0.00174	U	0.00179	U	0.00174	U
Chlordane			0.0138	U	0.014	U	-	-	0.0137	U	0.0149	U	0.0149	U	0.0141	U	0.013	U	0.0137	U	0.0131	U	0.0145	U	0.0162	U	0.0144	U	0.0142	U	0.0614		0.0145	U	0.0141	U
cis-Chlordane	0.91	0.094	0.00212	U	0.00215	U	-	-	0.0021	U	0.00284		0.0023	U	0.00217	U	0.002	U	0.00211	U	0.00202	U	0.00224	U	0.00249	U	0.0208		0.00219	U	0.00334		0.00224	U	0.00218	U
Delta-BHC	100	0.04	0.0017	U	0.00172	U	-	-	0.00168	U	0.00183	U	0.00184	U	0.00173	U	0.0016	U	0.00169	U	0.00161	U	0.00179	U	0.002	U	0.00178	U	0.00175	U	0.00174	U	0.00179	U	0.00174	U
Dieldrin	0.039	0.005	0.00106	U	0.00107	U	-	-	0.00105	U	0.00114	U	0.00115	U	0.00108	U	0.001	U	0.00105	U	0.00101	U	0.00112	U	0.00125	U	0.00111	U	0.00109	U	0.00109	U	0.00112	U	0.00109	U
Endosulfan I	4.8	2.4	0.0017	U	0.00172	U	-	-	0.00168	U	0.00183	U	0.00184	U	0.00173	U	0.0016	U	0.00169	U	0.00161	U	0.00179	U	0.002	U	0.00178	U	0.00175	U	0.00174	U	0.00179	U	0.00174	U
Endosulfan II	4.8	2.4	0.0017	U	0.00172	U	-	-	0.00168	U	0.00183	U	0.00184	U	0.00173	U	0.0016	U	0.000984	J	0.00161	U	0.00101	J	0.002	U	0.00178	U	0.00158	JPI	0.00137	J	0.00179	U	0.00174	U
Endosulfan sulfate	4.8	2.4	0.000706	U	0.000716	U	-	-	0.000702	U	0.000763	U	0.000765	U	0.000723	U	0.000667	U	0.000702	U	0.000673	U	0.000746	U	0.000831	U	0.00074	U	0.000729	U	0.000725	U	0.000746	U	0.000726	U
Endrin	2.2	0.014	0.000706	U	0.000716	U	-	-	0.000702	U	0.000763	U	0.000765	U	0.000723	U	0.000667	U	0.000702	U	0.000673	U	0.000746	U	0.000831	U	0.00074	U	0.000729	U	0.000725	U	0.000746	U	0.000726	U
Endrin aldehyde			0.00212	U	0.00215	U	-	-	0.0021	U	0.00229	U	0.0023	U	0.00217	U	0.002	U	0.00211	U	0.00202	U	0.00224	U	0.00249	U	0.00222	U	0.00219	U	0.00218	U	0.00224	U	0.00218	U
Endrin ketone			0.0017	U	0.00172	U	-	-	0.00168	U	0.00183	U	0.00184	U	0.00173	U	0.0016	U	0.00169	U	0.00161	U	0.00179	U	0.002	U	0.00178	U	0.00175	U	0.00174	U	0.00179	U	0.00174	U
Heptachlor	0.42	0.042	0.000848	U	0.000859	U	-	-	0.000842	U	0.000916	U	0.000918	U	0.000867	U	0.0008	U	0.000843	U	0.000807	U	0.000895	U	0.000998	U	0.000889	U	0.000875	U	0.00087	U	0.000895	U	0.000871	U
Heptachlor epoxide			0.00318	U	0.00322	U	-	-	0.00316	U	0.00343	U	0.00344	U	0.00325	U	0.003	U	0.00316	U	0.00303	U	0.00336	U	0.00374	U	0.00333	U	0.00328	U	0.00326	U	0.00336	U	0.00326	U
Lindane	0.28	0.1	0.000706	U	0.000716	U	-	-	0.000702	U	0.000763	U	0.000765	U	0.000723	U	0.000667	U	0.000702	U	0.000673	U	0.000746	U	0.000831	U	0.00074	U	0.000729	U	0.000725	U	0.000746	U	0.000726	U
Methoxychlor			0.00318	U	0.00322	U	-	-	0.00316	U	0.00343	U	0.00344	U	0.00325	U	0.003	U	0.00316	U	0.00303	U	0.00336	U	0.00374	U	0.00333	U	0.00328	U	0.00326	U	0.00336	U	0.00326	U
Toxaphene			0.0318	U	0.0322	U	-	-	0.0316	U	0.0343	U	0.0344	U	0.0325	U	0.03	U	0.0316	U	0.0303	U	0.0336	U	0.0374	U	0.0333	U	0.0328	U	0.0326	U	0.0336	U	0.0326	U
trans-Chlordane			0.00212	U	0.00215	U	-	-	0.0021	U	0.00183	J	0.0023	U	0.00217	U	0.002	U	0.00211	U	0.00202	U	0.00224	U	0.00249	U	0.0142	PI	0.00219	U	0.00436	PI	0.00224	U	0.00218	U
Polychlorinated Biphenyls by GC																																				
Aroclor 1016	1	0.1	0.0346	U	0.0351	U	-	-	0.0358	U	0.0371	U	0.0391	U	0.0372	U	0.0328	U	0.0358	U	0.0331	U	0.0369	U	0.0415	U	0.0366	U	0.0362	U	0.0369	U	0.038	U	0.0357	U
Aroclor 1221	1	0.1	0.0346	U	0.0351	U	-	-	0.0358	U	0.0371	U	0.0391	U	0.0372	U	0.0328	U	0.0358	U	0.0331	U	0.0369	U	0.0415	U	0.0366	U	0.0362	U	0.0369	U	0.038	U	0.0357	U
Aroclor 1232	1	0.1	0.0346	U	0.0351	U	-	-	0.0358	U	0.0371	U	0.0391	U	0.0372	U	0.0328	U	0.0358	U	0.0331	U	0.0369	U	0.0415	U	0.0366	U	0.0362	U	0.0369	U	0.038	U	0.0357	U
Aroclor 1242	1	0.1	0.0346	U	0.0351	U	-	-	0.0358	U	0.0371	U	0.0391	U	0.0372	U	0.0328	U	0.0358	U	0.0331	U	0.0369	U	0.0415	U	0.0366	U	0.0362	U	0.0369	U	0.038	U	0.0357	U
Aroclor 1248	1	0.1	0.0346	U	0.0351	U	-	-	0.0358	U	0.0371	U	0.0391	U	0.0372	U	0.0328	U	0.0358	U	0.0331	U	0.0369	U	0.0415	U	0.0366	U	0.0362	U	0.0369	U	0.038	U	0.0357	U
Aroclor 1254	1	0.1	0.0346	U	0.0351	U	-	-	0.0358	U	0.012	J	0.0391	U	0.0372	U	0.0328	U	0.0358	U	0.0331	U	0.0369	U	0.0415	U	0.0366	U	0.00563	J	0.0096	J	0.038	U	0.0111	J
Aroclor 1260	1	0.1	0.0346	U	0.0351	U	-	-	0.0358	U	0.011	J	0.0391	U	0.0372	U	0.0328	U	0.0358	U	0.0331	U	0.00435	J	0.0415	U	0.0075	J	0.00885	J	0.0369	U	0.038	U	0.00561	J
Aroclor 1262	1	0.1	0.0346	U	0.0351	U	-	-	0.0358	U	0.0371	U	0.0391	U	0.0372	U	0.0328	U	0.0358	U	0.0331	U	0.0369	U	0.0415	U	0.0366	U	0.0362	U	0.0369	U	0.038	U	0.0357	U
Aroclor 1268	1	0.1	0.0346	U	0.0351	U	-	-	0.0358	U	0.0371	U	0.0391	U	0.0372	U	0.0328	U	0.0358	U	0.0331	U	0.0369	U	0.0415	U	0.0366	U	0.0362	U	0.0369	U	0.038	U	0.0357	U
PCBs, Total	1	0.1	0.0346	U	0.0351	U	-	-	0.0358	U	0.023	J	0.0391	U	0.0372	U	0.0328	U	0.0358	U	0.0331	U	0.00435	J	0.0415	U	0.0075	J	0.0145	J	0.0096	J	0.038	U	0.0167	J
Semivolatile Organics by GC/MS																																				
1,2,4,5-Tetrachlorobenzene			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
1,2,4-Trichlorobenzene			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
1,2-Dichlorobenzene	100	1.1	0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
1,3-Dichlorobenzene	17	2.4	0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
1,4-Dichlorobenzene	9.8	1.8	0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
2,4,5-Trichlorophenol			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
2,4,6-Trichlorophenol			0.11	U	0.11	U	-	-	0.11	U	0.11	U	0.12	U	0.11	U	0.1	U	0.11	U	0.1	U	0.11	U	0.12	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U
2,4-Dichlorophenol			0.16	U	0.16	U	-	-	0.16	U	0.17	U	0.18	U	0.17	U	0.15	U	0.17	U	0.15	U	0.17	U	0.19	U	0.17	U	0.17	U	0.16	U	0.17	U	0.16	U
2,4-Dimethylphenol			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
2,4-Dinitrophenol			0.85	U	0.86	U	-	-	0.86	U	0.91	U	0.93	U	0.9	U	0.82	U	0.88	U	0.8	U	0.9	U	1	U	0.89	U	0.89	U	0.88	U	0.92	U	0.87	U
2,4-Dinitrotoluene			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
2,6-Dinitrotoluene			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
2-Chloronaphthalene			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
2-Chlorophenol			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
2-Methylnaphthalene			0.21	U	0.22	U	-	-	0.21	U	0.052	J	0.23	U	0.22	U	0.2	U	0.22	U	0.2	U	0.22	U	0.25	U	0.056	J	0.27		0.17	J	0.23	U	0.49	
2-Methylphenol	100	0.33	0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U

Table 1
Soil Boring Analytical Results - 2018 and 2019
180 East 132nd Street
Bronx, New York

LOCATION			DUP-SOIL		SB-1		SB-1		SB-1		SB-10		SB-10		SB-2		SB-2		SB-3		SB-3		SB-4		SB-4		SB-5		SB-5		SB-6		SB-6		SB-7	
SAMPLING DATE			2/27/2018		2/26/2018		2/26/2018		2/26/2018		2/27/2018		2/27/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/27/2018	
LAB SAMPLE ID	NY-RESR	NY-UNRES	L1806944-09		L1806702-09		L1806702-09 R1		L1806702-10		L1806944-07		L1806944-08		L1806702-11		L1806702-12		L1806702-13		L1806702-14		L1806702-15		L1806702-16		L1806702-17		L1806702-18		L1806702-06		L1806702-07		L1806944-01	
UNIT			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
SAMPLE DEPTH (ft.)					0-2		0-2		12-12.5		1-2		9.5-10		1-2		10.5-11		1-2		7-7.5		1-2		13-13.5		1-2		9.5-10		1-2		9.5-10		0.5-1	
			Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Semivolatile Organics by GC/MS																																				
2-Nitroaniline			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
2-Nitrophenol			0.38	U	0.39	U	-	-	0.39	U	0.41	U	0.42	U	0.4	U	0.37	U	0.4	U	0.36	U	0.4	U	0.45	U	0.4	U	0.4	U	0.4	U	0.41	U	0.39	U
3,3'-Dichlorobenzidine			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
3-Methylphenol/4-Methylphenol	34	0.33	0.26	U	0.26	U	-	-	0.26	U	0.27	U	0.28	U	0.27	U	0.25	U	0.26	U	0.24	U	0.27	U	0.3	U	0.27	U	0.31		0.26	U	0.27	U	0.26	U
3-Nitroaniline			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
4,6-Dinitro-o-cresol			0.46	U	0.47	U	-	-	0.46	U	0.49	U	0.5	U	0.48	U	0.44	U	0.48	U	0.43	U	0.49	U	0.54	U	0.48	U	0.48	U	0.48	U	0.5	U	0.47	U
4-Bromophenyl phenyl ether			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
4-Chloroaniline			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
4-Chlorophenyl phenyl ether			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
4-Nitroaniline			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
4-Nitrophenol			0.25	U	0.25	U	-	-	0.25	U	0.26	U	0.27	U	0.26	U	0.24	U	0.26	U	0.23	U	0.26	U	0.29	U	0.26	U	0.26	U	0.26	U	0.27	U	0.25	U
Acenaphthene	100	20	0.14	U	0.14	U	-	-	0.14	U	0.04	J	0.16	U	0.035	J	0.14	U	0.15	U	0.13	U	0.034	J	0.17	U	0.079	J	0.22		0.15	U	0.15	U	1.2	
Acenaphthylene	100	100	0.14	U	0.14	U	-	-	0.14	U	0.052	J	0.16	U	0.15	U	0.14	U	0.093	J	0.13	U	0.068	J	0.17	U	0.23		0.73		0.047	J	0.15	U	0.14	
Acetophenone			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.056	J	0.18	U	0.19	U	0.052	J
Anthracene	100	100	0.11	U	0.11	U	-	-	0.11	U	0.15		0.12	U	0.057	J	0.1	U	0.11	U	0.1	U	0.1	J	0.12	U	0.27		0.53		0.062	J	0.11	U	1.3	
Benzo(a)anthracene	1	1	0.043	J	0.069	J	-	-	0.11	U	0.35		0.12	U	0.13		0.1	U	0.1	J	0.1	U	0.26		0.12	U	0.86		1.7		0.26		0.11	U	6.6	
Benzo(a)pyrene	1	1	0.044	J	0.05	J	-	-	0.14	U	0.36		0.16	U	0.089	J	0.14	U	0.098	J	0.13	U	0.2		0.17	U	0.8		1.7		0.18		0.15	U	7	
Benzo(b)fluoranthene	1	1	0.058	J	0.064	J	-	-	0.11	U	0.45		0.12	U	0.12		0.1	U	0.16		0.1	U	0.28		0.12	U	1.1		2.3		0.29		0.11	U	8.9	E
Benzo(ghi)perylene	100	100	0.04	J	0.066	J	-	-	0.14	U	0.23		0.16	U	0.054	J	0.14	U	0.094	J	0.13	U	0.13	J	0.17	U	0.59		1.2		0.19		0.15	U	4.6	
Benzo(k)fluoranthene	1	0.8	0.11	U	0.11	U	-	-	0.11	U	0.18		0.12	U	0.037	J	0.1	U	0.041	J	0.1	U	0.08	J	0.12	U	0.32		0.67		0.082	J	0.11	U	2.8	
Benzoic Acid			0.58	U	0.58	U	-	-	0.58	U	0.61	U	0.63	U	0.6	U	0.56	U	0.6	U	0.54	U	0.61	U	0.68	U	0.6	U	0.6	U	0.6	U	0.62	U	0.59	U
Benzyl Alcohol			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
Biphenyl			0.4	U	0.41	U	-	-	0.41	U	0.43	U	0.44	U	0.42	U	0.39	U	0.42	U	0.38	U	0.43	U	0.48	U	0.42	U	0.046	J	0.42	U	0.43	U	0.13	J
Bis(2-chloroethoxy)methane			0.19	U	0.19	U	-	-	0.19	U	0.2	U	0.21	U	0.2	U	0.18	U	0.2	U	0.18	U	0.2	U	0.22	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Bis(2-chloroethyl)ether			0.16	U	0.16	U	-	-	0.16	U	0.17	U	0.18	U	0.17	U	0.15	U	0.17	U	0.15	U	0.17	U	0.19	U	0.17	U	0.17	U	0.16	U	0.17	U	0.16	U
Bis(2-chloroisopropyl)ether			0.21	U	0.22	U	-	-	0.21	U	0.23	U	0.23	U	0.22	U	0.2	U	0.22	U	0.2	U	0.22	U	0.25	U	0.22	U	0.22	U	0.22	U	0.23	U	0.22	U
Bis(2-ethylhexyl)phthalate			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.15	J	0.17	U	0.066	J	0.21	U	0.11	J	0.13	J	0.18	U	0.19	U	0.18	U
Butyl benzyl phthalate			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
Carbazole			0.18	U	0.18	U	-	-	0.18	U	0.052	J	0.19	U	0.036	J	0.17	U	0.18	U	0.17	U	0.033	J	0.21	U	0.14	J	0.23		0.026	J	0.19	U	0.78	
Chrysene	1	1	0.055	J	0.067	J	-	-	0.11	U	0.37		0.12	U	0.11		0.1	U	0.091	J	0.1	U	0.22		0.12	U	0.77		1.6		0.27		0.11	U	6.8	
Di-n-butylphthalate			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
Di-n-octylphthalate			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
Dibenzo(a,h)anthracene	0.33	0.33	0.11	U	0.11	U	-	-	0.11	U	0.058	J	0.12	U	0.11	U	0.1	U	0.11	U	0.1	U	0.034	J	0.12	U	0.14		0.29		0.038	J	0.11	U	1	
Dibenzofuran	14	7	0.18	U	0.18	U	-	-	0.18	U	0.037	J	0.19	U	0.025	J	0.17	U	0.18	U	0.17	U	0.018	J	0.21	U	0.05	J	0.16	J	0.047	J	0.19	U	0.72	
Diethyl phthalate			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
Dimethyl phthalate			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
Fluoranthene	100	100	0.06	J	0.094	J	-	-	0.11	U	0.64		0.12	U	0.3		0.1	U	0.15		0.1	U	0.55		0.12	U	1.6		3.1		0.44		0.11	U	16	E
Fluorene	100	30	0.18	U	0.18	U	-	-	0.18	U	0.058	J	0.19	U	0.022	J	0.17	U	0.18	U	0.17	U	0.026	J	0.21	U	0.09	J	0.21		0.18	U	0.19	U	0.58	
Hexachlorobenzene	0.33	0.33	0.11	U	0.11	U	-	-	0.11	U	0.11	U	0.12	U	0.11	U	0.1	U	0.11	U	0.1	U	0.11	U	0.12	U	0.11	U	0.11	U	0.11	U	0.11	U	0.11	U
Hexachlorobutadiene			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
Hexachlorocyclopentadiene			0.51	U	0.51	U	-	-	0.51	U	0.54	U	0.56	U	0.53	U	0.49	U	0.53	U	0.48	U	0.54	U	0.6	U	0.53	U	0.53	U	0.53	U	0.54	U	0.52	U
Hexachloroethane			0.14	U	0.14	U	-	-	0.14	U	0.15	U	0.16	U	0.15	U	0.14	U	0.15	U	0.13	U	0.15	U	0.17	U	0.15	U	0.15	U	0.15	U	0.15	U	0.14	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.03	J	0.054	J	-	-	0.14	U	0.24		0.16	U	0.063	J	0.14	U	0.1	J	0.13	U	0.15		0.17	U	0.66		1.4		0.17		0.15	U	4.8	
Isophorone			0.16	U	0.16	U	-	-	0.16	U	0.17	U	0.18	U	0.17	U	0.15	U	0.17	U	0.15	U	0.17	U	0.19	U	0.17	U	0.17	U	0.16	U	0.17	U	0.16	U
n-Nitrosodi-n-propylamine			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
Naphthalene	100	12	0.18	U	0.18	U	-	-	0.18	U	0.11	J	0.19	U	0.19	U	0.17	U	0.045	J	0.17	U	0.023	J	0.21	U	0.2		0.46		0.13	J	0.19	U	0.98	
NDPA/DPA			0.14	U	0.14	U	-	-	0.14	U	0.15	U	0.16	U	0.15	U	0.14	U	0.15	U	0.13	U	0.15	U	0.17	U	0.15	U	0.15	U	0.15	U	0.15	U	0.14	U
Nitrobenzene			0.16	U	0.16	U	-	-	0.16	U	0.17	U	0.18	U	0.17	U	0.15	U	0.17	U	0.15	U	0.17	U	0.19	U	0.17	U	0.17	U	0.16	U	0.17	U	0.16	U
p-Chloro-m-cresol			0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
Pentachlorophenol	2.4	0.8	0.14	U	0.14	U	-	-	0.14	U	0.15	U	0.16	U	0.15	U	0.14	U	0.15	U	0.13	U	0.15	U	0.17	U	0.15	U	0.15	U	0.15	U	0.15	U	0.14	U
Phenanthrene	100	100	0.031	J	0.052	J	-	-	0.11	U	0.44		0.12	U	0.31		0.1	U	0.058	J	0.1	U	0.35		0.12	U	1		1.8		0.33		0.11	U	11	E
Phenol	100	0.33	0.18	U	0.18	U	-	-	0.18	U	0.19	U	0.19	U	0.19	U	0.17	U	0.18	U	0.17	U	0.19	U	0.21	U	0.18	U	0.18	U	0.18	U	0.19	U	0.18	U
Pyrene	100	100	0.063	J	0.093	J	-	-	0.11	U	0.55		0.12	U	0.25		0.1	U	0.16		0.1	U	0.46		0.12	U	1.5		2.8		0.41		0.11	U	13	E

Table 1
Soil Boring Analytical Results - 2018 and 2019
180 East 132nd Street
Bronx, New York

LOCATION	NY-RESR	NY-UNRES	DUP-SOIL		SB-1		SB-1		SB-1		SB-10		SB-10		SB-2		SB-2		SB-3		SB-3		SB-4		SB-4		SB-5		SB-5		SB-6		SB-6		SB-7	
SAMPLING DATE			2/27/2018		2/26/2018		2/26/2018		2/26/2018		2/27/2018		2/27/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/27/2018	
LAB SAMPLE ID			L1806944-09		L1806702-09		L1806702-09 R1		L1806702-10		L1806944-07		L1806944-08		L1806702-11		L1806702-12		L1806702-13		L1806702-14		L1806702-15		L1806702-16		L1806702-17		L1806702-18		L1806702-06		L1806702-07		L1806944-01	
UNIT			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
SAMPLE DEPTH (ft.)					0-2		0-2		12-12.5		1-2		9.5-10		1-2		10.5-11		1-2		7-7.5		1-2		13-13.5		1-2		9.5-10		1-2		9.5-10		0.5-1	
			Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Total Metals																																				
Aluminum, Total			17100		8080		-	-	15000		10300		10200		9560		28100		12400		6330		14000		37000		9220		13300		8620		7480		9230	
Antimony, Total			4.3	U	1.39	J	-	-	4.29	U	0.75	J	4.68	U	4.45	U	4.06	U	4.3	U	3.88	U	4.42	U	5.05	U	4.29	U	4.37	U	1.9	J	0.34	J	0.887	J
Arsenic, Total	16	13	1.85		3		-	-	0.893		3.45		1.31		2.34		4.06		4.25		1.74		3.9		5.06		4.15		4		5.92		0.833	J	3.62	
Barium, Total	350	350	284		87.9		-	-	302		123		52		53.9		865		109		71.6		171		223		127		134		93.5		43.4		97.4	
Beryllium, Total	14	7.2	0.215	J	0.253	J	-	-	0.034	J	0.289	J	0.571		0.133	J	0.406	U	0.129	J	0.07	J	0.053	J	0.505	U	0.095	J	0.044	J	0.311	J	0.475		0.215	J
Cadmium, Total	2.5	2.5	0.859	U	0.228	J	-	-	0.859	U	0.497	J	0.936	U	0.89	U	0.813	U	0.112	J	0.777	U	0.885	U	1.01	U	0.266	J	0.874	U	0.666	J	0.896	U	0.663	J
Calcium, Total			3600		10000		-	-	982		12300		13300		21000		4340		7280		646		6340		5310		24600		5660		20800		30000		11300	
Chromium, Total			40.1		17.7		-	-	20.1		23.5		23.6		17.9		83.3		39.3		17.8		30.8		209		28.2		35.8		23.4		15		23.6	
Cobalt, Total			10.9		10		-	-	17.1		8.43		10.6		7.34		22.9		9.47		5.18		12.5		39.4		8.41		10.9		8.16		8.4		9.64	
Copper, Total	270	50	26.5		60.1		-	-	30.6		60		22.9		25.2		78.2		48.2		103		36.8		74.3		40.5		42		72		17.9		114	
Iron, Total			22500		19400		-	-	25000		16500		16600		15800		74300		19300		13300		20400		49600		15400		21600		18100		14100		19000	
Lead, Total	400	63	12.7		139		-	-	4.41		203		8.15		27.1		4.7		155		3.84	J	95		5.09		281		81		315		4.78		134	
Magnesium, Total			9610		6690		-	-	8940		7390		12300		15300		16300		8120		3220		8280		23500		12400		9610		5850		18200		6580	
Manganese, Total	2000	1600	276		304		-	-	302		300		461		296		344		295		146		302		182		457		349		263		772		260	
Mercury, Total	0.81	0.18	0.05	J	0.83		-	-	0.07	U	0.59		0.04	J	0.11		0.07	U	0.21		0.07	U	0.25		0.08	U	0.18		0.25		0.94		0.07	U	0.48	
Nickel, Total	140	30	17.6		15.4		-	-	19.8		15.2		17		10.9		25.3		17.8		4.78		16.8		164		19.7		16.7		17.3		13		18	
Potassium, Total			8600		2700		-	-	12100		2440		2260		2170		21600		3180		2820		4070		20700		3600		5300		1790		2140		2140	
Selenium, Total	36	3.9	1.72	U	1.69	U	-	-	1.72	U	1.81	U	1.87	U	1.78	U	0.87	J	0.241	J	1.55	U	0.531	J	2.02	U	0.429	J	1.75	U	1.78	U	1.79	U	1.72	U
Silver, Total	36	2	0.859	U	0.845	U	-	-	0.859	U	0.904	U	0.936	U	0.89	U	0.813	U	0.86	U	0.777	U	0.885	U	1.01	U	0.859	U	0.874	U	0.888	U	0.896	U	0.861	U
Sodium, Total			205		160	J	-	-	136	J	195		147	J	144	J	339		150	J	183		224		494		194		165	J	247		181		197	
Thallium, Total			1.72	U	1.69	U	-	-	1.72	U	1.81	U	1.87	U	1.78	U	1.63	U	1.72	U	1.55	U	1.77	U	2.02	U	1.72	U	1.75	U	1.78	U	1.79	U	1.72	U
Vanadium, Total			44.4		35.9		-	-	94.1		32.7		31.2		35.6		126		41.2		10.7		47.2		184		31.7		42.2		38		22.5		43.1	
Zinc, Total	2200	109	69.3		201		-	-	54.9		192		58.7		39.7		70.2		152		68.7		140		186		172		108		226		44		374	
Volatile Organics by 8260/5035																																				
1,1,1,2-Tetrachloroethane			0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
1,1,1-Trichloroethane	100	0.68	0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
1,1,2,2-Tetrachloroethane			0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
1,1,2-Trichloroethane			0.0015	U	0.0014	U	0.0014	U	0.0016	U	0.088	U	0.0013	U	0.0014	U	0.0013	U	0.0014	U	0.0016	U	0.0015	U	0.0017	U	0.0014	U	0.0014	U	0.0015	U	0.0012	U	0.0017	U
1,1-Dichloroethane	19	0.27	0.0015	U	0.0014	U	0.0014	U	0.0016	U	0.088	U	0.0013	U	0.0014	U	0.0013	U	0.0014	U	0.0016	U	0.0015	U	0.0017	U	0.0014	U	0.0014	U	0.0015	U	0.0012	U	0.0017	U
1,1-Dichloroethene	100	0.33	0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
1,1-Dichloropropene			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
1,2,3-Trichlorobenzene			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
1,2,3-Trichloropropane			0.01	U	0.0093	U	0.0092	U	0.01	U	0.58	U	0.0084	U	0.0093	U	0.0088	U	0.0091	U	0.011	U	0.0098	U	0.011	U	0.0095	U	0.0097	U	0.01	U	0.0081	U	0.011	U
1,2,4,5-Tetramethylbenzene			0.0041	U	0.0037	U	0.0037	U	0.0042	U	0.014	J	0.0034	U	0.0037	U	0.0035	U	0.0036	U	0.0043	U	0.0039	U	0.0045	U	0.0038	U	0.0039	U	0.0041	U	0.0032	U	0.0045	U
1,2,4-Trichlorobenzene			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
1,2,4-Trimethylbenzene	47	3.6	0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.17	J	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
1,2-Dibromo-3-chloropropane			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
1,2-Dibromoethane			0.0041	U	0.0037	U	0.0037	U	0.0042	U	0.23	U	0.0034	U	0.0037	U	0.0035	U	0.0036	U	0.0043	U	0.0039	U	0.0045	U	0.0038	U	0.0039	U	0.0041	U	0.0032	U	0.0045	U
1,2-Dichlorobenzene	100	1.1	0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
1,2-Dichloroethane	2.3	0.02	0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
1,2-Dichloroethene, Total			0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
1,2-Dichloropropane			0.0036	U	0.0033	U	0.0032	U	0.0037	U	0.2	U	0.003	U	0.0032	U	0.0031	U	0.0032	U	0.0038	U	0.0034	U	0.0039	U	0.0033	U	0.0034	U	0.0036	U	0.0028	U	0.0039	U
1,3,5-Trimethylbenzene	47	8.4	0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.03	J	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
1,3-Dichlorobenzene	17	2.4	0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
1,3-Dichloropropane			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
1,3-Dichloropropene, Total			0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
1,4-Dichlorobenzene	9.8	1.8	0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
1,4-Dioxane	9.8	0.1	0.041	U	0.037	U	0.037	U	0.042	U	2.3	U	0.034	U	0.037	U	0.035	U	0.036	U	0.043	U	0.039	U	0.045	U	0.038	U	0.039	U	0.041	U	0.032	U	0.045	U
2,2-Dichloropropane			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
2-Butanone	100	0.12	0.01	U	0.0093	U	0.0092	U	0.01	U	0.58	U	0.0084	U	0.0093	U	0.0088	U	0.0091	U	0.011	U	0.0098	U	0.011	U	0.0095	U	0.0097	U	0.01	U	0.0081	U	0.011	U
2-Hexanone			0.01	U	0.0093	U	0.0092	U	0.01	U	0.58	U	0.0084	U	0.0093	U	0.0088	U	0.0091	U	0.011	U	0.0098	U	0.011	U	0.0095	U	0.0097	U	0.01	U	0.0081	U	0.011	U
4-Methyl-2-pentanone			0.01	U	0.0093	U	0.0092	U	0.01	U	0.58	U	0.0084	U	0.0093	U	0.0088	U	0.0091	U	0.011	U	0.0098	U	0.011	U	0.0095	U	0.0097	U	0.01	U	0.0081	U	0.011	U
Acetone	100	0.05	0.022		0.0046	J	0.012		0.01	U	0.58	U	0.032		0.0093	U	0.0088	U	0.0091	U	0.011	U	0.0041	J	0.011	U	0.036		0.038		0.025		0.014		0.008	J
Acrylonitrile			0.01	U	0.0093	U	0.0092	U	0.01	U	0.58	U	0.0084	U	0.0093	U	0.0088	U	0.0091	U	0.011	U	0.0098	U	0.011	U	0.0095	U	0.0097	U	0.01	U	0.0081	U	0.011	U

Table 1
Soil Boring Analytical Results - 2018 and 2019
180 East 132nd Street
Bronx, New York

LOCATION			DUP-SOIL		SB-1		SB-1		SB-1		SB-10		SB-10		SB-2		SB-2		SB-3		SB-3		SB-4		SB-4		SB-5		SB-5		SB-6		SB-6		SB-7	
SAMPLING DATE			2/27/2018		2/26/2018		2/26/2018		2/26/2018		2/27/2018		2/27/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/26/2018		2/27/2018	
LAB SAMPLE ID	NY-RESR	NY-UNRES	L1806944-09		L1806702-09		L1806702-09 R1		L1806702-10		L1806944-07		L1806944-08		L1806702-11		L1806702-12		L1806702-13		L1806702-14		L1806702-15		L1806702-16		L1806702-17		L1806702-18		L1806702-06		L1806702-07		L1806944-01	
UNIT			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
SAMPLE DEPTH (ft.)					0-2		0-2		12-12.5		1-2		9.5-10		1-2		10.5-11		1-2		7-7.5		1-2		13-13.5		1-2		9.5-10		1-2		9.5-10		0.5-1	
			Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Volatile Organics by 8260/5035																																				
Benzene	2.9	0.06	0.001	U	0.00093	U	0.00092	U	0.001	U	0.027	J	0.00084	U	0.00093	U	0.00088	U	0.0002	J	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00027	J	0.001	U	0.00081	U	0.0011	U
Bromobenzene			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
Bromochloromethane			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
Bromodichloromethane			0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
Bromoform			0.0041	U	0.0037	U	0.0037	U	0.0042	U	0.23	U	0.0034	U	0.0037	U	0.0035	U	0.0036	U	0.0043	U	0.0039	U	0.0045	U	0.0038	U	0.0039	U	0.0041	U	0.0032	U	0.0045	U
Bromomethane			0.002	U	0.00032	J	0.0018	U	0.00039	J	0.031	J	0.0017	U	0.0018	U	0.0003	J	0.0018	U	0.0022	U	0.00035	J	0.0022	U	0.0019	U	0.0019	U	0.002	U	0.0016	U	0.0022	U
Carbon disulfide			0.01	U	0.0093	U	0.0092	U	0.01	U	0.58	U	0.0084	U	0.0093	U	0.0088	U	0.0091	U	0.011	U	0.0098	U	0.011	U	0.0095	U	0.0097	U	0.01	U	0.0081	U	0.011	U
Carbon tetrachloride	1.4	0.76	0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
Chlorobenzene	100	1.1	0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
Chloroethane			0.002	U	0.0019	U	0.0018	U	0.0021	U	0.12	U	0.0017	U	0.0018	U	0.0018	U	0.0018	U	0.0022	U	0.002	U	0.0022	U	0.0019	U	0.0019	U	0.002	U	0.0016	U	0.0022	U
Chloroform	10	0.37	0.0015	U	0.0014	U	0.0014	U	0.0016	U	0.088	U	0.0013	U	0.0014	U	0.0013	U	0.0014	U	0.0016	U	0.0015	U	0.0017	U	0.0014	U	0.0014	U	0.0015	U	0.0012	U	0.0017	U
Chloromethane			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
cis-1,2-Dichloroethene	59	0.25	0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
cis-1,3-Dichloropropene			0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
Dibromochloromethane			0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
Dibromomethane			0.01	U	0.0093	U	0.0092	U	0.01	U	0.58	U	0.0084	U	0.0093	U	0.0088	U	0.0091	U	0.011	U	0.0098	U	0.011	U	0.0095	U	0.0097	U	0.01	U	0.0081	U	0.011	U
Dichlorodifluoromethane			0.01	U	0.0093	U	0.0092	U	0.01	U	0.58	U	0.0084	U	0.0093	U	0.0088	U	0.0091	U	0.011	U	0.0098	U	0.011	U	0.0095	U	0.0097	U	0.01	U	0.0081	U	0.011	U
Ethyl ether			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
Ethylbenzene	30	1	0.001	U	0.00093	U	0.00092	U	0.001	U	0.052	J	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
Hexachlorobutadiene			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
Isopropylbenzene			0.001	U	0.00093	U	0.00092	U	0.001	U	0.039	J	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
Methyl tert butyl ether	62	0.93	0.002	U	0.0019	U	0.0018	U	0.0021	U	0.12	U	0.0017	U	0.0018	U	0.0018	U	0.0018	U	0.0022	U	0.002	U	0.0022	U	0.0019	U	0.0019	U	0.002	U	0.0016	U	0.0022	U
Methylene chloride	51	0.05	0.01	U	0.0093	U	0.0092	U	0.01	U	0.58	U	0.0084	U	0.0093	U	0.0088	U	0.0091	U	0.011	U	0.0098	U	0.011	U	0.0095	U	0.0097	U	0.01	U	0.0081	U	0.011	U
n-Butylbenzene	100	12	0.001	U	0.00093	U	0.00092	U	0.001	U	0.014	J	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
n-Propylbenzene	100	3.9	0.001	U	0.00093	U	0.00092	U	0.001	U	0.033	J	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
Naphthalene	100	12	0.0051	U	0.00021	J	0.0046	U	0.0053	U	0.23	J	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.00016	J	0.00019	J	0.0051	U	0.004	U	0.0056	U
o-Chlorotoluene			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
o-Xylene			0.002	U	0.0019	U	0.0018	U	0.0021	U	0.22		0.0017	U	0.0018	U	0.0018	U	0.0018	U	0.0022	U	0.002	U	0.0022	U	0.0019	U	0.0019	U	0.002	U	0.0016	U	0.0022	U
p-Chlorotoluene			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
p-Diethylbenzene			0.0041	U	0.0037	U	0.0037	U	0.0042	U	0.23	U	0.0034	U	0.0037	U	0.0035	U	0.0036	U	0.0043	U	0.0039	U	0.0045	U	0.0038	U	0.0039	U	0.0041	U	0.0032	U	0.0045	U
p-Ethyltoluene			0.0041	U	0.0037	U	0.0037	U	0.0042	U	0.07	J	0.0034	U	0.0037	U	0.0035	U	0.0036	U	0.0043	U	0.0039	U	0.0045	U	0.0038	U	0.0039	U	0.0041	U	0.0032	U	0.0045	U
p-Isopropyltoluene			0.001	U	0.00093	U	0.00092	U	0.001	U	0.012	J	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
p/m-Xylene			0.002	U	0.0019	U	0.0018	U	0.0021	U	0.25		0.0017	U	0.0018	U	0.0018	U	0.0018	U	0.0022	U	0.002	U	0.0022	U	0.0019	U	0.0019	U	0.002	U	0.0016	U	0.0022	U
sec-Butylbenzene	100	11	0.001	U	0.00093	U	0.00092	U	0.001	U	0.018	J	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
Styrene			0.002	U	0.0019	U	0.0018	U	0.0021	U	0.12	U	0.0017	U	0.0018	U	0.0018	U	0.0018	U	0.0022	U	0.002	U	0.0022	U	0.0019	U	0.0019	U	0.002	U	0.0016	U	0.0022	U
tert-Butylbenzene	100	5.9	0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
Tetrachloroethene	5.5	1.3	0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	
Toluene	100	0.7	0.0015	U	0.0014	U	0.0014	U	0.0016	U	0.23		0.0013	U	0.0014	U	0.0013	U	0.0014	U	0.00022	J	0.0015	U	0.0017	U	0.00024	J	0.00026	J	0.0015	U	0.0012	U	0.0017	U
trans-1,2-Dichloroethene	100	0.19	0.0015	U	0.0014	U	0.0014	U	0.0016	U	0.088	U	0.0013	U	0.0014	U	0.0013	U	0.0014	U	0.0016	U	0.0015	U	0.0017	U	0.0014	U	0.0014	U	0.0015	U	0.0012	U	0.0017	U
trans-1,3-Dichloropropene			0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
trans-1,4-Dichloro-2-butene			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
Trichloroethene	10	0.47	0.001	U	0.00093	U	0.00092	U	0.001	U	0.058	U	0.00084	U	0.00093	U	0.00088	U	0.00091	U	0.0011	U	0.00098	U	0.0011	U	0.00095	U	0.00097	U	0.001	U	0.00081	U	0.0011	U
Trichlorofluoromethane			0.0051	U	0.0047	U	0.0046	U	0.0053	U	0.29	U	0.0042	U	0.0046	U	0.0044	U	0.0046	U	0.0054	U	0.0049	U	0.0056	U	0.0047	U	0.0048	U	0.0051	U	0.004	U	0.0056	U
Vinyl acetate			0.01	U	0.0093	U	0.0092	U	0.01	U	0.58	U	0.0084	U	0.0093	U	0.0088	U	0.0091	U	0.011	U	0.0098	U	0.011	U	0.0095	U	0.0097	U	0.01	U	0.0081	U	0.011	U
Vinyl chloride	0.21	0.02	0.002	U	0.0019	U	0.0018	U	0.0021	U	0.12	U	0.0017	U	0.0018	U	0.0018	U	0.0018	U	0.0022	U	0.002	U	0.0022	U	0.0019	U	0.0019	U	0.002	U	0.0016	U	0.0022	U
Xylenes, Total	100	0.26	0.002	U	0.0019	U	0.0018	U	0.0021	U	0.47		0.0017	U	0.0018	U	0.0018	U	0.0018	U	0.0022	U	0.002	U	0.0022	U	0.0019	U	0.0019	U	0.002	U	0.0016	U	0.0022	U

Table 1
Soil Boring Analytical Results - 2018 and 2019
180 East 132nd Street
Bronx, New York

LOCATION	NY-RESR	NY-UNRES	SB-7		SB-7		SB-8		SB-8		SB-9		SB-9		SB-11		SB-11		SB-12		SB-13		SB-13		SB-13		SB-13		SB-13		SB-14		SB-14		SB-15	
SAMPLING DATE			2/27/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018	
LAB SAMPLE ID			L1806944-01 R1		L1806944-02		L1806944-03		L1806944-04		L1806944-05		L1806944-06		L1822065-01		L1822065-02		L1822065-03		L1822065-04		L1822065-05		L1822065-06		L1822065-07		L1822065-08		L1822065-09		L1822065-10		L1822065-11	
UNIT			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
SAMPLE DEPTH (ft.)			0.5-1		4.5-5		1-2		10.5-11		1-2		13.5-14		0-1		5-5.5		0-1		1-2		3-4		5-6		7-8		9-10		0-1		9-10		0-1	
			Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
General Chemistry																																				
Solids, Total			-	-	99.5		93.4		88.2		87		88.1		90.3		95.5		92.6		91.1		76.3		91.1		89.7		90		88.6		93.4		90.8	
Organochlorine Pesticides by GC																																				
4,4'-DDD	2.6	0.0033	-	-	0.00156	U	0.00166	U	0.00178	U	0.0254		0.0018	U	-		-		-		-		-		-		-		-		-		-		-	
4,4'-DDE	1.8	0.0033	-	-	0.00156	U	0.00166	U	0.00178	U	0.0102		0.0018	U	-		-		-		-		-		-		-		-		-		-		-	
4,4'-DDT	1.7	0.0033	-	-	0.00292	U	0.00311	U	0.00335	U	0.0156		0.00337	U	-		-		-		-		-		-		-		-		-		-		-	
Aldrin	0.019	0.005	-	-	0.00156	U	0.00166	U	0.00178	U	0.00182	U	0.0018	U	-		-		-		-		-		-		-		-		-		-		-	
Alpha-BHC	0.097	0.02	-	-	0.00065	U	0.000692	U	0.000744	U	0.000758	U	0.000748	U	-		-		-		-		-		-		-		-		-		-		-	
Beta-BHC	0.072	0.036	-	-	0.00156	U	0.00166	U	0.00178	U	0.00182	U	0.0018	U	-		-		-		-		-		-		-		-		-		-		-	
Chlordane			-	-	0.0127	U	0.0135	U	0.0145	U	0.0148	U	0.0146	U	-		-		-		-		-		-		-		-		-		-		-	
cis-Chlordane	0.91	0.094	-	-	0.00195	U	0.00207	U	0.00223	U	0.00227	U	0.00224	U	-		-		-		-		-		-		-		-		-		-		-	
Delta-BHC	100	0.04	-	-	0.00156	U	0.00166	U	0.00178	U	0.00182	U	0.0018	U	-		-		-		-		-		-		-		-		-		-		-	
Dieldrin	0.039	0.005	-	-	0.000975	U	0.00104	U	0.00112	U	0.00114	U	0.00112	U	-		-		-		-		-		-		-		-		-		-		-	
Endosulfan I	4.8	2.4	-	-	0.00156	U	0.00166	U	0.00178	U	0.00182	U	0.0018	U	-		-		-		-		-		-		-		-		-		-		-	
Endosulfan II	4.8	2.4	-	-	0.00156	U	0.00166	U	0.00178	U	0.00182	U	0.0018	U	-		-		-		-		-		-		-		-		-		-		-	
Endosulfan sulfate	4.8	2.4	-	-	0.00065	U	0.000692	U	0.000744	U	0.000758	U	0.000748	U	-		-		-		-		-		-		-		-		-		-		-	
Endrin	2.2	0.014	-	-	0.00065	U	0.000692	U	0.000744	U	0.000758	U	0.000748	U	-		-		-		-		-		-		-		-		-		-		-	
Endrin aldehyde			-	-	0.00195	U	0.00207	U	0.00223	U	0.00227	U	0.00224	U	-		-		-		-		-		-		-		-		-		-		-	
Endrin ketone			-	-	0.00156	U	0.00166	U	0.00178	U	0.00182	U	0.0018	U	-		-		-		-		-		-		-		-		-		-		-	
Heptachlor	0.42	0.042	-	-	0.00078	U	0.00083	U	0.000893	U	0.000909	U	0.000898	U	-		-		-		-		-		-		-		-		-		-		-	
Heptachlor epoxide			-	-	0.00292	U	0.00311	U	0.00335	U	0.00341	U	0.00337	U	-		-		-		-		-		-		-		-		-		-		-	
Lindane	0.28	0.1	-	-	0.00065	U	0.000692	U	0.000744	U	0.000758	U	0.000748	U	-		-		-		-		-		-		-		-		-		-		-	
Methoxychlor			-	-	0.00292	U	0.00311	U	0.00335	U	0.00341	U	0.00337	U	-		-		-		-		-		-		-		-		-		-		-	
Toxaphene			-	-	0.0292	U	0.0311	U	0.0335	U	0.0341	U	0.0337	U	-		-		-		-		-		-		-		-		-		-		-	
trans-Chlordane			-	-	0.00195	U	0.00207	U	0.00223	U	0.00227	U	0.00224	U	-		-		-		-		-		-		-		-		-		-		-	
Polychlorinated Biphenyls by GC																																				
Aroclor 1016	1	0.1	-	-	0.0334	U	0.0341	U	0.0367	U	0.0379	U	0.0376	U	-		-		-		-		-		-		-		-		-		-		-	
Aroclor 1221	1	0.1	-	-	0.0334	U	0.0341	U	0.0367	U	0.0379	U	0.0376	U	-		-		-		-		-		-		-		-		-		-		-	
Aroclor 1232	1	0.1	-	-	0.0334	U	0.0341	U	0.0367	U	0.0379	U	0.0376	U	-		-		-		-		-		-		-		-		-		-		-	
Aroclor 1242	1	0.1	-	-	0.0334	U	0.0341	U	0.0367	U	0.0379	U	0.0376	U	-		-		-		-		-		-		-		-		-		-		-	
Aroclor 1248	1	0.1	-	-	0.0334	U	0.0341	U	0.0367	U	0.0379	U	0.0376	U	-		-		-		-		-		-		-		-		-		-		-	
Aroclor 1254	1	0.1	-	-	0.0334	U	0.0341	U	0.0367	U	0.0171	J	0.0376	U	-		-		-		-		-		-		-		-		-		-		-	
Aroclor 1260	1	0.1	-	-	0.0334	U	0.0341	U	0.0367	U	0.0124	J	0.0376	U	-		-		-		-		-		-		-		-		-		-		-	
Aroclor 1262	1	0.1	-	-	0.0334	U	0.0341	U	0.0367	U	0.0379	U	0.0376	U	-		-		-		-		-		-		-		-		-		-		-	
Aroclor 1268	1	0.1	-	-	0.0334	U	0.0341	U	0.0367	U	0.0379	U	0.0376	U	-		-		-		-		-		-		-		-		-		-		-	
PCBs, Total	1	0.1	-	-	0.0334	U	0.0341	U	0.0367	U	0.0295	J	0.0376	U	-		-		-		-		-		-		-		-		-		-		-	
Semivolatile Organics by GC/MS																																				
1,2,4,5-Tetrachlorobenzene			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
1,2,4-Trichlorobenzene			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
1,2-Dichlorobenzene	100	1.1	-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
1,3-Dichlorobenzene	17	2.4	-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
1,4-Dichlorobenzene	9.8	1.8	-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
2,4,5-Trichlorophenol			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
2,4,6-Trichlorophenol			-	-	0.099	U	0.1	U	0.11	U	0.11	U	0.11	U	-		-		-		-		-		-		-		-		-		-		-	
2,4-Dichlorophenol			-	-	0.15	U	0.16	U	0.17	U	0.17	U	0.17	U	-		-		-		-		-		-		-		-		-		-		-	
2,4-Dimethylphenol			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
2,4-Dinitrophenol			-	-	0.79	U	0.84	U	0.9	U	0.9	U	0.89	U	-		-		-		-		-		-		-		-		-		-		-	
2,4-Dinitrotoluene			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
2,6-Dinitrotoluene			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
2-Chloronaphthalene			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	0.18	U	0.17	U	0.89	U	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U	0.17	U	0.18	U
2-Chlorophenol			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
2-Methylnaphthalene			-	-	0.2	U	0.21	U	0.22	U	0.042	J	0.22	U	0.029	J	0.21	U	1.1	U	0.033	J	0.031	J	0.043	J	0.22	U	0.22	U	0.22	U	0.21	U	0.08	J
2-Methylphenol	100	0.33	-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	

Table 1
Soil Boring Analytical Results - 2018 and 2019
180 East 132nd Street
Bronx, New York

LOCATION			SB-7		SB-7		SB-8		SB-8		SB-9		SB-9		SB-11		SB-11		SB-12		SB-13		SB-13		SB-13		SB-13		SB-13		SB-14		SB-14		SB-15	
SAMPLING DATE			2/27/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018	
LAB SAMPLE ID	NY-RESR	NY-UNRES	L1806944-01 R1		L1806944-02		L1806944-03		L1806944-04		L1806944-05		L1806944-06		L1822065-01		L1822065-02		L1822065-03		L1822065-04		L1822065-05		L1822065-06		L1822065-07		L1822065-08		L1822065-09		L1822065-10		L1822065-11	
UNIT			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
SAMPLE DEPTH (ft.)			0.5-1		4.5-5		1-2		10.5-11		1-2		13.5-14		0-1		5-5.5		0-1		1-2		3-4		5-6		7-8		9-10		0-1		9-10		0-1	
			Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Semivolatile Organics by GC/MS																																				
2-Nitroaniline			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
2-Nitrophenol			-	-	0.36	U	0.38	U	0.4	U	0.4	U	0.4	U	-		-		-		-		-		-		-		-		-		-		-	
3,3'-Dichlorobenzidine			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
3-Methylphenol/4-Methylphenol	34	0.33	-	-	0.24	U	0.25	U	0.27	U	0.27	U	0.27	U	-		-		-		-		-		-		-		-		-		-		-	
3-Nitroaniline			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
4,6-Dinitro-o-cresol			-	-	0.43	U	0.45	U	0.49	U	0.49	U	0.48	U	-		-		-		-		-		-		-		-		-		-		-	
4-Bromophenyl phenyl ether			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
4-Chloroaniline			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
4-Chlorophenyl phenyl ether			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
4-Nitroaniline			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
4-Nitrophenol			-	-	0.23	U	0.24	U	0.26	U	0.26	U	0.26	U	-		-		-		-		-		-		-		-		-		-		-	
Acenaphthene	100	20	-	-	0.13	U	0.14	U	0.15	U	0.15	U	0.15	U	0.044	J	0.032	J	0.71	U	0.044	J	0.11	J	0.054	J	0.14	U	0.14	U	0.14	U	0.14	U	0.35	
Acenaphthylene	100	100	-	-	0.13	U	0.14	U	0.15	U	0.064	J	0.15	U	0.093	J	0.14	U	0.71	U	0.053	J	0.17	U	0.043	J	0.14	U	0.14	U	0.15	U	0.14	U	0.096	J
Acetophenone			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Anthracene	100	100	-	-	0.099	U	0.1	U	0.11	U	0.089	J	0.11	U	0.14		0.047	J	0.26	J	0.12		0.3		0.15		0.11	U	0.11	U	0.11	U	0.1	U	0.5	
Benzo(a)anthracene	1	1	-	-	0.099	U	0.056	J	0.026	J	0.32		0.11	U	0.63		0.21		0.97		0.35		1.2		0.49		0.11	U	0.11	U	0.098	J	0.1	U	0.72	
Benzo(a)pyrene	1	1	-	-	0.13	U	0.059	J	0.15	U	0.35		0.15	U	0.56		0.18		0.83		0.34		1.2		0.48		0.14	U	0.14	U	0.094	J	0.14	U	0.64	
Benzo(b)fluoranthene	1	1	7		0.099	U	0.072	J	0.11	U	0.46		0.11	U	0.75		0.26		1.1		0.43		1.5		0.63		0.11	U	0.11	U	0.12		0.1	U	0.81	
Benzo(ghi)perylene	100	100	-	-	0.13	U	0.05	J	0.15	U	0.23		0.15	U	0.33		0.12	J	0.51	J	0.23		0.78		0.34		0.14	U	0.14	U	0.056	J	0.14	U	0.42	
Benzo(k)fluoranthene	1	0.8	-	-	0.099	U	0.1	U	0.11	U	0.16		0.11	U	0.25		0.083	J	0.4	J	0.16		0.53		0.22		0.11	U	0.11	U	0.044	J	0.1	U	0.31	
Benzoic Acid			-	-	0.53	U	0.56	U	0.61	U	0.61	U	0.6	U	-		-		-		-		-		-		-		-		-		-		-	
Benzyl Alcohol			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Biphenyl			-	-	0.38	U	0.4	U	0.43	U	0.43	U	0.42	U	-		-		-		-		-		-		-		-		-		-		-	
Bis(2-chloroethoxy)methane			-	-	0.18	U	0.19	U	0.2	U	0.2	U	0.2	U	-		-		-		-		-		-		-		-		-		-		-	
Bis(2-chloroethyl)ether			-	-	0.15	U	0.16	U	0.17	U	0.17	U	0.17	U	-		-		-		-		-		-		-		-		-		-		-	
Bis(2-chloroisopropyl)ether			-	-	0.2	U	0.21	U	0.22	U	0.22	U	0.22	U	-		-		-		-		-		-		-		-		-		-		-	
Bis(2-ethylhexyl)phthalate			-	-	0.16	U	0.17	U	0.19	U	0.18	J	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Butyl benzyl phthalate			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Carbazole			-	-	0.16	U	0.17	U	0.19	U	0.03	J	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Chrysene	1	1	-	-	0.099	U	0.077	J	0.11	U	0.34		0.11	U	0.62		0.21		0.86		0.34		1.2		0.52		0.11	U	0.11	U	0.11		0.1	U	0.68	
Di-n-butylphthalate			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Di-n-octylphthalate			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Dibenzo(a,h)anthracene	0.33	0.33	-	-	0.099	U	0.1	U	0.11	U	0.059	J	0.11	U	0.1	J	0.034	J	0.13	J	0.057	J	0.19		0.082	J	0.11	U	0.11	U	0.11	U	0.1	U	0.11	
Dibenzofuran	14	7	-	-	0.16	U	0.17	U	0.19	U	0.018	J	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Diethyl phthalate			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Dimethyl phthalate			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Fluoranthene	100	100	14		0.099	U	0.09	J	0.04	J	0.54		0.11	U	1		0.43		1.7		0.63		2.3		0.97		0.11	U	0.11	U	0.22		0.1	U	1.9	
Fluorene	100	30	-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	0.033	J	0.17	U	0.89	U	0.055	J	0.093	J	0.051	J	0.18	U	0.18	U	0.18	U	0.17	U	0.43	
Hexachlorobenzene	0.33	0.33	-	-	0.099	U	0.1	U	0.11	U	0.11	U	0.11	U	-		-		-		-		-		-		-		-		-		-		-	
Hexachlorobutadiene			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Hexachlorocyclopentadiene			-	-	0.47	U	0.5	U	0.54	U	0.54	U	0.53	U	-		-		-		-		-		-		-		-		-		-		-	
Hexachloroethane			-	-	0.13	U	0.14	U	0.15	U	0.15	U	0.15	U	-		-		-		-		-		-		-		-		-		-		-	
Indeno(1,2,3-cd)pyrene	0.5	0.5	-	-	0.13	U	0.035	J	0.15	U	0.24		0.15	U	0.36		0.13	J	0.56	J	0.23		0.81		0.34		0.14	U	0.14	U	0.061	J	0.14	U	0.42	
Isophorone			-	-	0.15	U	0.16	U	0.17	U	0.17	U	0.17	U	-		-		-		-		-		-		-		-		-		-		-	
n-Nitrosodi-n-propylamine			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Naphthalene	100	12	-	-	0.16	U	0.17	U	0.19	U	0.047	J	0.19	U	0.061	J	0.029	J	0.89	U	0.045	J	0.07	J	0.069	J	0.18	U	0.18	U	0.029	J	0.17	U	0.066	J
NDPA/DPA			-	-	0.13	U	0.14	U	0.15	U	0.15	U	0.15	U	-		-		-		-		-		-		-		-		-		-		-	
Nitrobenzene			-	-	0.15	U	0.16	U	0.17	U	0.17	U	0.17	U	-		-		-		-		-		-		-		-		-		-		-	
p-Chloro-m-cresol			-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Pentachlorophenol	2.4	0.8	-	-	0.13	U	0.14	U	0.15	U	0.15	U	0.15	U	-		-		-		-		-		-		-		-		-		-		-	
Phenanthrene	100	100	9.8		0.099	U	0.062	J	0.023	J	0.23		0.11	U	0.31		0.3		0.68		0.38		1.1		0.55		0.11	U	0.11	U	0.2		0.1	U	1.4	
Phenol	100	0.33	-	-	0.16	U	0.17	U	0.19	U	0.19	U	0.19	U	-		-		-		-		-		-		-		-		-		-		-	
Pyrene	100	100	12		0.099	U	0.09	J	0.036	J	0.46		0.11	U	1.1		0.37		1.6		0.57		2		0.86		0.11	U	0.11	U	0.2		0.1	U	1.8	

Table 1
Soil Boring Analytical Results - 2018 and 2019
180 East 132nd Street
Bronx, New York

LOCATION			SB-7		SB-7		SB-8		SB-8		SB-9		SB-9		SB-11		SB-11		SB-12		SB-13		SB-13		SB-13		SB-13		SB-13		SB-14		SB-14		SB-15	
SAMPLING DATE			2/27/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018	
LAB SAMPLE ID	NY-RESR	NY-UNRES	L1806944-01 R1		L1806944-02		L1806944-03		L1806944-04		L1806944-05		L1806944-06		L1822065-01		L1822065-02		L1822065-03		L1822065-04		L1822065-05		L1822065-06		L1822065-07		L1822065-08		L1822065-09		L1822065-10		L1822065-11	
UNIT			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
SAMPLE DEPTH (ft.)			0.5-1		4.5-5		1-2		10.5-11		1-2		13.5-14		0-1		5-5.5		0-1		1-2		3-4		5-6		7-8		9-10		0-1		9-10		0-1	
			Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Total Metals																																				
Aluminum, Total			-	-	14600		15500		10000		9640		13400		698		6280		6050		6800		7870		8330		6750		3150		8770		8670		5850	
Antimony, Total			-	-	3.98	U	4.28	U	0.458	J	0.494	J	4.38	U	0.423	U	4.05	U	4.07	U	4.13	U	4.99	U	4.26	U	4.37	U	4.29	U	4.46	U	4.16	U	4.32	U
Arsenic, Total	16	13	-	-	0.931		2.31		2.34		3.31		0.254	J	0.292		1.94		2.69		4.37		3.43		3.13		2.94		1.33		3.54		1.31		2.38	
Barium, Total	350	350	-	-	84.8		246		76.6		97.3		201		8.16		97.1		81		81.4		144		57		13.2		11.7		71.1		83.4		58.7	
Beryllium, Total	14	7.2	-	-	0.143	J	0.214	J	0.359	J	0.302	J	0.438	U	0.017	J	0.405	U	0.122	J	0.173	J	0.15	J	0.239	J	0.254	J	0.111	J	0.223	J	0.416	U	0.121	J
Cadmium, Total	2.5	2.5	-	-	0.796	U	0.855	U	0.898	U	0.339	J	0.876	U	0.085	U	0.292	J	0.814	U	0.825	U	0.999	U	0.853	U	0.874	U	0.857	U	0.893	U	0.832	U	0.864	U
Calcium, Total			-	-	2230		3080		2720		14000		2700		3160		36600		16200		35100		31100		7920		672		261		8790		4780		17100	
Chromium, Total			-	-	54.1		36.6		16.1		27.3		11.2		1.91		20.7		15		19.6		18.4		20.1		10.2		5.12		21.8		17.3		16.3	
Cobalt, Total			-	-	10.8		10.2		6.53		8.63		19.9		0.678		7.03		5.7		6.72		9.35		7.55		4.47		2.35		8.7		28.4		5.42	
Copper, Total	270	50	-	-	33.5		23.7		18.3		40.5		27		3.17		93.2		19.4		28.9		50.4		35.4		12.5		8.15		36.2		73		25.2	
Iron, Total			-	-	18500		20800		15200		15500		21900		1200		13600		10400		12400		15600		16500		13400		5300		14900		31900		9610	
Lead, Total	400	63	-	-	4.11		10.2		48.3		140		1.06	J	4.94		67.1		26.7		142		164		56.1		5.3		2.4	J	82		1.69	J	120	
Magnesium, Total			-	-	7870		8270		4020		6240		8260		1320		22200		4890		9650		9620		4320		2640		1100		6940		5540		4680	
Manganese, Total	2000	1600	-	-	198		255		346		295		201		19.2		149		300		220		188		201		171		214		235		157		166	
Mercury, Total	0.81	0.18	-	-	0.06	U	0.03	J	0.24		1.2		0.1		0.126		1.02		0.156		0.795		0.208		0.603		0.07	U	0.07	U	0.144		0.068	U	0.182	
Nickel, Total	140	30	-	-	28.4		17.9		12.9		15.5		20.9		1.29		11.2		8.47		12.6		17.1		13.6		10.9		8.33		12.8		45.8		9.16	
Potassium, Total			-	-	6780		7710		873		2280		6090		221		3770		2190		2250		3850		1560		323		239		1460		2210		1450	
Selenium, Total	36	3.9	-	-	1.59	U	1.71	U	1.8	U	0.266	J	1.75	U	0.169	U	1.62	U	1.63	U	1.65	U	2	U	1.7	U	1.75	U	1.71	U	1.78	U	1.66	U	1.73	U
Silver, Total	36	2	-	-	0.796	U	0.855	U	0.898	U	0.916	U	0.876	U	0.085	U	0.81	U	0.814	U	0.825	U	0.999	U	0.853	U	0.874	U	0.857	U	0.893	U	0.832	U	0.864	U
Sodium, Total			-	-	75.4	J	187		166	J	226		137	J	25.3		136	J	248		347		275		214		131	J	55.8	J	248		164	J	214	
Thallium, Total			-	-	1.59	U	1.71	U	1.8	U	1.83	U	1.75	U	0.169	U	1.62	U	1.63	U	1.65	U	2	U	1.7	U	1.75	U	1.71	U	1.78	U	1.66	U	1.73	U
Vanadium, Total			-	-	49		41.7		20.8		30		78.9		2.69		31.4		22.9		26.7		32.5		28		12.1		5.56		32		72.5		19.2	
Zinc, Total	2200	109	-	-	61		69.3		42.4		139		74.2		10.9		277		44.4		112		213		144		30.4		31.9		78.6		152		110	
Volatile Organics by 8260/5035																																				
1,1,1,2-Tetrachloroethane			-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
1,1,1-Trichloroethane	100	0.68	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
1,1,2,2-Tetrachloroethane			-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
1,1,2-Trichloroethane			-	-	0.0016	U	0.0014	U	0.0015	U	0.0016	U	0.0015	U	-		-		-		-		-		-		-		-		-		-		-	
1,1-Dichloroethane	19	0.27	-	-	0.0016	U	0.0014	U	0.0015	U	0.0016	U	0.0015	U	-		-		-		-		-		-		-		-		-		-		-	
1,1-Dichloroethene	100	0.33	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
1,1-Dichloropropene			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
1,2,3-Trichlorobenzene			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
1,2,3-Trichloropropane			-	-	0.01	U	0.0091	U	0.0098	U	0.01	U	0.0098	U	-		-		-		-		-		-		-		-		-		-		-	
1,2,4,5-Tetramethylbenzene			-	-	0.0042	U	0.0036	U	0.0039	U	0.0042	U	0.0039	U	-		-		-		-		-		-		-		-		-		-		-	
1,2,4-Trichlorobenzene			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
1,2,4-Trimethylbenzene	47	3.6	-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
1,2-Dibromo-3-chloropropane			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
1,2-Dibromoethane			-	-	0.0042	U	0.0036	U	0.0039	U	0.0042	U	0.0039	U	-		-		-		-		-		-		-		-		-		-		-	
1,2-Dichlorobenzene	100	1.1	-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
1,2-Dichloroethane	2.3	0.02	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
1,2-Dichloroethene, Total			-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
1,2-Dichloropropane			-	-	0.0037	U	0.0032	U	0.0034	U	0.0036	U	0.0034	U	-		-		-		-		-		-		-		-		-		-		-	
1,3,5-Trimethylbenzene	47	8.4	-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
1,3-Dichlorobenzene	17	2.4	-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
1,3-Dichloropropane			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
1,3-Dichloropropene, Total			-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
1,4-Dichlorobenzene	9.8	1.8	-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
1,4-Dioxane	9.8	0.1	-	-	0.042	U	0.036	U	0.039	U	0.042	U	0.039	U	-		-		-		-		-		-		-		-		-		-		-	
2,2-Dichloropropane			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
2-Butanone	100	0.12	-	-	0.01	U	0.0091	U	0.0098	U	0.01	U	0.0098	U	-		-		-		-		-		-		-		-		-		-		-	
2-Hexanone			-	-	0.01	U	0.0091	U	0.0098	U	0.01	U	0.0098	U	-		-		-		-		-		-		-		-		-		-		-	
4-Methyl-2-pentanone			-	-	0.01	U	0.0091	U	0.0098	U	0.01	U	0.0098	U	-		-		-		-		-		-		-		-		-		-		-	
Acetone	100	0.05	-	-	0.01	U	0.0082	J	0.0098	U	0.022		0.0098	U	-		-		-		-		-		-		-		-		-		-		-	
Acrylonitrile			-	-	0.01	U	0.0091	U	0.0098	U	0.01	U	0.0098	U	-		-		-		-		-		-		-		-		-		-		-	

Table 1
Soil Boring Analytical Results - 2018 and 2019
180 East 132nd Street
Bronx, New York

LOCATION			SB-7		SB-7		SB-8		SB-8		SB-9		SB-9		SB-11		SB-11		SB-12		SB-13		SB-13		SB-13		SB-13		SB-13		SB-14		SB-14		SB-15	
SAMPLING DATE			2/27/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018		6/12/2018	
LAB SAMPLE ID	NY-RESR	NY-UNRES	L1806944-01 R1		L1806944-02		L1806944-03		L1806944-04		L1806944-05		L1806944-06		L1822065-01		L1822065-02		L1822065-03		L1822065-04		L1822065-05		L1822065-06		L1822065-07		L1822065-08		L1822065-09		L1822065-10		L1822065-11	
UNIT			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
SAMPLE DEPTH (ft.)			0.5-1		4.5-5		1-2		10.5-11		1-2		13.5-14		0-1		5-5.5		0-1		1-2		3-4		5-6		7-8		9-10		0-1		9-10		0-1	
			Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Volatile Organics by 8260/5035																																				
Benzene	2.9	0.06	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Bromobenzene			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
Bromochloromethane			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
Bromodichloromethane			-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Bromoform			-	-	0.0042	U	0.0036	U	0.0039	U	0.0042	U	0.0039	U	-		-		-		-		-		-		-		-		-		-		-	
Bromomethane			-	-	0.0021	U	0.0018	U	0.002	U	0.0021	U	0.002	U	-		-		-		-		-		-		-		-		-		-		-	
Carbon disulfide			-	-	0.01	U	0.0091	U	0.0098	U	0.01	U	0.0098	U	-		-		-		-		-		-		-		-		-		-		-	
Carbon tetrachloride	1.4	0.76	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Chlorobenzene	100	1.1	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Chloroethane			-	-	0.0021	U	0.0018	U	0.002	U	0.0021	U	0.002	U	-		-		-		-		-		-		-		-		-		-		-	
Chloroform	10	0.37	-	-	0.0016	U	0.0014	U	0.0015	U	0.0016	U	0.0015	U	-		-		-		-		-		-		-		-		-		-		-	
Chloromethane			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
cis-1,2-Dichloroethene	59	0.25	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
cis-1,3-Dichloropropene			-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Dibromochloromethane			-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Dibromomethane			-	-	0.01	U	0.0091	U	0.0098	U	0.01	U	0.0098	U	-		-		-		-		-		-		-		-		-		-		-	
Dichlorodifluoromethane			-	-	0.01	U	0.0091	U	0.0098	U	0.01	U	0.0098	U	-		-		-		-		-		-		-		-		-		-		-	
Ethyl ether			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
Ethylbenzene	30	1	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Hexachlorobutadiene			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
Isopropylbenzene			-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Methyl tert butyl ether	62	0.93	-	-	0.0021	U	0.0018	U	0.002	U	0.0021	U	0.002	U	-		-		-		-		-		-		-		-		-		-		-	
Methylene chloride	51	0.05	-	-	0.01	U	0.0091	U	0.0098	U	0.01	U	0.0098	U	-		-		-		-		-		-		-		-		-		-		-	
n-Butylbenzene	100	12	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
n-Propylbenzene	100	3.9	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Naphthalene	100	12	-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
o-Chlorotoluene			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
o-Xylene			-	-	0.0021	U	0.0018	U	0.002	U	0.0021	U	0.002	U	-		-		-		-		-		-		-		-		-		-		-	
p-Chlorotoluene			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
p-Diethylbenzene			-	-	0.0042	U	0.0036	U	0.0039	U	0.0042	U	0.0039	U	-		-		-		-		-		-		-		-		-		-		-	
p-Ethyltoluene			-	-	0.0042	U	0.0036	U	0.0039	U	0.0042	U	0.0039	U	-		-		-		-		-		-		-		-		-		-		-	
p-Isopropyltoluene			-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
p/m-Xylene			-	-	0.0021	U	0.0018	U	0.002	U	0.0021	U	0.002	U	-		-		-		-		-		-		-		-		-		-		-	
sec-Butylbenzene	100	11	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Styrene			-	-	0.0021	U	0.0018	U	0.002	U	0.0021	U	0.002	U	-		-		-		-		-		-		-		-		-		-		-	
tert-Butylbenzene	100	5.9	-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
Tetrachloroethene	5.5	1.3	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Toluene	100	0.7	-	-	0.0016	U	0.0014	U	0.0015	U	0.0016	U	0.0015	U	-		-		-		-		-		-		-		-		-		-		-	
trans-1,2-Dichloroethene	100	0.19	-	-	0.0016	U	0.0014	U	0.0015	U	0.0016	U	0.0015	U	-		-		-		-		-		-		-		-		-		-		-	
trans-1,3-Dichloropropene			-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
trans-1,4-Dichloro-2-butene			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
Trichloroethene	10	0.47	-	-	0.001	U	0.00091	U	0.00098	U	0.001	U	0.00098	U	-		-		-		-		-		-		-		-		-		-		-	
Trichlorofluoromethane			-	-	0.0052	U	0.0045	U	0.0049	U	0.0052	U	0.0049	U	-		-		-		-		-		-		-		-		-		-		-	
Vinyl acetate			-	-	0.01	U	0.0091	U	0.0098	U	0.01	U	0.0098	U	-		-		-		-		-		-		-		-		-		-		-	
Vinyl chloride	0.21	0.02	-	-	0.0021	U	0.0018	U	0.002	U	0.0021	U	0.002	U	-		-		-		-		-		-		-		-		-		-		-	
Xylenes, Total	100	0.26	-	-	0.0021	U	0.0018	U	0.002	U	0.0021	U	0.002	U	-		-		-		-		-		-		-		-		-		-		-	

Table 1
Soil Boring Analytical Results - 2018 and 2019
Notes
180 East 132nd Street
Bronx, New York

Notes:

This value exceeds NYS Unrestricted Use Soil Cleanup Objectives

This value indicates that the MDL exceeds NYS Unrestricted Use Soil Cleanup Objectives

This value exceeds both the NYS Unrestricted Use Soil Cleanup Objectives and the NYS Restricted Residential Use Soil Cleanup Objectives

mg/kg - Miligrams per kilograms

Qual = Laboratory data qualifier

U = The compound was not detected at the indicated concentration.

NS = No Standard

J = The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

- = Not Analyzed

Table 1
Soil Boring Analytical Results - 2020
180 East 132nd Street
Bronx, New York

			SAMPLE ID:		SB-1A (19-19.5')		DUP1 (1-27-20)		SB-2A (1.5-2')		SB-2A (1.5-2')		SB-2A (8-8.5')		SB-3A (11.5-12')	
			LAB ID:		L2003755-02		L2003755-09		L2003755-07		L2003755-07 R1		L2003755-08		L2003755-03	
			COLLECTION DATE:		1/27/2020		1/27/2020		1/27/2020		1/27/2020		1/27/2020		1/27/2020	
			SAMPLE DEPTH:		19-19.5		19-19.5		1.5-2'		1.5-2'		8-8.5'		11.5-12	
			SAMPLE MATRIX:		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
ANALYTE	**NY-RESR**	**NY-UNRES**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**
Volatile Organic Compounds																
1,1,1,2-Tetrachloroethane			<0.00012	U	<0.00022	U	<0.0002	U	<0.00013	U	<0.00013	U	<0.00015	U	<0.00012	U
1,1,1-Trichloroethane	100	0.68	<0.00015	U	<0.00028	U	<0.00025	U	<0.00017	U	<0.00017	U	<0.00019	U	<0.00016	U
1,1,2,2-Tetrachloroethane			<0.00015	U	<0.00027	U	<0.00025	U	<0.00017	U	<0.00016	U	<0.00018	U	<0.00015	U
1,1,2-Trichloroethane			<0.00024	U	<0.00044	U	<0.0004	U	<0.00027	U	<0.00026	U	<0.0003	U	<0.00025	U
1,1-Dichloroethane	19	0.27	<0.00013	U	<0.00024	U	<0.00022	U	<0.00014	U	<0.00014	U	<0.00016	U	<0.00014	U
1,1-Dichloroethene	100	0.33	<0.00022	U	<0.00039	U	<0.00036	U	<0.00024	U	<0.00024	U	<0.00027	U	<0.00022	U
1,1-Dichloropropene			<0.00014	U	<0.00026	U	<0.00024	U	<0.00016	U	<0.00016	U	<0.00018	U	<0.00015	U
1,2,3-Trichlorobenzene			<0.00029	U	<0.00053	U	<0.00048	U	<0.00032	U	<0.00032	U	<0.00036	U	<0.0003	U
1,2,3-Trichloropropane			<0.00012	U	<0.00021	U	<0.00019	U	<0.00013	U	<0.00013	U	<0.00014	U	<0.00012	U
1,2,4,5-Tetramethylbenzene			<0.00017	U	<0.00032	U	<0.00029	U	<0.00019	U	<0.00019	U	<0.00021	U	<0.00018	U
1,2,4-Trichlorobenzene			<0.00025	U	<0.00045	U	<0.00041	U	<0.00027	U	<0.00027	U	<0.0003	U	<0.00025	U
1,2,4-Trimethylbenzene	47	3.6	<0.0003	U	<0.00055	U	<0.0005	U	<0.00034	U	<0.00033	U	<0.00037	U	<0.00031	U
1,2-Dibromo-3-chloropropane			<0.00091	U	<0.0016	U	<0.0015	U	<0.001	U	<0.00099	U	<0.0011	U	<0.00093	U
1,2-Dibromoethane			<0.00026	U	<0.00046	U	<0.00042	U	<0.00028	U	<0.00028	U	<0.00031	U	<0.00026	U
1,2-Dichlorobenzene	100	1.1	<0.00013	U	<0.00024	U	<0.00022	U	<0.00014	U	<0.00014	U	<0.00016	U	<0.00013	U
1,2-Dichloroethane	2.3	0.02	<0.00024	U	<0.00042	U	<0.00038	U	<0.00026	U	<0.00026	U	<0.00029	U	<0.00024	U
1,2-Dichloroethene, Total			<0.00012	U	<0.00023	U	<0.0002	U	<0.00014	U	0.00036	J	<0.00015	U	<0.00013	U
1,2-Dichloropropane			<0.00011	U	<0.00021	U	<0.00019	U	<0.00012	U	<0.00012	U	<0.00014	U	<0.00012	U
1,3,5-Trimethylbenzene	47	8.4	<0.00018	U	<0.00032	U	<0.00029	U	<0.00019	U	<0.00019	U	<0.00022	U	<0.00018	U
1,3-Dichlorobenzene	17	2.4	<0.00014	U	<0.00024	U	<0.00022	U	<0.00015	U	<0.00015	U	<0.00016	U	<0.00014	U
1,3-Dichloropropane			<0.00015	U	<0.00028	U	<0.00025	U	<0.00017	U	<0.00017	U	<0.00019	U	<0.00016	U
1,3-Dichloropropene, Total			<0.00014	U	<0.00026	U	<0.00024	U	<0.00016	U	<0.00016	U	<0.00018	U	<0.00015	U
1,4-Dichlorobenzene	9.8	1.8	<0.00016	U	<0.00028	U	<0.00026	U	<0.00017	U	<0.00017	U	<0.00019	U	<0.00016	U
1,4-Dioxane	9.8	0.1	<0.032	U	<0.058	U	<0.053	U	<0.035	U	<0.035	U	<0.039	U	<0.033	U
2,2-Dichloropropane			<0.00018	U	<0.00033	U	<0.0003	U	<0.0002	U	<0.0002	U	<0.00022	U	<0.00019	U
2-Butanone	100	0.12	0.0038	J	0.005	J	<0.0033	U	<0.0022	U	<0.0022	U	<0.0025	U	<0.0021	U
2-Hexanone			<0.0011	U	<0.0019	U	<0.0018	U	<0.0012	U	<0.0012	U	<0.0013	U	<0.0011	U
4-Methyl-2-pentanone			<0.0012	U	<0.0021	U	<0.0019	U	<0.0013	U	<0.0013	U	<0.0014	U	<0.0012	U
Acetone	100	0.05	0.03		0.047		0.025		<0.0048	U	<0.0048	U	<0.0054	U	<0.0045	U
Acrylonitrile			<0.001	U	<0.0019	U	<0.0017	U	<0.0012	U	<0.0011	U	<0.0013	U	<0.0011	U
Benzene	2.9	0.06	<0.00015	U	<0.00027	U	<0.00025	U	<0.00017	U	<0.00016	U	<0.00018	U	<0.00015	U
Bromobenzene			<0.00013	U	<0.00024	U	<0.00022	U	<0.00014	U	<0.00014	U	<0.00016	U	<0.00014	U
Bromochloromethane			<0.00019	U	<0.00034	U	<0.00031	U	<0.0002	U	<0.0002	U	<0.00023	U	<0.00019	U
Bromodichloromethane			<0.0001	U	<0.00018	U	<0.00016	U	<0.00011	U	<0.00011	U	<0.00012	U	<0.0001	U
Bromoform			<0.00022	U	<0.0004	U	<0.00037	U	<0.00025	U	<0.00024	U	<0.00028	U	<0.00023	U
Bromomethane			<0.00053	U	<0.00096	U	<0.00087	U	<0.00058	U	<0.00058	U	<0.00065	U	<0.00054	U
Carbon disulfide			<0.0042	U	0.0085	J	0.0073	J	<0.0046	U	<0.0045	U	<0.0051	U	<0.0042	U
Carbon tetrachloride	1.4	0.76	<0.00021	U	<0.00038	U	<0.00034	U	<0.00023	U	<0.00023	U	<0.00026	U	<0.00021	U
Chlorobenzene	100	1.1	<0.00012	U	<0.00021	U	<0.00019	U	<0.00013	U	<0.00013	U	<0.00014	U	<0.00012	U
Chloroethane			<0.00041	U	<0.00074	U	<0.00068	U	<0.00045	U	<0.00045	U	<0.0005	U	<0.00042	U
Chloroform	10	0.37	<0.00013	U	<0.00023	U	<0.00021	U	<0.00014	U	0.00014	J	<0.00016	U	<0.00013	U
Chloromethane			<0.00085	U	<0.0015	U	<0.0014	U	<0.00094	U	<0.00093	U	<0.001	U	<0.00087	U
cis-1,2-Dichloroethene	59	0.25	<0.00016	U	<0.00029	U	<0.00026	U	<0.00018	U	<0.00017	U	<0.0002	U	<0.00016	U
cis-1,3-Dichloropropene			<0.00014	U	<0.00026	U	<0.00024	U	<0.00016	U	<0.00016	U	<0.00018	U	<0.00015	U
Dibromochloromethane			<0.00013	U	<0.00023	U	<0.00021	U	<0.00014	U	<0.00014	U	<0.00016	U	<0.00013	U
Dibromomethane			<0.00022	U	<0.00039	U	<0.00036	U	<0.00024	U	<0.00024	U	<0.00027	U	<0.00022	U
Dichlorodifluoromethane			<0.00084	U	<0.0015	U	<0.0014	U	<0.00092	U	<0.00091	U	<0.001	U	<0.00085	U
Ethyl ether			<0.00031	U	<0.00056	U	<0.00051	U	<0.00034	U	<0.00034	U	<0.00038	U	<0.00032	U
Ethylbenzene	30	1	<0.00013	U	<0.00023	U	<0.00021	U	<0.00014	U	<0.00014	U	<0.00016	U	<0.00013	U
Hexachlorobutadiene			<0.00015	U	<0.00028	U	<0.00025	U	<0.00017	U	<0.00017	U	<0.00019	U	<0.00016	U
Isopropylbenzene			<0.0001	U	<0.00018	U	<0.00016	U	<0.00011	U	<0.00011	U	<0.00012	U	<0.0001	U
Methyl tert butyl ether	62	0.93	<0.00018	U	<0.00033	U	<0.0003	U	<0.0002	U	<0.0002	U	<0.00022	U	<0.00019	U
Methylene chloride	51	0.05	<0.0021	U	<0.0038	U	<0.0034	U	<0.0023	U	<0.0023	U	<0.0026	U	<0.0021	U
n-Butylbenzene	100	12	<0.00015	U	<0.00028	U	<0.00025	U	<0.00017	U	<0.00017	U	<0.00019	U	<0.00016	U
n-Propylbenzene	100	3.9	<0.00016	U	<0.00028	U	<0.00026	U	<0.00017	U	<0.00017	U	<0.00019	U	<0.00016	U
Naphthalene	100	12	<0.00059	U	<0.0011	U	<0.00098	U	<0.00065	U	<0.00065	U	<0.00073	U	<0.0006	U
o-Chlorotoluene			<0.00017	U	<0.00032	U	<0.00029	U	<0.00019	U	<0.00019	U	<0.00021	U	<0.00018	U
o-Xylene			<0.00027	U	<0.00048	U	<0.00044	U	<0.00029	U	<0.00029	U	<0.00032	U	<0.00027	U
p-Chlorotoluene			<0.0001	U	<0.00018	U	<0.00016	U	<0.00011	U	<0.00011	U	<0.00012	U	<0.0001	U
p-Diethylbenzene			<0.00016	U	<0.00029	U	<0.00026	U	<0.00018	U	<0.00018	U	<0.0002	U	<0.00016	U
p-Ethyltoluene			<0.00035	U	<0.00063	U	<0.00058	U	<0.00038	U	<0.00038	U	<0.00043	U	<0.00036	U
p-Isopropyltoluene			<0.0001	U	<0.00018	U	<0.00016	U	<0.00011	U	<0.00011	U	<0.00012	U	<0.0001	U
p/m-Xylene			<0.00051	U	<0.00092	U	<0.00084	U	<0.00056	U	<0.00056	U	<0.00063	U	<0.00052	U
sec-Butylbenzene	100	11	<0.00013	U	<0.00024	U	<0.00022	U	<0.00015	U	<0.00014	U	<0.00016	U	<0.00014	U
Styrene			<0.00018	U	<0.00032	U	<0.00029	U	<0.0002	U	<0.0002	U	<0.00022	U	<0.00018	U
tert-Butylbenzene	100	5.9	<0.00011	U	<0.00019	U	<0.00018	U	<0.00012	U	<0.00012	U	<0.00013	U	<0.00011	U
Tetrachloroethene	5.5	1.3	<0.00018	U	<0.00032	U	<0.00029	U	0.00028	J	0.00031	J	<0.00022	U	<0.00018	U
Toluene	100	0.7	<0.0005	U	<0.0009	U	<0.00081	U	<0.00054	U	<0.00054	U	<0.00061	U	<0.00051	U
trans-1,2-Dichloroethene	100	0.19	<0.00012	U	<0.00023	U	<0.0002	U	<0.00014	U	0.00036	J	<0.00015	U	<0.00013	U
trans-1,3-Dichloropropene			<0.00025	U	<0.00045	U	<0.00041	U	<0.00027	U	<0.00027	U	<0.0003	U	<0.00025	U
trans-1,4-Dichloro-2-butene			<0.0013	U	<0.0023	U	<0.0021	U	<0.0014	U	<0.0014	U	<0.0016	U	<0.0013	U
Trichloroethene	10	0.47	<0.00012	U	<0.00023	U	<0.0002	U	<0.00014	U	<0.00014	U	<0.00015	U	<0.00013	U
Trichlorofluoromethane			<0.00064	U	<0.0011	U	<0.001	U	<0.0007	U	<0.00069	U	<0.00078	U	<0.00065	U
Vinyl acetate			<0.002	U	<0.0035	U	<0.0032	U	<0.0022	U	<0.0021	U	<0.0024	U	<0.002	U
Vinyl chloride	0.21	0.02	<0.00031	U	<0.00055	U	<0.0005	U	<0.00034	U	<0.00033	U	<0.00037	U	<0.00031	U
Xylenes, Total	100	0.26	<0.00027	U	<0.00048	U	<0.00044	U	<0.00029	U	<0.00029	U	<0.00032	U	<0.00027	U
Total VOCs			0.0338	-	0.0605	-	0.0323	-	0.00028	-	0.00117	-	-	-	-	-
Perfluorinated Alkyl Acids																
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)			<0.000285	U	<0.000403	U	<0.000338	U	<0.000285	U	-		<0.000271	U	<0.000284	U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)			<0.000178	U	<0.000252	U	<0.000212	U	<0.000178	U	-		<0.00017	U	<0.000178	U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)			<0.000084	U	<0.000118	U	<0.0001	U	<0.000084	U	-		<0.00008	U	<0.000084	U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)			<0.0002	U	<0.000283	U	<0.000238	U	<0.0002	U	-		<0.00019	U	<0.0002	U
Perfluorobutanesulfonic Acid (PFBS)			<0.000039	U	<0.000055	U	<0.000046	U	<0.000039	U	-		<0.000037	U	<0.000039	U
Perfluorobutanoic Acid (PFBA)			<0.000023	U	<0.000032	U	<0.000027	U	0.000062	J	-		<0.000021	U	<0.000023	U
Perfluorodecanesulfonic Acid (PFDS)			<0.000152	U	<0.000215	U	<0.00018	U	<0.000152	U	-		<0.000144	U	<0.000152	U
Perfluorodecanoic Acid (PFDA)			<0.000067	U	<0.000094	U	<0.000079	U	0.000072	J	-		<0.000063	U	<0.000066	U
Perfluorododecanoic Acid (PFDoA)			<0.00007	U	<0.000098	U	<0.000083	U	0.000078	J	-		<0.000066	U	<0.000069	U
Perfluoroheptanesulfonic Acid (PFHpS)			<0.000136	U	<0.000192	U	<0.000161	U	<0.000135	U	-		<0.000129	U	<0.000135	U
Perfluoroheptanoic Acid (PFHpA)			<0.000045	U	<0.000063	U	<0.000053	U	<0.000045	U	-		<0.000043	U	<0.000045	U
Perfluorohexanesulfonic Acid (PFHxS)			<0.00006	U	<0.000085	U	<0.000071	U	<0.00006	U	-		<0.000057	U	<0.00006	U
Perfluorohexanoic Acid (PFHxA)			<0.000052	U	<0.000074	U	<0.000062	U	0.000086	J	-		<0.00005	U	<0.000052	U
Perfluorononanoic Acid (PFNA)			<0.000075	U	<0.000105	U	<0.000088	U	<0.000074	U	-		<0.000071	U	<0.000074	U
Perfluorooctanesulfonamide (FOSA)			<0.000098	U	<0.000138	U	<0.000116	U	<0.000097	U	-		<0.000093	U	<0.000097	U
Perfluorooctanesulfonic Acid (PFOS)			<0.000129	U	<0.000182	U	<0.000153	U	0.000387	J	-		<0.000123	U	<0.000129	U
Perfluorooctanoic Acid (PFOA)			<0.000042	U	<0.000059	U	<0.000049	U	0.000183	J	-		0.00004	J	<0.000042	U
Perfluoropentanoic Acid (PFPeA)			<0.000046	U	<0.000065	U	<0.000054	U	0.000065	J	-		<0.000043	U	<0.000046	U
Perfluorotetradecanoic Acid (PFTA)			<0.000054	U	<0.000076	U	<0.000064	U	<0.000054	U	-		<0.000051	U	<0.000054	U
Perfluorotridecanoic Acid (PFTrDA)			<0.000203	U	<0.000287	U	<0.000241	U	<0.000203	U	-		<0.000193	U	<0.000202	U
Perfluoroundecanoic Acid (PFUnA)			<0.000047	U	<0.000066	U	<0.000055	U	0.000122	J	-		<0.000044	U	<0.000046	U
PFOA/PFOS, Total			<0.000042	U	<0.000059	U	<0.000049	U	0.00057	J	-		0.00004	J	<0.000042	U

Table 1
Soil Boring Analytical Results - 2020
180 East 132nd Street
Bronx, New York

			SAMPLE ID:	SB-1A (12-12.5')		SB-1A (19-19.5')		DUP1 (1-27-20)		SB-2A (1.5-2')		SB-2A (1.5-2')		SB-2A (8-8.5')		SB-3A (11.5-12')	
			LAB ID:	L2003755-01		L2003755-02		L2003755-09		L2003755-07		L2003755-07 R1		L2003755-08		L2003755-03	
			COLLECTION DATE:	1/27/2020		1/27/2020		1/27/2020		1/27/2020		1/27/2020		1/27/2020		1/27/2020	
			SAMPLE DEPTH:	12-12.5'		19-19.5		19-19.5		1.5-2'		1.5-2'		8-8.5'		11.5-12	
			SAMPLE MATRIX:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
ANALYTE	**NY-RESR**	**NY-UNRES**		**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**
Semivolatile Organic Compounds																	
1,2,4,5-Tetrachlorobenzene				<0.019	U	<0.026	U	<0.023	U	<0.096	U	-		<0.018	U	<0.02	U
1,2,4-Trichlorobenzene				<0.021	U	<0.029	U	<0.025	U	<0.1	U	-		<0.02	U	<0.022	U
1,2-Dichlorobenzene	100	1.1		<0.033	U	<0.045	U	<0.039	U	<0.16	U	-		<0.032	U	<0.034	U
1,3-Dichlorobenzene	17	2.4		<0.032	U	<0.043	U	<0.038	U	<0.16	U	-		<0.03	U	<0.032	U
1,4-Dichlorobenzene	9.8	1.8		<0.032	U	<0.044	U	<0.038	U	<0.16	U	-		<0.031	U	<0.033	U
1,4-Dioxane	9.8	0.1		<0.0085	U	<0.012	U	<0.01	U	<0.042	U	-		<0.0081	U	<0.0087	U
2,4,5-Trichlorophenol				<0.036	U	<0.048	U	<0.042	U	<0.18	U	-		<0.034	U	<0.036	U
2,4,6-Trichlorophenol				<0.035	U	<0.048	U	<0.041	U	<0.17	U	-		<0.033	U	<0.036	U
2,4-Dichlorophenol				<0.03	U	<0.041	U	<0.035	U	<0.15	U	-		<0.028	U	<0.03	U
2,4-Dimethylphenol				<0.061	U	<0.083	U	<0.072	U	<0.3	U	-		<0.058	U	<0.062	U
2,4-Dinitrophenol				<0.086	U	<0.12	U	<0.1	U	<0.43	U	-		<0.082	U	<0.088	U
2,4-Dinitrotoluene				<0.037	U	<0.05	U	<0.044	U	<0.18	U	-		<0.035	U	<0.038	U
2,6-Dinitrotoluene				<0.032	U	<0.043	U	<0.037	U	<0.16	U	-		<0.03	U	<0.032	U
2-Chloronaphthalene				<0.018	U	<0.025	U	<0.022	U	<0.091	U	-		<0.017	U	<0.019	U
2-Chlorophenol				<0.022	U	<0.03	U	<0.026	U	<0.11	U	-		<0.021	U	<0.022	U
2-Methylnaphthalene				<0.022	U	<0.03	U	<0.026	U	0.14	J	-		<0.021	U	<0.023	U
2-Methylphenol	100	0.33		<0.029	U	<0.039	U	<0.034	U	<0.14	U	-		<0.027	U	<0.029	U
2-Nitroaniline				<0.036	U	<0.049	U	<0.042	U	<0.18	U	-		<0.034	U	<0.036	U
2-Nitrophenol				<0.07	U	<0.095	U	<0.082	U	<0.35	U	-		<0.066	U	<0.071	U
3,3'-Dichlorobenzidine				<0.049	U	<0.067	U	<0.058	U	<0.24	U	-		<0.047	U	<0.05	U
3-Methylphenol/4-Methylphenol	34	0.33		<0.029	U	<0.04	U	<0.034	U	<0.14	U	-		<0.028	U	<0.03	U
3-Nitroaniline				<0.035	U	<0.048	U	<0.041	U	<0.17	U	-		<0.033	U	<0.036	U
4,6-Dinitro-o-cresol				<0.089	U	<0.12	U	<0.1	U	<0.44	U	-		<0.084	U	<0.09	U
4-Bromophenyl phenyl ether				<0.028	U	<0.038	U	<0.033	U	<0.14	U	-		<0.027	U	<0.029	U
4-Chloroaniline				<0.034	U	<0.046	U	<0.04	U	<0.17	U	-		<0.032	U	<0.034	U
4-Chlorophenyl phenyl ether				<0.02	U	<0.027	U	<0.023	U	<0.098	U	-		<0.019	U	<0.02	U
4-Nitroaniline				<0.077	U	<0.1	U	<0.09	U	<0.38	U	-		<0.073	U	<0.078	U
4-Nitrophenol				<0.076	U	<0.1	U	<0.089	U	<0.38	U	-		<0.072	U	<0.077	U
Acenaphthene	100	20		<0.019	U	<0.026	U	<0.023	U	0.12	J	-		<0.018	U	<0.02	U
Acenaphthylene	100	100		<0.029	U	<0.039	U	<0.034	U	0.8		-		<0.027	U	<0.029	U
Acetophenone				<0.023	U	<0.031	U	<0.027	U	<0.11	U	-		<0.022	U	<0.023	U
Anthracene	100	100		<0.036	U	<0.049	U	<0.042	U	0.87		-		<0.034	U	<0.037	U
Benzo(a)anthracene	1	1		<0.021	U	<0.028	U	<0.024	U	5.8		-		<0.02	U	<0.021	U
Benzo(a)pyrene	1	1		<0.045	U	<0.062	U	<0.053	U	4.8		-		<0.043	U	<0.046	U
Benzo(b)fluoranthene	1	1		<0.031	U	<0.042	U	<0.037	U	8.7		-		<0.03	U	<0.032	U
Benzo(ghi)perylene	100	100		<0.022	U	<0.03	U	<0.026	U	4.2		-		<0.021	U	<0.022	U
Benzo(k)fluoranthene	1	0.8		<0.03	U	<0.04	U	<0.035	U	2.7		-		<0.028	U	<0.03	U
Benzoic Acid				<0.19	U	<0.26	U	<0.22	U	<0.93	U	-		<0.18	U	<0.19	U
Benzyl Alcohol				<0.057	U	<0.077	U	<0.067	U	<0.28	U	-		<0.054	U	<0.058	U
Biphenyl				<0.043	U	<0.058	U	<0.051	U	<0.21	U	-		<0.041	U	<0.044	U
Bis(2-chloroethoxy)methane				<0.019	U	<0.025	U	<0.022	U	<0.092	U	-		<0.018	U	<0.019	U
Bis(2-chloroethyl)ether				<0.025	U	<0.034	U	<0.03	U	<0.12	U	-		<0.024	U	<0.026	U
Bis(2-chloroisopropyl)ether				<0.032	U	<0.043	U	<0.037	U	<0.16	U	-		<0.03	U	<0.032	U
Bis(2-ethylhexyl)phthalate				<0.064	U	<0.087	U	<0.076	U	<0.32	U	-		<0.061	U	<0.065	U
Butyl benzyl phthalate				<0.047	U	<0.064	U	<0.055	U	0.33	J	-		<0.044	U	<0.047	U
Carbazole				<0.018	U	<0.024	U	<0.021	U	0.33	J	-		<0.017	U	<0.018	U
Chrysene	1	1		<0.019	U	<0.026	U	<0.023	U	6		-		<0.018	U	<0.02	U
Di-n-butylphthalate				<0.035	U	<0.048	U	<0.041	U	<0.17	U	-		<0.033	U	<0.036	U
Di-n-octylphthalate				<0.063	U	<0.086	U	<0.074	U	<0.31	U	-		<0.06	U	<0.064	U
Dibenzo(a,h)anthracene	0.33	0.33		<0.021	U	<0.029	U	<0.025	U	0.94		-		<0.02	U	<0.022	U
Dibenzofuran	14	7		<0.018	U	<0.024	U	<0.021	U	0.24	J	-		<0.017	U	<0.018	U
Diethyl phthalate				<0.017	U	<0.023	U	<0.02	U	<0.085	U	-		<0.016	U	<0.017	U
Dimethyl phthalate				<0.039	U	<0.053	U	<0.046	U	<0.19	U	-		<0.037	U	<0.04	U
Fluoranthene	100	100		<0.021	U	<0.029	U	<0.025	U	7.4		-		<0.02	U	<0.022	U
Fluorene	100	30		<0.018	U	<0.024	U	<0.021	U	<0.089	U	-		<0.017	U	<0.018	U
Hexachlorobenzene	0.33	0.33		<0.021	U	<0.028	U	<0.024	U	<0.1	U	-		<0.02	U	<0.021	U
Hexachlorobutadiene				<0.027	U	<0.037	U	<0.032	U	<0.13	U	-		<0.026	U	<0.028	U
Hexachlorocyclopentadiene				<0.17	U	<0.23	U	<0.2	U	<0.83	U	-		<0.16	U	<0.17	U
Hexachloroethane				<0.03	U	<0.041	U	<0.035	U	<0.15	U	-		<0.028	U	<0.03	U
Indeno(1,2,3-cd)pyrene	0.5	0.5		<0.026	U	<0.035	U	<0.03	U	4.3		-		<0.024	U	<0.026	U
Isophorone				<0.024	U	<0.033	U	<0.028	U	<0.12	U	-		<0.023	U	<0.024	U
n-Nitrosodi-n-propylamine				<0.029	U	<0.039	U	<0.034	U	<0.14	U	-		<0.027	U	<0.029	U
Naphthalene	100	12		<0.023	U	<0.031	U	<0.026	U	0.17	J	-		<0.021	U	<0.023	U
NDPA/DPA				<0.021	U	<0.029	U	<0.025	U	<0.1	U	-		<0.02	U	<0.021	U
Nitrobenzene				<0.027	U	<0.037	U	<0.032	U	<0.14	U	-		<0.026	U	<0.028	U
p-Chloro-m-cresol				<0.028	U	<0.038	U	<0.032	U	<0.14	U	-		<0.026	U	<0.028	U
Pentachlorophenol	2.4	0.8		<0.041	U	<0.056	U	<0.048	U	<0.2	U	-		<0.039	U	<0.041	U
Phenanthrene	100	100		<0.022	U	<0.031	U	<0.026	U	2.2		-		<0.021	U	<0.023	U
Phenol	100	0.33		<0.028	U	<0.038	U	<0.033	U	<0.14	U	-		<0.026	U	<0.028	U
Pyrene	100	100		<0.018	U	<0.025	U	<0.022	U	6.7		-		<0.017	U	<0.019	U
Total SVOCs				-	-	-	-	-	-	56.74	-	-	-	-	-	-	-
Pesticides																	
4,4'-DDD	2.6	0.0033		<0.000621	U	<0.000874	U	<0.000751	U	<0.000623	U	-		<0.000576	U	<0.000624	U
4,4'-DDE	1.8	0.0033		<0.000403	U	<0.000567	U	<0.000487	U	<0.000404	U	-		<0.000374	U	<0.000404	U
4,4'-DDT	1.7	0.0033		<0.0014	U	<0.00197	U	<0.00169	U	<0.0014	U	-		<0.0013	U	<0.00141	U
Aldrin	0.019	0.005		<0.000613	U	<0.000863	U	<0.000742	U	<0.000615	U	-		<0.000569	U	<0.000616	U
Alpha-BHC	0.097	0.02		<0.000206	U	<0.00029	U	<0.000249	U	<0.000207	U	-		<0.000191	U	<0.000207	U
Beta-BHC	0.072	0.036		<0.00066	U	<0.000929	U	<0.000799	U	<0.000663	U	-		<0.000612	U	<0.000663	U
Chlordane				<0.00577	U	<0.00812	U	<0.00698	U	<0.00579	U	-		<0.00535	U	<0.00579	U
cis-Chlordane	0.91	0.094		<0.000607	U	<0.000854	U	<0.000734	U	<0.000609	U	-		<0.000563	U	<0.000609	U
Delta-BHC	100	0.04		<0.000341	U	<0.00048	U	<0.000412	U	<0.000342	U	-		<0.000316	U	<0.000342	U
Dieldrin	0.039	0.005		<0.000544	U	<0.000766	U	<0.000658	U	<0.000546	U	-		<0.000505	U	<0.000546	U
Endosulfan I	4.8	2.4		<0.000411	U	<0.000579	U	<0.000498	U	<0.000413	U	-		<0.000382	U	<0.000413	U
Endosulfan II	4.8	2.4		<0.000582	U	<0.000819	U	<0.000704	U	<0.000584	U	-		<0.00054	U	<0.000584	U
Endosulfan sulfate	4.8	2.4		<0.000345	U	<0.000486	U	<0.000418	U	<0.000347	U	-		<0.00032	U	<0.000347	U
Endrin	2.2	0.014		<0.000298	U	<0.000419	U	<0.00036	U	<0.000298	U	-		<0.000276	U	<0.000299	U
Endrin aldehyde				<0.000762	U	<0.00107	U	<0.000922	U	<0.000765	U	-		<0.000707	U	<0.000765	U
Endrin ketone				<0.000448	U	<0.000631	U	<0.000542	U	<0.00045	U	-		<0.000416	U	<0.00045	U
Heptachlor	0.42	0.042		<0.00039	U	<0.00055	U	<0.000472	U	<0.000392	U	-		<0.000362	U	<0.000392	U
Heptachlor epoxide				<0.00098	U	<0.00138	U	<0.00118	U	<0.000983	U	-		<0.000909	U	<0.000984	U
Lindane	0.28	0.1		<0.000324	U	<0.000456	U	<0.000392	U	<0.000326	U	-		<0.000301	U	<0.000326	U
Methoxychlor				<0.00102	U	<0.00143	U	<0.00123	U	<0.00102	U	-		<0.000942	U	<0.00102	U
Toxaphene				<0.00914	U	<0.0129	U	<0.0111	U	<0.00918	U	-		<0.00848	U	<0.00918	U
trans-Chlordane				<0.000575	U	<0.000809	U	<0.000695	U	<0.000577	U	-		<0.000533	U	<0.000577	U
Polychlorinated Biphenyls																	
Aroclor 1016	1	0.1		<0.00322	U	<0.00454	U	<0.0038	U	<0.00318	U	-		<0.00304	U	<0.00321	U
Aroclor 1221	1	0.1		<0.00364	U	<0.00512	U	<0.00428	U	<0.00359	U	-		<0.00344	U	<0.00362	U
Aroclor 1232	1	0.1		<0.00769	U	<0.0108	U	<0.00907	U	<0.0076	U	-		<0.00727	U	<0.00767	U
Aroclor 1242	1	0.1		<0.00489	U	<0.00689	U	<0.00576	U	<0.00483	U	-		<0.00462	U	<0.00488	U
Aroclor 1248	1	0.1		<0.00544	U	<0.00766	U	<0.00641	U	<0.00537	U	-		<0.00514	U	<0.00543	U
Aroclor 1254	1	0.1		<0.00397	U	<0.00559	U	<0.00468	U	<0.00392	U	-		<0.00375	U	<0.00396	U
Aroclor 1260	1	0.1		<0.0067	U	<0.00944	U	<0.0079	U	<0.00662	U	-		<0.00634	U	<0.00669	U

Table 1
Soil Boring Analytical Results - 2020
180 East 132nd Street
Bronx, New York

			SAMPLE ID:		SB-1A (19-19.5')		DUP1 (1-27-20)		SB-2A (1.5-2')		SB-2A (1.5-2')		SB-2A (8-8.5')		SB-3A (11.5-12')	
			LAB ID:		L2003755-02		L2003755-09		L2003755-07		L2003755-07 R1		L2003755-08		L2003755-03	
			COLLECTION DATE:		1/27/2020		1/27/2020		1/27/2020		1/27/2020		1/27/2020		1/27/2020	
			SAMPLE DEPTH:		19-19.5		19-19.5		1.5-2'		1.5-2'		8-8.5'		11.5-12	
			SAMPLE MATRIX:		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
ANALYTE	**NY-RESR**	**NY-UNRES**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**
Aroclor 1262	1	0.1	<0.00461	U	<0.00649	U	<0.00543	U	<0.00455	U	-		<0.00436	U	<0.00459	U
Aroclor 1268	1	0.1	<0.00376	U	<0.00529	U	<0.00443	U	<0.00371	U	-		<0.00355	U	<0.00375	U
PCBs, Total	1	0.1	<0.00322	U	<0.00454	U	<0.0038	U	<0.00318	U	-		<0.00304	U	<0.00321	U
Total Metals																
Aluminum, Total			8220		9640		3860		8510		-		13200		6770	
Antimony, Total			1.12	J	1.5	J	0.435	J	2.48	J	-		1.65	J	0.945	J
Arsenic, Total	16	13	1.44		7.21		1.53		4.66		-		1.48		2.92	
Barium, Total	350	350	46.5		21.9		7.11		72.3		-		105		25.8	
Beryllium, Total	14	7.2	0.546		0.524	J	0.172	J	0.272	J	-		0.247	J	0.318	J
Cadmium, Total	2.5	2.5	0.298	J	0.453	J	0.131	J	1.19		-		0.345	J	0.249	J
Calcium, Total			12700		1680		443		23100		-		1970		552	
Chromium, Total			17.9		23.2		8.09		24.6		-		10.2		12	
Cobalt, Total			9.19		8.12		2.79		9.7		-		6.79		5.81	
Copper, Total	270	50	16.7		10.6		4.61		178		-		13.2		12	
Iron, Total			13500		22300		7110		26800		-		18700		13200	
Lead, Total	400	63	6.77		8.45		2.41	J	126		-		5.89		5.12	
Magnesium, Total			11500		4760		1660		12800		-		6780		2520	
Manganese, Total	2000	1600	451		264		79.2		253		-		220		333	
Mercury, Total	0.81	0.18	<0.055	U	<0.068	U	<0.066	U	0.136		-		<0.048	U	<0.061	U
Nickel, Total	140	30	15.3		18.8		6.94		21.6		-		8.66		12.6	
Potassium, Total			1870		2030		638		2910		-		5090		428	
Selenium, Total	36	3.9	0.23	J	0.536	J	<0.261	U	0.588	J	-		<0.212	U	0.275	J
Silver, Total	36	2	<0.241	U	<0.337	U	<0.286	U	<0.248	U	-		<0.233	U	<0.243	U
Sodium, Total			108	J	493		156	J	264		-		123	J	88.6	J
Thallium, Total			<0.268	U	<0.375	U	<0.319	U	<0.276	U	-		<0.259	U	<0.27	U
Vanadium, Total			25.4		30.4		10		47.9		-		38		14.2	
Zinc, Total	2200	109	47.8		52.8		20		193		-		43.4		29.4	
General Chemistry																
Solids, Total			88		64.2		74.9		89.4		-		93.5		87.8	

Notes:
NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
Yellow highlight indicates that the concentration exceeds one or more of the applicable standards.
J - The value is estimated.
U - Not detected above the method detection limit.
All values are in mg/kg.
DUP1 (1-27-20) collected from SB-1A(19-19.5).

Table 1
Soil Boring Analytical Results - 2020
180 East 132nd Street
Bronx, New York

			SAMPLE ID:		SB-3A (13-13.5')		SB-4A (3-3.5')		SB-4A (14-14.5')	
			LAB ID:		L2003755-04		L2003755-05		L2003755-06	
			COLLECTION DATE:		1/27/2020		1/27/2020		1/27/2020	
			SAMPLE DEPTH:		13-13.5'		3-3.5'		14-14.5'	
			SAMPLE MATRIX:		SOIL		SOIL		SOIL	
ANALYTE	**NY-RESR**	**NY-UNRES**		**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane					<0.00012	U	<0.00013	U	<0.00014	U
1,1,1-Trichloroethane	100	0.68			<0.00016	U	<0.00017	U	<0.00018	U
1,1,2,2-Tetrachloroethane					<0.00016	U	<0.00017	U	<0.00018	U
1,1,2-Trichloroethane					<0.00025	U	<0.00027	U	<0.00028	U
1,1-Dichloroethane	19	0.27			<0.00014	U	<0.00015	U	<0.00015	U
1,1-Dichloroethene	100	0.33			<0.00023	U	<0.00024	U	<0.00025	U
1,1-Dichloropropene					<0.00015	U	<0.00016	U	<0.00017	U
1,2,3-Trichlorobenzene					<0.00031	U	<0.00033	U	<0.00034	U
1,2,3-Trichloropropane					<0.00012	U	<0.00013	U	<0.00013	U
1,2,4,5-Tetramethylbenzene					<0.00018	U	<0.00019	U	<0.0002	U
1,2,4-Trichlorobenzene					<0.00026	U	<0.00028	U	<0.00029	U
1,2,4-Trimethylbenzene	47	3.6			<0.00032	U	<0.00034	U	<0.00035	U
1,2-Dibromo-3-chloropropane					<0.00095	U	<0.001	U	<0.001	U
1,2-Dibromoethane					<0.00026	U	<0.00028	U	<0.0003	U
1,2-Dichlorobenzene	100	1.1			<0.00014	U	<0.00015	U	<0.00015	U
1,2-Dichloroethane	2.3	0.02			<0.00024	U	<0.00026	U	<0.00027	U
1,2-Dichloroethene, Total					<0.00013	U	<0.00014	U	<0.00014	U
1,2-Dichloropropane					<0.00012	U	<0.00013	U	<0.00013	U
1,3,5-Trimethylbenzene	47	8.4			<0.00018	U	<0.0002	U	<0.0002	U
1,3-Dichlorobenzene	17	2.4			<0.00014	U	<0.00015	U	<0.00016	U
1,3-Dichloropropane					<0.00016	U	<0.00017	U	<0.00018	U
1,3-Dichloropropene, Total					<0.00015	U	<0.00016	U	<0.00017	U
1,4-Dichlorobenzene	9.8	1.8			<0.00016	U	<0.00017	U	<0.00018	U
1,4-Dioxane	9.8	0.1			<0.033	U	<0.036	U	<0.037	U
2,2-Dichloropropane					<0.00019	U	<0.0002	U	<0.00021	U
2-Butanone	100	0.12			<0.0021	U	<0.0023	U	<0.0024	U
2-Hexanone					<0.0011	U	<0.0012	U	<0.0012	U
4-Methyl-2-pentanone					<0.0012	U	<0.0013	U	<0.0014	U
Acetone	100	0.05			<0.0046	U	0.0063	J	<0.0051	U
Acrylonitrile					<0.0011	U	<0.0012	U	<0.0012	U
Benzene	2.9	0.06			<0.00016	U	<0.00017	U	<0.00018	U
Bromobenzene					<0.00014	U	<0.00015	U	<0.00015	U
Bromochloromethane					<0.00019	U	<0.00021	U	<0.00022	U
Bromodichloromethane					<0.0001	U	<0.00011	U	<0.00012	U
Bromoform					<0.00023	U	<0.00025	U	<0.00026	U
Bromomethane					<0.00055	U	<0.00059	U	<0.00062	U
Carbon disulfide					<0.0043	U	<0.0046	U	<0.0048	U
Carbon tetrachloride	1.4	0.76			<0.00022	U	<0.00023	U	<0.00024	U
Chlorobenzene	100	1.1			<0.00012	U	<0.00013	U	<0.00013	U
Chloroethane					<0.00043	U	<0.00046	U	<0.00048	U
Chloroform	10	0.37			<0.00013	U	<0.00014	U	<0.00015	U
Chloromethane					<0.00089	U	<0.00095	U	<0.00099	U
cis-1,2-Dichloroethene	59	0.25			<0.00017	U	<0.00018	U	<0.00018	U
cis-1,3-Dichloropropene					<0.00015	U	<0.00016	U	<0.00017	U
Dibromochloromethane					<0.00013	U	<0.00014	U	<0.00015	U
Dibromomethane					<0.00023	U	<0.00024	U	<0.00025	U
Dichlorodifluoromethane					<0.00087	U	<0.00093	U	<0.00097	U
Ethyl ether					<0.00032	U	<0.00035	U	<0.00036	U
Ethylbenzene	30	1			<0.00013	U	<0.00014	U	<0.00015	U
Hexachlorobutadiene					<0.00016	U	<0.00017	U	<0.00018	U
Isopropylbenzene					<0.0001	U	<0.00011	U	<0.00012	U
Methyl tert butyl ether	62	0.93			<0.00019	U	<0.0002	U	<0.00021	U
Methylene chloride	51	0.05			<0.0022	U	<0.0023	U	<0.0024	U
n-Butylbenzene	100	12			<0.00016	U	<0.00017	U	<0.00018	U
n-Propylbenzene	100	3.9			<0.00016	U	<0.00017	U	<0.00018	U
Naphthalene	100	12			<0.00062	U	<0.00066	U	<0.00069	U
o-Chlorotoluene					<0.00018	U	<0.00019	U	<0.0002	U
o-Xylene					<0.00028	U	<0.0003	U	<0.00031	U
p-Chlorotoluene					<0.0001	U	<0.00011	U	<0.00011	U
p-Diethylbenzene					<0.00017	U	<0.00018	U	<0.00019	U
p-Ethyltoluene					<0.00036	U	<0.00039	U	<0.00041	U
p-Isopropyltoluene					<0.0001	U	<0.00011	U	<0.00012	U
p/m-Xylene					<0.00053	U	<0.00057	U	<0.00059	U
sec-Butylbenzene	100	11			<0.00014	U	<0.00015	U	<0.00015	U
Styrene					<0.00019	U	<0.0002	U	<0.00021	U
tert-Butylbenzene	100	5.9			<0.00011	U	<0.00012	U	<0.00012	U
Tetrachloroethene	5.5	1.3			<0.00019	U	<0.0002	U	<0.00021	U
Toluene	100	0.7			<0.00052	U	<0.00055	U	<0.00058	U
trans-1,2-Dichloroethene	100	0.19			<0.00013	U	<0.00014	U	<0.00014	U
trans-1,3-Dichloropropene					<0.00026	U	<0.00028	U	<0.00029	U
trans-1,4-Dichloro-2-butene					<0.0014	U	<0.0014	U	<0.0015	U
Trichloroethene	10	0.47			<0.00013	U	<0.00014	U	<0.00014	U
Trichlorofluoromethane					<0.00066	U	<0.00071	U	<0.00074	U
Vinyl acetate					<0.002	U	<0.0022	U	<0.0023	U
Vinyl chloride	0.21	0.02			<0.00032	U	<0.00034	U	<0.00036	U
Xylenes, Total	100	0.26			<0.00028	U	<0.0003	U	<0.00031	U
Total VOCs					-	-	0.0063	-	-	-
Perfluorinated Alkyl Acids										
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)					<0.000279	U	<0.000302	U	<0.000272	U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)					<0.000175	U	<0.000189	U	<0.00017	U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)					<0.000082	U	<0.000089	U	<0.00008	U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)					<0.000196	U	<0.000212	U	<0.000191	U
Perfluorobutanesulfonic Acid (PFBS)					<0.000038	U	<0.000041	U	<0.000037	U
Perfluorobutanoic Acid (PFBA)					<0.000022	U	<0.000024	U	<0.000022	U
Perfluorodecanesulfonic Acid (PFDS)					<0.000149	U	<0.000161	U	<0.000145	U
Perfluorodecanoic Acid (PFDA)					<0.000065	U	<0.00007	U	<0.000064	U
Perfluorododecanoic Acid (PFDoA)					<0.000068	U	<0.000074	U	<0.000066	U
Perfluoroheptanesulfonic Acid (PFHpS)					<0.000133	U	<0.000143	U	<0.000129	U
Perfluoroheptanoic Acid (PFHpA)					<0.000044	U	<0.000047	U	<0.000043	U
Perfluorohexanesulfonic Acid (PFHxS)					<0.000059	U	<0.000064	U	<0.000057	U
Perfluorohexanoic Acid (PFHxA)					<0.000051	U	<0.000055	U	0.00005	J
Perfluorononanoic Acid (PFNA)					<0.000073	U	<0.000079	U	<0.000071	U
Perfluorooctanesulfonamide (FOSA)					<0.000095	U	<0.000103	U	<0.000093	U
Perfluorooctanesulfonic Acid (PFOS)					<0.000126	U	<0.000137	U	<0.000123	U
Perfluorooctanoic Acid (PFOA)					<0.000041	U	0.000053	J	<0.00004	U
Perfluoropentanoic Acid (PFPeA)					<0.000045	U	<0.000048	U	<0.000044	U
Perfluorotetradecanoic Acid (PFTA)					<0.000053	U	<0.000057	U	<0.000051	U
Perfluorotridecanoic Acid (PFTrDA)					<0.000199	U	<0.000215	U	<0.000194	U
Perfluoroundecanoic Acid (PFUnA)					<0.000046	U	<0.000049	U	<0.000044	U
PFOA/PFOS, Total					<0.000041	U	0.000053	J	<0.00004	U

Table 1
Soil Boring Analytical Results - 2020
180 East 132nd Street
Bronx, New York

			SAMPLE ID:		SB-3A (13-13.5')		SB-4A (3-3.5')		SB-4A (14-14.5')	
			LAB ID:		L2003755-04		L2003755-05		L2003755-06	
			COLLECTION DATE:		1/27/2020		1/27/2020		1/27/2020	
			SAMPLE DEPTH:		13-13.5'		3-3.5'		14-14.5'	
			SAMPLE MATRIX:		SOIL		SOIL		SOIL	
ANALYTE	**NY-RESR**	**NY-UNRES**		**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**
Semivolatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene					<0.017	U	<0.019	U	<0.018	U
1,2,4-Trichlorobenzene					<0.019	U	<0.021	U	<0.02	U
1,2-Dichlorobenzene	100	1.1			<0.03	U	<0.033	U	<0.032	U
1,3-Dichlorobenzene	17	2.4			<0.029	U	<0.032	U	<0.03	U
1,4-Dichlorobenzene	9.8	1.8			<0.029	U	<0.032	U	<0.031	U
1,4-Dioxane	9.8	0.1			<0.0077	U	<0.0086	U	<0.0081	U
2,4,5-Trichlorophenol					<0.032	U	<0.036	U	<0.034	U
2,4,6-Trichlorophenol					<0.032	U	<0.035	U	<0.033	U
2,4-Dichlorophenol					<0.027	U	<0.03	U	<0.028	U
2,4-Dimethylphenol					<0.055	U	<0.061	U	<0.058	U
2,4-Dinitrophenol					<0.078	U	<0.087	U	<0.082	U
2,4-Dinitrotoluene					<0.033	U	<0.037	U	<0.035	U
2,6-Dinitrotoluene					<0.029	U	<0.032	U	<0.03	U
2-Chloronaphthalene					<0.016	U	<0.018	U	<0.017	U
2-Chlorophenol					<0.02	U	<0.022	U	<0.021	U
2-Methylnaphthalene					<0.02	U	<0.022	U	<0.021	U
2-Methylphenol	100	0.33			<0.026	U	<0.029	U	<0.027	U
2-Nitroaniline					<0.032	U	<0.036	U	<0.034	U
2-Nitrophenol					<0.063	U	<0.07	U	<0.066	U
3,3'-Dichlorobenzidine					<0.044	U	<0.049	U	<0.047	U
3-Methylphenol/4-Methylphenol	34	0.33			<0.026	U	<0.029	U	<0.028	U
3-Nitroaniline					<0.032	U	<0.035	U	<0.033	U
4,6-Dinitro-o-cresol					<0.08	U	<0.089	U	<0.084	U
4-Bromophenyl phenyl ether					<0.025	U	<0.028	U	<0.027	U
4-Chloroaniline					<0.03	U	<0.034	U	<0.032	U
4-Chlorophenyl phenyl ether					<0.018	U	<0.02	U	<0.019	U
4-Nitroaniline					<0.069	U	<0.077	U	<0.073	U
4-Nitrophenol					<0.068	U	<0.076	U	<0.072	U
Acenaphthene	100	20			<0.017	U	0.064	J	<0.018	U
Acenaphthylene	100	100			<0.026	U	<0.029	U	<0.027	U
Acetophenone					<0.021	U	<0.023	U	<0.022	U
Anthracene	100	100			<0.032	U	0.11		<0.034	U
Benzo(a)anthracene	1	1			<0.019	U	0.23		<0.02	U
Benzo(a)pyrene	1	1			<0.041	U	0.22		<0.043	U
Benzo(b)fluoranthene	1	1			<0.028	U	0.26		<0.03	U
Benzo(ghi)perylene	100	100			<0.02	U	0.12	J	<0.021	U
Benzo(k)fluoranthene	1	0.8			<0.027	U	0.087	J	<0.028	U
Benzoic Acid					<0.17	U	<0.19	U	<0.18	U
Benzyl Alcohol					<0.051	U	<0.057	U	<0.054	U
Biphenyl					<0.039	U	<0.043	U	<0.041	U
Bis(2-chloroethoxy)methane					<0.017	U	<0.019	U	<0.018	U
Bis(2-chloroethyl)ether					<0.023	U	<0.025	U	<0.024	U
Bis(2-chloroisopropyl)ether					<0.028	U	<0.032	U	<0.03	U
Bis(2-ethylhexyl)phthalate					<0.058	U	<0.064	U	<0.061	U
Butyl benzyl phthalate					<0.042	U	<0.047	U	<0.044	U
Carbazole					<0.016	U	0.062	J	<0.017	U
Chrysene	1	1			<0.017	U	0.24		<0.018	U
Di-n-butylphthalate					<0.032	U	<0.035	U	<0.033	U
Di-n-octylphthalate					<0.057	U	<0.063	U	<0.06	U
Dibenzo(a,h)anthracene	0.33	0.33			<0.019	U	0.03	J	<0.02	U
Dibenzofuran	14	7			<0.016	U	0.043	J	<0.017	U
Diethyl phthalate					<0.015	U	<0.017	U	<0.016	U
Dimethyl phthalate					<0.035	U	<0.039	U	<0.037	U
Fluoranthene	100	100			<0.019	U	0.53		<0.02	U
Fluorene	100	30			<0.016	U	0.046	J	<0.017	U
Hexachlorobenzene	0.33	0.33			<0.019	U	<0.021	U	<0.02	U
Hexachlorobutadiene					<0.024	U	<0.027	U	<0.026	U
Hexachlorocyclopentadiene					<0.15	U	<0.17	U	<0.16	U
Hexachloroethane					<0.027	U	<0.03	U	<0.028	U
Indeno(1,2,3-cd)pyrene	0.5	0.5			<0.023	U	0.12	J	<0.024	U
Isophorone					<0.022	U	<0.024	U	<0.023	U
n-Nitrosodi-n-propylamine					<0.026	U	<0.029	U	<0.027	U
Naphthalene	100	12			<0.02	U	0.033	J	<0.021	U
NDPA/DPA					<0.019	U	<0.021	U	<0.02	U
Nitrobenzene					<0.025	U	<0.028	U	<0.026	U
p-Chloro-m-cresol					<0.025	U	<0.028	U	<0.026	U
Pentachlorophenol	2.4	0.8			<0.037	U	<0.041	U	<0.039	U
Phenanthrene	100	100			<0.02	U	0.54		<0.021	U
Phenol	100	0.33			<0.025	U	<0.028	U	<0.026	U
Pyrene	100	100			<0.017	U	0.44		<0.017	U
Total SVOCs					-	-	3.175	-	-	-
Pesticides										
4,4'-DDD	2.6	0.0033			<0.000557	U	<0.000642	U	<0.000586	U
4,4'-DDE	1.8	0.0033			<0.000361	U	<0.000416	U	<0.00038	U
4,4'-DDT	1.7	0.0033			<0.00126	U	<0.00145	U	<0.00132	U
Aldrin	0.019	0.005			<0.00055	U	<0.000634	U	<0.000579	U
Alpha-BHC	0.097	0.02			<0.000185	U	<0.000213	U	<0.000194	U
Beta-BHC	0.072	0.036			<0.000592	U	<0.000683	U	<0.000623	U
Chlordane					<0.00517	U	<0.00596	U	<0.00545	U
cis-Chlordane	0.91	0.094			<0.000544	U	<0.000627	U	<0.000573	U
Delta-BHC	100	0.04			<0.000306	U	<0.000352	U	<0.000322	U
Dieldrin	0.039	0.005			<0.000488	U	<0.000563	U	<0.000514	U
Endosulfan I	4.8	2.4			<0.000369	U	<0.000425	U	<0.000388	U
Endosulfan II	4.8	2.4			<0.000522	U	<0.000602	U	<0.000549	U
Endosulfan sulfate	4.8	2.4			<0.00031	U	<0.000357	U	<0.000326	U
Endrin	2.2	0.014			<0.000267	U	<0.000308	U	<0.000281	U
Endrin aldehyde					<0.000683	U	<0.000788	U	<0.000719	U
Endrin ketone					<0.000402	U	<0.000464	U	<0.000423	U
Heptachlor	0.42	0.042			<0.00035	U	<0.000404	U	<0.000369	U
Heptachlor epoxide					<0.000878	U	<0.00101	U	<0.000925	U
Lindane	0.28	0.1			<0.000291	U	<0.000335	U	<0.000306	U
Methoxychlor					<0.000911	U	<0.00105	U	<0.000959	U
Toxaphene					<0.0082	U	<0.00945	U	<0.00863	U
trans-Chlordane					<0.000515	U	<0.000594	U	<0.000543	U
Polychlorinated Biphenyls										
Aroclor 1016	1	0.1			<0.00292	U	<0.0033	U	<0.00308	U
Aroclor 1221	1	0.1			<0.0033	U	<0.00372	U	<0.00347	U
Aroclor 1232	1	0.1			<0.00698	U	<0.00787	U	<0.00734	U
Aroclor 1242	1	0.1			<0.00444	U	<0.005	U	<0.00467	U
Aroclor 1248	1	0.1			<0.00494	U	<0.00557	U	<0.0052	U
Aroclor 1254	1	0.1			<0.0036	U	<0.00406	U	<0.00379	U
Aroclor 1260	1	0.1			<0.00608	U	<0.00686	U	<0.0064	U

Table 1
Soil Boring Analytical Results - 2020
180 East 132nd Street
Bronx, New York

			SAMPLE ID:		SB-3A (13-13.5')		SB-4A (3-3.5')		SB-4A (14-14.5')	
			LAB ID:		L2003755-04		L2003755-05		L2003755-06	
			COLLECTION DATE:		1/27/2020		1/27/2020		1/27/2020	
			SAMPLE DEPTH:		13-13.5'		3-3.5'		14-14.5'	
			SAMPLE MATRIX:		SOIL		SOIL		SOIL	
ANALYTE	**NY-RESR**	**NY-UNRES**			**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**
Aroclor 1262	1	0.1			<0.00418	U	<0.00471	U	<0.0044	U
Aroclor 1268	1	0.1			<0.00341	U	<0.00384	U	<0.00359	U
PCBs, Total	1	0.1			<0.00292	U	<0.0033	U	<0.00308	U
Total Metals										
Aluminum, Total					17300		8750		10300	
Antimony, Total					3.65	J	1.25	J	2.84	J
Arsenic, Total	16	13			<0.167	U	2.79		0.355	J
Barium, Total	350	350			286		66.2		147	
Beryllium, Total	14	7.2			0.129	J	0.346	J	0.091	J
Cadmium, Total	2.5	2.5			0.507	J	0.292	J	2.08	
Calcium, Total					3680		4510		3950	
Chromium, Total					71.1		16.3		11.9	
Cobalt, Total					19.4		6.99		15.4	
Copper, Total	270	50			6.74		14.9		55.6	
Iron, Total					29300		14500		48800	
Lead, Total	400	63			1.21	J	45		<0.221	U
Magnesium, Total					13100		5570		6960	
Manganese, Total	2000	1600			170		238		308	
Mercury, Total	0.81	0.18			<0.05	U	0.119		<0.044	U
Nickel, Total	140	30			51.9		14.2		60	
Potassium, Total					9510		990		2430	
Selenium, Total	36	3.9			0.458	J	0.381	J	0.693	J
Silver, Total	36	2			<0.228	U	<0.251	U	0.388	J
Sodium, Total					244		206		180	
Thallium, Total					<0.253	U	<0.279	U	<0.26	U
Vanadium, Total					91.9		21.8		150	
Zinc, Total	2200	109			81.2		42		235	
General Chemistry										
Solids, Total					97.2		87.3		93.8	

Notes:
NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria
NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 N
Yellow highlight indicates that the concentration exceeds one or more of the applicable standa
J - The value is estimated.
U - Not detected above the method detection limit.
All values are in mg/kg.
DUP1 (1-27-20) collected from SB-1A(19-19.5).

Table 2
Groundwater Analytical Results - 2018
180 East 132nd Street
Bronx, New York

CLIENT SAMPLE ID		DUP-GW		FIELD BLANK-GW2		FIELD BLANK-TW		TRIP BLANK		TW-1		TW-4		TW-5		TW-6		TW-9	
SAMPLING DATE		2/27/2018		2/27/2018		2/26/2018		2/23/2018		2/26/2018		2/26/2018		2/27/2018		2/26/2018		2/27/2018	
LAB SAMPLE ID	NY-AWQS	L1806946-03		L1806946-04		L1806702-05		L1806702-04		L1806702-01		L1806702-02		L1806946-01		L1806702-03		L1806946-02	
UNIT		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
		Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Dissolved Metals																			
Aluminum, Dissolved	NS	10	U	10	U	10	U	-	-	8.72	J	6.68	J	59.4		9.18	J	10	U
Antimony, Dissolved	3	0.59	J	4	U	0.77	J	-	-	1.18	J	0.91	J	2	J	11.25		0.55	J
Arsenic, Dissolved	25	0.38	J	0.5	U	0.5	U	-	-	0.21	J	0.2	J	7.67		1.67		0.36	J
Barium, Dissolved	1000	120.9		1.3		1.3		-	-	92.67		136.7		103.2		168		118.9	
Beryllium, Dissolved	3	0.5	U	0.5	U	0.5	U	-	-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cadmium, Dissolved	5	0.13	J	0.07	J	0.2	U	-	-	0.11	J	0.2	U	0.2	U	0.2	U	0.15	J
Calcium, Dissolved	NS	134000		100	U	100	U	-	-	55200		107000		75000		86800		134000	
Chromium, Dissolved	50	0.36	J	0.19	J	0.22	J	-	-	0.84	J	0.58	J	0.53	J	0.32	J	0.34	J
Cobalt, Dissolved	NS	3.53		0.5	U	0.5	U	-	-	0.68		2.34		0.48	J	0.41	J	2.89	
Copper, Dissolved	200	3.45		1	U	1	U	-	-	2.45		1.1		1	U	1.68		1.86	
Iron, Dissolved	300	382		50	U	50	U	-	-	20.1	J	114		45.2	J	273		263	
Lead, Dissolved	25	0.71	J	1	U	1	U	-	-	1	U	1	U	0.97	J	1.4		0.58	J
Magnesium, Dissolved	35000	22100		70	U	70	U	-	-	12500		37200		182000		32800		22500	
Manganese, Dissolved	300	247		1.05		1	U	-	-	23.04		178.5		48.17		1031		197.9	
Mercury, Dissolved	0.7	0.2	U	0.2	U	0.2	U	-	-	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel, Dissolved	100	4.32		2	U	2	U	-	-	2.55		4.79		3.85		1.24	J	4.17	
Potassium, Dissolved	NS	10000		100	U	100	U	-	-	8130		8010		49500		20000		9900	
Selenium, Dissolved	10	2.36	J	5	U	5	U	-	-	4.46	J	3.37	J	5	U	5	U	2.36	J
Silver, Dissolved	50	0.4	U	0.4	U	0.4	U	-	-	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U
Sodium, Dissolved	20000	91300		100	U	100	U	-	-	85600		124000		181000		233000		95800	
Thallium, Dissolved	0.5	0.5	U	0.5	U	0.5	U	-	-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vanadium, Dissolved	NS	5	U	5	U	5	U	-	-	1.59	J	5	U	40.52		3.27	J	5	U
Zinc, Dissolved	2000	7.93	J	10	U	10	U	-	-	8.65	J	10	U	10	U	10	U	7.45	J
Organochlorine Pesticides by GC																			
4,4'-DDD	0.3	0.04	U	0.04	U	0.04	U	-	-	0.04	U	0.04	U	0.014	J	0.04	U	0.04	U
4,4'-DDE	0.2	0.04	U	0.04	U	0.04	U	-	-	0.04	U	0.04	U	0.007	J	0.04	U	0.04	U
4,4'-DDT	0.2	0.04	U	0.04	U	0.04	U	-	-	0.04	U	0.04	U	0.04	U	0.04	U	0.029	J
Aldrin	0	0.02	U	0.02	U	0.02	U	-	-	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Alpha-BHC	0.01	0.02	U	0.02	U	0.02	U	-	-	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Beta-BHC	0.04	0.02	U	0.02	U	0.02	U	-	-	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Chlordane	0.05	0.2	U	0.2	U	0.2	U	-	-	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
cis-Chlordane	NS	0.02	U	0.02	U	0.02	U	-	-	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Delta-BHC	0.04	0.02	U	0.02	U	0.02	U	-	-	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Dieldrin	0.004	0.04	U	0.04	U	0.04	U	-	-	0.04	U	0.04	U	0.04	U	0.04	U	0.04	U
Endosulfan I	NS	0.02	U	0.02	U	0.02	U	-	-	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Endosulfan II	NS	0.04	U	0.04	U	0.04	U	-	-	0.04	U	0.04	U	0.04	U	0.04	U	0.04	U
Endosulfan sulfate	NS	0.04	U	0.04	U	0.04	U	-	-	0.04	U	0.04	U	0.04	U	0.04	U	0.04	U
Endrin	0	0.04	U	0.04	U	0.04	U	-	-	0.04	U	0.04	U	0.04	U	0.04	U	0.04	U
Endrin aldehyde	5	0.04	U	0.04	U	0.04	U	-	-	0.04	U	0.04	U	0.04	U	0.04	U	0.04	U
Endrin ketone	5	0.04	U	0.04	U	0.04	U	-	-	0.04	U	0.04	U	0.04	U	0.04	U	0.04	U
Heptachlor	0.04	0.02	U	0.02	U	0.02	U	-	-	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Heptachlor epoxide	0.03	0.02	U	0.02	U	0.02	U	-	-	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Lindane	0.05	0.02	U	0.02	U	0.02	U	-	-	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Methoxychlor	35	0.2	U	0.2	U	0.2	U	-	-	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Toxaphene	0.06	0.2	U	0.2	U	0.2	U	-	-	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
trans-Chlordane	NS	0.02	U	0.02	U	0.02	U	-	-	0.02	U	0.02	U	0.02	U	0.02	U	0.02	U
Polychlorinated Biphenyls by GC																			
Aroclor 1016	0.09	0.083	U	0.083	U	0.083	U	-	-	0.083	U	0.083	U	0.083	U	0.083	U	0.083	U
Aroclor 1221	0.09	0.083	U	0.083	U	0.083	U	-	-	0.083	U	0.083	U	0.083	U	0.083	U	0.083	U
Aroclor 1232	0.09	0.083	U	0.083	U	0.083	U	-	-	0.083	U	0.083	U	0.083	U	0.083	U	0.083	U
Aroclor 1242	0.09	0.083	U	0.083	U	0.083	U	-	-	0.083	U	0.083	U	0.083	U	0.083	U	0.083	U

Table 2
Groundwater Analytical Results - 2018
180 East 132nd Street
Bronx, New York

CLIENT SAMPLE ID	NY-AWQS	DUP-GW		FIELD BLANK-GW2		FIELD BLANK-TW		TRIP BLANK		TW-1		TW-4		TW-5		TW-6		TW-9	
SAMPLING DATE		2/27/2018		2/27/2018		2/26/2018		2/23/2018		2/26/2018		2/26/2018		2/27/2018		2/26/2018		2/27/2018	
LAB SAMPLE ID		L1806946-03		L1806946-04		L1806702-05		L1806702-04		L1806702-01		L1806702-02		L1806946-01		L1806702-03		L1806946-02	
UNIT		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
		Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Aroclor 1248	0.09	0.083	U	0.083	U	0.083	U	-	-	0.083	U	0.083	U	0.083	U	0.083	U	0.083	U
Aroclor 1254	0.09	0.083	U	0.083	U	0.083	U	-	-	0.083	U	0.083	U	0.083	U	0.083	U	0.083	U
Aroclor 1260	0.09	0.083	U	0.083	U	0.083	U	-	-	0.083	U	0.083	U	0.083	U	0.083	U	0.083	U
Aroclor 1262	0.09	0.083	U	0.083	U	0.083	U	-	-	0.083	U	0.083	U	0.083	U	0.083	U	0.083	U
Aroclor 1268	0.09	0.083	U	0.083	U	0.083	U	-	-	0.083	U	0.083	U	0.083	U	0.083	U	0.083	U
PCBs, Total	NS	0.083	U	0.083	U	0.083	U	-	-	0.083	U	0.083	U	0.083	U	0.083	U	0.083	U
Semivolatile Organics by GC/MS																			
1,2,4,5-Tetrachlorobenzene	5	10	U	10	U	10	U	-	-	10	U	10	U	10	U	10	U	10	U
1,2,4-Trichlorobenzene	5	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
1,2-Dichlorobenzene	3	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
1,3-Dichlorobenzene	3	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
1,4-Dichlorobenzene	3	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
2,4,5-Trichlorophenol	NS	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
2,4,6-Trichlorophenol	NS	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
2,4-Dichlorophenol	1	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
2,4-Dimethylphenol	50	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
2,4-Dinitrophenol	10	20	U	20	U	20	U	-	-	20	U	20	U	20	U	20	U	20	U
2,4-Dinitrotoluene	5	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
2,6-Dinitrotoluene	5	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
2-Chlorophenol	NS	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
2-Methylphenol	NS	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
2-Nitroaniline	5	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
2-Nitrophenol	NS	10	U	10	U	10	U	-	-	10	U	10	U	10	U	10	U	10	U
3,3'-Dichlorobenzidine	5	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
3-Methylphenol/4-Methylphenol	NS	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
3-Nitroaniline	5	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
4,6-Dinitro-o-cresol	NS	10	U	10	U	10	U	-	-	10	U	10	U	10	U	10	U	10	U
4-Bromophenyl phenyl ether	NS	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
4-Chloroaniline	5	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
4-Chlorophenyl phenyl ether	NS	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
4-Nitroaniline	5	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
4-Nitrophenol	NS	10	U	10	U	10	U	-	-	10	U	10	U	10	U	10	U	10	U
Acetophenone	NS	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
Benzoic Acid	NS	50	U	50	U	50	U	-	-	50	U	50	U	16	J	50	U	50	U
Benzyl Alcohol	NS	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
Biphenyl	NS	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
Bis(2-chloroethoxy)methane	5	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
Bis(2-chloroethyl)ether	1	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
Bis(2-chloroisopropyl)ether	5	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
Bis(2-ethylhexyl)phthalate	5	3	U	3	U	3	U	-	-	3	U	3	U	3	U	3	U	3	U
Butyl benzyl phthalate	50	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
Carbazole	NS	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
Di-n-butylphthalate	50	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
Di-n-octylphthalate	50	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
Dibenzofuran	NS	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
Diethyl phthalate	50	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
Dimethyl phthalate	50	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
Hexachlorocyclopentadiene	5	20	U	20	U	20	U	-	-	20	U	20	U	20	U	20	U	20	U
Isophorone	50	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
n-Nitrosodi-n-propylamine	NS	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
NDPA/DPA	50	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
Nitrobenzene	0.4	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U

Table 2
Groundwater Analytical Results - 2018
180 East 132nd Street
Bronx, New York

CLIENT SAMPLE ID		DUP-GW		FIELD BLANK-GW2		FIELD BLANK-TW		TRIP BLANK		TW-1		TW-4		TW-5		TW-6		TW-9	
SAMPLING DATE		2/27/2018		2/27/2018		2/26/2018		2/23/2018		2/26/2018		2/26/2018		2/27/2018		2/26/2018		2/27/2018	
LAB SAMPLE ID	NY-AWQS	L1806946-03		L1806946-04		L1806702-05		L1806702-04		L1806702-01		L1806702-02		L1806946-01		L1806702-03		L1806946-02	
UNIT		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
		Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
p-Chloro-m-cresol	NS	2	U	2	U	2	U	-	-	2	U	2	U	2	U	2	U	2	U
Phenol	1	5	U	5	U	5	U	-	-	5	U	5	U	5	U	5	U	5	U
Semivolatile Organics by GC/MS-SIM																			
2-Chloronaphthalene	10	0.2	U	0.2	U	0.2	U	-	-	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
2-Methylnaphthalene	NS	0.1	U	0.1	U	0.1	U	-	-	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Acenaphthene	20	0.1	U	0.1	U	0.1	U	-	-	0.1	U	0.1	U	0.04	J	0.1	U	0.1	U
Acenaphthylene	NS	0.07	J	0.06	J	0.1	U	-	-	0.1	U	0.1	U	0.13		0.04	J	0.07	J
Anthracene	50	0.06	J	0.1	U	0.1	U	-	-	0.07	J	0.07	J	0.3		0.04	J	0.05	J
Benzo(a)anthracene	0.002	0.02	J	0.1	U	0.1	U	-	-	0.04	J	0.03	J	0.04	J	0.08	J	0.02	J
Benzo(a)pyrene	0.002	0.100	U	0.100	U	0.100	U	-	-	0.050	J	0.100	U	0.100	U	0.130		0.100	U
Benzo(b)fluoranthene	0.002	0.02	J	0.1	U	0.03	J	-	-	0.07	J	0.04	J	0.03	J	0.18		0.1	U
Benzo(ghi)perylene	NS	0.1	U	0.1	U	0.1	U	-	-	0.1	U	0.1	U	0.1	U	0.08	J	0.1	U
Benzo(k)fluoranthene	0.002	0.1	U	0.1	U	0.1	U	-	-	0.1	U	0.1	U	0.1	U	0.05	J	0.1	U
Chrysene	0.002	0.1	U	0.1	U	0.1	U	-	-	0.1	U	0.1	U	0.1	U	0.07	J	0.1	U
Dibenzo(a,h)anthracene	NS	0.1	U	0.1	U	0.1	U	-	-	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Fluoranthene	50	0.04	J	0.1	U	0.1	U	-	-	0.1	U	0.1	U	0.1	U	0.08	J	0.1	U
Fluorene	50	0.1	U	0.1	U	0.1	U	-	-	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Hexachlorobenzene	0.04	0.8	U	0.8	U	0.8	U	-	-	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U
Hexachlorobutadiene	0.5	0.5	U	0.5	U	0.5	U	-	-	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Hexachloroethane	5	0.8	U	0.8	U	0.8	U	-	-	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U
Indeno(1,2,3-cd)pyrene	0.002	0.1	U	0.1	U	0.1	U	-	-	0.1	U	0.1	U	0.1	U	0.07	J	0.1	U
Naphthalene	10	0.07	J	0.1	U	0.1	U	-	-	0.1	U	0.1	U	0.06	J	0.1	U	0.06	J
Pentachlorophenol	1	0.8	U	0.8	U	0.8	U	-	-	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U
Phenanthrene	50	0.07	J	0.1	U	0.1	U	-	-	0.02	J	0.02	J	0.03	J	0.04	J	0.06	J
Pyrene	50	0.04	J	0.1	U	0.1	U	-	-	0.1	U	0.1	U	0.1	U	0.06	J	0.1	U
Total Metals																			
Aluminum, Total	NS	598		10	U	10	U	-	-	7390		43000		73200		3010		512	
Antimony, Total	3	0.87	J	0.83	J	0.96	J	-	-	1.24	J	0.98	J	3.59	J	9.68		0.87	J
Arsenic, Total	25	0.58		0.5	U	0.5	U	-	-	3.98		4.97		42.64		2.41		0.68	
Barium, Total	1000	123.5		0.97		1.38		-	-	218.8		709.6		3680		210		128.9	
Beryllium, Total	3	0.5	U	0.5	U	0.5	U	-	-	0.48	J	0.57		5.41		0.22	J	0.5	U
Cadmium, Total	5	0.13	J	0.2	U	0.2	U	-	-	0.32		0.36		12.89		0.34		0.15	J
Calcium, Total	NS	126000		48	J	43.2	J	-	-	58300		158000		2240000		89500		130000	
Chromium, Total	50	1.69		0.27	J	0.38	J	-	-	27.6		302.2		173.7		6.54		1.46	
Cobalt, Total	NS	4.62		0.5	U	0.5	U	-	-	14.78		53.48		71.19		3.13		4.56	
Copper, Total	200	5.59		0.71	J	1	U	-	-	67.35		75.02		1044		44.38		4.61	
Iron, Total	300	3170		50	U	50	U	-	-	14300		68300		130000		4840		1660	
Lead, Total	25	3.01		1	U	1	U	-	-	34.22		41.97		8526		150.8		8.11	
Magnesium, Total	35000	26300		70	U	70	U	-	-	16700		69000		349000		33800		26700	
Manganese, Total	300	310.8		0.83	J	1	U	-	-	395.6		1017		10740		1109		327.9	
Mercury, Total	0.7	0.2	U	0.2	U	0.2	U	-	-	0.08	J	0.07	J	0.35		0.78		0.2	U
Nickel, Total	100	6.09		2	U	2	U	-	-	32.92		171.2		190.4		6.17		5.68	
Potassium, Total	NS	10600		100	U	100	U	-	-	10300		14600		93800		19700		10800	
Selenium, Total	10	2.5	J	5	U	5	U	-	-	12.1		14.1		13.7		5	U	2.68	J
Silver, Total	50	0.4	U	0.4	U	0.4	U	-	-	0.4	U	0.4	U	1.07		0.4	U	0.4	U
Sodium, Total	20000	97100		100	U	126		-	-	80700		113000		198000		229000		97900	
Thallium, Total	0.5	0.5	U	0.5	U	0.5	U	-	-	0.18	J	0.52		1.47		0.5	U	0.5	U
Vanadium, Total	NS	2.67	J	5	U	5	U	-	-	37.43		220.3		570.8		12.53		2.9	J
Zinc, Total	2000	14.08		10	U	10	U	-	-	122.2		231.4		2126		60.02		14.6	
Volatile Organics by GC/MS																			
1,1,1,2-Tetrachloroethane	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,1,1-Trichloroethane	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U

Table 2
Groundwater Analytical Results - 2018
180 East 132nd Street
Bronx, New York

CLIENT SAMPLE ID		DUP-GW		FIELD BLANK-GW2		FIELD BLANK-TW		TRIP BLANK		TW-1		TW-4		TW-5		TW-6		TW-9	
SAMPLING DATE		2/27/2018		2/27/2018		2/26/2018		2/23/2018		2/26/2018		2/26/2018		2/27/2018		2/26/2018		2/27/2018	
LAB SAMPLE ID	NY-AWQS	L1806946-03		L1806946-04		L1806702-05		L1806702-04		L1806702-01		L1806702-02		L1806946-01		L1806702-03		L1806946-02	
UNIT		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
		Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
1,1,2,2-Tetrachloroethane	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	1	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
1,1-Dichloroethane	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,1-Dichloroethene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloropropene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2,3-Trichlorobenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2,3-Trichloropropane	0.04	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2,4,5-Tetramethylbenzene	5	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
1,2,4-Trichlorobenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2,4-Trimethylbenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2-Dibromo-3-chloropropane	0.04	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2-Dibromoethane	0.0006	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
1,2-Dichlorobenzene	3	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2-Dichloroethane	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethene, Total	NS	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2-Dichloropropane	1	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,3,5-Trimethylbenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,3-Dichlorobenzene	3	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,3-Dichloropropane	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,3-Dichloropropene, Total	NS	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	3	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,4-Dioxane	NS	250	U	250	U	250	U	250	U	250	U	250	U	250	U	250	U	250	U
2,2-Dichloropropane	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
2-Butanone	50	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	50	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone	NS	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	50	1.5	J	5	U	5	U	5	U	5	U	5	U	29		5	U	1.6	J
Acrylonitrile	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Bromochloromethane	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Bromodichloromethane	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	50	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Bromomethane	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Carbon disulfide	60	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Carbon tetrachloride	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Chloroethane	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Chloroform	7	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Chloromethane	NS	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
cis-1,2-Dichloroethene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
cis-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	50	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Dichlorodifluoromethane	5	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Ethyl ether	NS	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Ethylbenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Hexachlorobutadiene	0.5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Isopropylbenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Methyl tert butyl ether	10	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Methylene chloride	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
n-Butylbenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U

Table 2
Groundwater Analytical Results - 2018
180 East 132nd Street
Bronx, New York

CLIENT SAMPLE ID	NY-AWQS	DUP-GW		FIELD BLANK-GW2		FIELD BLANK-TW		TRIP BLANK		TW-1		TW-4		TW-5		TW-6		TW-9	
SAMPLING DATE		2/27/2018		2/27/2018		2/26/2018		2/23/2018		2/26/2018		2/26/2018		2/27/2018		2/26/2018		2/27/2018	
LAB SAMPLE ID		L1806946-03		L1806946-04		L1806702-05		L1806702-04		L1806702-01		L1806702-02		L1806946-01		L1806702-03		L1806946-02	
UNIT		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
		Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
n-Propylbenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Naphthalene	10	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
o-Chlorotoluene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
o-Xylene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
p-Chlorotoluene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
p-Diethylbenzene	NS	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
p-Ethyltoluene	NS	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
p-Isopropyltoluene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
p/m-Xylene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
sec-Butylbenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Styrene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
tert-Butylbenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Tetrachloroethene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
trans-1,2-Dichloroethene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
trans-1,3-Dichloropropene	0.4	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,4-Dichloro-2-butene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Trichloroethene	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Vinyl acetate	NS	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Vinyl chloride	2	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Xylenes, Total	NS	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U

Table 2
Groundwater Analytical Results - 2018
Notes
180 East 132nd Street
Bronx, New York

Notes:

This value exceeds NYS Ambient Water Quality Standards and Guidance Values

This value indicates that the MDL exceeds NYS Ambient Water Quality Standards and Guidance Values

mg/kg - Miligrams per kilograms
Qual - Laboratory data qualifier
U - The compound was not detected at the indicated concentration.
NS - No
Standard

J - The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

Table 2
Groundwater Analytical Results - 2020
180 East 132nd Street
Bronx, New York

	SAMPLE ID:	MW-1		DUP02042020		MW-3		TRIP BLANK		FIELD BLANK	
	LAB ID:	L2004990-01		L2004990-02		L2004990-05		L2004990-04		L2004990-03	
	COLLECTION DATE:	2/4/2020		2/4/2020		2/4/2020		2/3/2020		2/4/2020	
	SAMPLE MATRIX:	WATER		WATER		WATER		WATER		WATER	
ANALYTE	**NY-AWQS**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,1,1-Trichloroethane	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,1,2,2-Tetrachloroethane	5	<0.17	U	<0.17	U	<0.17	U	<0.17	U	<0.17	U
1,1,2-Trichloroethane	1	<0.5	U	<0.5	U	<0.5	U	<0.5	U	<0.5	U
1,1-Dichloroethane	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,1-Dichloroethene	5	<0.17	U	<0.17	U	<0.17	U	<0.17	U	<0.17	U
1,1-Dichloropropene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,2,3-Trichlorobenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,2,3-Trichloropropane	0.04	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,2,4,5-Tetramethylbenzene	5	<0.54	U	<0.54	U	<0.54	U	<0.54	U	<0.54	U
1,2,4-Trichlorobenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,2,4-Trimethylbenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,2-Dibromo-3-chloropropane	0.04	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,2-Dibromoethane	0.0006	<0.65	U	<0.65	U	<0.65	U	<0.65	U	<0.65	U
1,2-Dichlorobenzene	3	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,2-Dichloroethane	0.6	<0.13	U	<0.13	U	<0.13	U	<0.13	U	<0.13	U
1,2-Dichloroethene, Total		<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,2-Dichloropropane	1	<0.14	U	<0.14	U	<0.14	U	<0.14	U	<0.14	U
1,3,5-Trimethylbenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,3-Dichlorobenzene	3	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,3-Dichloropropane	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,3-Dichloropropene, Total		<0.14	U	<0.14	U	<0.14	U	<0.14	U	<0.14	U
1,4-Dichlorobenzene	3	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
1,4-Dioxane		<61	U	<61	U	<61	U	<61	U	<61	U
2,2-Dichloropropane	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
2-Butanone	50	<1.9	U	<1.9	U	<1.9	U	<1.9	U	<1.9	U
2-Hexanone	50	<1	U	<1	U	<1	U	<1	U	<1	U
4-Methyl-2-pentanone		<1	U	<1	U	<1	U	<1	U	<1	U
Acetone	50	<1.5	U	<1.5	U	<1.5	U	<1.5	U	<1.5	U
Acrylonitrile	5	<1.5	U	<1.5	U	<1.5	U	<1.5	U	<1.5	U
Benzene	1	<0.16	U	<0.16	U	<0.16	U	<0.16	U	<0.16	U
Bromobenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Bromochloromethane	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Bromodichloromethane	50	<0.19	U	<0.19	U	<0.19	U	<0.19	U	<0.19	U
Bromoform	50	<0.65	U	<0.65	U	<0.65	U	<0.65	U	<0.65	U
Bromomethane	5	0.89	J	0.74	J	<0.7	U	<0.7	U	<0.7	U
Carbon disulfide	60	<1	U	<1	U	<1	U	<1	U	<1	U
Carbon tetrachloride	5	<0.13	U	<0.13	U	<0.13	U	<0.13	U	<0.13	U
Chlorobenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Chloroethane	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Chloroform	7	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Chloromethane		<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
cis-1,2-Dichloroethene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
cis-1,3-Dichloropropene	0.4	<0.14	U	<0.14	U	<0.14	U	<0.14	U	<0.14	U
Dibromochloromethane	50	<0.15	U	<0.15	U	<0.15	U	<0.15	U	<0.15	U
Dibromomethane	5	<1	U	<1	U	<1	U	<1	U	<1	U
Dichlorodifluoromethane	5	<1	U	<1	U	<1	U	<1	U	<1	U
Ethyl ether		<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Ethylbenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Hexachlorobutadiene	0.5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Isopropylbenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Methyl tert butyl ether	10	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Methylene chloride	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
n-Butylbenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
n-Propylbenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Naphthalene	10	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
o-Chlorotoluene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
o-Xylene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
p-Chlorotoluene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
p-Diethylbenzene		<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
p-Ethyltoluene		<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
p-Isopropyltoluene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
p/m-Xylene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
sec-Butylbenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Styrene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
tert-Butylbenzene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Tetrachloroethene	5	<0.18	U	<0.18	U	<0.18	U	<0.18	U	<0.18	U
Toluene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
trans-1,2-Dichloroethene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
trans-1,3-Dichloropropene	0.4	<0.16	U	<0.16	U	<0.16	U	<0.16	U	<0.16	U
trans-1,4-Dichloro-2-butene	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Trichloroethene	5	<0.18	U	<0.18	U	<0.18	U	<0.18	U	<0.18	U
Trichlorofluoromethane	5	<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Vinyl acetate		<1	U	<1	U	<1	U	<1	U	<1	U
Vinyl chloride	2	<0.07	U	<0.07	U	<0.07	U	<0.07	U	<0.07	U
Xylenes, Total		<0.7	U	<0.7	U	<0.7	U	<0.7	U	<0.7	U
Total VOCs		0.89	-	0.74	-	-	-	-	-	-	-
1,4 Dioxane (8270D-SIM)											
1,4-Dioxane		<0.0326	U	<0.0326	U	<0.0326	U	-	-	<0.0326	U

Table 2
Groundwater Analytical Results - 2020
180 East 132nd Street
Bronx, New York

SAMPLE ID:		MW-1		DUP02042020		MW-3		TRIP BLANK		FIELD BLANK	
LAB ID:		L2004990-01		L2004990-02		L2004990-05		L2004990-04		L2004990-03	
COLLECTION DATE:		2/4/2020		2/4/2020		2/4/2020		2/3/2020		2/4/2020	
SAMPLE MATRIX:		WATER		WATER		WATER		WATER		WATER	
ANALYTE	**NY-AWQS**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**
Perfluorinated Alkyl Acids											
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)		<0.00117	U	<0.0011	U	<0.00116	U	-	-	<0.00115	U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)		0.0123		0.01		0.00315		-	-	<0.00127	U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)		<0.000779	U	<0.000728	U	<0.000773	U	-	-	<0.000764	U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)		<0.000628	U	<0.000587	U	<0.000623	U	-	-	<0.000616	U
Perfluorobutanesulfonic Acid (PFBS)		0.00201		0.00218		0.00394		-	-	<0.000226	U
Perfluorobutanoic Acid (PFBA)		0.00688		0.00664		0.00537		-	-	<0.000388	U
Perfluorodecanesulfonic Acid (PFDS)		<0.00095	U	<0.000888	U	<0.000942	U	-	-	<0.000932	U
Perfluorodecanoic Acid (PFDA)		<0.000294	U	<0.000275	U	<0.000292	U	-	-	<0.000289	U
Perfluorododecanoic Acid (PFDoA)		<0.00036	U	<0.000337	U	<0.000358	U	-	-	<0.000354	U
Perfluoroheptanesulfonic Acid (PFHpS)		<0.000667	U	<0.000623	U	<0.000662	U	-	-	<0.000654	U
Perfluoroheptanoic Acid (PFHpA)		0.00305		0.00282		0.00588		-	-	<0.000214	U
Perfluorohexanesulfonic Acid (PFHxS)		<0.000364	U	<0.00034	U	0.00366		-	-	<0.000357	U
Perfluorohexanoic Acid (PFHxA)		0.00451		0.00428		0.00684		-	-	0.000312	J
Perfluorononanoic Acid (PFNA)		<0.000302	U	<0.000283	U	0.00136	J	-	-	<0.000296	U
Perfluorooctanesulfonamide (FOSA)		<0.000562	U	<0.000525	U	<0.000558	U	-	-	<0.000551	U
Perfluorooctanesulfonic Acid (PFOS)		0.00102	J	0.00118	J	0.012		-	-	<0.000479	U
Perfluorooctanoic Acid (PFOA)		0.00838		0.0085		0.0372		-	-	<0.000224	U
Perfluoropentanoic Acid (PFPeA)		0.00521		0.0046		0.0064		-	-	<0.000376	U
Perfluorotetradecanoic Acid (PFTA)		<0.00024	U	<0.000225	U	<0.000238	U	-	-	<0.000236	U
Perfluorotridecanoic Acid (PFTrDA)		<0.000317	U	<0.000296	U	<0.000315	U	-	-	<0.000311	U
Perfluoroundecanoic Acid (PFUnA)		<0.000252	U	<0.000236	U	<0.00025	U	-	-	<0.000247	U
PFOA/PFOS, Total		0.0094	J	0.00968	J	0.0492		-	-	<0.000224	U
Semivolatile Organic Compounds											
1,2,4,5-Tetrachlorobenzene	5	<0.44	U	<0.44	U	<0.44	U	-	-	<0.44	U
1,2,4-Trichlorobenzene	5	<0.5	U	<0.5	U	<0.5	U	-	-	<0.5	U
1,2-Dichlorobenzene	3	<0.45	U	<0.45	U	<0.45	U	-	-	<0.45	U
1,3-Dichlorobenzene	3	<0.4	U	<0.4	U	<0.4	U	-	-	<0.4	U
1,4-Dichlorobenzene	3	<0.43	U	<0.43	U	<0.43	U	-	-	<0.43	U
2,4,5-Trichlorophenol		<0.77	U	<0.77	U	<0.77	U	-	-	<0.77	U
2,4,6-Trichlorophenol		<0.61	U	<0.61	U	<0.61	U	-	-	<0.61	U
2,4-Dichlorophenol	1	<0.41	U	<0.41	U	<0.41	U	-	-	<0.41	U
2,4-Dimethylphenol	50	<1.8	U	<1.8	U	<1.8	U	-	-	<1.8	U
2,4-Dinitrophenol	10	<6.6	U	<6.6	U	<6.6	U	-	-	<6.6	U
2,4-Dinitrotoluene	5	<1.2	U	<1.2	U	<1.2	U	-	-	<1.2	U
2,6-Dinitrotoluene	5	<0.93	U	<0.93	U	<0.93	U	-	-	<0.93	U
2-Chlorophenol		<0.48	U	<0.48	U	<0.48	U	-	-	<0.48	U
2-Methylphenol		<0.49	U	<0.49	U	<0.49	U	-	-	<0.49	U
2-Nitroaniline	5	<0.5	U	<0.5	U	<0.5	U	-	-	<0.5	U
2-Nitrophenol		<0.85	U	<0.85	U	<0.85	U	-	-	<0.85	U
3,3'-Dichlorobenzidine	5	<1.6	U	<1.6	U	<1.6	U	-	-	<1.6	U
3-Methylphenol/4-Methylphenol		3.4	J	4	J	<0.48	U	-	-	<0.48	U
3-Nitroaniline	5	<0.81	U	<0.81	U	<0.81	U	-	-	<0.81	U
4,6-Dinitro-o-cresol		<1.8	U	<1.8	U	<1.8	U	-	-	<1.8	U
4-Bromophenyl phenyl ether		<0.38	U	<0.38	U	<0.38	U	-	-	<0.38	U
4-Chloroaniline	5	<1.1	U	<1.1	U	<1.1	U	-	-	<1.1	U
4-Chlorophenyl phenyl ether		<0.49	U	<0.49	U	<0.49	U	-	-	<0.49	U
4-Nitroaniline	5	<0.8	U	<0.8	U	<0.8	U	-	-	<0.8	U
4-Nitrophenol		<0.67	U	<0.67	U	<0.67	U	-	-	<0.67	U
Acetophenone		<0.53	U	<0.53	U	<0.53	U	-	-	<0.53	U
Benzoic Acid		<2.6	U	<2.6	U	<2.6	U	-	-	<2.6	U
Benzyl Alcohol		<0.59	U	<0.59	U	<0.59	U	-	-	<0.59	U
Biphenyl		<0.46	U	<0.46	U	<0.46	U	-	-	<0.46	U
Bis(2-chloroethoxy)methane	5	<0.5	U	<0.5	U	<0.5	U	-	-	<0.5	U
Bis(2-chloroethyl)ether	1	<0.5	U	<0.5	U	<0.5	U	-	-	<0.5	U
Bis(2-chloroisopropyl)ether	5	<0.53	U	<0.53	U	<0.53	U	-	-	<0.53	U
Bis(2-ethylhexyl)phthalate	5	<1.5	U	<1.5	U	<1.5	U	-	-	<1.5	U
Butyl benzyl phthalate	50	<1.2	U	<1.2	U	<1.2	U	-	-	<1.2	U
Carbazole		<0.49	U	<0.49	U	<0.49	U	-	-	<0.49	U
Di-n-butylphthalate	50	<0.39	U	<0.39	U	<0.39	U	-	-	<0.39	U
Di-n-octylphthalate	50	<1.3	U	<1.3	U	<1.3	U	-	-	<1.3	U
Dibenzofuran		<0.5	U	<0.5	U	<0.5	U	-	-	<0.5	U
Diethyl phthalate	50	<0.38	U	<0.38	U	<0.38	U	-	-	<0.38	U
Dimethyl phthalate	50	<1.8	U	<1.8	U	<1.8	U	-	-	<1.8	U
Hexachlorocyclopentadiene	5	<0.69	U	<0.69	U	<0.69	U	-	-	<0.69	U
Isophorone	50	<1.2	U	<1.2	U	<1.2	U	-	-	<1.2	U
n-Nitrosodi-n-propylamine		<0.64	U	<0.64	U	<0.64	U	-	-	<0.64	U
NDPA/DPA	50	<0.42	U	<0.42	U	<0.42	U	-	-	<0.42	U
Nitrobenzene	0.4	<0.77	U	<0.77	U	<0.77	U	-	-	<0.77	U
p-Chloro-m-cresol		<0.35	U	<0.35	U	<0.35	U	-	-	<0.35	U
Phenol	1	0.62	J	0.62	J	<0.57	U	-	-	<0.57	U
Total SVOCs		4.02	-	4.62	-	-	-	-	-	-	-
Semivolatile Organic Compounds (SIM)											
2-Chloronaphthalene	10	<0.02	U	<0.02	U	<0.02	U	-	-	<0.02	U
2-Methylnaphthalene		<0.02	U	0.02	J	<0.02	U	-	-	<0.02	U
Acenaphthene	20	<0.01	U	<0.01	U	<0.01	U	-	-	<0.01	U
Acenaphthylene		<0.01	U	<0.01	U	<0.01	U	-	-	<0.01	U
Anthracene	50	<0.01	U	<0.01	U	0.02	J	-	-	<0.01	U
Benzo(a)anthracene	0.002	<0.02	U	<0.02	U	0.03	J	-	-	<0.02	U
Benzo(a)pyrene	0*	<0.02	U	<0.02	U	0.02	J	-	-	<0.02	U
Benzo(b)fluoranthene	0.002	<0.01	U	0.01	J	0.04	J	-	-	0.01	J
Benzo(ghi)perylene		<0.01	U	<0.01	U	0.03	J	-	-	<0.01	U
Benzo(k)fluoranthene	0.002	<0.01	U	<0.01	U	0.02	J	-	-	<0.01	U
Chrysene	0.002	<0.01	U	<0.01	U	0.01	J	-	-	<0.01	U
Dibenzo(a,h)anthracene		<0.01	U	<0.01	U	<0.01	U	-	-	<0.01	U
Fluoranthene	50	0.03	J	0.02	J	0.02	J	-	-	<0.02	U
Fluorene	50	0.02	J	0.02	J	<0.01	U	-	-	<0.01	U
Hexachlorobenzene	0.04	<0.01	U	<0.01	U	<0.01	U	-	-	<0.01	U

Table 2
Groundwater Analytical Results - 2020
180 East 132nd Street
Bronx, New York

SAMPLE ID:		MW-1		DUP02042020		MW-3		TRIP BLANK		FIELD BLANK	
LAB ID:		L2004990-01		L2004990-02		L2004990-05		L2004990-04		L2004990-03	
COLLECTION DATE:		2/4/2020		2/4/2020		2/4/2020		2/3/2020		2/4/2020	
SAMPLE MATRIX:		WATER		WATER		WATER		WATER		WATER	
ANALYTE	**NY-AWQS**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**
Hexachlorobutadiene	0.5	<0.05	U	<0.05	U	<0.05	U	-	-	<0.05	U
Hexachloroethane	5	<0.06	U	<0.06	U	<0.06	U	-	-	<0.06	U
Indeno(1,2,3-cd)pyrene	0.002	<0.01	U	<0.01	U	0.03	J	-	-	<0.01	U
Naphthalene	10	<0.05	U	<0.05	U	<0.05	U	-	-	<0.05	U
Pentachlorophenol	1	<0.01	U	<0.01	U	<0.01	U	-	-	<0.01	U
Phenanthrene	50	0.04	J	0.04	J	0.03	J	-	-	<0.02	U
Pyrene	50	0.02	J	0.02	J	0.02	J	-	-	<0.02	U
Total SVOCs		0.11	-	0.13	-	0.27	-	-	-	0.01	-
Pesticides											
4,4'-DDD	0.3	<0.003	U	<0.003	U	<0.003	U	-	-	<0.003	U
4,4'-DDE	0.2	<0.003	U	<0.003	U	<0.003	U	-	-	<0.003	U
4,4'-DDT	0.2	<0.003	U	<0.003	U	<0.003	U	-	-	<0.003	U
Aldrin	0	<0.002	U	<0.002	U	<0.002	U	-	-	<0.002	U
Alpha-BHC	0.01	<0.003	U	<0.003	U	<0.003	U	-	-	<0.003	U
Beta-BHC	0.04	<0.004	U	<0.004	U	<0.004	U	-	-	<0.004	U
Chlordane	0.05	<0.033	U	<0.033	U	<0.033	U	-	-	<0.033	U
cis-Chlordane		<0.005	U	<0.005	U	<0.005	U	-	-	<0.005	U
Delta-BHC	0.04	<0.003	U	<0.003	U	<0.003	U	-	-	<0.003	U
Dieldrin	0.004	<0.003	U	<0.003	U	<0.003	U	-	-	<0.003	U
Endosulfan I		<0.002	U	<0.002	U	<0.002	U	-	-	<0.002	U
Endosulfan II		<0.004	U	<0.004	U	<0.004	U	-	-	<0.004	U
Endosulfan sulfate		<0.003	U	<0.003	U	<0.003	U	-	-	<0.003	U
Endrin	0*	<0.003	U	<0.003	U	<0.003	U	-	-	<0.003	U
Endrin aldehyde	5	<0.006	U	<0.006	U	<0.006	U	-	-	<0.006	U
Endrin ketone	5	<0.003	U	<0.003	U	<0.003	U	-	-	<0.003	U
Heptachlor	0.04	<0.002	U	<0.002	U	<0.002	U	-	-	<0.002	U
Heptachlor epoxide	0.03	<0.003	U	<0.003	U	<0.003	U	-	-	<0.003	U
Lindane	0.05	<0.003	U	<0.003	U	<0.003	U	-	-	<0.003	U
Methoxychlor	35	<0.005	U	<0.005	U	<0.005	U	-	-	<0.005	U
Toxaphene	0.06	<0.045	U	<0.045	U	<0.045	U	-	-	<0.045	U
trans-Chlordane		<0.004	U	<0.004	U	<0.004	U	-	-	<0.004	U
Polychlorinated Biphenyls											
Aroclor 1016	0.09	<0.034	U	<0.034	U	<0.034	U	-	-	<0.034	U
Aroclor 1221	0.09	<0.067	U	<0.067	U	<0.067	U	-	-	<0.067	U
Aroclor 1232	0.09	<0.046	U	<0.046	U	<0.046	U	-	-	<0.046	U
Aroclor 1242	0.09	<0.039	U	<0.039	U	<0.039	U	-	-	<0.039	U
Aroclor 1248	0.09	<0.049	U	<0.049	U	<0.049	U	-	-	<0.049	U
Aroclor 1254	0.09	<0.039	U	<0.039	U	<0.039	U	-	-	<0.039	U
Aroclor 1260	0.09	<0.032	U	<0.032	U	<0.032	U	-	-	<0.032	U
Aroclor 1262	0.09	<0.035	U	<0.035	U	<0.035	U	-	-	<0.035	U
Aroclor 1268	0.09	<0.034	U	<0.034	U	<0.034	U	-	-	<0.034	U
PCBs, Total		<0.032	U	<0.032	U	<0.032	U	-	-	<0.032	U
Total Metals											
Aluminum, Total		277		263		4790		-	-	<3.27	U
Antimony, Total	3	<0.42	U	<0.42	U	<0.42	U	-	-	<0.42	U
Arsenic, Total	25	3.17		3.1		0.52		-	-	<0.16	U
Barium, Total	1000	122.2		125		161.5		-	-	0.8	
Beryllium, Total	3	<0.1	U	<0.1	U	0.14	J	-	-	<0.1	U
Cadmium, Total	5	<0.05	U	<0.05	U	0.13	J	-	-	<0.05	U
Calcium, Total		71900		77900		79600		-	-	99.2	J
Chromium, Total	50	2.11		2.04		13.44		-	-	0.27	J
Cobalt, Total		1.53		1.52		6.26		-	-	<0.16	U
Copper, Total	200	1.12		1.12		17.13		-	-	2.96	
Iron, Total	300	2970		2800		8810		-	-	<19.1	U
Lead, Total	25	1.82		1.61		3.17		-	-	<0.34	U
Magnesium, Total	35000	65900		68600		28000		-	-	<24.2	U
Manganese, Total	300	434.2		464.5		677.2		-	-	0.54	J
Mercury, Total	0.7	<0.09	U	<0.09	U	<0.09	U	-	-	<0.09	U
Nickel, Total	100	2.53		2.38		13.88		-	-	<0.55	U
Potassium, Total		32200		34300		12000		-	-	<30.9	U
Selenium, Total	10	<1.73	U	<1.73	U	2.3	J	-	-	<1.73	U
Silver, Total	50	<0.16	U	<0.16	U	<0.16	U	-	-	<0.16	U
Sodium, Total	20000	193000		199000		105000		-	-	330	
Thallium, Total	0.5	<0.14	U	<0.14	U	<0.14	U	-	-	0.17	J
Vanadium, Total		4.52	J	4.72	J	24.66		-	-	<1.57	U
Zinc, Total	2000	5.25	J	3.77	J	22.37		-	-	<3.41	U

Notes:
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.
Yellow highlight indicates that the concentration exceeds the applicable standard.
Gray highlight indicates that the method detection limit is greater than the applicable standard.
J - The value is estimated.
U - Not detected above the method detection.
* - Any detection of the compound exceeds the AWQS.
All values are in ug/L.
DUP02042020 was collected from MW-1.

Table 3
Soil Gas Analytical Results - 2018
180 East 132nd Street
Bronx, New York

LOCATION	NY-SSC-A	NY-SSC-B	NY-SSC-C	SG-1		SG-2		SG-3		SG-4		SG-5		SG-6		SG-7		SG-8	
SAMPLING DATE				2/26/2018		2/26/2018		2/26/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018	
LAB SAMPLE ID				L1806981-01		L1806981-02		L1806981-03		L1806981-04		L1806981-05		L1806981-06		L1806981-07		L1806981-08	
UNIT				µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³	
				Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Volatile Organics in Air																			
1,1,1-Trichloroethane	NS	100	NS	10.9	U	2.18	U	10.9	U	2.18	U	10.9	U	1.36	U	10.9	U	10.9	U
1,1,2,2-Tetrachloroethane	NS	NS	NS	13.7	U	2.75	U	13.7	U	2.75	U	13.7	U	1.72	U	13.7	U	13.7	U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	NS	NS	15.3	U	3.07	U	15.3	U	3.07	U	15.3	U	1.92	U	15.3	U	15.3	U
1,1,2-Trichloroethane	NS	NS	NS	10.9	U	2.18	U	10.9	U	2.18	U	10.9	U	1.36	U	10.9	U	10.9	U
1,1-Dichloroethane	NS	NS	NS	8.09	U	1.62	U	8.09	U	1.62	U	8.09	U	1.01	U	8.09	U	8.09	U
1,1-Dichloroethene	6	NS	NS	7.93	U	1.59	U	7.93	U	1.59	U	7.93	U	0.991	U	7.93	U	7.93	U
1,2,4-Trichlorobenzene	NS	NS	NS	14.8	U	2.97	U	14.8	U	2.97	U	14.8	U	1.86	U	14.8	U	14.8	U
1,2,4-Trimethylbenzene	NS	NS	NS	9.83	U	1.97	U	9.83	U	1.97	U	9.83	U	10.3		9.83	U	9.83	U
1,2-Dibromoethane	NS	NS	NS	15.4	U	3.07	U	15.4	U	3.07	U	15.4	U	1.92	U	15.4	U	15.4	U
1,2-Dichloro-1,1,2,2-tetrafluoroethane	NS	NS	NS	14	U	2.8	U	14	U	2.8	U	14	U	1.75	U	14	U	14	U
1,2-Dichlorobenzene	NS	NS	NS	12	U	2.4	U	12	U	2.4	U	12	U	1.5	U	12	U	12	U
1,2-Dichloroethane	NS	NS	NS	8.09	U	1.62	U	8.09	U	1.62	U	8.09	U	1.01	U	8.09	U	8.09	U
1,2-Dichloropropane	NS	NS	NS	9.24	U	1.85	U	9.24	U	1.85	U	9.24	U	1.16	U	9.24	U	9.24	U
1,3,5-Trimethylbenzene	NS	NS	NS	9.83	U	1.97	U	9.83	U	1.97	U	9.83	U	2.4		9.83	U	9.83	U
1,3-Butadiene	NS	NS	NS	4.42	U	0.885	U	29.4		0.934		9.93		0.553	U	33.4		11.4	
1,3-Dichlorobenzene	NS	NS	NS	12	U	2.4	U	12	U	2.4	U	12	U	1.5	U	12	U	12	U
1,4-Dichlorobenzene	NS	NS	NS	12	U	2.4	U	12	U	2.4	U	12	U	1.5	U	12	U	12	U
1,4-Dioxane	NS	NS	NS	7.21	U	1.44	U	7.21	U	1.44	U	7.21	U	0.901	U	7.21	U	7.21	U
2,2,4-Trimethylpentane	NS	NS	NS	9.34	U	1.87	U	131		1.87	U	9.34	U	1.17	U	9.34	U	579	
2-Butanone	NS	NS	NS	74		18.1		136		62.5		61.3		33.6		158		69.3	
2-Hexanone	NS	NS	NS	8.2	U	1.64	U	8.2	U	1.64	U	8.2	U	1.07		8.2	U	8.2	U
3-Chloropropene	NS	NS	NS	6.26	U	1.25	U	6.26	U	1.25	U	6.26	U	0.783	U	6.26	U	6.26	U
4-Ethyltoluene	NS	NS	NS	9.83	U	1.97	U	9.83	U	1.97	U	9.83	U	1.91		9.83	U	9.83	U
4-Methyl-2-pentanone	NS	NS	NS	20.5	U	4.1	U	20.5	U	4.1	U	20.5	U	2.56	U	20.5	U	20.5	U
Acetone	NS	NS	NS	68.2		56.3		23.8	U	93.6		115		565		295		130	
Benzene	NS	NS	NS	6.39	U	1.28	U	17.5		1.28	U	6.39	U	1.58		6.39	U	6.39	U
Benzyl chloride	NS	NS	NS	10.4	U	2.07	U	10.4	U	2.07	U	10.4	U	1.29	U	10.4	U	10.4	U
Bromodichloromethane	NS	NS	NS	13.4	U	2.68	U	13.4	U	2.68	U	13.4	U	1.67	U	13.4	U	13.4	U
Bromoform	NS	NS	NS	20.7	U	4.14	U	20.7	U	4.14	U	20.7	U	2.58	U	20.7	U	20.7	U
Bromomethane	NS	NS	NS	7.77	U	1.55	U	7.77	U	1.55	U	7.77	U	0.971	U	7.77	U	7.77	U
Carbon disulfide	NS	NS	NS	21.4		1.25	U	17.7		1.25	U	6.54		0.779	U	6.23	U	6.23	U
Carbon tetrachloride	6	NS	NS	12.6	U	2.52	U	12.6	U	2.52	U	12.6	U	1.57	U	12.6	U	12.6	U
Chlorobenzene	NS	NS	NS	9.21	U	1.84	U	9.21	U	1.84	U	9.21	U	1.15	U	9.21	U	9.21	U
Chloroethane	NS	NS	NS	5.28	U	1.06	U	5.28	U	1.06	U	5.28	U	0.66	U	5.28	U	5.28	U
Chloroform	NS	NS	NS	9.77	U	1.95	U	9.77	U	1.95	U	9.77	U	1.22	U	9.77	U	9.77	U
Chloromethane	NS	NS	NS	4.13	U	1		4.13	U	0.954		4.13	U	0.999		4.13	U	4.13	U
cis-1,2-Dichloroethene	6	NS	NS	7.93	U	1.59	U	20.1		1.59	U	7.93	U	0.991	U	7.93	U	7.93	U
cis-1,3-Dichloropropene	NS	NS	NS	9.08	U	1.82	U	9.08	U	1.82	U	9.08	U	1.13	U	9.08	U	9.08	U
Cyclohexane	NS	NS	NS	6.88	U	1.38	U	25.2		1.38	U	9.53		0.861	U	6.88	U	7.64	
Dibromochloromethane	NS	NS	NS	17	U	3.41	U	17	U	3.41	U	17	U	2.13	U	17	U	17	U
Dichlorodifluoromethane	NS	NS	NS	9.89	U	2.12		9.89	U	1.99		9.89	U	2.05		9.89	U	9.89	U
Ethyl Acetate	NS	NS	NS	18	U	3.6	U	18	U	6.16		18	U	2.41		18	U	18	U
Ethyl Alcohol	NS	NS	NS	94.2	U	18.8	U	94.2	U	18.8	U	94.2	U	11.8	U	94.2	U	94.2	U

Table 3
Soil Gas Analytical Results - 2018
180 East 132nd Street
Bronx, New York

LOCATION	NY-SSC-A	NY-SSC-B	NY-SSC-C	SG-1		SG-2		SG-3		SG-4		SG-5		SG-6		SG-7		SG-8	
SAMPLING DATE				2/26/2018		2/26/2018		2/26/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018		2/27/2018	
LAB SAMPLE ID				L1806981-01		L1806981-02		L1806981-03		L1806981-04		L1806981-05		L1806981-06		L1806981-07		L1806981-08	
UNIT				µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³		µg/m³	
				Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Ethylbenzene	NS	NS	NS	8.69	U	1.74	U	8.69	U	1.74	U	8.69	U	2.45		8.69	U	8.69	U
Heptane	NS	NS	NS	8.2	U	1.64	U	28.7		1.64	U	8.2	U	1.99		8.2	U	133	
Hexachlorobutadiene	NS	NS	NS	21.3	U	4.27	U	21.3	U	4.27	U	21.3	U	2.67	U	21.3	U	21.3	U
iso-Propyl Alcohol	NS	NS	NS	12.3	U	2.46	U	12.3	U	4.2		12.3	U	3.02		12.3	U	12.3	U
Methyl tert butyl ether	NS	NS	NS	7.21	U	1.44	U	7.21	U	1.44	U	7.21	U	0.901	U	7.21	U	7.21	U
Methylene chloride	NS	100	NS	17.4	U	3.47	U	17.4	U	3.47	U	17.4	U	2.78		17.4	U	17.4	U
n-Hexane	NS	NS	NS	7.05	U	1.41	U	98		1.41	U	7.05	U	2.22		7.72		287	
o-Xylene	NS	NS	NS	8.69	U	1.74	U	8.69	U	1.74	U	8.69	U	4.17		8.69	U	8.69	U
p/m-Xylene	NS	NS	NS	17.4	U	3.47	U	17.4	U	3.47	U	17.4	U	10.5		17.4	U	17.4	U
Styrene	NS	NS	NS	8.52	U	1.7	U	8.52	U	1.7	U	8.52	U	1.06	U	8.52	U	8.52	U
tert-Butyl Alcohol	NS	NS	NS	15.2	U	3.03	U	15.2	U	3.15		15.2	U	2.32		15.2	U	15.2	U
Tetrachloroethene	NS	100	NS	13.6	U	2.71	U	13.6	U	2.71	U	13.6	U	1.7	U	13.6	U	13.6	U
Tetrahydrofuran	NS	NS	NS	14.7	U	2.95	U	14.7	U	2.95	U	14.7	U	1.84	U	14.7	U	14.7	U
Toluene	NS	NS	NS	15.1		2.06		23.5		2.93		7.54	U	8.55		17.3		11.8	
trans-1,2-Dichloroethene	NS	NS	NS	7.93	U	1.59	U	7.93	U	1.59	U	7.93	U	0.991	U	7.93	U	7.93	U
trans-1,3-Dichloropropene	NS	NS	NS	9.08	U	1.82	U	9.08	U	1.82	U	9.08	U	1.13	U	9.08	U	9.08	U
Trichloroethene	6	NS	NS	10.7	U	2.15	U	10.7	U	2.15	U	10.7	U	1.34	U	10.7	U	10.7	U
Trichlorofluoromethane	NS	NS	NS	11.2	U	2.25	U	11.2	U	2.25	U	11.2	U	1.4	U	11.2	U	11.2	U
Vinyl bromide	NS	NS	NS	8.74	U	1.75	U	8.74	U	1.75	U	8.74	U	1.09	U	8.74	U	8.74	U
Vinyl chloride	NS	NS	6	5.11	U	1.02	U	102		1.02	U	5.11	U	0.639	U	5.11	U	5.11	U

Notes:
This value exceeds New York DOH Matrix A, B, or C Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
mg/kg - Miligrams per kilograms
Qual - Laboratory data qualifier
U - The compound was not detected at the indicated concentration.
NS - No Standard
J - The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

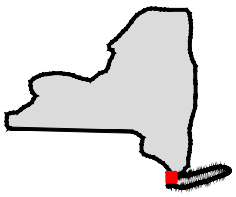
Table 3
Soil Gas Analytical Results - 2020
180 East 132nd Street
Bronx, New York

				SAMPLE ID:	**SG-1A**		**SG-2A**		**SG-3A**	
				LAB ID:	**L2003772-03**		**L2003772-02**		**L2003772-01**	
				COLLECTION DATE:	**1/27/2020**		**1/27/2020**		**1/27/2020**	
				SAMPLE DEPTH:	**8'**		**8'**		**8'**	
				SAMPLE MATRIX:	**SOIL_VAPOR**		**SOIL_VAPOR**		**SOIL_VAPOR**	
ANALYTE	**CAS**	**NY-SSC-A**	**NY-SSC-B**	**NY-SSC-C**	**Conc**	**Q**	**Conc**	**Q**	**Conc**	**Q**
Volatile Organic Compounds										
1,1,1-Trichloroethane	71-55-6		100		<1.09	U	<1.09	U	<1.09	U
1,1,2,2-Tetrachloroethane	79-34-5				<1.37	U	<1.37	U	<1.37	U
1,1,2-Trichloroethane	79-00-5				<1.09	U	<1.09	U	<1.09	U
1,1-Dichloroethane	75-34-3				<0.809	U	<0.809	U	<0.809	U
1,1-Dichloroethene	75-35-4	6			<0.793	U	<0.793	U	<0.793	U
1,2,4-Trichlorobenzene	120-82-1				<1.48	U	<1.48	U	<1.48	U
1,2,4-Trimethylbenzene	95-63-6				1.33		2.93		4.48	
1,2-Dibromoethane	106-93-4				<1.54	U	<1.54	U	<1.54	U
1,2-Dichlorobenzene	95-50-1				<1.2	U	<1.2	U	<1.2	U
1,2-Dichloroethane	107-06-2				<0.809	U	<0.809	U	<0.809	U
1,2-Dichloropropane	78-87-5				<0.924	U	<0.924	U	<0.924	U
1,3,5-Trimethylbenzene	108-67-8				<0.983	U	<0.983	U	1.37	
1,3-Butadiene	106-99-0				1.59		16.5		26.1	
1,3-Dichlorobenzene	541-73-1				<1.2	U	<1.2	U	<1.2	U
1,4-Dichlorobenzene	106-46-7				<1.2	U	<1.2	U	<1.2	U
1,4-Dioxane	123-91-1				<0.721	U	<0.721	U	<0.721	U
2,2,4-Trimethylpentane	540-84-1				9.25		<0.934	U	<0.934	U
2-Butanone	78-93-3				5.07		11.9		15.7	
2-Hexanone	591-78-6				1.41		6.23		8.77	
3-Chloropropene	107-05-1				<0.626	U	<0.626	U	<0.626	U
4-Ethyltoluene	622-96-8				<0.983	U	<0.983	U	1.43	
4-Methyl-2-pentanone	108-10-1				<2.05	U	3.83		7.79	
Acetone	67-64-1				27.1		34.7		39.4	
Benzene	71-43-2				1.46		9.01		8.82	
Benzyl chloride	100-44-7				<1.04	U	<1.04	U	<1.04	U
Bromodichloromethane	75-27-4				<1.34	U	<1.34	U	<1.34	U
Bromoform	75-25-2				<2.07	U	<2.07	U	<2.07	U
Bromomethane	74-83-9				<0.777	U	<0.777	U	<0.777	U
Carbon disulfide	75-15-0				3.95		5.98		20.7	
Carbon tetrachloride	56-23-5	6			<1.26	U	<1.26	U	<1.26	U
Chlorobenzene	108-90-7				<0.921	U	<0.921	U	<0.921	U
Chloroethane	75-00-3				<0.528	U	<0.528	U	<0.528	U
Chloroform	67-66-3				<0.977	U	<0.977	U	1.68	
Chloromethane	74-87-3				<0.413	U	<0.413	U	0.417	
cis-1,2-Dichloroethene	156-59-2	6			<0.793	U	<0.793	U	<0.793	U
cis-1,3-Dichloropropene	10061-01-5				<0.908	U	<0.908	U	<0.908	U
Cyclohexane	110-82-7				4.13		0.688		1.28	
Dibromochloromethane	124-48-1				<1.7	U	<1.7	U	<1.7	U
Dichlorodifluoromethane	75-71-8				<0.989	U	2.08		1.98	
Ethanol	64-17-5				<9.42	U	<9.42	U	<9.42	U
Ethyl Acetate	141-78-6				<1.8	U	<1.8	U	<1.8	U
Ethylbenzene	100-41-4				0.873		3.53		5.69	
Freon-113	76-13-1				<1.53	U	<1.53	U	<1.53	U
Freon-114	76-14-2				<1.4	U	<1.4	U	<1.4	U
Heptane	142-82-5				2.68		4.34		7.21	
Hexachlorobutadiene	87-68-3				<2.13	U	<2.13	U	<2.13	U
Isopropanol	67-63-0				<1.23	U	<1.23	U	<1.23	U
Methyl tert butyl ether	1634-04-4				<0.721	U	<0.721	U	<0.721	U
Methylene chloride	75-09-2		100		<1.74	U	<1.74	U	<1.74	U
n-Hexane	110-54-3				5.25		7.44		13.3	
o-Xylene	95-47-6				0.869		3.61		5.65	
p/m-Xylene	179601-23-1				2.39		10.6		18.1	
Styrene	100-42-5				<0.852	U	0.962		<0.852	U
Tertiary butyl Alcohol	75-65-0				<1.52	U	<1.52	U	<1.52	U
Tetrachloroethene	127-18-4		100		5.37		27.5		2.59	
Tetrahydrofuran	109-99-9				1.92		3.13		6.25	
Toluene	108-88-3				2.68		10		13.2	
trans-1,2-Dichloroethene	156-60-5				<0.793	U	<0.793	U	<0.793	U
trans-1,3-Dichloropropene	10061-02-6				<0.908	U	<0.908	U	<0.908	U
Trichloroethene	79-01-6	6			<1.07	U	<1.07	U	<1.07	U
Trichlorofluoromethane	75-69-4				<1.12	U	1.87		<1.12	U
Vinyl bromide	593-60-2				<0.874	U	<0.874	U	<0.874	U
Vinyl chloride	75-01-4			6	<0.511	U	<0.511	U	<0.511	U

Notes:
NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-B: New York DOH Matrix B Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-C: New York DOH Matrix C Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
U - Not detected above the reporting limit.
All concentrations are in ug/m3.

FIGURES

NEW YORK



QUADRANGLE LOCATION

SOURCE:

BASE MAP FROM THE FOLLOWING USGS QUADRANGLE MAP:
CENTRAL PARK, NY (2016).

DIGITAL TOPOGRAPHIC MAPS PROVIDED BY USGSSTORE.GOV.

CONTOUR ELEVATIONS REFERENCE NAVD 88,
CONTOURS ARE SHOWN IN FEET AT 10' INTERVALS

N
W E
S

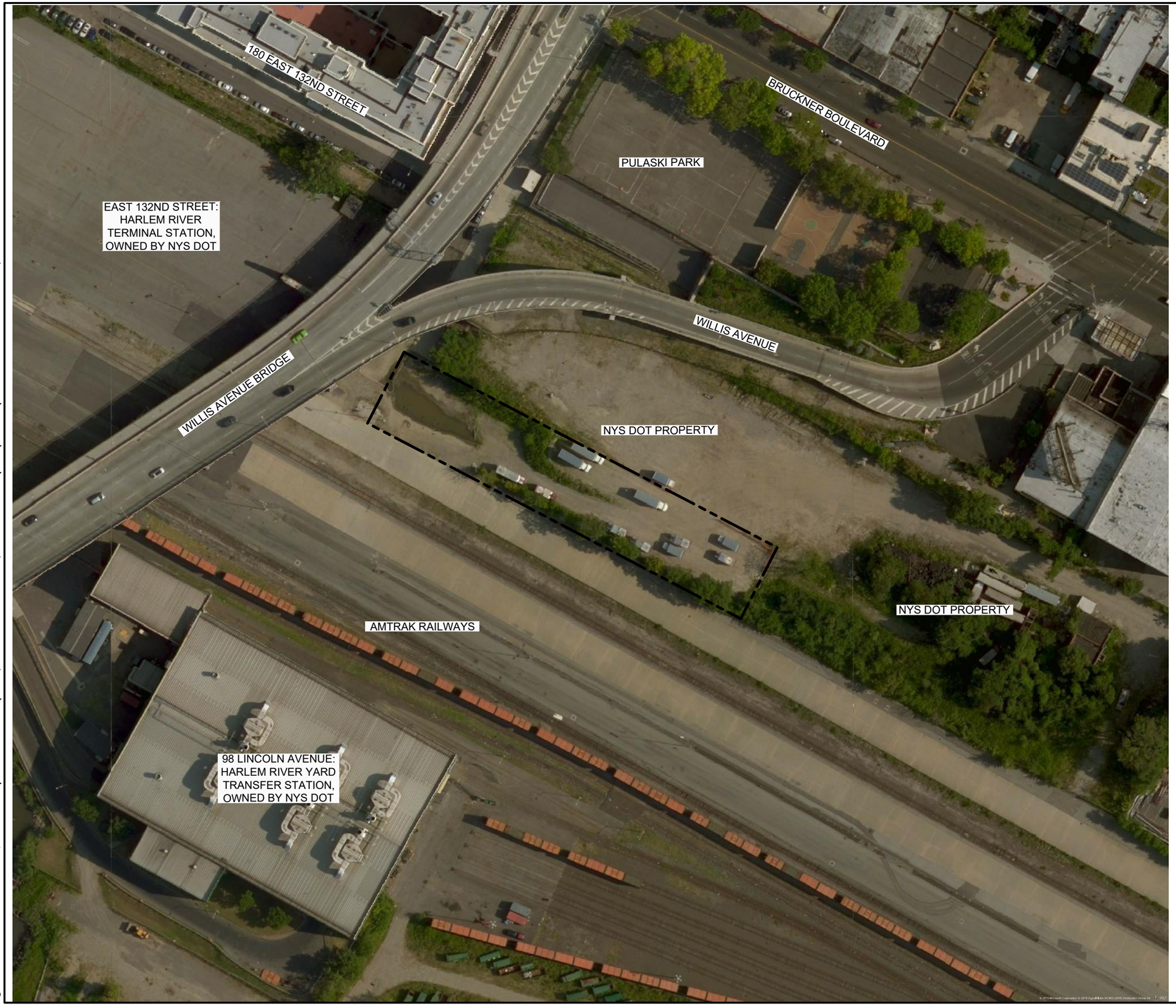
180 EAST 132ND STREET
BRONX, NEW YORK

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
CARNEGIE MANAGEMENT

SITE LOCATION MAP

PROJ MGR: SH	REVIEWED BY: DW	CHECKED BY: SH	FIGURE 1
DESIGNED BY: LN	DRAWN BY: LN	SCALE: 1" = 2,000'	
DATE: AUGUST 2019	PROJECT NO. 12.0076605.10	REVISION NO.	SHEET NO.



LEGEND:

SITE BOUNDARY

NOTES:

1. BASE MAP DEVELOPED FROM A BING PROFESSIONAL ELECTRONIC IMAGE FILE. DIGITAL AERIAL ORTHOPHOTOGRAPHY WAS COLLECTED USING AUTODESK IN JULY 2019.

N

W E

S

0 50' 100' 200'

SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

180 EAST 132ND STREET
BRONX, NEW YORK

SITE PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: CARNEGIE MANAGEMENT	
PROJ MGR: SH	REVIEWED BY: DW	CHECKED BY: SH	FIGURE 2
DESIGNED BY: LN	DRAWN BY: LN	SCALE: 1" = 100'	
DATE: AUGUST 2019	PROJECT NO. 12.0076605.10	REVISION NO.	SHEET NO.

Sample ID:	SB-5 (1-2)	SB-5 (9.5-10)
Lab Sample ID:	L1806702-17	L1806702-18
Date Sampled:	2/26/2018	2/26/2018
Sampling Depth:	1-2	9.5-10
Organochlorine Pesticides (mg/kg)		
4,4'-DDD	0.0517	NE
4,4'-DDE	0.0149	0.00508
4,4'-DDT	0.0117	0.00773 P
PCBs (mg/kg)	NE	NE
SVOCs (mg/kg)		
Benzo(a)anthracene	NE	1.7
Benzo(a)pyrene	NE	1.7
Benzo(b)fluoranthene	1.1	2.3
Chrysene	NE	1.6
Indeno(1,2,3-cd)pyrene	0.66	1.4
Total Metals (mg/kg)		
Lead, Total	281	81
Mercury, Total	0.18	0.25
Zinc, Total	172	NE
VOCs (mg/kg)	NE	NE

Sample ID:	SB-17 (2')	SB-17 (4')	SB-17 (6')	SB-17 (8')	SB-17 (10')
Lab Sample ID:	L1904417-01	L1904417-02	L1904417-03	L1904417-04	L1904417-05
Date Sampled:	2/4/2019	2/4/2019	2/4/2019	2/4/2019	2/4/2019
Sampling Depth:	1.5-2	3.5-4	5.5-6	7.5-8	9.5-10
PAHs (mg/kg)	ND	ND	ND	ND	ND
Total Metals (mg/kg)					
Copper, Total	NE	NE	NE	NE	NE
Lead, Total	130	NE	NE	NE	NE
Mercury, Total	0.321	ND	ND	ND	ND
Zinc, Total	142	NE	NE	NE	NE

Sample ID:	SB-4 (1-2)	SB-4 (13-13.5)
Lab Sample ID:	L1806702-15	L1806702-16
Date Sampled:	2/26/2018	2/26/2018
Sampling Depth:	1-2	13-13.5
Organochlorine Pesticides (mg/kg)		ND
4,4'-DDE	0.00442 P	ND
4,4'-DDT	0.0276	ND
PCBs (mg/kg)	NE	ND
SVOCs (mg/kg)	NE	ND
Total Metals (mg/kg)		
Copper, Total	NE	74.3
Lead, Total	95	NE
Mercury, Total	0.25	ND
Nickel, Total	NE	164
Zinc, Total	140	186
VOCs (mg/kg)	NE	ND

Sample ID:	SB-11 (0-1)	SB-11 (5-5.5)
Lab Sample ID:	L1822065-01	L1822065-02
Date Sampled:	6/12/2018	6/12/2018
Sampling Depth:	0-1	5-5.5
PAHs (mg/kg)	NE	NE
Total Metals (mg/kg)		
Copper, Total	NE	93.2
Lead, Total	NE	67.1
Mercury, Total	NE	1.02
Zinc, Total	NE	277

Sample ID:	SB-14 (0-1)	SB-14 (9-10)
Lab Sample ID:	L1822065-09	L1822065-10
Date Sampled:	6/12/2018	6/12/2018
Sampling Depth:	0-1	9-10
PAHs (mg/kg)	NE	ND
Total Metals (mg/kg)		
Copper, Total	NE	73
Lead, Total	82	NE
Nickel, Total	NE	45.8
Zinc, Total	NE	152

Sample ID:	SB-1A	SB-1A	DUP1
Lab Sample ID:	L2003755-01	L2003755-02	L2003755-09
Date Sampled:	1/27/2020	1/27/2020	1/27/2020
Sampling Depth:	12-12.5	19-19.5	19-19.5
Organochlorine Pesticides (mg/kg)	ND	ND	ND
PFAS (mg/kg)	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND
SVOCs (mg/kg)	ND	ND	ND
Total Metals (mg/kg)	NE	NE	NE
VOCs (mg/kg)	NE	NE	NE

Sample ID:	SB-4A	SB-4A
Lab Sample ID:	L2003755-05	L2003755-06
Date Sampled:	1/27/2020	1/27/2020
Sampling Depth:	3-3.5	14-14.5
Organochlorine Pesticides (mg/kg)	ND	ND
PFAS (mg/kg)		
PFOA/PFOS, Total	0.000053 J	0.00005 J
PCBs (mg/kg)	ND	ND
SVOCs (mg/kg)	NE	ND
Total Metals (mg/kg)		
Copper, Total	14.9	55.6
Nickel, Total	14.2	60
Zinc, Total	42	235
VOCs (mg/kg)	NE	ND

Sample ID:	SB-7 (0.5-1)	SB-7 (4.5-5)
Lab Sample ID:	L1806944-01	L1806944-02
Date Sampled:	2/27/2018	2/27/2018
Sampling Depth:	0.5-1	4.5-5
Organochlorine Pesticides (mg/kg)		ND
4,4'-DDT	0.00733 P	ND
PCBs (mg/kg)	NE	ND
SVOCs (mg/kg)	NE	ND
Benzo(a)anthracene	6.6	ND
Benzo(a)pyrene	7	ND
Benzo(b)fluoranthene	7	ND
Benzo(k)fluoranthene	2.8	ND
Chrysene	6.8	ND
Dibenzo(a,h)anthracene	1	ND
Indeno(1,2,3-cd)pyrene	4.8	ND
Total Metals (mg/kg)		
Copper, Total	114	NE
Lead, Total	134	NE
Mercury, Total	0.48	ND
Zinc, Total	374	NE
VOCs (mg/kg)	NE	ND

Sample ID:	SB-6 (1-2)	SB-6 (9.5-10)
Lab Sample ID:	L1806702-06	L1806702-07
Date Sampled:	2/26/2018	2/26/2018
Sampling Depth:	1-2	9.5-10
Organochlorine Pesticides (mg/kg)		ND
4,4'-DDD	0.0185	ND
4,4'-DDE	0.0333	ND
4,4'-DDT	0.0387	ND
PCBs (mg/kg)	NE	ND
SVOCs (mg/kg)	NE	ND
Total Metals (mg/kg)		
Copper, Total	72	NE
Lead, Total	315	NE
Mercury, Total	0.94	ND
Zinc, Total	226	NE
VOCs (mg/kg)	NE	NE

Sample ID:	SB-10 (1-2)	SB-10 (9.5-10)
Lab Sample ID:	L1806944-07	L1806944-08
Date Sampled:	2/27/2018	2/27/2018
Sampling Depth:	1-2	9.5-10
Organochlorine Pesticides (mg/kg)		ND
4,4'-DDD	0.017	ND
4,4'-DDE	0.00824	ND
4,4'-DDT	0.0208	ND
PCBs (mg/kg)	NE	ND
SVOCs (mg/kg)	NE	ND
Total Metals (mg/kg)		
Copper, Total	60	NE
Lead, Total	203	NE
Mercury, Total	0.59	NE
Zinc, Total	192	NE
VOCs (mg/kg)		NE
Xylenes, Total	0.47	ND

Sample ID:	SB-16 (2')	SB-16 (4')	SB-16 (6')	SB-16 (8')	SB-16 (10')	SB-16 (12')	SB-16 (14')
Lab Sample ID:	L1904417-06	L1904417-07	L1904417-08	L1904417-09	L1904417-10	L1904417-11	L1904417-12
Date Sampled:	2/4/2019	2/4/2019	2/4/2019	2/4/2019	2/4/2019	2/4/2019	2/4/2019
Sampling Depth:	1.5-2	3.5-4	5.5-6	7.5-8	9.5-10	11.5-12	13.5-14
PAHs (mg/kg)							
Benzo(a)anthracene	NE	NE	1.1	ND	ND	ND	ND
Benzo(a)pyrene	NE	NE	NE	ND	ND	ND	ND
Benzo(b)fluoranthene	NE	NE	1.2	ND	ND	ND	ND
Chrysene	NE	NE	1.1	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	NE	NE	0.55	ND	ND	ND	ND
Total Metals (mg/kg)							
Copper, Total	152	NE	NE	NE	NE	NE	NE
Lead, Total	624	374	NE	94.3	NE	NE	NE
Mercury, Total	0.765	1.05	0.208	NE	ND	ND	ND
Zinc, Total	413	192	NE	NE	NE	NE	NE

Sample ID:	SB-15 (0-1)
Lab Sample ID:	L1822065-11
Date Sampled:	6/12/2018
Sampling Depth:	0-1
PAHs (mg/kg)	NE
Total Metals (mg/kg)	
Lead, Total	120
Mercury, Total	0.182
Zinc, Total	110

Sample ID:	SB-3A	SB-3A
Lab Sample ID:	L2003755-03	L2003755-04
Date Sampled:	1/27/2020	1/27/2020
Sampling Depth:	11.5-12	13-13.5
Organochlorine Pesticides (mg/kg)	ND	ND
PFAS (mg/kg)	ND	ND
PCBs (mg/kg)	ND	ND
SVOCs (mg/kg)	ND	ND
Total Metals (mg/kg)		
Nickel, Total	NE	51.9
VOCs (mg/kg)	ND	ND

Sample ID:	SB-9 (1-2)	SB-9 (13.5-14)
Lab Sample ID:	L1806944-05	L1806944-06
Date Sampled:	2/27/2018	2/27/2018
Sampling Depth:	1-2	13.5-14
Organochlorine Pesticides (mg/kg)		ND
4,4'-DDD	0.0254	ND
4,4'-DDE	0.0102	ND
4,4'-DDT	0.0156	ND
PCBs (mg/kg)	NE	ND
SVOCs (mg/kg)	NE	ND
Total Metals (mg/kg)		
Lead, Total	140	NE
Mercury, Total	1.2	NE
Zinc, Total	139	NE
VOCs (mg/kg)	NE	ND

Sample ID:	SB-8 (1-2)	SB-8 (10.5-11)
Lab Sample ID:	L1806944-03	L1806944-04
Date Sampled:	2/27/2018	2/27/2018
Sampling Depth:	1-2	10.5-11
Organochlorine Pesticides (mg/kg)	ND	ND
PCBs (mg/kg)	ND	ND
SVOCs (mg/kg)	NE	NE
Total Metals (mg/kg)		
Mercury, Total	NE	0.24
VOCs (mg/kg)	NE	ND

Sample ID:	SB-13 (1-2)	SB-13 (3-4)	SB-13 (5-6)	SB-13 (7-8)	SB-13 (9-10)
Lab Sample ID:	L1822065-04	L1822065-05	L1822065-06	L1822065-07	L1822065-08
Date Sampled:	6/12/2018	6/12/2018	6/12/2018	6/12/2018	6/12/2018
Sampling Depth:	1-2	3-4	5-6	7-8	9-10
PAHs (mg/kg)					
Benzo(a)anthracene	NE	1.2	NE	ND	ND
Benzo(a)pyrene	NE	1.2	NE	ND	ND
Benzo(b)fluoranthene	NE	1.5	NE	ND	ND
Chrysene	NE	1.2	NE	ND	ND
Indeno(1,2,3-cd)pyrene	NE	0.81	NE	ND	ND
Total Metals (mg/kg)					
Copper, Total	NE	50.4	NE	NE	NE
Lead, Total	142	164	NE	NE	NE
Mercury, Total	0.795	0.208	0.603	ND	ND
Zinc, Total	112	213	144	NE	NE

Sample ID:	SB-3 (1-2)	SB-3 (7-7.5)
Lab Sample ID:	L1806702-13	L1806702-14
Date Sampled:	2/26/2018	2/26/2018
Sampling Depth:	1-2	7-7.5
Organochlorine Pesticides (mg/kg)		ND
4,4'-DDE	0.00739	ND
4,4'-DDT	0.0359	ND
PCBs (mg/kg)	ND	ND
SVOCs (mg/kg)	NE	ND
Total Metals (mg/kg)		
Copper, Total	NE	103
Lead, Total	155	NE
Mercury, Total	0.21	ND
Zinc, Total	152	NE
VOCs (mg/kg)	NE	NE

Sample ID:	SB-2 (1-2)	SB-2 (10.5-11)
Lab Sample ID:	L1806702-11	L1806702-12
Date Sampled:	2/26/2018	2/26/2018
Sampling Depth:	1-2	10.5-11
Organochlorine Pesticides (mg/kg)	ND	ND
PCBs (mg/kg)	ND	ND
SVOCs (mg/kg)	NE	ND
Total Metals (mg/kg)		
Barium, Total	865	NE
Copper, Total	78.2	NE
Lead, Total	NE	155
Mercury, Total	ND	0.21
Zinc, Total	NE	152
VOCs (mg/kg)	ND	NE

Sample ID:	SB-2A	SB-2A
Lab Sample ID:	L2003755-07	L2003755-08
Date Sampled:	1/27/2020	1/27/2020
Sampling Depth:	1.5-2	8-8.5
Organochlorine Pesticides (mg/kg)	ND	ND
PFAS (mg/kg)		
PFOA/PFOS, Total	0.00057 J	0.00004 J
PCBs (mg/kg)	ND	ND
SVOCs (mg/kg)		
Benzo(a)anthracene	5.8	ND
Benzo(a)pyrene	4.8	ND
Benzo(b)fluoranthene	8.7	ND
Benzo(k)fluoranthene	2.7	ND
Chrysene	6	ND
Dibenzo(a,h)anthracene	0.94	ND
Indeno(1,2,3-cd)pyrene	4.3	ND
Total Metals (mg/kg)		
Copper, Total	178	ND
Lead, Total	126	ND
Zinc, Total	193	ND
VOCs (mg/kg)	NE	NE

Sample ID:	SB-1 (0-2)	SB-1 (12-12.5)
Lab Sample ID:	L1806702-09	L1806702-10
Date Sampled:	2/26/2018	2/26/2018
Sampling Depth:	0-2	12-12.5
Organochlorine Pesticides (mg/kg)	ND	ND
PCBs (mg/kg)	ND	ND
SVOCs (mg/kg)	NE	ND
Total Metals (mg/kg)		
Copper, Total	60.1	NE
Lead, Total	139	NE
Mercury, Total	0.83	ND
Zinc, Total	201	NE
VOCs (mg/kg)	NE	NE

Sample ID:	SB-12 (0-1)
Lab Sample ID:	L1822065-03
Date Sampled:	6/12/2018
Sampling Depth:	0-1
PAHs (mg/kg)	
Benzo(b)fluoranthene	1.1
Indeno(1,2,3-cd)pyrene	0.56
Total Metals (mg/kg)	NE

LEGEND:

SITE BOUNDARY

SOIL BORING LOCATION - 2018 RI

SOIL BORING LOCATION - 2020 RI

NOTES:

1. BASE MAP DEVELOPED FROM A BING PROFESSIONAL ELECTRONIC IMAGE FILE. DIGITAL AERIAL ORTHOPHOTOGRAPHY WAS COLLECTED USING AUTODESK IN NOVEMBER 2017.

CHEMBOX LEGEND

NYS Soil Cleanup Objectives		
Media	Soil	
Parameter	NY-RESR	NY-UNRES
Organochlorine Pesticides by GC (mg/kg)		
4,4'-DDD	2.6	0.0033
4,4'-DDE	1.8	0.0033
4,4'-DDT	1.7	0.0033
Semivolatile Organics by GC/MS (mg/kg)		
Benzo(a)anthracene	1	1
Benzo(a)pyrene	1	1
Benzo(b)fluoranthene	1	1
Benzo(k)fluoranthene	1	0.8
Chrysene	1	1
Dibenzo(a,h)anthracene	0.33	0.33
Indeno(1,2,3-cd)pyrene	0.5	0.5
Total Metals (mg/kg)		
Barium, Total	350	350
Copper, Total	270	50
Lead, Total	400	63
Mercury, Total	0.81	0.18
Nickel, Total	140	30
Zinc, Total	2200	109
Volatile Organics by 8260/5035 (mg/kg)		
Xylenes, Total	100	0.26

This value exceeds NYS Unrestricted Use Soil Cleanup Objectives (NY-UNRES)

This value exceeds both the NYS Unrestricted Use Soil Cleanup Objectives (NY-UNRES) and the NYS Restricted Residential Use Soil Cleanup Objectives (NY-RESR)

ND = Not Detected

NE = No Exceedance

NA = Not Analyzed

P = The RPD between the results for the two columns exceeds the method-specified criteria.

N W E S

0 50' 100' 200'

SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

180 EAST 132ND STREET
BRONX, NEW YORK

SOIL CHEMISTRY RESULTS

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
CARNEGIE MANAGEMENT

PROJ MGR: SH	REVIEWED BY: CM	CHECKED BY: SH	FIGURE
DESIGNED BY: LN	DRAWN BY: MT	SCALE: 1" = 100'	3
DATE: MAY 2021	PROJECT NO. 12.0076605.10	REVISION NO.	SHEET NO.

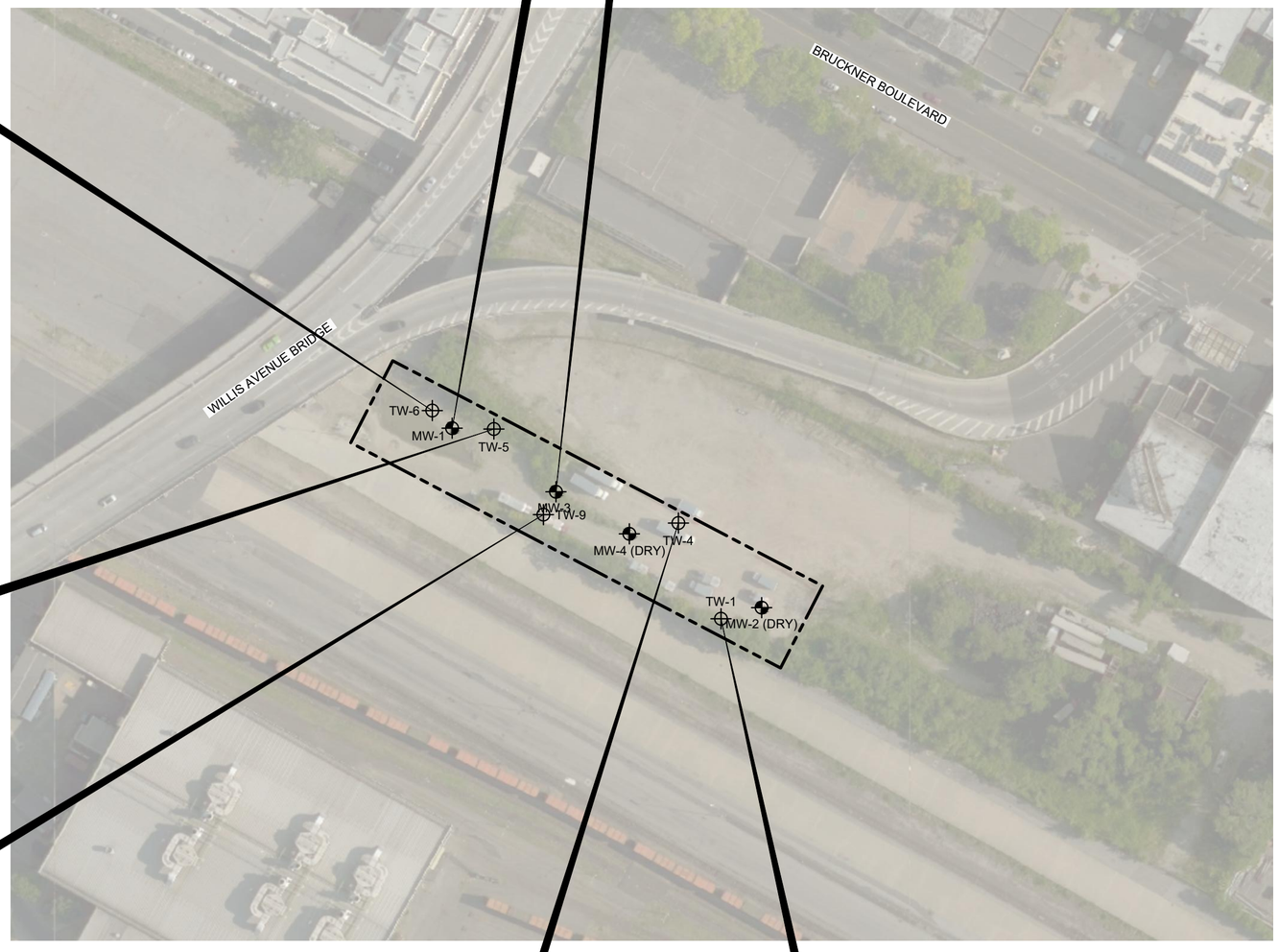
Sample ID:	TW-6
Lab Sample ID:	L1806702-03
Date Sampled:	2/26/2018
Dissolved Metals (ug/L)	
Antimony, Dissolved	11.25
Manganese, Dissolved	1031
Sodium, Dissolved	233000
Organochlorine Pesticides (ug/L)	ND
PCBs (ug/L)	ND
SVOCs (ug/L)	
Benzo(a)anthracene	0.08 J
Benzo(a)pyrene	0.13
Benzo(b)fluoranthene	0.18
Benzo(k)fluoranthene	0.05 J
Chrysene	0.07 J
Indeno(1,2,3-cd)pyrene	0.07 J
Total Metals (ug/L)	
Antimony, Total	9.68
Iron, Total	4840
Lead, Total	150.8
Manganese, Total	1109
Mercury, Total	0.78
Sodium, Total	229000
VOCs (ug/L)	ND

Sample ID:	TW-5
Lab Sample ID:	L1806946-01
Date Sampled:	2/27/2018
Dissolved Metals (ug/L)	
Magnesium, Dissolved	182000
Sodium, Dissolved	181000
Organochlorine Pesticides (ug/L)	NE
PCBs (ug/L)	ND
SVOCs (ug/L)	
Benzo(a)anthracene	0.04 J
Benzo(b)fluoranthene	0.03 J
Total Metals (ug/L)	
Antimony, Total	3.59 J
Arsenic, Total	42.64
Barium, Total	3680
Beryllium, Total	5.41
Cadmium, Total	12.89
Chromium, Total	173.7
Copper, Total	1044
Iron, Total	130000
Lead, Total	8526
Magnesium, Total	349000
Manganese, Total	10740
Nickel, Total	190.4
Selenium, Total	13.7
Sodium, Total	198000
Thallium, Total	1.47
Zinc, Total	2126
VOCs (ug/L)	NE

Sample ID:	TW-9	DUP-GW
Lab Sample ID:	L1806946-02	L1806946-03
Date Sampled:	2/27/2018	2/27/2018
Dissolved Metals (ug/L)		
Iron, Dissolved	NE	382
Sodium, Dissolved	95800	91300
Organochlorine Pesticides (ug/L)	NE	NE
PCBs (ug/L)	ND	ND
SVOCs (ug/L)		
Benzo(a)anthracene	0.02 J	0.02 J
Benzo(b)fluoranthene	NE	0.02 J
Total Metals (ug/L)		
Iron, Total	1660	3170
Manganese, Total	328	311
Sodium, Total	97900	97100
VOCs (ug/L)	NE	NE

Sample ID:	MW-1	DUP02042020
Lab Sample ID:	L2004990-01	L2004990-02
Date Sampled:	2/4/2020	2/4/2020
Organochlorine Pesticides (ug/L)	ND	ND
PCBs (ug/L)	ND	ND
SVOCs (ug/L)		
Benzo(b)fluoranthene	ND	0.01 J
Total Metals (ug/L)		
Iron, Total	2800	2970
Magnesium, Total	68600	65900
Manganese, Total	465	434
Sodium, Total	199000	193000
VOCs (ug/L)	NE	NE

Sample ID:	MW-3
Lab Sample ID:	L2004990-05
Date Sampled:	2/4/2020
Organochlorine Pesticides (ug/L)	ND
PCBs (ug/L)	ND
SVOCs (ug/L)	
Benzo(a)anthracene	0.03 J
Benzo(a)pyrene	0.02 J
Benzo(b)fluoranthene	0.04 J
Benzo(k)fluoranthene	0.02 J
Chrysene	0.01 J
Indeno(1,2,3-cd)pyrene	0.03 J
Total Metals (ug/L)	
Iron, Total	8810
Manganese, Total	677
Sodium, Total	105000
VOCs (ug/L)	ND



Sample ID:	TW-4
Lab Sample ID:	L1806702-02
Date Sampled:	2/26/2018
Dissolved Metals (ug/L)	
Magnesium, Dissolved	37200
Sodium, Dissolved	124000
Organochlorine Pesticides (ug/L)	ND
PCBs (ug/L)	ND
SVOCs (ug/L)	
Benzo(a)anthracene	0.03 J
Benzo(b)fluoranthene	0.04 J
Total Metals (ug/L)	
Chromium, Total	302.2
Iron, Total	68300
Lead, Total	41.97
Magnesium, Total	69000
Manganese, Total	1017
Nickel, Total	171.2
Selenium, Total	14.1
Sodium, Total	113000
Thallium, Total	0.52
VOCs (ug/L)	ND

Sample ID:	TW-1
Lab Sample ID:	L1806702-01
Date Sampled:	2/26/2018
Dissolved Metals (ug/L)	
Sodium, Dissolved	85600
Organochlorine Pesticides (ug/L)	ND
PCBs (ug/L)	ND
SVOCs (ug/L)	
Benzo(a)anthracene	0.04 J
Benzo(a)pyrene	0.05 J
Benzo(b)fluoranthene	0.07 J
Total Metals (ug/L)	
Iron, Total	14300
Lead, Total	34.22
Manganese, Total	395.6
Selenium, Total	12.1
Sodium, Total	80700
VOCs (ug/L)	ND

LEGEND:

- SITE BOUNDARY
- TEMPORARY WELL LOCATION - 2018 RI
- MONITORING WELL LOCATION - 2020 RI

NOTES:

1. BASE MAP DEVELOPED FROM A BING PROFESSIONAL ELECTRONIC IMAGE FILE. DIGITAL AERIAL ORTHOPHOTOGRAPHY WAS COLLECTED USING AUTODESK IN NOVEMBER 2017.

CHEMBOX LEGEND

NYS Ambient Water Quality Standard	
Media	**Groundwater**
Parameter	
Dissolved Metals (ug/L)	
Antimony, Dissolved	3
Iron, Dissolved	300
Magnesium, Dissolved	35000
Manganese, Dissolved	300
Sodium, Dissolved	20000
SVOCs (ug/L)	
Benzo(a)anthracene	0.002
Benzo(a)pyrene	0
Benzo(b)fluoranthene	0.002
Benzo(k)fluoranthene	0.002
Chrysene	0.002
Indeno(1,2,3-cd)pyrene	0.002
Total Metals (ug/L)	
Antimony, Total	3
Arsenic, Total	25
Barium, Total	1000
Beryllium, Total	3
Cadmium, Total	5
Chromium, Total	50
Copper, Total	200
Iron, Total	300
Lead, Total	25
Magnesium, Total	35000
Manganese, Total	300
Mercury, Total	0.7
Nickel, Total	100
Selenium, Total	10
Sodium, Total	20000
Thallium, Total	0.5
Zinc, Total	2000

Exceeds NYS Ambient Water Quality Standard

ND = Not Detected

NE = No Exceedance

NA = Not Analyzed

J = The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.

N W E S

0 50' 100' 200'

SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

180 EAST 132NS STREET
BRONX, NEW YORK

GROUNDWATER CHEMISTRY RESULTS

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
CARNEGIE MANAGEMENT

PROJ MGR: SH	REVIEWED BY: CM	CHECKED BY: SH	FIGURE 4
DESIGNED BY: CM	DRAWN BY: MT	SCALE: 1" = 100'	
DATE: MAY 2021	PROJECT NO. 12.0076605.10	REVISION NO.	SHEET NO.

Sample ID:	SG-1A
Lab Sample ID:	L2003772-03
Date Sampled:	1/27/2020
VOCS (µg/m³)	
Benzene	1.46
Tetrachloroethene	5.37

Sample ID:	SG-3
Lab Sample ID:	L1806981-03
Date Sampled:	2/26/2018
VOCs (µg/m³)	
cis-1,2-Dichloroethene	20.1
Vinyl chloride	102

Sample ID:	SG-2A
Lab Sample ID:	L2003772-02
Date Sampled:	1/27/2020
VOCS (µg/m³)	
Benzene	9.01
Tetrachloroethene	27.5

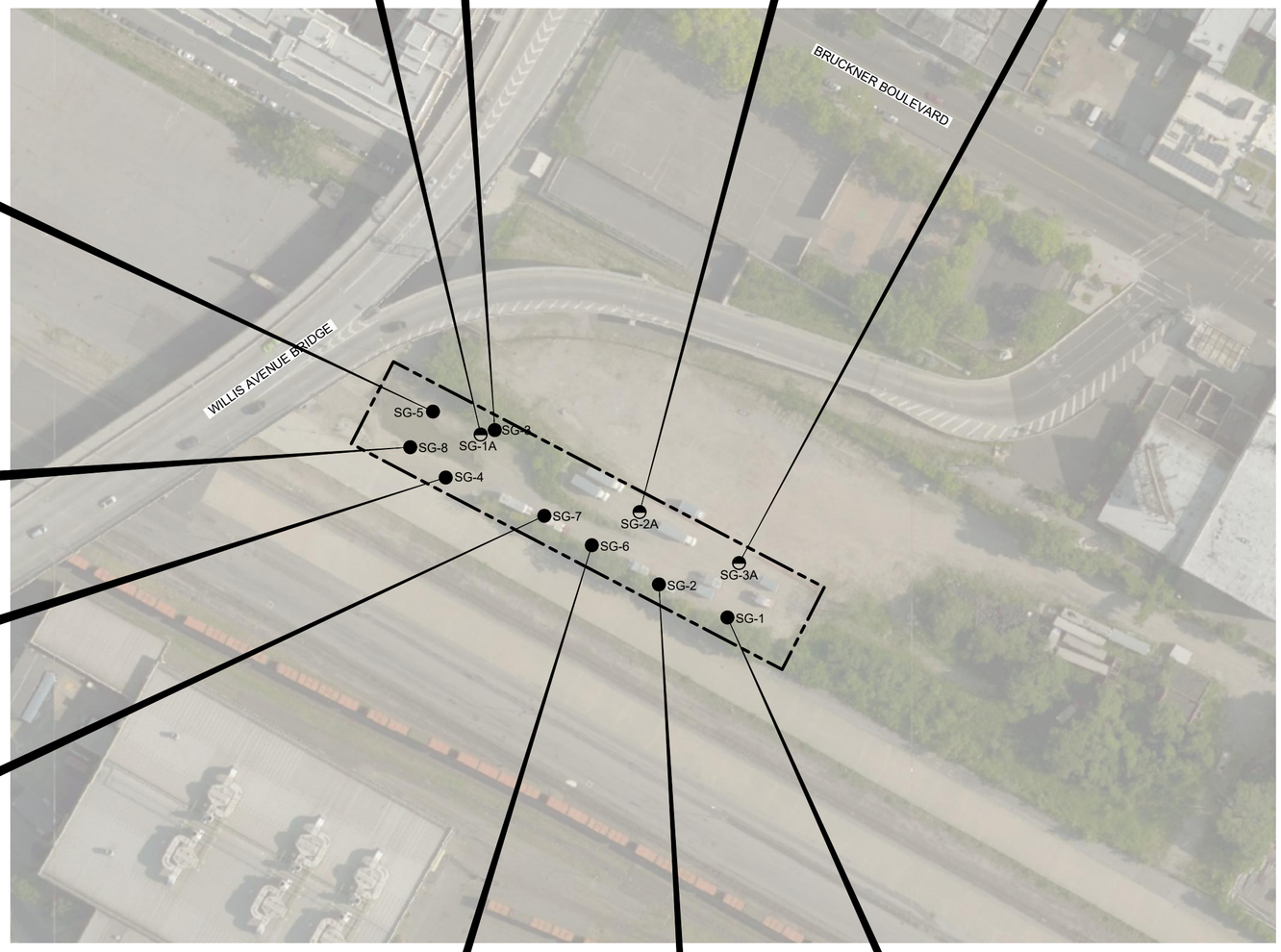
Sample ID:	SG-3A
Lab Sample ID:	L2003772-01
Date Sampled:	1/27/2020
VOCS (µg/m³)	
Benzene	8.82
Tetrachloroethene	2.59

Sample ID:	SG-5
Lab Sample ID:	L1806981-05
Date Sampled:	2/27/2018
VOCS (µg/m³)	NE

Sample ID:	SG-8
Lab Sample ID:	L1806981-08
Date Sampled:	2/27/2018
VOCS (µg/m³)	NE

Sample ID:	SG-4
Lab Sample ID:	L1806981-04
Date Sampled:	2/27/2018
VOCS (µg/m³)	NE

Sample ID:	SG-7
Lab Sample ID:	L1806981-07
Date Sampled:	2/27/2018
VOCS (µg/m³)	NE



Sample ID:	SG-6
Lab Sample ID:	L1806981-06
Date Sampled:	2/27/2018
VOCS (µg/m³)	NE

Sample ID:	SG-1
Lab Sample ID:	L1806981-01
Date Sampled:	2/26/2018
VOCS (µg/m³)	NE

Sample ID:	SG-2
Lab Sample ID:	L1806981-02
Date Sampled:	2/26/2018
VOCS (µg/m³)	NE

LEGEND:

- SITE BOUNDARY
- SOIL GAS SAMPLE LOCATION - 2018 RI
- SOIL GAS SAMPLE LOCATION - 2020 RI

NOTES:

1. BASE MAP DEVELOPED FROM A BING PROFESSIONAL ELECTRONIC IMAGE FILE. DIGITAL AERIAL ORTHOPHOTOGRAPHY WAS COLLECTED USING AUTODESK IN NOVEMBER 2017.

CHEMBOX LEGEND

NYS Vapor Concentrations Criteria			
Media	Soil Gas		
Parameter	NY-SSC-A	NY-SSC-B	NY-SSC-C
Volatile Organics in Air (µg/m³)			
cis-1,2-Dichloroethene	6		
Vinyl chloride			6

Exceeds New York DOH Matrix A, B, or C Sub-slab Vapor Concentrations Criteria.
NE = No Exceedance

N W E S

0 50' 100' 200'
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

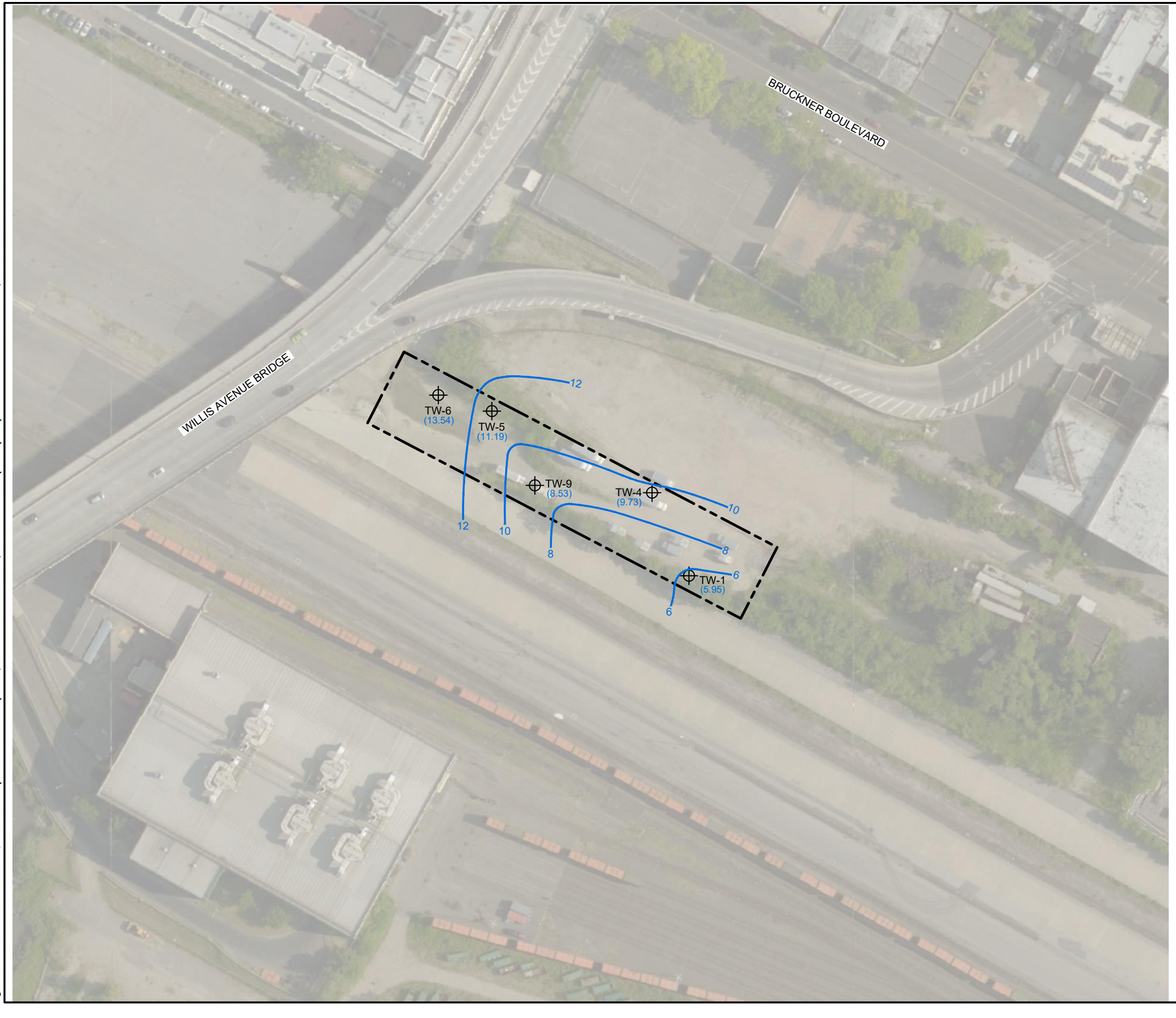
180 EAST 132ND STREET
BRONX, NEW YORK

SOIL GAS CHEMISTRY RESULTS

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
CARNEGIE MANAGEMENT

PROJ MGR: SH	REVIEWED BY: SH	CHECKED BY: SH	FIGURE
DESIGNED BY: LN	DRAWN BY: MT	SCALE: 1" = 100'	5
DATE: MAY 2021	PROJECT NO. 12.0076605.10	REVISION NO.	SHEET NO.



LEGEND:

- SITE BOUNDARY
- TEMPORARY WELL LOCATION
- 12 GROUNDWATER ELEVATION CONTOUR
- (11.19) GROUNDWATER ELEVATION

NOTES:

1. BASE MAP DEVELOPED FROM A BING PROFESSIONAL ELECTRONIC IMAGE FILE. DIGITAL AERIAL ORTHOPHOTOGRAPHY WAS COLLECTED USING AUTODESK IN NOVEMBER 2017.

N
W E
S

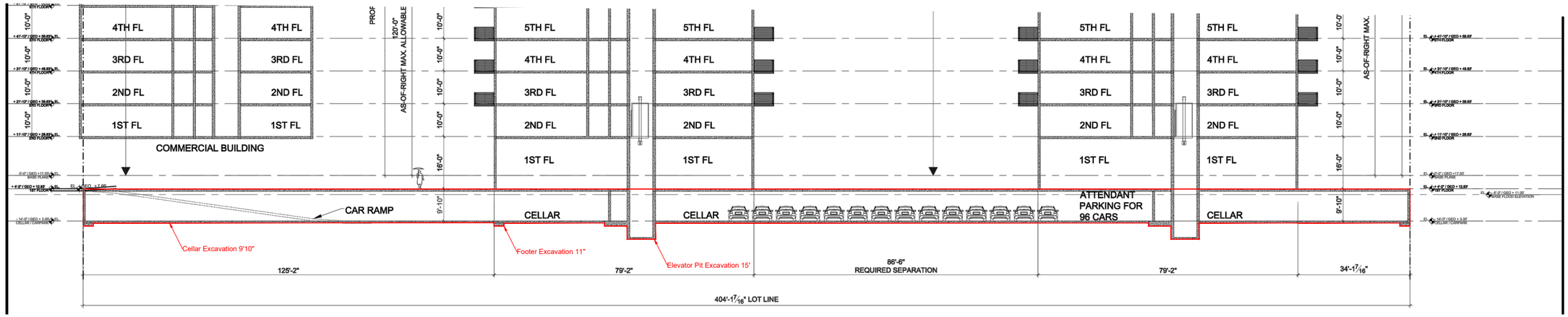
0 50' 100' 200'
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

180 EAST 132ND STREET
BRONX, NEW YORK

GROUNDWATER FLOW MAP

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: CARNEGIE MANAGEMENT	
PROJ MGR: SH	REVIEWED BY: CM	CHECKED BY: SH	FIGURE 6
DESIGNED BY: CM	DRAWN BY: MT	SCALE: 1" = 100'	
DATE: MAY 2021	PROJECT NO. 12.0076605.01	REVISION NO.	SHEET NO.



LEGEND:

- EXCAVATION EXTENT
- END-POINT SAMPLE (EXCAVATION BOTTOM)
- END-POINT SAMPLE (EXCAVATION SIDEWALL)

NOTES:

1. BASE MAP DEVELOPED FROM FISCHER & MAKOOI ARCHITECTS PLLC HEIGHTS DIAGRAM, SEPTEMBER 2017.
2. END-POINT SAMPLES TO BE COLLECTED AT A FREQUENCY OF 1 PER 900 SQUARE FEET AT THE BOTTOM AND 1 PER 30 FEET ALONG THE SIDEWALL.

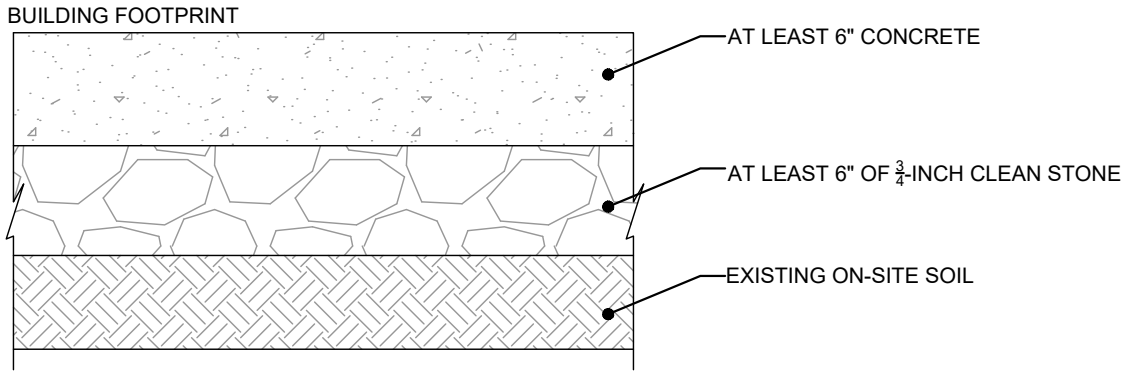
NO.	ISSUE/DESCRIPTION	BY	DATE

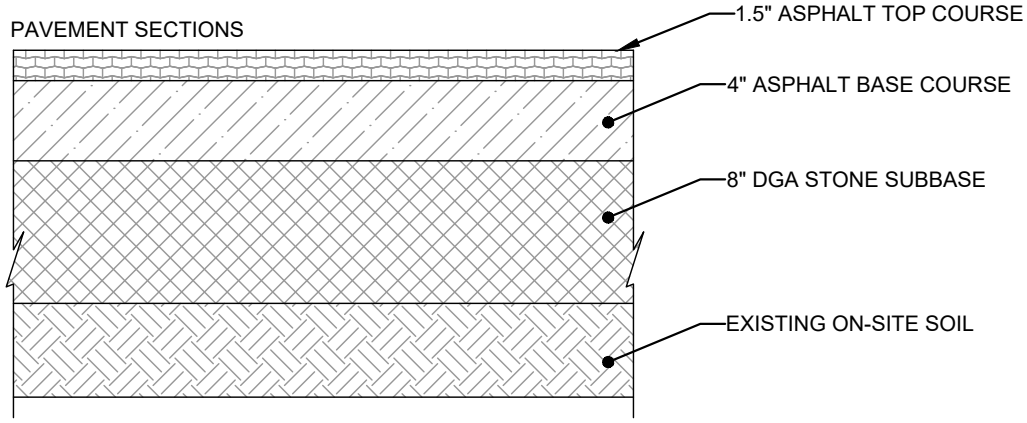
180 EAST 132ND STREET
BRONX, NEW YORK

EXCAVATION PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: CARNEGIE MANAGEMENT	
PROJ MGR: SH	REVIEWED BY: DW	CHECKED BY: SH	FIGURE 7
DESIGNED BY: LN	DRAWN BY: LN	SCALE: AS SHOWN	
DATE: MAY 2021	PROJECT NO. 12.0076605.10	REVISION NO.	SHEET NO.

HARDSCAPE AREA





180 EAST 132ND STREET
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PROPOSED COVER SYSTEM DESIGN

PROJ MGR: SH	REVIEWED BY: DW	CHECKED BY: EH	FIGURE 8
DESIGNED BY: EH	DRAWN BY: LN	SCALE: N.T.S.	
DATE: MAY 2021	PROJECT NO. 12.0076605.10	REVISION NO.	SHEET NO.

APPENDICES

APPENDIX A

LIMITATIONS

Proactive by Design

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

GZA GeoEnvironmental of NY
104 West 29th Street
10th Floor
New York, NY 10001
T: 212.594.8140
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LIMITATIONS

The following Limitations are in reference to the Remedial Action Work Plan, produced and provided at the request of the Carnegie Management Inc. (Carnegie), 545 Broadway - 4th Floor, Brooklyn, NY, prepared for the property located 180 East 132nd Street, Bronx, New York (the Site).

1. The conclusions and recommendations submitted in this report are based in part upon the data obtained from a limited number of soil samples from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further investigation. If variations or other latent conditions then appear evident, it will be necessary to re-evaluate the recommendations of this report.

2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of widely spaced explorations and samples; actual soil transitions are probably more gradual. For specific information, refer to the boring logs.

3. Water level readings have been made in the test pits, borings, and/or observation wells at times and under conditions stated on the exploration logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.

4. Where quantitative laboratory analyses have been conducted by an outside laboratory, GZA has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.

5. The conclusions and recommendations contained in this report are based in part upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. As indicated within the report, some of these data may be considered preliminary or "screening" level data, and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by GZA, and the conclusions and recommendations presented therein modified accordingly.

6. Chemical analyses have been performed for specific parameters during the course of this study, as detailed in the text. It must be noted that additional constituents not searched for during the current study may be present in soil and groundwater at the site.

7. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client. The work described in this report was carried out in accordance with agreed upon Terms and Conditions.

8. GZA's findings and conclusions must be considered not as scientific certainties, but rather as our professional opinion concerning the significance of the data gathered during the course of the study. No other warranty, expressed or implied is made. Specifically, GZA does not and cannot represent that the site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during the study.

Use of Report

9. This report has been prepared for the exclusive use of **Carnegie** for specific application to the real property located at **180 East 132nd Street (Block 2260, Lot 180), Bronx, New York** (the Site), in accordance with generally accepted soil and foundation engineering practices. No other warranty, express or implied, is made.

10. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by **Carnegie**. The work described in this report was carried out in accordance with agreed upon Terms and Conditions.

11. This study was performed in accordance with generally accepted environmental and geotechnical engineering practices. Additionally, GZA makes no warranty that the findings of the study will be approved by the overseeing regulatory authorities. This report has been prepared for this project by GZA and is for planning purposes only. Contractors wishing a copy of the report may secure it with the understanding that its scope is limited to design considerations only.

APPENDIX B

PROPOSED SITE DEVELOPMENT PLANS

ZONING ANALYSIS

ADDRESS:	62 and 64 Willis Avenue, Bronx, NY 10464
Block:	2260
Lot:	180
Lot Area:	29,449 sf; Lot Area in M1-5/R8A: 26,959 sf; Lot Area in M3-1: 2,490 sf (for lot size diagrams see ZI 2004-02)
Zoning District(s):	M1-5/R8A (MX-1 MIXED USE-1; PORT MORRIS, BX) ; M3-1
Zoning Map:	6b
Community Board:	Bronx Community District 2(1)
	Residential Use constructed in M3-1 zone pursuant to BSA Variance

Applicable ZR Section	Item	Required/Permitted	Proposed	Compliance
Use Regulations				
123-90	Special Use Regulations	ZG 2, 3, 4 ; 16, 17, 18 - as of right	UG 2, Residential	Complies
123-32	Environmental Conditions	In Special Mixed Use Districts, all new dwelling units shall be provided with a minimum 35dB(A) of window wall attenuation to maintain an interior noise level of 45dB(A) or less, with windows closed, and shall provide an alternate means of ventilation.		Complies

Bulk Regulations				
123-60	Special Bulk Regulations			
123-61	General Provisions	In Special Mixed Use Districts#, the bulk regulations set forth in Article II, Chapter 3, shall apply to all residential uses		
123-62	Maximum Floor Area Ratio and Lot Coverage Requirements for Zoning Lots Containing Only Residential Buildings in R6, R7, R8 and R9 Districts	Where the designated Residence District is an R6, R7, R8 or R9 District, the minimum required open space ratio and maximum floor area ratio provisions of Section 23-151 (Basic regulations for R6 through R9 Districts) shall not apply. In lieu thereof, all residential buildings, regardless of whether they are required to be developed or enlarged pursuant to the Quality Housing Program, shall comply with the maximum floor area ratio and lot coverage requirements set forth for the designated district in Sections 23-153 (For Quality Housing buildings) or 23-155 (Affordable independent residences for seniors), as applicable.		
23-153	For Quality Housing buildings	In the districts indicated, for Quality Housing buildings, the maximum floor area ratio and maximum residential lot coverage for interior lots or through lots shall be as set forth in the table in this Section. Max. Permitted FAR: 6.02 Max. Permitted Lot Coverage: 70%. Max. Permitted Floor Area:29,449 sf x 6.02 = 177,283 sf Max. Permitted Lot Coverage: 20,614 sf	Total Proposed Residential Floor Area: 62-64 & 64 Willis Ave.: 175,640 sf Proposed Residential FAR = 5.96 Proposed Lot Coverage: 10,676 sf = 36.25%	Complies
23-22	Maximum Number of Dwelling Units or Rooming Units	The Factor to determine the max. no. of residential units permitted in zoning district R8A is 680; Max. no. of DU = 177,283.7/680 = 260 DU	Proposed 62 Willis Avenue: 120 D.U 64 Willis Avenue: 126 D.U Total number of D.U. proposed: 246	Complies
23-32	Minimum Lot Area or Lot Width for Residences	In R8A min. lot area = 1,700 s.f.; min. lot Width = 18 ft.	Lot Area = 29,449 s.f.; min. lot width = 72.97'	Complies
123-651	**Special yard regulations for residential buildings**	No front yards or side yards are required in Special Mixed Use Districts. However, for residential buildings other than single- or two-family residences, if any open area extending along a side lot line is provided at any level, such open area shall have a minimum width of eight feet.		Complies
23-47	Minimum Required Rear Yards	A rear yard of at least 30 feet is required	Provided 34'-1 1/2" rear yard	Complies
123-66	**Height and Setback Regulations**	The height of all buildings or other structures in Special Mixed Use Districts shall be measured from the base plane.		Complies
123-662	**All buildings in Special Mixed Use Districts with R6, R7, R8, R9 and R10 District designations**	In Special Mixed Use Districts where the designated Residence District is an R6, R7, R8, R9 or R10 District, the height and setback regulations of Sections 23-60 and 43-40 shall not apply. In lieu thereof, all buildings or other structures shall comply with the height and setback regulations of this Section.		
123-662 (c)	**Medium and high density contextual districts**	In Special Mixed Use Districts where the Residence District# designation is an R5A, R6B, R7A, R7B, R7D, R7X, R8A, R8B, R8X, R9A, R9X, R10A or R10X District, the height and setback provisions of Section 23-662 shall apply.		
23-662	**Maximum height of buildings and setback regulations**	In the districts indicated, height and setback regulations for Quality Housing buildings are set forth in this Section. The height of a Quality Housing building or other structure shall not exceed the maximum height limit specified for the applicable district in paragraph (a) of this Section. A setback is required for all portions of buildings or other structures# that exceed the maximum base height specified for the applicable district in paragraphs (a) and (b) of this Section, and shall be provided in accordance with paragraph (c) of this Section.		
23-662 (a)	**Building heights and permitted number of stories**	For Quality Housing buildings, the minimum and maximum base height, and maximum height of a building or other structure shall be as set forth in Table 1 in this paragraph (a) for the applicable zoning district. Min. Base Height: 60'-0" Max. Base Height: 85'-0" Max. Building Height: 120'-0"	Building Height At Of-Right: 120'-0" Building Height Proposed as per BSA variance: 176'-6"	Complies
23-662 (c) (4)	**Setback requirements**	For all Quality Housing buildings, a setback shall be provided in accordance with the following regulations: (4) The setback provisions are optional for any building wall that either is located beyond 50 feet of a street line.	Building wall is located 126'-4" away from the lot line, therefore no setback is required/provided	Complies

Accessory Off-Street Parking and Loading Regulations				
123-70	Parking and Loading	For all other Special Mixed Use Districts, the provisions of this Section, inclusive, shall apply		
123-72	Residential Uses	For residences uses, the accessory off-street parking regulations of the designated Residence District, as set forth in Article II, Chapter 5, shall apply.		
25-10	Permitted Accessory Off-Street Parking Spaces			
25-23	Requirements Where Group Parking Facilities Are Provided	In all districts, as indicated, where group parking facilities are provided, for all new residences, accessory off-street parking spaces shall be provided for at least that percentage of the total number of residences set forth in the following table. The required no. of accessory off-street parking spaces is 40% of the no. of dwelling units. 256 x 0.4 = 102 parking spaces are required	Accessory Attendant parking for 102 cars provided in a Cellar	Complies
25-811	Enclosed Bicycle Parking Spaces	1 bicycle parking for each 2 dwelling units is required Required no. of spaces = 256 x 0.5 = 128 bicycle spaces	Min of 128 bicycle parking spaces are provided.	Complies
25-83	Restrictions on Operations, Size and Location of Bicycle Parking spaces	All enclosed bicycle parking spaces shall be provided on the same zoning lot as the building. All enclosed bicycle parking spaces shall be surrounded on all sides by solid enclosure, except where a parking garage is open at the sides, and covered by a roof for weather protection. Each bicycle space shall adjoin a rack or similar system for securing the bicycle. 15 s.f. of area shall be provided for each bicycle space. However, the area for each bicycle may be reduced by up to nine square feet per bicycle if the Commissioner of Buildings certifies that a layout has been submitted to adequately accommodate the specified number of bicycles. Required area = 128 bicycles x 15 s.f. = 1946 s.f. A plaque shall be placed at the exterior of the entry to the bicycle parking area with lettering at least 3/4 in. in height stating "Bicycle Parking"	Bicycle storages of total 1,920 s.f. are provided.	Complies

Street Tree Planting Requirements				
26-00	Street Tree Planting in residential Districts	Street tree planting shall be provided in accordance with ZR 26-41		
26-41	Street Tree Planting Requirements	1 tree shall be provided for every 25' of street frontage of the zoning lot; such trees shall be planted along the entire length of the curb of the street adjacent to the zoning lot. On Willis Avenue, frontage = 71.83' = 3 trees are required. The species and caliper of all street trees shall be determined by Department of Parks & Recreation.	Willis Avenue: 3 trees to be planted or paid to the tree fund	Required Department of Parks & Recreation approval of alternative location or waiver.
123-181	**Modification of Planting Strips**	**In Special Mixed Use Districts, the provisions of Section 26-42 (Planting Strips) shall not apply.**		

Quality Housing Program Requirements				
28-00	General Purposes	Multiple family housing	Multiple family housing provided	Complies
28-01	Applicability	Quality housing requirements are required for residence in R8A	Quality housing requirements are provided	Complies
28-12	Refuse storage and disposal	Refuse storage with Min of 2.9 cu.ft. per dwelling unit shall be provided. Required refuse storage room = 2.9 x 129 = 366 cu.ft.per building. A refuse disposal room with min. 12 s.f. with no dimension less than 3'-0" shall be provided on each story that has entrances to dwelling units.	Refuse storages area provided at 1st floor of each building at 62 and 64 Willis Ave.	Complies
28-13	Laundry Facilities	At least one washing machine per 20 dwelling units and at least one dryer per 40 dwelling units;	Each Unit will have individual Washer,Dryer.	Complies
28-14	Daylight in corridors	50% of S.F. of corridor may be excluded from FAR if a window with a clear, non-tinted, glazed area of a min. 20 S.F. is provided and it is visible from 50% of corridor or vertical core.	See floor plans and deduction diagrams	Complies
28-21	Required Recreation Space	All Development, enlargement, extensions or conversions, with 9 or more units shall provide at least the minimum amount of recreation space as set forth in the table. Minimum percentage of required recreation space shall be 2.8% residential floor area for R8A	2.8% of 177,283 sf = 4,964 sf required / provided w/15 ft. minimum dimension in any direction.	Complies
28-22	Standards for Recreation Space	(b) The minimum dimension of any recreation space shall be 15 feet. The minimum size of any outdoor recreation space shall be 225 square feet, and the minimum size of any indoor recreation space shall be 300 square feet. Min. dimension of any recreation space shall be 15 ft. Indoor recreation space can be deducted from F.A. when it has window(s) measure not less than 9.5% of total floor space of the room.		Complies
28-23	Planting Areas	**The area of the zoning lot between the #street line# and all street walls of the building and their prolongations shall be planted at ground level, in raised planting beds that are permanently affixed to the ground, except that such plantings shall not be required at the entrances to and exits from the building, within driveways accessing off-street parking spaces located within, to the side, or rear of such building. No zoning lot shall be altered in any way that will either create a new non-compliance or increase the degree of non-compliance# with the provisions of this Section.**	Planting has been provided.	Complies
28-31	Density of corridor	50% of S.F. of corridor may be excluded from FAR if number of dwellings units served by corridor on each story does not exceed 11.	No more than 4 dwelling units are provided per floor. See floor plans and deduction diagrams.	Complies
28-40	Parking	Accessory off-street parking in Article II, Chapter 5 shall apply. **(116 provided)**	For Parking requirements, See ZR 25-23 above	Complies
28-41	Parking	All open accessory off-street group parking facilities shall be screened from dwelling units, adjacent zoning lots and streets in accordance with paragraph (a) of Section 26-46	No above grade parking is provided	Complies

1 ZONING ANALYSIS
NTS

DISTRICT MX1-5 / R8A

TAX LOT 180 AREA, BLOCK 2260	29,449.00 SF
TOTAL LOT AREA	**29,449.0** SF

(ZR:33-122) COMMERCIAL FAR

MAX PERMITTED FAR	**6.02** FAR
MAX PERMITTED ZONING FLOOR AREA	**177283.0** SF

PROPOSED NEW CONSTRUCTION

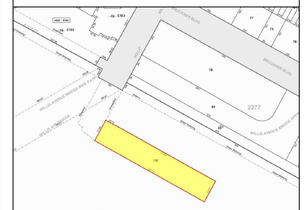
	GROSS FLOOR AREA - New Building				DEDUCTIONS				New Zoning Floor Area
Floor	Total New Gross Floor Area	Total New Residential Gross Floor Area	Total New Office Gross Floor Area	Parking	1.5% Mechanical Deduction for New Buildings A,B,C	Exterior Wall Energy Deduction	Bulkhead Deduction	Total	Commercial Zoning Floor Area
Cellar	**29,449.00**			29449.0				**0.0**	**0.0**
1st	**10,046.00**	8994.0	1052.0		**150.7**	**500.0**		**650.7**	**8343.3**
2	**16,846.00**	11448.0	5398.0		**252.7**	**500.0**		**752.7**	**10936.5**
3	**16,846.00**	11448.0	5398.0		**252.7**	**500.0**		**752.7**	**16093.3**
4	**16,846.00**	11448.0	5398.0		**252.7**	**500.0**		**752.7**	**16093.3**
5	**16,846.00**	11448.0	5398.0		**252.7**	**500.0**		**752.7**	**16093.3**
6	**11,448.00**	11448.0			**171.7**	**400.0**		**571.7**	**10876.3**
7	**11,448.00**	11448.0			**171.7**	**400.0**		**571.7**	**10876.3**
8	**11,448.00**	11448.0			**171.7**	**400.0**		**571.7**	**10876.3**
9	**11,448.00**	11448.0			**171.7**	**400.0**		**571.7**	**10876.3**
10	**11,448.00**	11448.0			**171.7**	**400.0**		**571.7**	**10876.3**
11	**11,448.00**	11448.0			**171.7**	**400.0**		**571.7**	**10876.3**
12	**11,448.00**	11448.0			**171.7**	**400.0**		**571.7**	**10876.3**
13	**11,448.00**	11448.0			**171.7**	**400.0**		**571.7**	**10876.3**
14	**11,448.00**	11448.0			**171.7**	**400.0**		**571.7**	**10876.3**
15	**11,448.00**	11448.0			**171.7**	**400.0**		**571.7**	**10876.3**
Roof	**1,300.00**	980.0	320.0		**19.5**	**180.0**	**178.0**	**377.5**	**922.5**
Total Gross Area Above Grade	**193210.0**	**170246.0**			**2898.2**	**6680.0**	**178.0**	**9756.2**	**177245.0**
Total Gross Area Incl. Cellar	**222659.0**								

PROPOSED ZONING FLOOR AREA

TOTAL PROPOSED NEW COMMERCIAL AND COMMUNITY FACILITY ZONING FLOOR AREA	**177,245.0** SF
UNDERBUILT	37.9 SF
TOTAL PROPOSED NEW COMMERCIAL FLOOR AREA	**177,245.0** SF
UNDERBUILT	37.9 SF

1 ZONING AREA CHART
NTS

KEY PLAN



BLOCK: 2260 LOT: 180

IN PROGRESS DRAFT SET REVIEW & COMMENTS ONLY

1	XX.XX.XX	ISSUED FOR BSA APPROVAL
ISSUE	date	description

ISSUES/REVISIONS

CLIENT
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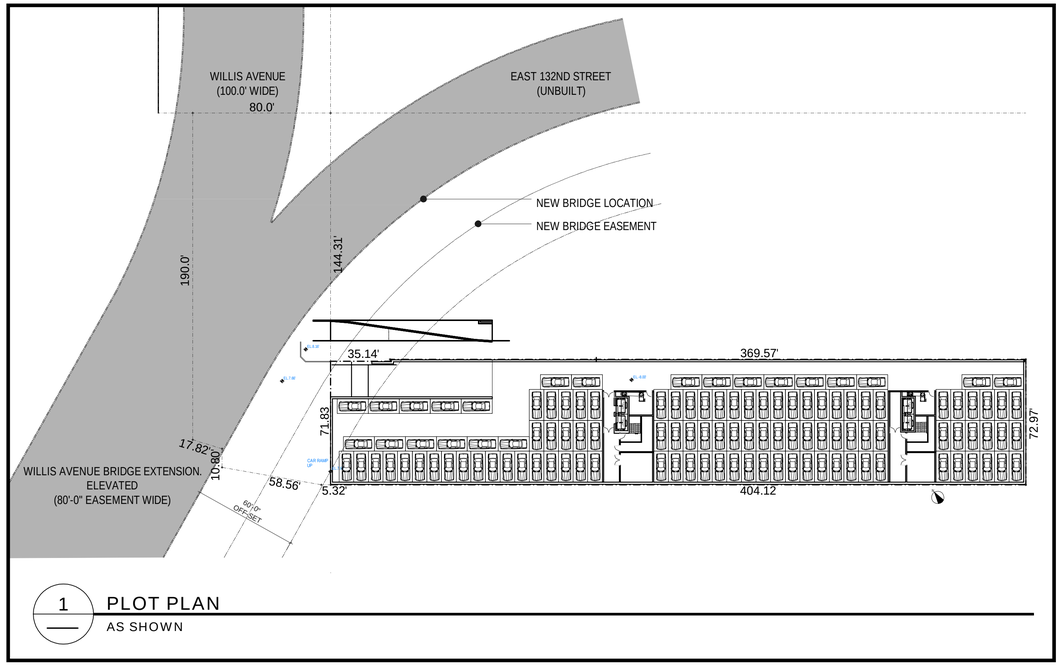
SEAL
REGISTERED ARCHITECT FARIBA H. MAKOOI 034686 STATE OF NEW YORK

project title
62 & 64 WILLIS AVENUE
MIXED USE DEVELOPMENT
BRONX, NEW YORK 10454

drawing title
ZONING ANALYSIS

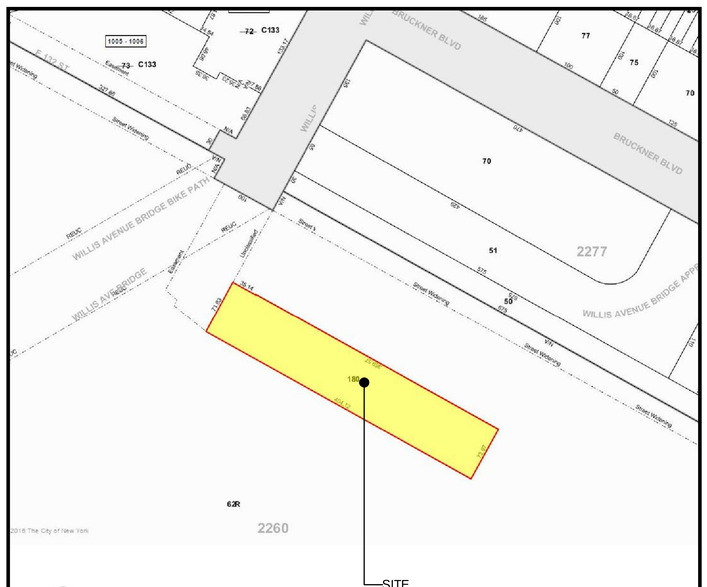
dob no

scale: AS NOTED	project no.: 16-52
date: SEP. 2017	sheet no.: 1 OF 5
drawn: AS	drawing no.: ASK 001
checked: FM	



1 PLOT PLAN
AS SHOWN

2 AERIAL VIEW
NTS



3 TAX MAP
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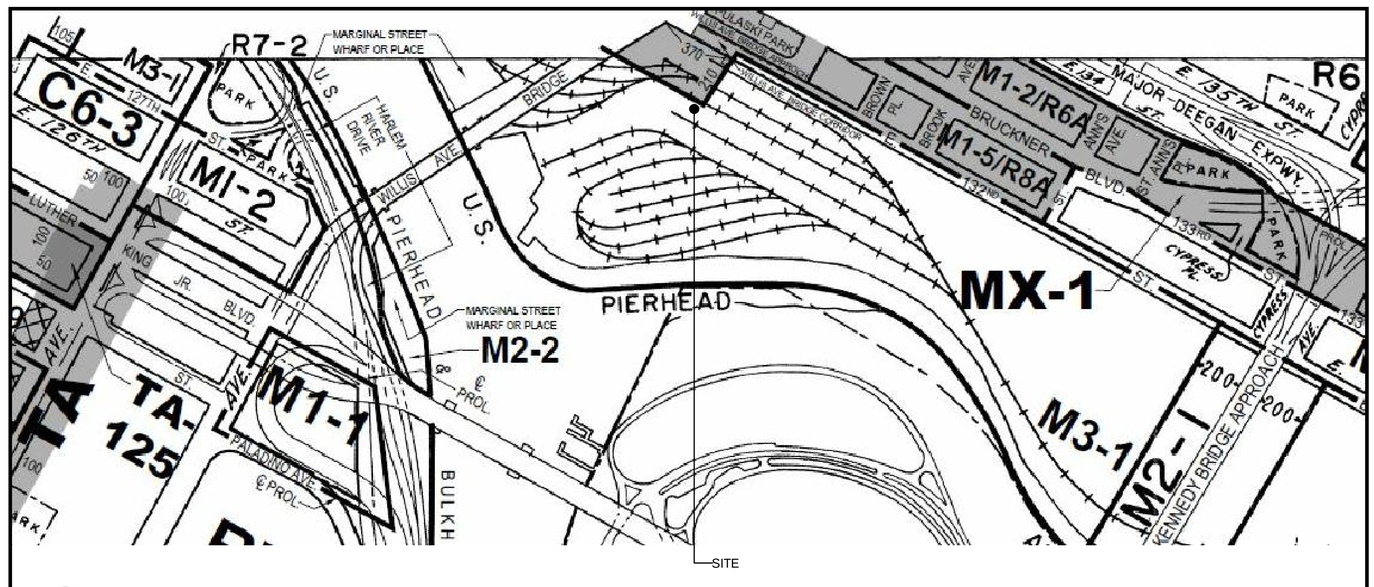

4 ZONING MAP 6b
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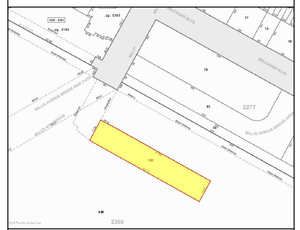
KEY PLAN



BLOCK: 2260 LOT: 180

IN PROGRESS DRAFT SET
REVIEW & COMMENTS ONLY

issue	date	description
1	XX.XX.XX	ISSUED FOR BSA APPROVAL

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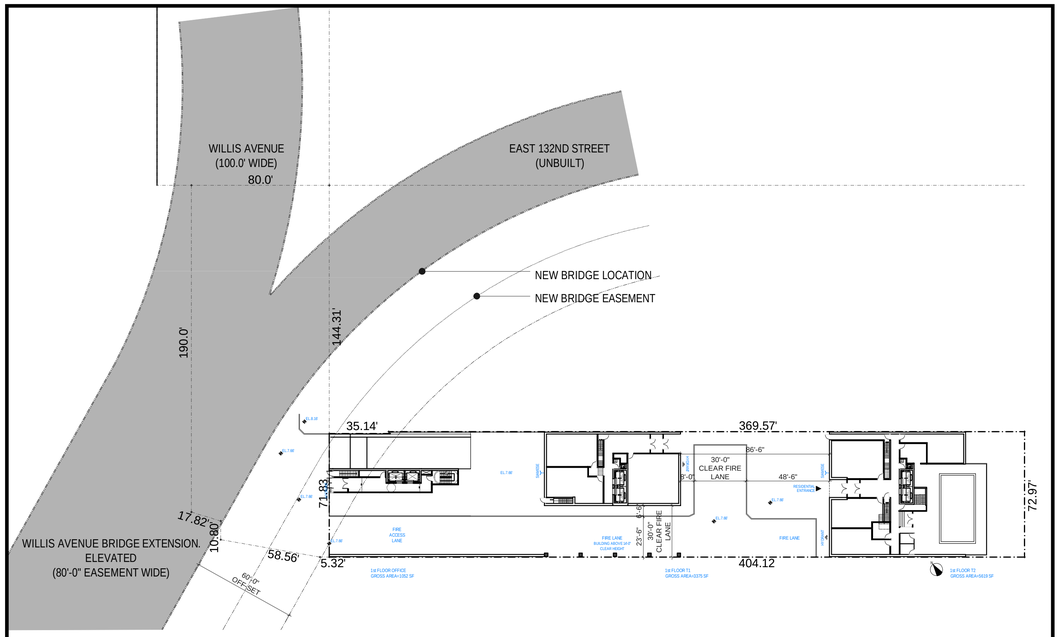
FARIBA H. MAKOOI
034686
STATE OF NEW YORK

project title
62 & 64 WILLIS AVENUE
MIXED USE DEVELOPMENT
BRONX, NEW YORK 10454

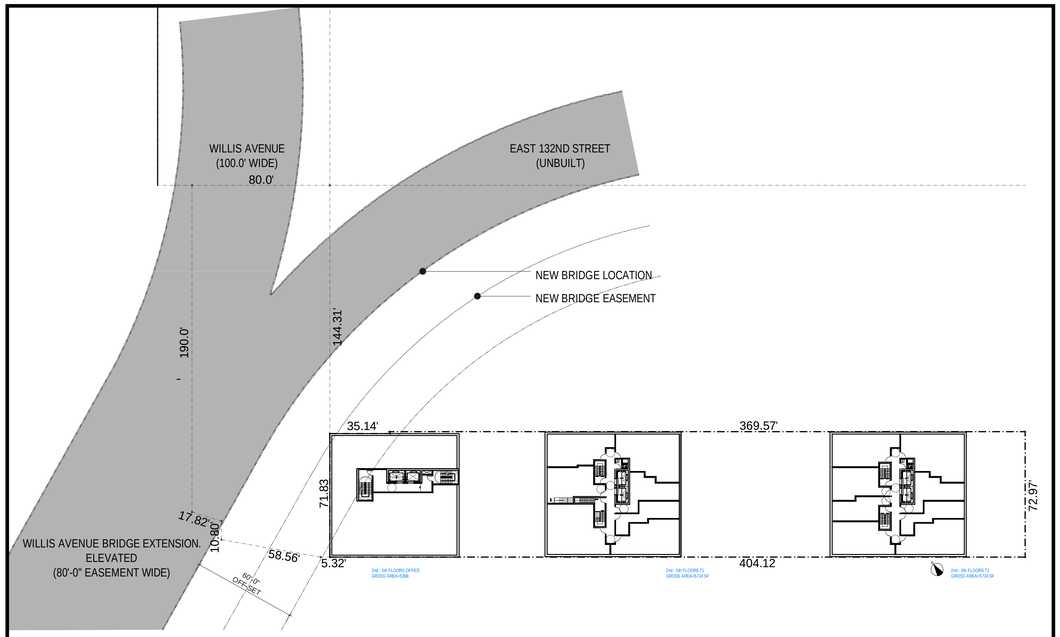
drawing title
SITE PLAN INFORMATION

dob no

scale: AS NOTED	project no.: 16-52
date: SEP. 2017	sheet no.: 2 OF 5
drawn: AS	drawing no.: ASK 002
checked: FM	



1 OVERALL FIRST FLOOR PLAN
AS SHOWN



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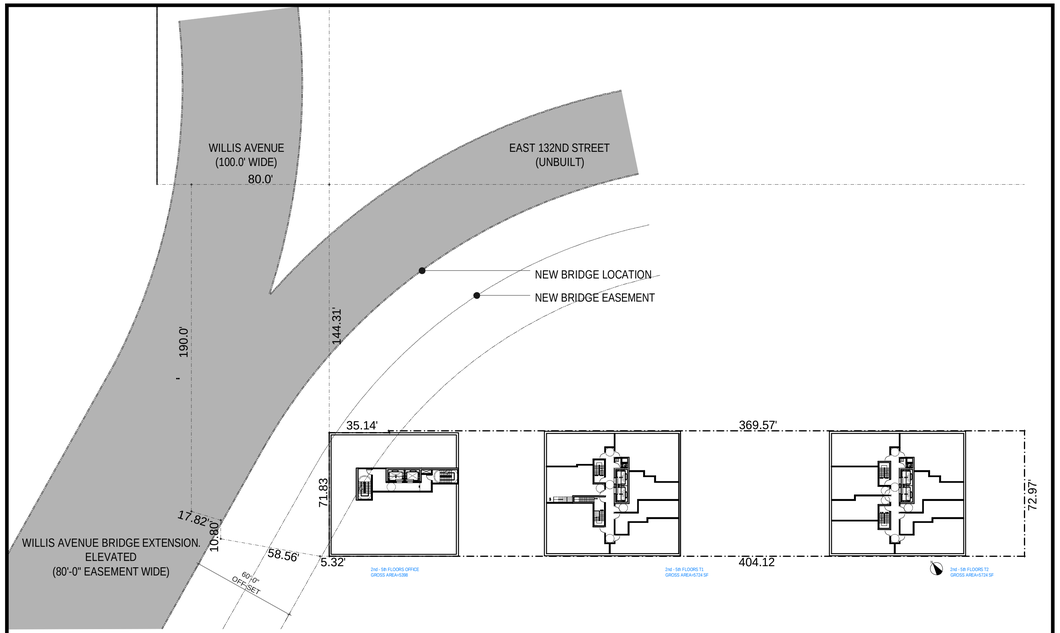

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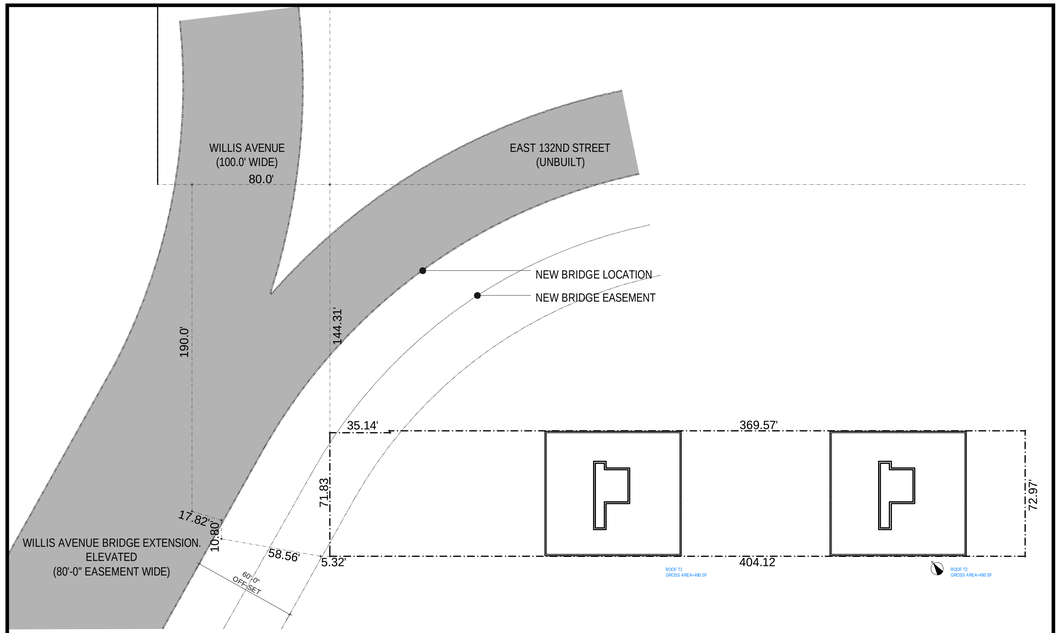
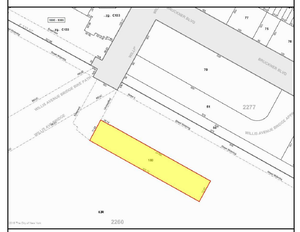


4 OVERALL ROOF PLAN
AS SHOWN

KEY PLAN



BLOCK: 2260 LOT: 180

IN PROGRESS DRAFT SET
REVIEW & COMMENTS ONLY

issue	description
1	XX.XX.XX ISSUED FOR BSA APPROVAL

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SEAL

project title

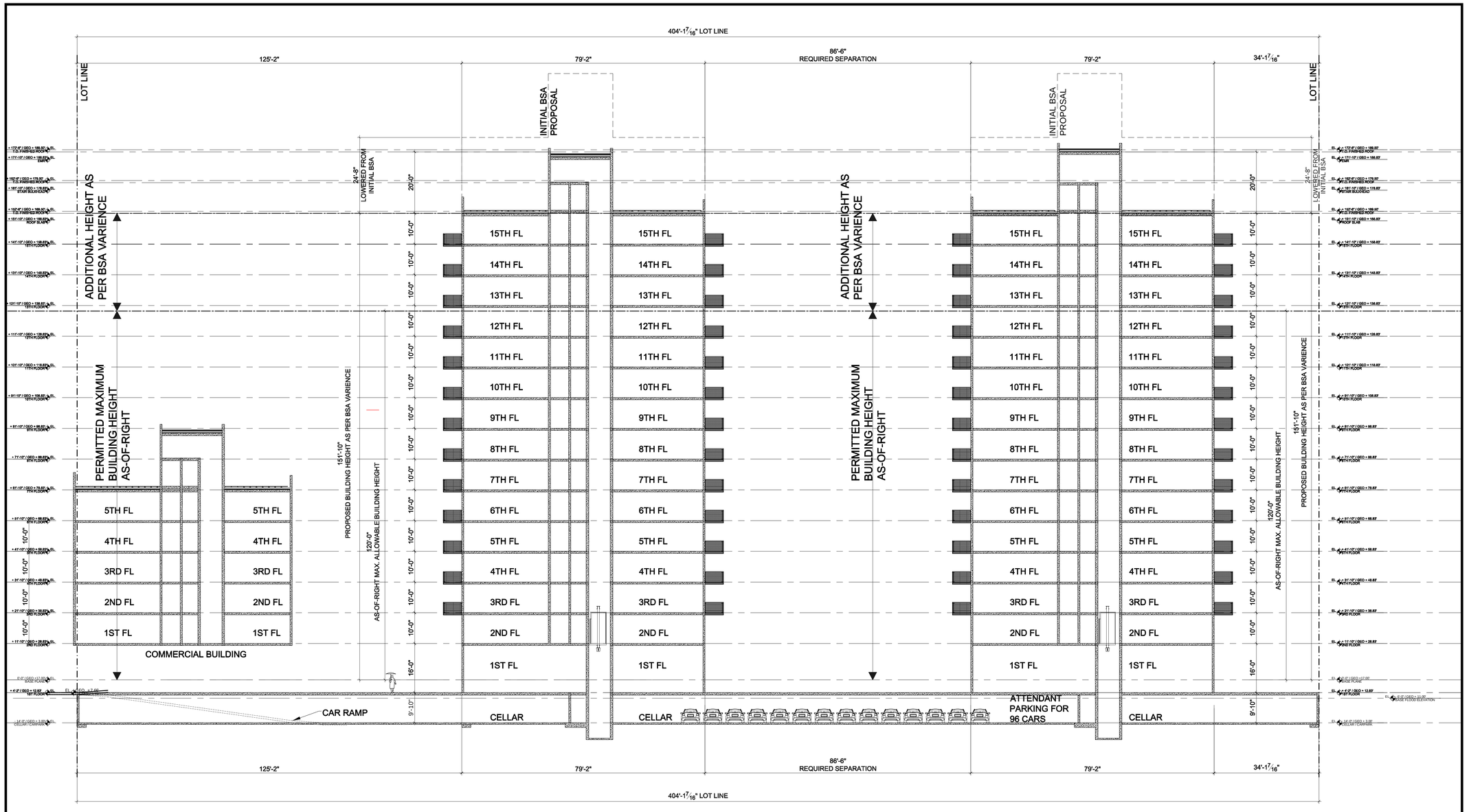
62 & 64 WILLIS AVENUE
MIXED USE DEVELOPMENT
BRONX, NEW YORK 10454

drawing title

OVERALL FLOOR PLANS

dob no

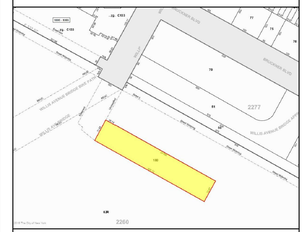
scale: AS NOTED	project no.: 16-52
date: SEP. 2017	sheet no.: 3 OF 5
drawn: AS	drawing no.: ASK 002
checked: FM	



1 AS OF RIGHT TOTAL LOT AREA DIAGRAM

1/16" = 1' 0"

KEY PLAN



BLOCK: 2260 LOT: 180

IN PROGRESS DRAFT SET REVIEW & COMMENTS ONLY

1	XX.XX.XX	ISSUED FOR BSA APPROVAL
REV. NO.	date	description

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CLIENT:

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SEAL

REGISTERED ARCHITECT FARIBA H. MAKOOI 034686 STATE OF NEW YORK

project title

62 & 64 WILLIS AVENUE

MIXED USE DEVELOPMENT

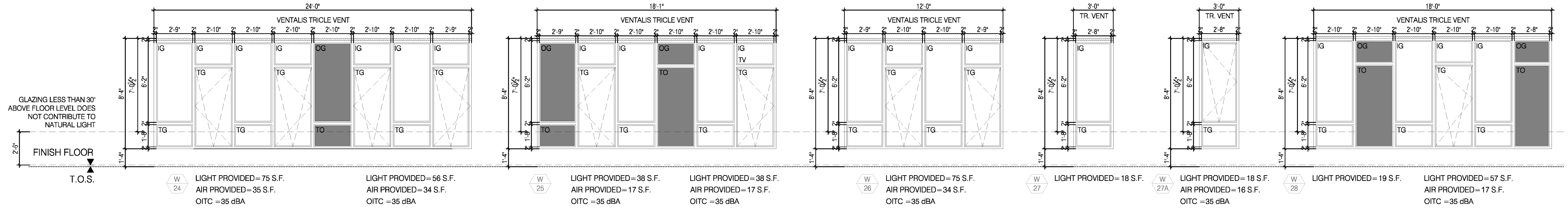
BRONX, NEW YORK 10454

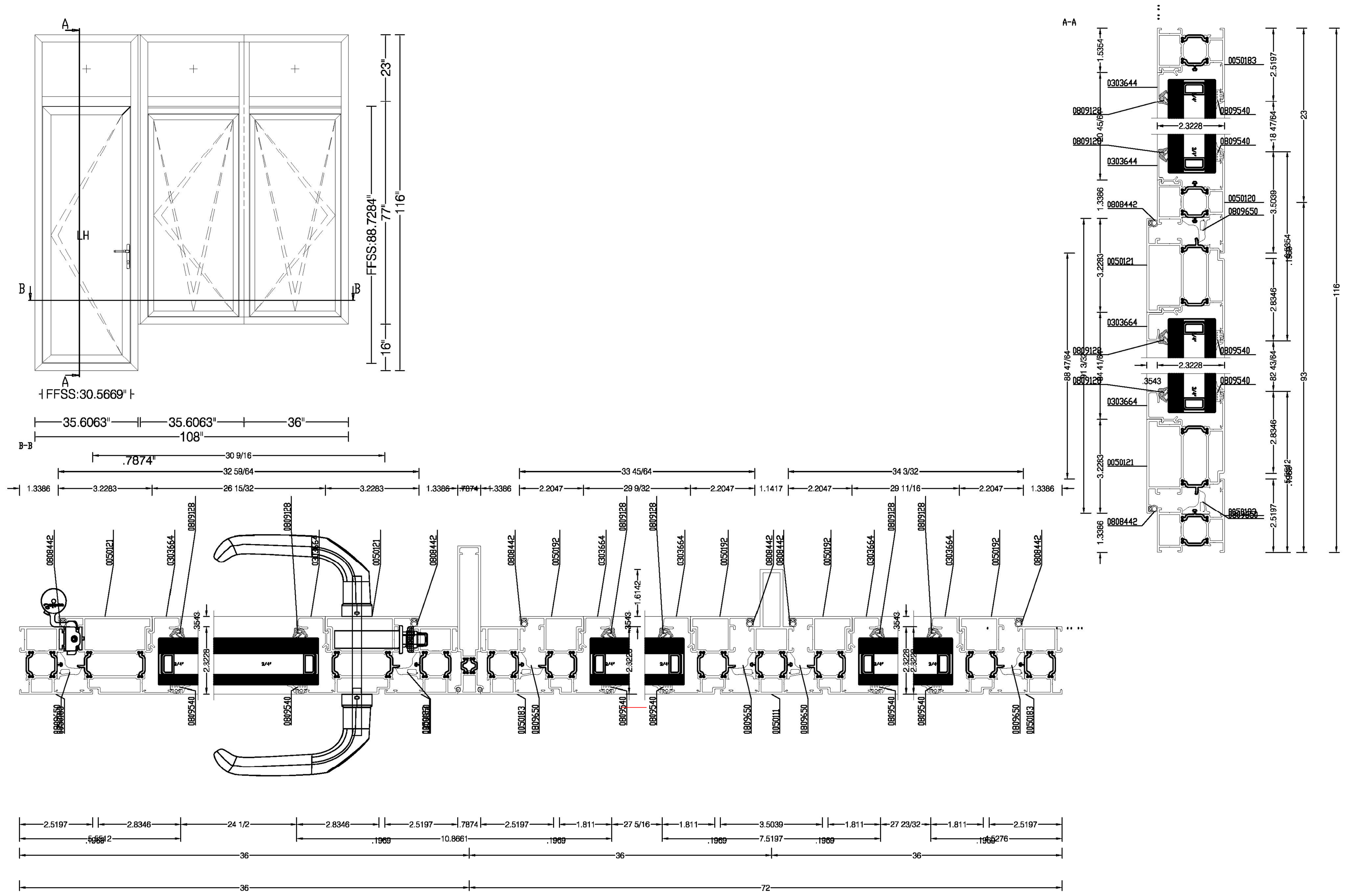
drawing title

HEIGHT DIAGRAM

dob no

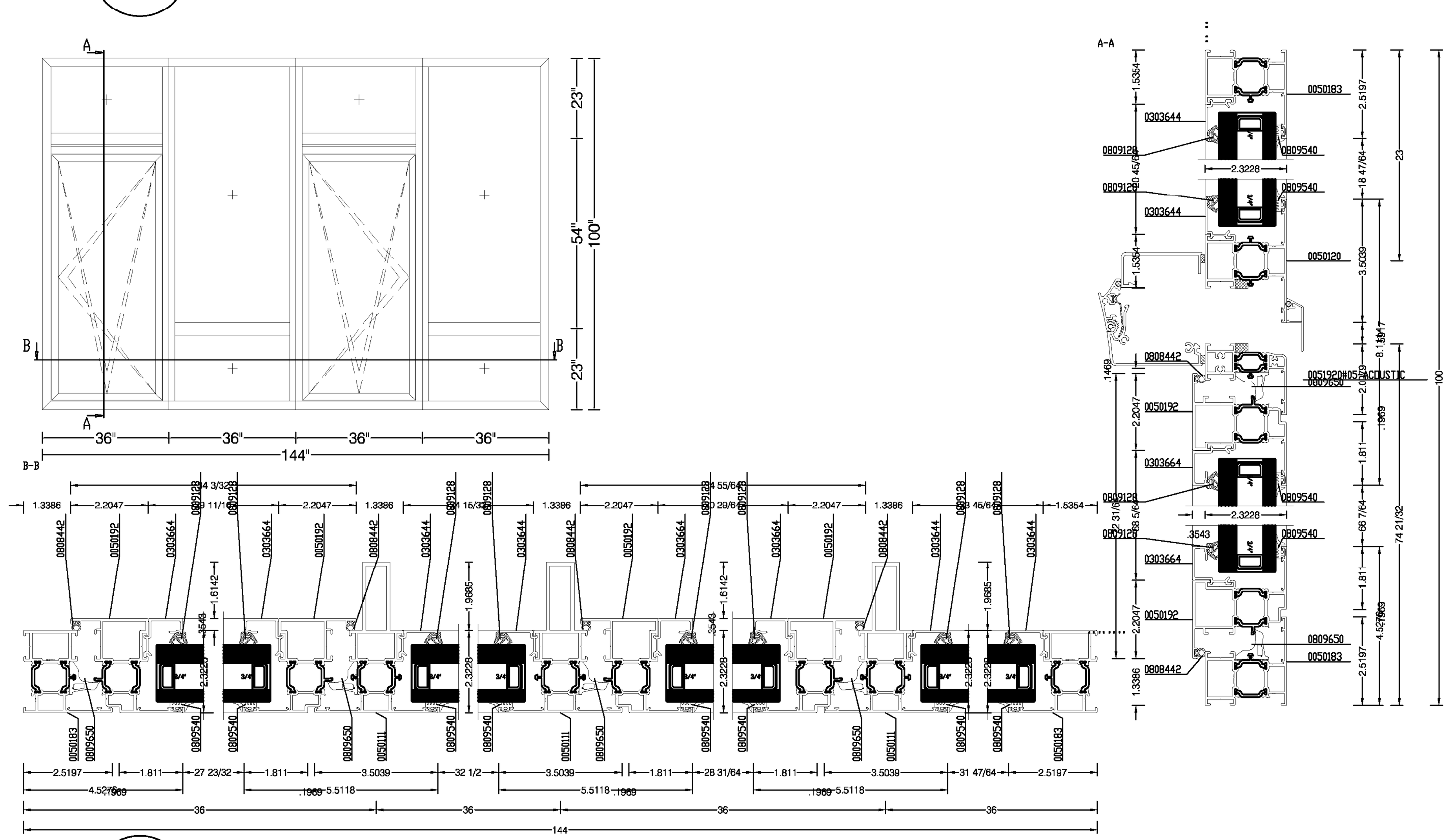
scale	AS NOTED	project no.	16-52
date	SEP. 2017	sheet no.	4 OF 5
drawn	AS	drawing no.	ASK 004
checked	FM		





2 TYPICAL TERRACE DOOR DETAIL
A-712 SCALE: NTS

3 TRICKLE VENT
A-712 SCALE: NTS

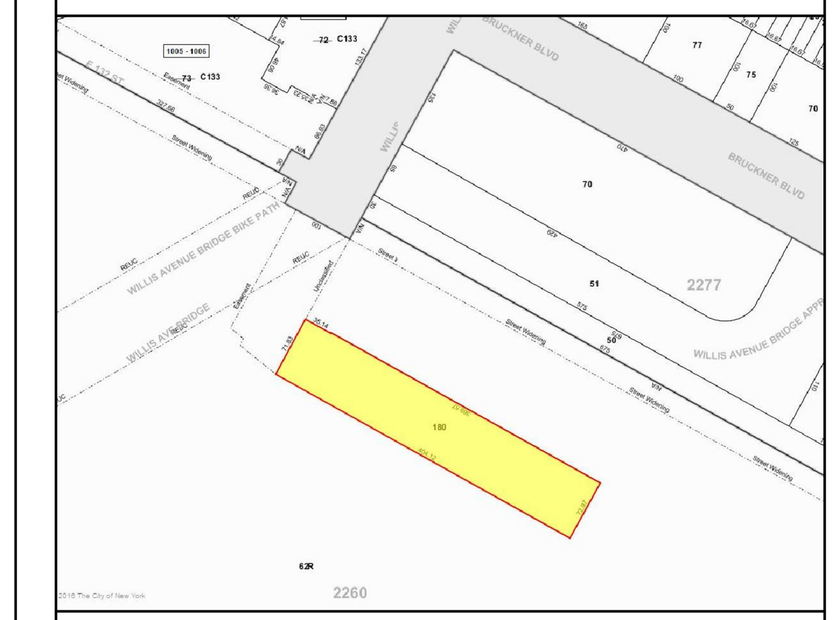


1 TYPICAL OPERABLE WINDOW DETAIL
A-712 SCALE: NTS

WINDOW & DOOR DATA

TAG	MANUFACTURER	MODEL	TYPE	GLAZING DESCRIPTION	OITC	TEST REPORT NO.	TRICKLE VENT
W1	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W2	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W2A	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W3	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W4	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W5	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W6	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W7	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W7A	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W8	REYNAERS	CS-68	WINDOW FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W9	REYNAERS	CS-68	WINDOW FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W10	REYNAERS	CS-68	WINDOW FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W11	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W12	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W12A	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W13	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W14	REYNAERS	CS-68	DOOR & WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W14A	REYNAERS	CS-68	DOOR & WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W15	REYNAERS	CS-68	DOOR INSULATED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W15A	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W16	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W17	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W17A	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W18	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W18A	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W19	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W20	REYNAERS	CS-68	DOOR & WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W21	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W21A	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W22	REYNAERS	CS-68	DOOR & WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W23	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W24	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W26	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS
W27	REYNAERS	CS-68	WINDOW TILT/TURN AND FIXED	1-3/4" IG (1/2" LAMINATED EXTERIOR , 7/8" AIR SPACE, 3/8" ANNEALED INTERIOR	35	D1170.01D	VENTALIS

KEY PLAN



BLOCK: 2260 LOT: 180

issue	rev	date	description
1		XX.XX.XX	ISSUED FOR BSA APPROVAL

ISSUES/REVISIONS

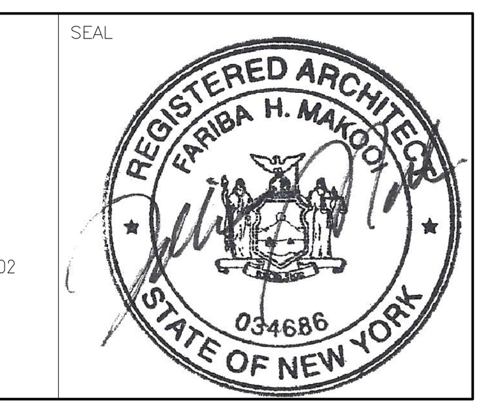
CLIENT:
CARNEGIE MANAGEMENT
545 BROADWAY, 4th FLOOR, BROOKLYN, NY, 11206
TEL: (718) 486-9700 FAX: (718) 486-9681

STRUCTURAL ENGINEER:

MECHANICAL ENGINEER:

FISCHER + MAKOOI
ARCHITECTS PLLC
RA, AIA
242 WEST 30TH STREET, SUITE 1102
NEW YORK, NY 10001
TEL: (212) 219-9733
FAX: (212) 219-8980
WEB SITE: WWW.KFARCHITECT.COM
E-MAIL:FARIBA@KFARCHITECT.COM

SEAL



project title
62 & 64 WILLIS AVENUE
MIXED USE DEVELOPMENT
BRONX, NEW YORK 10454

drawing title
TYPICAL WINDOW DETAILS

dob no

scale	project no.
AS NOTED	16–52
date: SEP. 2017	sheet no.: 5 OF 5
drawn: AS	drawing no.: ASK 003
checked: FM	

APPENDIX C

REMEDIAL INVESTIGATION REPORT–REVISED JULY 2020
(AVAILABLE ELECTRONICALLY)

APPENDIX D

GPR REPORT

February 9, 2018

Ms, Sandra Huber, LSRP
GZA
55 Lane Road, Suite 407
Fairfield, NJ 07004

Re: 180 East 132nd Street
Bronx, NY

Dear Ms. Huber:

On January 31, 2018 Goldstar Environmental Services, Inc. conducted a Ground Penetrating Radar (GPR) and metal detection survey at the above referenced site with the objective of identifying potential USTs, utilities and anomalies. Instruments used were a Fischer TW-6 metal detector and a Ramac X3M Radar system with a 250MHz antenna. The attached plan identifies individual anomalies and utilities. The only underground utility identified was a storm sewer system. There were also three large metallic anomalies.

The subject site is approximately 80 feet wide and 400 feet long. The lot is paved with asphalt. Trucks park on the two long sides with the center section used as a traffic lane. About 40% perimeter parking area was occupied at the time of the survey by cars, trucks and a vehicle maintenance area on the eastern end of the lot.

All the accessible portions of the property were first screened with GPR. The radar traces were highly variable over the site suggesting disturbed soil and urban fill. Radar also did not identify the sewer line connecting the storm drains on the western end of the lot. Both basins were filled with water preventing identification of inlets and outlets.

Three large metallic anomalies were identified with the Fischer TW-6. The anomaly at the entrance was 13 feet side by 25 feet long. This area, while now paved, was a low wet area with standing water in the most recent Google satellite image. The center anomaly is 66 feet long and about 6 wide. This corresponds to a road on the most recent google image. This may be a reinforced concrete ramp. The metallic anomaly on the east end of the property is irregular in shape and measures 24 feet by 40 feet at its' widest point. There was no consistent radar trace in this area to help identify the target.

If you have any questions regarding this matter, please do not hesitate to contact Robert Mourterot or myself at (908) 387-0333.

Sincerely yours,
GOLDSTAR ENVIRONMENTAL SERVICES, INC.

William Cutri-French
Remedial Services Manager

SOURCE: Google Earth 2018

N
W E
S

GOLDSTAR ENVIRONMENTAL SERVICES, INC

Anomaly and Utility Locations

180 East 132nd Street

Bronx, NY

Bronx NEW YORK

DR. BY: WCF	SCALE: NTS	
CKD. BY: WCF	DATE: 2/9/18	AOC LOCATION

APPENDIX E

GOVERNING DOCUMENTS

GZA

Proactive by Design

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

GZA GeoEnvironmental of NY
104 West 29th Street
10th Floor
New York, NY 10001
T: 212.594.8140
F: 212.279.8180
www.gza.com

New York State Department of Health
Generic Community Air Monitoring Plan
Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. A periodic monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well bailing/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

NEW YORK STATE OF OPPORTUNITY. Department of Environmental Conservation

Brownfield Cleanup Program

Citizen Participation Plan

for

180 East 132nd Street

September 2019

C203118
180 East 132nd Street
Bronx
Bronx, NY 10451

Contents

* * * * *

Note: The information presented in this Citizen Participation Plan was current as of the date of its approval by the New York State Department of Environmental Conservation. Portions of this Citizen Participation Plan may be revised during the site's investigation and cleanup process.

Applicant: **Carnegie Management Inc. ("Applicant")**
Site Name: **180 East 132nd Street ("Site")**
Site Address: **180 East 132nd Street**
Site County: **Bronx**
Site Number: **C203118**

1. What is New York's Brownfield Cleanup Program?

New York's Brownfield Cleanup Program (BCP) works with private developers to encourage the voluntary cleanup of contaminated properties known as "brownfields" so that they can be reused and developed. These uses include recreation, housing, and business.

A *brownfield* is any real property that is difficult to reuse or redevelop because of the presence or potential presence of contamination. A brownfield typically is a former industrial or commercial property where operations may have resulted in environmental contamination. A brownfield can pose environmental, legal, and financial burdens on a community. If a brownfield is not addressed, it can reduce property values in the area and affect economic development of nearby properties.

The BCP is administered by the New York State Department of Environmental Conservation (NYSDEC) which oversees Applicants who conduct brownfield site investigation and cleanup activities. An Applicant is a person who has requested to participate in the BCP and has been accepted by NYSDEC. The BCP contains investigation and cleanup requirements, ensuring that cleanups protect public health and the environment. When NYSDEC certifies that these requirements have been met, the property can be reused or redeveloped for the intended use.

For more information about the BCP, go online at:
http://www.dec.ny.gov/chemical/8450.html .

2. Citizen Participation Activities

Why NYSDEC Involves the Public and Why It Is Important

NYSDEC involves the public to improve the process of investigating and cleaning up contaminated sites, and to enable citizens to participate more fully in decisions that affect their health, environment, and social well-being. NYSDEC provides opportunities for citizen involvement and encourages early two-way communication with citizens before decision makers form or adopt final positions.

Involving citizens affected and interested in site investigation and cleanup programs is important for many reasons. These include:

- Promoting the development of timely, effective site investigation and cleanup programs that protect public health and the environment

- Improving public access to, and understanding of, issues and information related to a particular site and that site's investigation and cleanup process

- Providing citizens with early and continuing opportunities to participate in NYSDEC's site investigation and cleanup process

- Ensuring that NYSDEC makes site investigation and cleanup decisions that benefit from input that reflects the interests and perspectives found within the affected community

- Encouraging dialogue to promote the exchange of information among the affected/interested public, State agencies, and other interested parties that strengthens trust among the parties, increases understanding of site and community issues and concerns, and improves decision making.

This Citizen Participation (CP) Plan provides information about how NYSDEC will inform and involve the public during the investigation and cleanup of the site identified above. The public information and involvement program will be carried out with assistance, as appropriate, from the Applicant.

Project Contacts

Appendix A identifies NYSDEC project contact(s) to whom the public should address questions or request information about the site's investigation and cleanup program. The public's suggestions about this CP Plan and the CP program for the site are always welcome. Interested people are encouraged to share their ideas and suggestions with the project contacts at any time.

Locations of Reports and Information

The locations of the reports and information related to the site's investigation and cleanup program also are identified in Appendix A. These locations provide convenient access to important project documents for public review and comment. Some documents may be placed on the NYSDEC web site. If this occurs, NYSDEC will inform the public in fact sheets distributed about the site and by other means, as appropriate.

Site Contact List

Appendix B contains the site contact list. This list has been developed to keep the community informed about, and involved in, the site's investigation and cleanup process. The site contact list will be used periodically to distribute fact sheets that provide updates about the status of the project. These will include notifications of upcoming activities at the site (such as fieldwork), as well as availability of project documents and announcements about public comment periods.
The site contact list includes, at a minimum:

- Chief executive officer and planning board chairperson of each county, city, town and village in which the site is located;
- Residents, owners, and occupants of the site and properties adjacent to the site;
- The public water supplier which services the area in which the site is located;
- Any person who has requested to be placed on the site contact list;
- The administrator of any school or day care facility located on or near the site for purposes of posting and/or dissemination of information at the facility;
- Location(s) of reports and information.

The site contact list will be reviewed periodically and updated as appropriate. Individuals and organizations will be added to the site contact list upon request. Such requests should be submitted to the NYSDEC project contact(s) identified in Appendix A. Other additions to the site contact list may be made at the discretion of the NYSDEC project manager, in consultation with other NYSDEC staff as appropriate.

Note: The first site fact sheet (usually related to the draft Remedial Investigation Work Plan) is distributed both by paper mailing through the postal service and through DEC Delivers, its email listserv service. The fact sheet includes instructions for signing up with the appropriate county listserv to receive future notifications about the site. See http://www.dec.ny.gov/chemical/61092.html .

Subsequent fact sheets about the site will be distributed exclusively through the listserv, except for households without internet access that have indicated the need to continue to receive site information in paper form. Please advise the NYSDEC site project manager identified in Appendix A if that is the case. Paper mailings may continue during the investigation and cleanup process for some sites, based on public interest and need.

CP Activities

The table at the end of this section identifies the CP activities, at a minimum, that have been and will be conducted during the site's investigation and cleanup program. The

flowchart in Appendix D shows how these CP activities integrate with the site investigation and cleanup process. The public is informed about these CP activities through fact sheets and notices distributed at significant points during the program. Elements of the investigation and cleanup process that match up with the CP activities are explained briefly in Section 5.

- **Notices and fact sheets** help the interested and affected public to understand contamination issues related to a site, and the nature and progress of efforts to investigate and clean up a site.

- **Public forums, comment periods and contact with project managers** provide opportunities for the public to contribute information, opinions and perspectives that have potential to influence decisions about a site's investigation and cleanup.

The public is encouraged to contact project staff at any time during the site's investigation and cleanup process with questions, comments, or requests for information.

This CP Plan may be revised due to changes in major issues of public concern identified in Section 3 or in the nature and scope of investigation and cleanup activities. Modifications may include additions to the site contact list and changes in planned citizen participation activities.

Technical Assistance Grant

NYSDEC must determine if the site poses a significant threat to public health or the environment. This determination generally is made using information developed during the investigation of the site, as described in Section 5.

If the site is determined to be a significant threat, a qualifying community group may apply for a Technical Assistance Grant (TAG). The purpose of a TAG is to provide funds to the qualifying group to obtain independent technical assistance. This assistance helps the TAG recipient to interpret and understand existing environmental information about the nature and extent of contamination related to the site and the development/implementation of a remedy.

An eligible community group must certify that its membership represents the interests of the community affected by the site, and that its members' health, economic well-being or enjoyment of the environment may be affected by a release or threatened release of contamination at the site.

As of the date the declaration (page 2) was signed by the NYSDEC project manager, it has been determined that the site does not pose a significant threat.

To verify the significant threat status of the site, the interested public may contact the NYSDEC project manager identified in Appendix A.

For more information about TAGs, go online at
http://www.dec.ny.gov/regulations/2590.html

Note: The table identifying the citizen participation activities related to the site's investigation and cleanup program follows on the next page:

Citizen Participation Activities	Timing of CP Activity(ies)
Application Process:	
• Prepare site contact list • Establish document repository(ies)	At time of preparation of application to participate in the BCP.
• Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day public comment period • Publish above ENB content in local newspaper • Mail above ENB content to site contact list • Conduct 30-day public comment period	When NYSDEC determines that BCP application is complete. The 30-day public comment period begins on date of publication of notice in ENB. End date of public comment period is as stated in ENB notice. Therefore, ENB notice, newspaper notice, and notice to the site contact list should be provided to the public at the same time.
After Execution of Brownfield Site Cleanup Agreement (BCA):	
• Prepare Citizen Participation (CP) Plan	Before start of Remedial Investigation **Note:** Applicant must submit CP Plan to NYSDEC for review and approval within 20 days of the effective date of the BCA.
Before NYSDEC Approves Remedial Investigation (RI) Work Plan:	
• Distribute fact sheet to site contact list about proposed RI activities and announcing 30-day public comment period about draft RI Work Plan • Conduct 30-day public comment period	Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with application, public comment periods will be combined and public notice will include fact sheet. Thirty-day public comment period begins/ends as per dates identified in fact sheet.
After Applicant Completes Remedial Investigation:	
• Distribute fact sheet to site contact list that describes RI results	Before NYSDEC approves RI Report
Before NYSDEC Approves Remedial Work Plan (RWP):	
• Distribute fact sheet to site contact list about draft RWP and announcing 45-day public comment period • Public meeting by NYSDEC about proposed RWP (if requested by affected community or at discretion of NYSDEC project manager) • Conduct 45-day public comment period	Before NYSDEC approves RWP. Forty-five day public comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 45-day public comment period.
Before Applicant Starts Cleanup Action:	
• Distribute fact sheet to site contact list that describes upcoming cleanup action	Before the start of cleanup action.
After Applicant Completes Cleanup Action:	
• Distribute fact sheet to site contact list that announces that cleanup action has been completed and that NYSDEC is reviewing the Final Engineering Report • Distribute fact sheet to site contact list announcing NYSDEC approval of Final Engineering Report and issuance of Certificate of Completion (COC)	At the time the cleanup action has been completed. **Note:** The two fact sheets are combined when possible if there is not a delay in issuing the COC.

3. Major Issues of Public Concern

This section of the CP Plan identifies major issues of public concern that relate to the site. Additional major issues of public concern may be identified during the course of the site's investigation and cleanup process.

At this time, no major issues of public concern that relate to the Site have been identified. In the future, the site may be concerned with issues regarding noise, odor and truck-related traffic.

The site is not located in an Environmental Justice Area. Environmental justice is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Environmental justice efforts focus on improving the environment in communities, specifically minority and low-income communities, and addressing disproportionate adverse environmental impacts that may exist in those communities.

The site is located in an area with a large Hispanic-American population nearby. Therefore, all future fact sheets need to be translated into Spanish.

For additional information on the site, visit: https://statisticalatlas.com/tract/New-York/Bronx-County/001900/Race-and-Ethnicity

4. Site Information

Appendix C contains a map identifying the location of the site.

Site Description

The Site, 180 East 132nd Street, is located in an urban area in the Bronx, NY in the Bronx Community District 1 of Mott Haven and is identified as Block 2260 and Lot 180.The entrance to the site is at the end of Willis Avenue directly under the Willis Avenue Bridge. The site is approximately 370 feet southwest of Bruckner Boulevard. The site is bounded by vacant New York State Department of Transportation (NYSDOT) property and the Pulaski Park to the north, Amtrak and railroads to the south, vacant NYSDOT property to the east, and the Harlem River Terminal Station historical landmark to the west. The site consists of a paved asphalt parking lot with no buildings. The area of the site is 0.68 acres and it comprises the entire tax parcel of Block 2260 and Lot 180. See Appendix C for the Site Location Map. The site is currently zoned for manufacturing use and the surrounding parcels are currently used for a mixture of commercial establishments and residential housing**.** The site is currently leased to

Flatrate Moving Company and is used for vehicle storage. The Site is an E-designated property for hazmat, noise, and air.

History of Site Use, Investigation, and Cleanup

Around 1888, the site was developed with a building used primarily as the N.Y. New Haven & Hartford R.R. Harlem River Branch Passenger Station and the building contained offices and a basement. The immediate surrounding area had been used as a railyard. By 2006, this building was demolished, and the site was filled in and paved with asphalt. The type of contaminants encountered during the most recent site investigation are indicative of contaminated fill.

An environmental site assessment including an inspection and review of historical documents was conducted to identify Areas of Concern (AOCs) and physical obstructions (i.e. structures, buildings, etc.) in November 2017. The assessment of the Site identified the following AOCs:

- A NYC E-Designation pertaining to potential hazardous materials contamination and noise attenuation.
- A drum storage area exhibiting significant staining.

A remedial investigation (RI) was conducted in March 2018 and included the following activities:

- Installed 15 soil borings across the entire project Site, and collected 31 soil samples for chemical analysis from the soil borings to evaluate soil quality;
- Installed five groundwater temporary wells throughout the Site to establish groundwater flow and collected groundwater samples from each well for chemical analysis to evaluate groundwater quality; and
- Installed eight soil vapor probes around Site perimeter and collected samples for chemical analysis from each vapor probe.

The RI identified polycyclic aromatic hydrocarbons (PAHs), pesticides, metals, and Volatile Organic Compounds (VOCs) in soil and PAHs and metals in groundwater. Soil vapor contained elevated concentrations of chlorinated solvents in one sample.

5. Investigation and Cleanup Process

Application

The Applicant has applied for and been accepted into New York's Brownfield Cleanup Program as a Volunteer. This means that the Applicant was not responsible for the disposal or discharge of the contaminants or whose ownership or operation of the site

took place after the discharge or disposal of contaminants. The Volunteer must fully characterize the nature and extent of contamination onsite, and must conduct a "qualitative exposure assessment," a process that characterizes the actual or potential exposures of people, fish and wildlife to contaminants on the site and to contamination that has migrated from the site.

The Applicant in its Application proposes that the site will be used for unrestricted purposes.

To achieve this goal, the Applicant will conduct investigation activities at the site with oversight provided by NYSDEC. The Brownfield Cleanup Agreement executed by NYSDEC and the Applicant sets forth the responsibilities of each party in conducting these activities at the site.

Investigation

The Applicant has completed a full site investigation before it entered into the BCP. The Applicant has submitted an investigation report for the full site investigation. NYSDEC will determine if the investigation goals and requirements of the BCP have been met or if additional work is needed before a remedy can be selected.

The Applicant will conduct an investigation of the site officially called a "remedial investigation" (RI). This investigation will be performed with NYSDEC oversight. The Applicant must develop a remedial investigation workplan, which is subject to public comment.
The site investigation has several goals:
1) Define the nature and extent of contamination in soil, surface water, groundwater and any other parts of the environment that may be affected;
2) Identify the source(s) of the contamination;
3) Assess the impact of the contamination on public health and the environment; and
4) Provide information to support the development of a proposed remedy to address the contamination or the determination that cleanup is not necessary.

The Applicant submits a draft "Remedial Investigation Work Plan" to NYSDEC for review and approval. NYSDEC makes the draft plan available to the public review during a 30-day public comment period.

When the investigation is complete, the Applicant will prepare and submit a report that summarizes the results. This report also will recommend whether cleanup action is

needed to address site-related contamination. The investigation report is subject to review and approval by NYSDEC.
NYSDEC will use the information in the investigation report to determine if the site poses a significant threat to public health or the environment. If the site is a “significant threat,” it must be cleaned up using a remedy selected by NYSDEC from an analysis of alternatives prepared by the Applicant and approved by NYSDEC. If the site does not pose a significant threat, the Applicant may select the remedy from the approved analysis of alternatives.

Interim Remedial Measures

An Interim Remedial Measure (IRM) is an action that can be undertaken at a site when a source of contamination or exposure pathway can be effectively addressed before the site investigation and analysis of alternatives are completed. If an IRM is likely to represent all or a significant part of the final remedy, NYSDEC will require a 30-day public comment period.

Remedy Selection

When the investigation of the site has been determined to be complete, the project likely would proceed in one of two directions:

1. The Applicant may recommend in its investigation report that no action is necessary at the site. In this case, NYSDEC would make the investigation report available for public comment for 45 days. NYSDEC then would complete its review, make any necessary revisions, and, if appropriate, approve the investigation report. NYSDEC would then issue a “Certificate of Completion” or COC (described below) to the Applicant.

or

2. The Applicant may recommend in its investigation report that action needs to be taken to address site contamination. After NYSDEC approves the investigation report, the Applicant may then develop a cleanup plan, officially called a “Remedial Work Plan”. The Remedial Work Plan describes the Applicant’s proposed remedy for addressing contamination related to the site.

When the Applicant submits a draft Remedial Work Plan for approval, NYSDEC would announce the availability of the draft plan for public review during a 45-day public comment period.

Cleanup Action

NYSDEC will consider public comments, and revise the draft cleanup plan if necessary, before approving the proposed remedy. The New York State Department of Health (NYSDOH) must concur with the proposed remedy. After approval, the proposed remedy becomes the selected remedy. The selected remedy is formalized in the site Decision Document.

The Applicant may then design and perform the cleanup action to address the site contamination. NYSDEC and NYSDOH oversee the activities. When the Applicant completes cleanup activities, it will prepare a Final Engineering Report (FER) that certifies that cleanup requirements have been achieved or will be achieved within a specific time frame. NYSDEC will review the report to be certain that the cleanup is protective of public health and the environment for the intended use of the site.

Certificate of Completion

When NYSDEC is satisfied that cleanup requirements have been achieved or will be achieved for the site, it will approve the FER. NYSDEC then will issue a COC to the Applicant. The COC states that cleanup goals have been achieved and relieves the Applicant from future liability for site-related contamination, subject to certain conditions. The Applicant would be eligible to redevelop the site after it receives a COC.

Site Management

The purpose of site management is to ensure the safe reuse of the property if contamination will remain in place. Site management is the last phase of the site cleanup program. This phase begins when the COC is issued. Site management incorporates any institutional and engineering controls required to ensure that the remedy implemented for the site remains protective of public health and the environment. All significant activities are detailed in a Site Management Plan.

An *institutional control* is a non-physical restriction on use of the site, such as a deed restriction that would prevent or restrict certain uses of the property. An institutional control may be used when the cleanup action leaves some contamination that makes the site suitable for some, but not all uses.

An *engineering control* is a physical barrier or method to manage contamination. Examples include: caps, covers, barriers, fences, and treatment of water supplies.

Site management also may include the operation and maintenance of a component of the remedy, such as a system that pumps and treats groundwater. Site management continues until NYSDEC determines that it is no longer needed.

Appendix A -
Project Contacts and Locations of Reports and Information

Project Contacts

For information about the site's investigation and cleanup program, the public may contact any of the following project staff:

New York State Department of Environmental Conservation (NYSDEC):

Sadique Ahmed
Project Manager
NYSDEC
Division of Environmental Remediation
Remedial Bureau B, Section B
625 Broadway, 12th Floor
Albany, NY 12233-7016
Tel: 518-402-9656
Email: sadique.ahmed@dec.ny.gov

Thomas Pazone
Public Participation Specialist
NYSDEC Region 2
1 Hunter's Point Plaza
47-40 21st Street
Long Island City, NY 11101-5401
Tel: 718-482-4953
Email: Thomas.panzone@dec.ny.gov

New York State Department of Health (NYSDOH):

Stephen Lawrence, Public Health Specialist
Bureau of Environmental Exposure Investigation
NYS Department of Health
ESP - Corning Tower, Room 1787
Albany, NY 12237
Tel: (518) 402-7860
Email: beei@health.ny.gov

Locations of Reports and Information

The facilities identified below are being used to provide the public with convenient access to important project documents:

Mott Haven Library
321 East 140th Street
Bronx, NY, 10454
Attn: Jeanine Cross
Phone: (718) 579-4244
Hours: Monday-Saturday 10AM-7PM
Closed Sunday

Office of Bronx Community Board 1
3024 Third Avenue
Bronx, NY 10455
Attn: George Rodriguez
Phone: 718-585-7117
Hours: Monday-Friday 8AM –5PM (call for appointment)

Appendix B - Site Contact List

Office of the Mayor of New York City
Mayor Bill de Blasio
City Hall
New York, NY 10007
Phone: 311 or 212-NEW-YORK outside NYC

Chief Executive Officer and Bronx County/City Planning Board Chairmembers:
Bronx County
Ruben Diaz Jr.
Bronx Borough President
851 Grand Concourse, 3rd Floor
Bronx, New York 10451
718-590-3557 (Executive Office)

Marisa Lago
Commissioner, NYC Dept. of City Planning
120 Broadway, 31st Floor
New York, New York 10271
718-220-8500

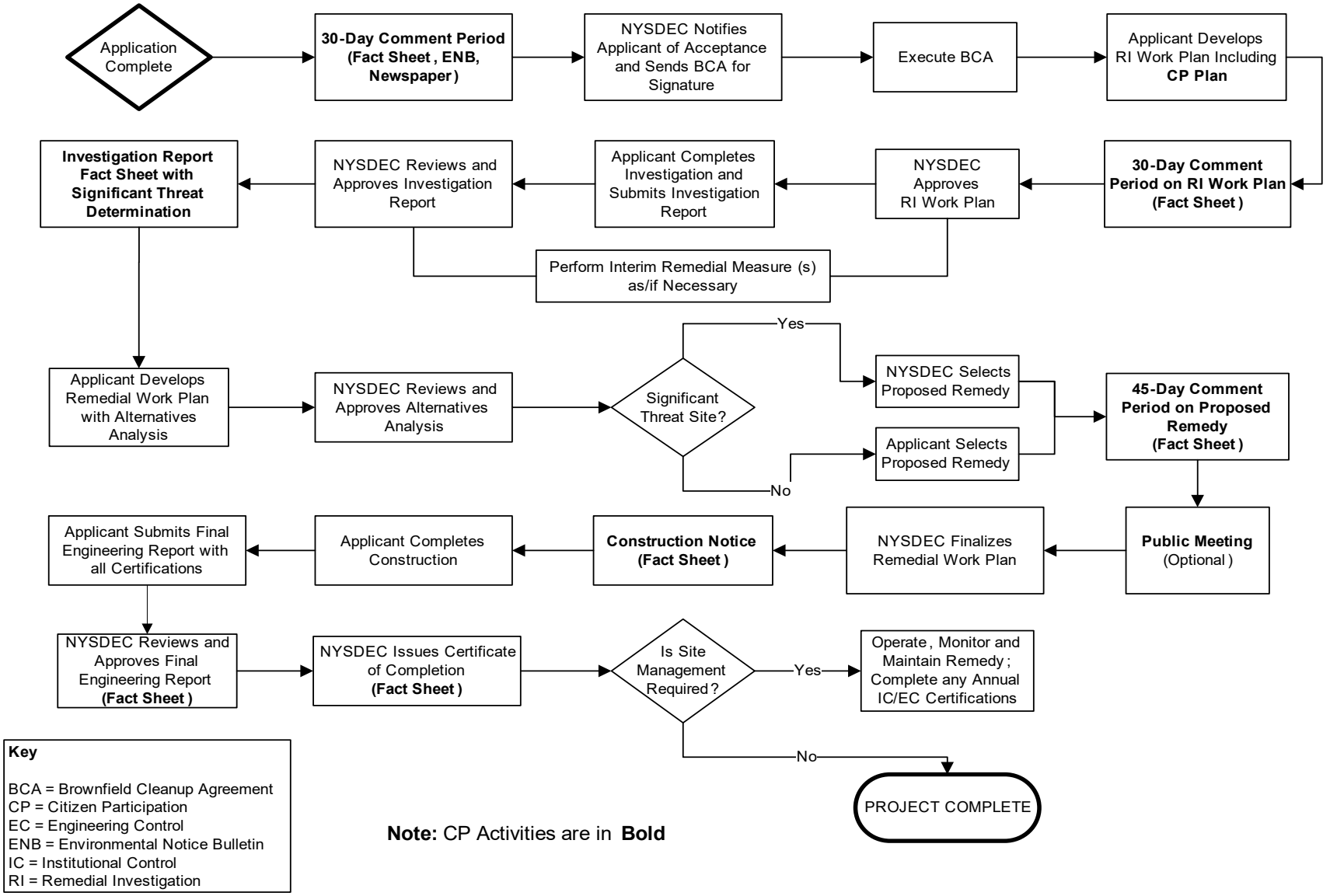
Kenneth J. Knuckles, Esq.
Vice Chairman – Bronx City Planning Commission
1775 Grand Concourse, Suite 503
Bronx, New York 10453
718-220-8500

Site Public Water Supplier
NYC Department of Environmental Protection

Residents, Owners and Occupants of Properties Adjacent to the Site:
See Attachment 1 – Expanded Site Contact List

Appendix C - Site Location Map

Appendix D– Brownfield Cleanup Program Process



Key

BCA = Brownfield Cleanup Agreement
CP = Citizen Participation
EC = Engineering Control
ENB = Environmental Notice Bulletin
IC = Institutional Control
RI = Remedial Investigation

Note: CP Activities are in **Bold**

Division of Environmental Remediation

Remedial Programs
Scoping Sheet for Major Issues of Public Concern

Instructions

This Scoping Sheet assesses major issues of public concern; impacts of the site and its remedial program on the community; community interest in the site; information the public needs; and information needed from the public.

The information generated helps to plan and conduct required citizen participation (CP) activities, and to choose and conduct additional CP activities, if appropriate. The scoping sheet can be revisited and updated as appropriate during the site's remedial process to more effectively implement the site's CP program.

Note: Use the information as an aid to prepare and update the Major Issues of Public Concern section of the site CP Plan.

General Instructions

- When to prepare: During preparation of the CP Plan for the site. It can be revisited and updated anytime during the site remedial process.
- Fill in site name and other information as appropriate.
- The Scoping Sheet may be prepared by DEC or a remedial party, but must be reviewed and approved by the DER site project manager or his/her designee.

Instructions for Numbered Parts

Consider the bulleted issues and questions below and any others that may be unique or appropriate to the site and the community to help complete the five Parts of this Scoping Sheet. Identify the issue stakeholders in Parts 1 through 3 and adjust the site's contact list accordingly.

Part 1. List Major Issues of Public Concern and Information the Community Wants.

- Is our health being impacted? (e.g. Are there problems with our drinking water or air? Are you going to test our water, yards, sumps, basements? Have health studies been done?)
- There are odors in the neighborhood. Do they come from the site and are they hazardous?
- Are there restrictions on what we may do (e.g. Can our children play outside? Can we garden? Must we avoid certain areas? Can we recreate (fish, hunt, hike, etc. on/around the site?)
- How and when were the site's contamination problems created?
- What contaminants are of concern and why? How will you look for contamination and find out where it is going? What is the schedule for doing that?
- The site is affecting our property values!
- How can we get more information (e.g. who are the project contacts?)
- How will we be kept informed and involved during the site remedial process?
- Who has been contacted in the community about site remedial activities?
- What has been done to this point? What happens next and when?

- The site is going to be cleaned up for restricted use. What does that mean? We don't want redevelopment on a "dirty" site.

Part 2. List Important Information Needed <u>From</u> the Community, if Applicable.

- Can the community supplement knowledge about past/current uses of the site?
- Does the community have knowledge that the site may be significantly impacting nearby people, properties, natural resources, etc.?
- Are activities currently taking place at the site or at nearby properties that may need to be restricted?
- Who may be interested or affected by the site that has not yet been identified?
- Are there unique community characteristics that could affect how information is exchanged?
- Does the community and/or individuals have any concerns they want monitored?
- Does the community have information about other sources in the area for the contamination?

Part 3. List Major Issues and Information That Need to be Communicated <u>to</u> the Community.

- Specific site investigation or remediation activities currently underway, or that will begin in the near future.
- The process and general schedule to investigate, remediate and, if applicable, redevelop the site.
- Current understanding about the site contamination and effects, if any, on public health and the environment.
- Site impacts on the community and any restrictions on the public's use of the site and/or nearby properties.
- Planned CP activities, their schedule, and how they relate to the site's remedial process.
- Ways for the community to obtain/provide information (document repositories, contacts, etc.).

Part 4. Community Characteristics

a. - e. Obtain information from local officials, property owners and residents, site reports, site visits, "windshield surveys," other staff, etc.

f. Has the affected community experienced other **significant** present or past environmental problems unrelated to this site? Such experiences could significantly affect public concerns and perspectives about the site; how the community will relate to project staff; the image and credibility of project staff within the community; and the ways in which project staff communicate with the community.

g. In its remedial programs, DER seeks to integrate, and be consistent with, environmental justice principles set forth in *DEC Commissioner Policy 29 on Environmental Justice* and *DER 23 – Citizen Participation Handbook for Remedial Programs*. Is the site and/or affected community wholly or partly in an Environmental Justice (EJ) Area? Use the Search feature on DEC's public web site for "environmental justice". DEC's EJ pages define an EJ area, and link to county maps to help determine if the site and/or community are in an EJ area.

h. Consider factors such as:

- Is English the primary language of the affected community? If not, provisions should be considered regarding public outreach activities such as fact sheets, meetings, door-to-door visits and other activities to ensure their effectiveness.
- The age demographics of the community. For example, is there a significant number of senior citizens in the community? It may be difficult for some to attend public meetings and use document repositories. This may suggest adopting more direct interaction with the community with activities such as door-to-door visits, additional fact sheets, visits to community and church centers, nursing homes, etc.
- How do people travel about the community? Would most people drive to a public meeting or document repository? Is there adequate public transportation?

Part 5. Affected/Interested Public.

Individuals and organizations who need or want information and input can change during the site's remedial process. This need is influenced by real, potential, or perceived impacts of the site or the remedial process. Some people may want information and input throughout the remedial process. Others may participate only during specific remedial stages, or may only be interested in particular issues.

It is important to revisit this question when reviewing this scoping sheet. Knowing who is interested in the site – and the issues that are important to them – will help to select and conduct appropriate outreach activities, and to identify their timing and the information to be exchanged.

Check all affected/interested parties that apply to the site. **Note: Adjust the site's contact list appropriately.** The following are some ways to identify affected/interested parties:

- Tax maps of adjacent property owners
- Attendees at public meetings
- Telephone discussions
- Letters and e-mails to DER, the remedial party, and other agencies
- Political jurisdictions and boundaries
- Media coverage
- Current/proposed uses of site and/or nearby properties (recreational, commercial, industrial)
- Discussions with community organizations: grass roots organizations, local environmental groups, environmental justice groups, churches, and neighborhood advisory groups

Division of Environmental Remediation

Remedial Programs
Scoping Sheet for Major Issues of Public Concern (see instructions)

Site Name: 180 East 132nd Street

Site Number: C203118

Site Address and County: 180 East 132nd Street, Bronx

Remedial Party(ies): Carnegie Management Inc.

Note: For Parts 1. – 3. the individuals, groups, organizations, businesses and units of government identified should be added to the site contact list as appropriate.

Part 1. List major issues of public concern and information the community wants. Identify individuals, groups, organizations, businesses and/or units of government related to the issue(s) and information needs. **Use this information as an aid to prepare or update the Major Issues of Public Concern section of the site Citizen Participation Plan.**
No major issues identified

How were these issues and/or information needs identified?
N/A

Part 2. List important information needed **from** the community, if applicable. Identify individuals, groups, organizations, businesses and/or units of government related to the information needed.
None at this time.

How were these information needs identified?
N/A

Part 3. List major issues and information that need to be communicated **to** the community. Identify individuals, groups, organizations, businesses and/or units of government related to the issue(s) and/or information.
N/A

How were these issues and/or information needs identified?
N/A

Part 4. Identify the following characteristics of the affected/interested community. This knowledge will help to identify and understand issues and information important to the community, and ways to effectively develop and implement the site citizen participation plan (mark all that apply):

a. Land use/zoning at and around site:
☒ **Residential** ☐ **Agricultural** ☐ **Recreational** ☐ **Commercial** ☐ **Industrial**

b. Residential type around site:
☒ **Urban** ☐ **Suburban** ☐ **Rural**

c. Population density around site:
☒ **High** ☐ **Medium** ☐ **Low**

d. Water supply of nearby residences:
☒ **Public** ☐ **Private Wells** ☐ **Mixed**

e. Is part or all of the water supply of the affected/interested community currently impacted by the site?
☐ **Yes** ☒ **No**

Provide details if appropriate:
N/A

f. Other environmental issues significantly impacted/impacting the affected community?
☐ **Yes** ☒ **No**

Provide details if appropriate:
N/A

g. Is the site and/or the affected/interested community wholly or partly in an Environmental Justice Area?
☐ **Yes** ☒ **No**

h. Special considerations:
☒ **Language** ☐ **Age** ☐ **Transportation** ☐ **Other**

Explain any marked categories in **h:**
The site is located in an area with a Large Hispanic-American population nearby. Therefore, all future fact sheets will be translated into Spanish.

Part 5. The site contact list must include, at a minimum, the individuals, groups, and organizations identified in Part 2. of the Citizen Participation Plan under 'Site Contact List'. Are *other* individuals, groups, organizations, and units of government affected by, or interested in, the site, or its remedial program? (Mark and identify all that apply, then adjust the site contact list as appropriate.)

☐ **Non-Adjacent Residents/Property Owners:** Click here to enter text.

☒ **Local Officials:** Click here to enter text.

☒ **Media:** Click here to enter text.

☐ **Business/Commercial Interests:** Click here to enter text.

☐ **Labor Group(s)/Employees:** Click here to enter text.

☐ **Indian Nation:** Click here to enter text.

☒ **Citizens/Community Group(s):** Click here to enter text.

☐ **Environmental Justice Group(s):** Click here to enter text.

☐ **Environmental Group(s):** Click here to enter text.

☒ **Civic Group(s):** Click here to enter text.

☐ **Recreational Group(s):** Click here to enter text.

☐ **Other(s):** Click here to enter text.

Prepared/Updated By: Lindsay Nunes **Date:** 9/10/19

Reviewed/Approved By: David Winslow **Date:** 9/10/19

ATTACHMENT 1

Expanded Site Contact List

Expanded Site Contact List

	A	B	C	D	E	F	G	H	I	J
1										
2	Site Contact List									
3	Site #: C203118									
4	Site Name: 180 East 132nd Street Site			List Last Updated: 9-6-19						
5		Name, Title	Address 1	Address 2	Address 3	Street Address	City	State	Zip	Site Name (County)
6	**Local Government Officials**	Hon. Bill de Blasio	NYC Mayor			City Hall	New York	NY	10007	180 East 132nd Street Site (Bronx)
7		Hon. Scott Stringer	NYC Comptroller			1 Centre Street	New York	NY	10007	180 East 132nd Street Site (Bronx)
8		Hon. Juumane Williams	Public Advocate			1 Centre Street	New York	NY	10007	180 East 132nd Street Site (Bronx)
9		Marisa Lago	Commissioner, NYC Dept. of City Planning			120 Broadway, 31st Floor	New York	NY	10271	180 East 132nd Street Site (Bronx)
10	**Public Water Supplier**	Vincent Sapienza	Commissioner, NYC Dept. of Environmental Protection			59-17 Junction Boulevard	Flushing	NY	11373	180 East 132nd Street Site (Bronx)
11		Mark McIntyre, Director	NYC Office of Environmental Remediation			100 Gold Street - 2nd Floor	New York	NY	10038	180 East 132nd Street Site (Bronx)
12		Julie Stein	Office of Environmental Assessment & Planning	NYC Dept. of Environmental Protection		96-05 Horace Harding Expressway	Flushing	NY	11373	180 East 132nd Street Site (Bronx)
13		Hon. Ruben Diaz Jr.	Bronx Borough President			851 Grand Concourse, Suite 301	Bronx	NY	10451	180 East 132nd Street Site (Bronx)
14		Sadique Ahmed	NYSDEC Project Manager			47-40 21st Street	Long Island City	NY	11101	180 East 132nd Street Site (Bronx)
15		Thomas V. Panzone	NYSDEC Public Participation Specialist			47-40 21st Street	Long Island City	NY	11101	180 East 132nd Street Site (Bronx)
16		Larry Ennist	NYSDEC			625 Broadway	Albany	NY	12233	180 East 132nd Street Site (Bronx)
17		TBD	NYSDOH Public Health Specialist		Empire State Plaza	Corning Tower, Room 1787	Albany	NY	12237	180 East 132nd Street Site (Bronx)
18	**Local Elected Officials**	Hon Charles Schumer	U.S. Senator			780 Third Avenue, Suite 2301	New York	NY	10017	180 East 132nd Street Site (Bronx)
19		Hon. Kirsten Gillibrand	U.S. Senator			780 Third Avenue, Suite 2601	New York	NY	10017	180 East 132nd Street Site (Bronx)
20		Hon. Jose E. Serrano	U.S. House of Representatives			1231 Lafayette Avenue, 4th Floor	Bronx	NY	10474	180 East 132nd Street Site (Bronx)
21		Hon. Diane Ayala	NYC Councilmember			105 E. 116th Street	Bronx	NY	10029	180 East 132nd Street Site (Bronx)
22		Hon. Jose M. Serrano	NYS Senator			1916 Park Avenue, Suite 202	New York	NY	10037	180 East 132nd Street Site (Bronx)
23		Hon. Carmen E. Arroyo	NYS Assemblymember			384 East 149 Street, Suite 301	Bronx	NY	10455	180 East 132nd Street Site (Bronx)
24	**Community Board**	Cedric Loftin - District Manager	Bronx Community Board 1			3024 Third Avenue	Bronx	NY	10455	180 East 132nd Street Site (Bronx)
25		George Rodriguez - Chairman	Bronx Community Board 1			3024 Third Avenue	Bronx	NY	10455	180 East 132nd Street Site (Bronx)
26		Environmental Committee Chairman	Bronx Community Board 1			3024 Third Avenue	Bronx	NY	10455	180 East 132nd Street Site (Bronx)
27	**County Clerk**	Luis M. Diaz	Bronx County Clerk			851 Grand Concourse	Bronx	NY	10451	180 East 132nd Street Site (Bronx)
28	**Consolidated Edison**	Eric Soto - Director	Consolidated Edison Corporate Affairs			511 Theodore Fremd Avenue	Rye	NY	10580	180 East 132nd Street Site (Bronx)
29	**NYPD**	Gabriel de Jesus - President	40th Police Precinct Council			257 Alexander Avenue	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
30	**FDNY**	Engine 83 Ladder 29	FDNY			618 EAST 138 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
31	**Local Media Outlets**	New York Daily News				4 New York Plaza	New York	NY	10004	180 East 132nd Street Site (Bronx)
32		New York Post				1211 Avenue of the Americas	New York	NY	10036	180 East 132nd Street Site (Bronx)
33		Bronx Times Reporter				900 East 132nd Street	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
34		Bronx News				135 Dreiser Loop	Bronx	NY	10475	180 East 132nd Street Site (Bronx)
35		Mott Haven Herald				editor@motthavenherald.com				180 East 132nd Street Site (Bronx)
36		Spectrum NY 1 News				75 Ninth Avenue	New York	NY	10011	180 East 132nd Street Site (Bronx)
37		Hoy Nueva York				1 MetroTech Center, 18th Floor	Brooklyn	NY	11201	180 East 132nd Street Site (Bronx)
38		El Diario La Prensa				1 MetroTech Center, 18th Floor	Brooklyn	NY	11201	180 East 132nd Street Site (Bronx)
39	**School and Daycare Facilities**	P.S. 154 Johnathan Hyatt	Attn: Principal			333 E 135th St #4301	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
40		P.S. 43 Jonas Bronck School	Attn: Principal			165 Brown Place	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
41		PAMELA C. TORRES DAY CARE CENTER, INC.	Attn: Executive Director			161 St. Ann's Ave	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
42		WINIFRED WHEELER DAY CARE CENTER	Attn: Executive Director			200 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
43	**Community, Civic, Religious and Other Environmental Organizations**									
44		Sustainable South Bronx				1360 Garrison Avenue	Bronx	NY	10474	180 East 132nd Street Site (Bronx)
45		Bronx Land Trust				148 West 37th Street, 13th Floor	New York	NY	10018	180 East 132nd Street Site (Bronx)
46										
47	**Adjacent Properties**	BIANCA USA REAL ESTAT				150 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
48		PARKS AND RECREATION				EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
49		F & M PROPERTIES, LLC				EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
50		40 BRUCKNER LLC				40 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
51		422 EAST 134TH STREET				422 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
52		405 RIDER AVENUE REAL				107 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
53		THE UNIVERSAL CHURCH				162 BROWN PLACE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
54		BRUCKNER BROOK GASOLI				119 BROOK AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
55		GREEN, JUANITA				438 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
56		PARKS AND RECREATION				450 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
57		PARKS AND RECREATION				452 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
58		COMRID VENTURES LLC				439 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
59		GAYAH S JAGDHARRY				429 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
60		SOBRO LLC				417 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
61		ZAKALUK, CAROL A				420 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
62		NYC HOUSING AUTHORITY				175 WILLIS AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
63		MPM 65 LLC				65 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
64		RESIDENT/BUSINESS OWNER				358 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
65		BRATES, ARTHUR				47 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
66		128 ALEXANDER AVE., L				128 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
67		LARACUENTE, JOSEPH A				132 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
68		ALEXANDER AVE LOFTS L				336 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
69		LINCOLN CORNERS,				112 LINCOLN AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
70		BRUCKNER TOWER LLC				23 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
71		DEL VALLE, RICARDO				574 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
72		605 EAST 132 STREET,L				605 EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
73		329 EAST 132ND STREET				329 EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
74		KOPCKE, KIRINI HELGA				418 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
75		82 WILLIS, LLC				180 EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
76		122 BRUCKNER PARTNERS				517 EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
77		LITTLE JOHN'S MOVINGI				120 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
78		405 RIDER AVENUE REAL				105 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
79		ELKERSON, TANYA				452 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
80		LUIS A. POLANCO				438 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
81		HAYNES, DAVID				424 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
82		514 EAST 134TH STREET				514 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
83		516 EAST 134TH ST REA				121 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
84		NAVON INC.				444 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
85		PARKS AND RECREATION				463 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
86		JODA 135 LLC				435 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
87		JAGDHARRY GAYAH S				427 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
88		JAGDHARRY GAYAH S				431 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
89		BRX GROUND 1 LLC				423 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
90		GOLD, SKYE R				424 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
91		MARKLAND 134 LLC				352 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
92		356 E 134TH STREET LL				356 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
93		CREATIVE LIFESTYLES				67 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
94		REDDY, PIDINTLA				580 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)

Expanded Site Contact List

	A	B	C	D	E	F	G	H	I	J
1										
2	Site Contact List									
3	Site #: C203118									
4	Site Name: 180 East 132nd Street Site			List Last Updated: 9-6-19						
5		Name, Title	Address 1	Address 2	Address 3	Street Address	City	State	Zip	Site Name (County)
95		O'BRIEN SANITATION CO				161 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
96		STEVEN SCHWARTZ				132 ST ANNS AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
97		MERCEDES C GOODSELL				420 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
98		138 BRUCKNER BLVD. AS				ST ANNS AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
99		ALFAOMEGA PROPERTIES				550 EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
100		SP HHF SUB B LLC				112 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
101		TRASORAS, DAVID				442 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
102		ALVARADO, MIGUEL				436 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
103		MARTINEZ, AGUSTIN				432 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
104		ELLIOT, ERIKA				426 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
105		BRONX LUXURY INVESTOR				462 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
106		MOLINA, JOSE M				466 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
107		THE UNIVERSAL CHURCH				168 BROWN PLACE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
108		BERNARD, STEPHEN L.				115 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
109		500 EAST 134TH OWNERS				500 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
110		514 EAST 134TH ST.,RL				510 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
111		QURESHI, MOHAMMAD SAL				428 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
112		164 WILLIS AVE. RLTY				164 WILLIS AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
113		KATZ, JONATHAN A				432 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
114		MPM 63 LLC				63 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
115		51 BRUCKNER LLC				51 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
116		NYC PARTNERSHIP HOUSI				133 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
117		NYC PARTNERSHIP HOUSI				135 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
118		20 BRUCKNER, LLC				139 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
119		ALEXANDER AVENUE ASSO				134 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
120		PEDRO RIVERA				304 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
121		NEXT GEN HOLDINGS LLC				126 ST ANNS AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
122		JOSE VARGAS				589 EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
123		JESCAN REALTY CORP				91 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
124		SOUTH BRONX PROPERTIE				412 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
125		BARON OUEDRAOGO, SIVA				428 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
126		122 BRUCKNER PARTNERS				519 EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
127		102 BRUCKNER BOULEVAR				102 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
128		EION MICHAEL PROPERTI				469 EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
129		127 BRUCKNER BOULEVAR				127 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
130		SCHWARTZ FAMILY LIMIT				530 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
131		MOTT-HAVEN FRNTR CO/E				135 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
132		SGS REALTY ASSOCIATES				129 ST ANNS AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
133		RELYEA FRENCH LTD				141 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
134		544 E 134TH STREET RE				544 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
135		346 ASSOCIATES,				346 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
136		T AND V HOLDINGS INC				370 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
137		20 BRUCKNER, LLC				141 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
138		20 BRUCKNER, LLC				308 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
139		27 BRUCKNER BLVD.				BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
140		REGAN, PATRICK				33 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
141		E. 139TH ST. CLUSTER				410 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
142		JOSE A RODRIGUEZ				416 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
143		97 BRUCKNER REALTY LL				97 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
144		MUNOZ JUAN G				456 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
145		NYC DOT				428 WILLIS AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
146		ARW REALTY LLC				BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
147		SOUTH BRONX PROPERTIE				454 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
148		SENDA DE BENDICION MI				440 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
149		JUANITA SOTO				458 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
150		STEINERT, JAMISON				460 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
151		JODA 135 LLC				433 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
152		CASTILLO, ALEXANDER				416 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
153		ZAKALUK CAROL				422 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
154		WILLIAMS CLARENCE				430 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
155		NYC HOUSING AUTHORITY				357 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
156		YAHOO OUTDOOR INC.				342 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
157		MARKLAND 134 LLC				350 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
158		MPM 67, LLC				69 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
159		BRATES, EVA				43 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
160		FM PROPERTIES, LLC				290 EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
161		O'BRIEN SANITATION,IN				EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
162		O'BRIEN SANITATION CO				159 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
163		MARTINO, SAMUEL				155 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
164		BRUCKNER BOULEVARD AS				600 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
165		70 BRUCKNER HOUSING D				70 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
166		FRANCHISE REALTY INTE				85 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
167		JESCAN REALTY CORP				408 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
168		122 BRUCKNER PARTNERS				122 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
169		NYC DOT				80 WILLIS AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
170		PARKS AND RECREATION				WILLIS AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
171		LAMBERT, DANELL				450 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
172		TLB BRONX LLC				446 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
173		DCAS/DEPARTMENT OF ED				165 BROWN PLACE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
174		NEW YORK FOUNDLING CH				170 BROWN PLACE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
175		GARCIA, PEDRO				446 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
176		PARKS AND RECREATION				464 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
177		URBAN RENAISSANCE COL				437 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
178		HOUSING PRESERVATION				425 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
179		BELLO, HERVE D				412 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
180		LOBDELL, PAMELA				414 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
181		CHLOTHAR REALTY, LLC				418 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
182		MACK REALTY DEVELOPME				348 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
183		MPM 61 LLC				61 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)

Expanded Site Contact List

	A	B	C	D	E	F	G	H	I	J
1										
2	Site Contact List									
3	Site #: C203118									
4	Site Name: 180 East 132nd Street Site			List Last Updated: 9-6-19						
5		Name, Title	Address 1	Address 2	Address 3	Street Address	City	State	Zip	Site Name (County)
184		27 BRUCKNER BLVD.				27 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
185		O BRIEN SANITATION CO				EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
186		O'BRIEN SANITATION,IN				586 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
187		PIDINTLAM REDDY				578 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
188		CUEBAS, JOHN				576 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
189		151 REALTY LLC				124 ST ANNS AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
190		TRIBORO INDUSTRIAL RE				600 EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
191		DEPT OF ENVIRONMENTAL				EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
192		BRUCKNER BY THE BRIDG				85 WILLIS AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
193		95 BRUCKNER REALTY,				95 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
194		114 BRUCKNER,				114 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
195		444 E 134TH REALTY LL				444 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
196		SQUIRES, JONATHAN				430 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
197		MOTT-HAVEN FRNTR CO/E				137 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
198		ANJOST CORP				138 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
199		SPERLING, DANIEL				440 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
200		537 WEST 151ST CORP.				448 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
201		SOE, THIKE M				442 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
202		FITZPATRICK, CATHERIN				426 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
203		MOTT HAVEN ESTATES LL				419 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
204		COLTER, TERRANCE				411 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
205		DCAS/DEPARTMENT OF ED				333 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
206		RYAN LEE PROPERTIES,				344 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
207		MARKLAND 134 LLC				354 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
208		VASQUEZ, HECTOR				57 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
209		134 STREET HOLDING CO				59 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
210		RESIDENT/BUSINESS OWNER				55 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
211		BRUCKNER LOFTS LLC				39 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
212		BRATES, ADAM				45 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
213		DELGADO RAFAEL				130 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
214		GERTRUDE JOSEPH				340 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
215		PEDRO RIVERA				306 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
216		26 BRUCKNER LLC				26 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
217		154 BRUCKNER BLVD LLC				154 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
218		414 EAST 134TH STREET				414 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
219		24 INDIAN HEAD HOLDIN				126 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
220		ALVARADO, MIGUEL				434 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
221		DAVID TRASORAS				464 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
222		THE UNIVERSAL CHURCH				166 BROWN PLACE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
223		S.G.S. REALTY ASSOCIA				534 EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
224		CHERRY, JEROME				421 EAST 135 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
225		786 WILLIS AVE, LLC				410 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
226		GEORGE RICHARD EVANS				434 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
227		CONTACT HOLDINGS CORP				436 EAST 136 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
228		BRUCKNER DEVELOPMENT				EAST 134 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
229		GARCIA, IDA				49 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
230		BADILLO, OSCAR				53 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
231		BRUK EQUITIES LLC				41 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
232		126 ALEXANDER AVENUE				126 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
233		JEBRAHAN CORP				129 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
234		ABJ 137 LLC				137 ALEXANDER AVENUE	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
235		36 BRUCKNER ASSOCIATE				36 BRUCKNER BOULEVARD	Bronx	NY	10454	180 East 132nd Street Site (Bronx)
236		NYS DOT				EAST 132 STREET	Bronx	NY	10454	180 East 132nd Street Site (Bronx)

QUALITY ASSURANCE PROJECT PLAN

1.0 PROJECT OVERVIEW

In accordance with the New York State Department of Environmental Conservation (NYSDEC) DER-10 Guidance, a draft Quality Assurance Project Plan (QAPP) for the 180 East 132nd Street, Bronx, NY Site has been created (BCP No. C203118). A Site location map is included as **Figure 1**.

1.1. Project Scope

The soil exceedances encountered at the Site indicate metals and polycyclic aromatic hydrocarbon (PAH) exceedances of the NYSDEC Part 375 UUSCO (Unrestricted Use Soil Cleanup Objective [SCO]) and RRSCO (Restricted Residential SCO). Various additional organochlorine pesticides, SVOCs, volatile organic compounds (VOCs), and total metals exceeded only the NYS Unrestricted Use Soil Cleanup Objectives. There were no exceedances of PCBs. PAHs were not detected in soil above the applicable standards in 2020 deeper than 2 ft below ground surface (bgs). Metals were detected above the RRSCO standards to 14.5 ft bgs. The various additional organochlorine pesticides, SVOCs, and VOCs were not detected below 10 ft bgs. The extent of soil impacts has been delineated through the RI sampling activities. The remedial action for this Site includes excavation of contaminated soil and installation of concrete building slabs to maintain soil cover.

1.2. Project Goals

In order to protect human receptors from potential exposure to contaminants in soil at the Site, this remedial strategy will remove, to the extent feasible, the SVOCs, VOCs, pesticides and metals that exist below the Site and mitigate exposure pathways for any remaining contaminants. Specifically, the remedial action will:

- Control human contact (dermal and ingestion) with contaminated soil via excavation of 24,449 square feet (sqft) to 13 ft bgs and cover with a concrete slab cover.

2.0 PROJECT ORGANIZATION

Project Manager: Sandra Huber

Phone: 973-774-3304

Mobile: 201-213-1045

Quality Assurance Officer: Lindsay Nunes

Phone: 973-774-3331

Mobile: 201-396-9947

*Resumes of all personnel available upon request.

3.0 SAMPLE PLAN

GZA will collect post-excavation bottom soil samples to evaluate the effectiveness of the excavation of contaminated soil prior to building slab installation. Samples will be collected at a frequency of 1 per 900 sqft. Please note that PAHs and metals are considered to be associated with Historic Fill Material and are relatively immobile; if these remain after excavation, they will be addressed through engineering controls to eliminate exposure scenarios.

Table 1: Quality Assurance/Quality Control Analytical Summary

Soil	Methods	Hold Time	Sample Container	Number of Samples[1]
PCBs	8082A	14 days	(1) 300 mL amber glass jar	33
Pesticides	8081A	14 days	(1) 300 mL amber glass jar	33
SVOCs	8270C	14 days	(1) 300 mL amber glass jar	33
VOCs	8260B	14 days	(1) 300 mL amber glass jar	33
Metals	6020A	180 days	(1) 300 mL amber glass jar	33

1 – Duplicates, MS/MSD, Field-rinse Blanks will be collected at a rate of one per twenty samples collected per sample event.

Analytical data will be provided in an electronic format in accordance with section 1.15 of the DEC-10.

4.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) PROCEDURES

QA/QC procedures will be used to provide performance information with regard to accuracy, precision, sensitivity, representativeness, completeness, and comparability associated with the sampling and analysis activities to be conducted as part of this Investigation. Field QA/QC procedures will be used to ensure that samples collected are representative of the actual conditions of the Subject Property, and do not contain contaminants introduced either from the field activities or from sample transit. Laboratory QA/QC procedures and analyses will be used to demonstrate whether analytical results have been biased either by interfering compounds present in the sample matrix or by laboratory techniques that may have introduced systematic or random errors to the analytical process. QA/QC sample requirements will conform to NYSDEC DER-10 and ASP protocol. A summary of the field and laboratory QA/QC procedures to be followed as part of this Remedial Action Work is given below.

4.1. Field QA/QC

Field QA/QC will include the following procedures: 1) calibration of field equipment; 2) the collection of field blanks and duplicate samples; 3) the use of dedicated and disposable field sampling equipment; 4) proper sample handling and preservation; 5) proper sample chain of custody documentation; and 6) the completion of report logs. A description of each of these procedures is provided below.

4.1.1. *Calibration of Field Equipment*

All field analytical equipment used including PIDs will be calibrated in accordance with factory instructions on a daily basis.

4.1.2. *Collection of Field QA/QC Samples*

The field blank will be collected by pouring deionized laboratory grade water over the decontaminated sampling equipment and gathering this water into appropriate sample containers and will be preserved in the same manner as other aqueous matrix samples. The water used for the field blank will be from the same source as that used for the laboratory method blank. The field blank will be analyzed with the same method(s) as collected sample to determine whether the field sampling equipment is cross-contaminating samples.

4.1.3. *Use of Dedicated and Disposable Field Sampling Equipment*

Disposable sampling equipment including nitrile gloves will be used to prevent cross-contamination between samples.

4.1.4. *Sample Handling and Preservation*

For each of the analytical parameters analyzed, a sufficient sample volume will be collected to allow the specified analytical method to be performed according to protocol, and to provide sufficient sample for reanalysis if necessary.

Because plasticizers and other organic compounds inherent in plastic containers may contaminate samples requiring organic analysis, these samples will be collected in glass containers.

Appropriate sample preservation techniques, including cold temperature storage at 4° C and pH adjustment with appropriate preservatives will be utilized to ensure that the analytical parameters in the samples analyzed by the laboratory have not changed from the time the sample was collected in the field.

Samples will be analyzed prior to the respective holding time for each of the analytical parameters to ensure the integrity of the analytical results.

The appropriate EPA SW-846 sample handling and preservation procedures, outlined in the ASP protocol will be followed as part of this Investigation, including sample volume, sample container, sample preservative, and holding times.

4.1.5. *Sample Custody*

Sample handling in the field will conform to appropriate sample custody procedures. Field custody procedures include proper sample identification, chain-of-custody forms, and packaging and shipping procedures. Sample labels will be attached to all sampling bottles before field activities begin to ensure proper sample identification. Each label will identify the site and sample location.

Proposed sampling locations will be indicated on the Sample Location Plan. Actual sampling locations, if different than proposed, will be marked on the Sample Location Plan that will be revised accordingly.

Each cooler will be lined with two (2) 6-mil thick plastic bags. Styrofoam or bubble wrap will be used to absorb shock and prevent breakage of sample containers. VOC vials will be packaged inside a plastic "Ziplock" bag prior to placement inside the cooler. Ice or ice packs will be placed in between the plastic bags for sample preservation purposes.

After each sample is collected and appropriately identified, the following information will be entered into the chain-of-custody form: 1) site name and address; 2) sampler(s)' name(s) and signature(s); 3) names and signatures of persons involved in the chain of possession of samples; 4) sample number; 5) number of containers; 6) sample location; 7) date and time of collection; 8) type of sample, sample matrix and analyses requested; and 9) preservation used (if any).

The sampler will sign and date the "Relinquished" blank space prior to removing one (1) copy of the custody form and sealing the remaining copies of the form in a Ziplock plastic bag taped to the underside of the sample cooler lid. After sample containers are sufficiently packed and the chain-of-custody form completed, the 6-mil plastic bags will be sealed around the samples by twisting the top and securely taping the bag closed to prevent leakage. A sample custody seal will be placed around the neck of the bag which will include the signature of the project manager, and/or his designee, and the date.

The sample cooler will be sealed with tape prior to delivery or shipment to the laboratory. Additionally, sample custody seals will be placed around the cooler lid to detect unauthorized tampering with samples following collection and prior to the time of analysis. The seals will be attached in such a way that it will be necessary to break them in order to open the container. Seals will be affixed at the time of sample packaging and will include the signature of the project manager and/or his designee and the date.

4.1.6. *Report Logs*

The following project logs will be completed during the course of this investigation: 1) field logs. A field log will be completed on a daily basis which will describe all field activities including: 1) project number,

name, manager, and address; 2) date; 3) weather; 4) attendees on-Site and associated affiliations; 5) description of field activities; and 6) all pertinent sample collection information including sample identification numbers, description of samples, location of sampling points, number of samples taken, method of sample collection and any factors that may affect its quality, time of sample collection, name of collector, and field screening results.

4.2. Laboratory QA/QC

Alpha Analytical, an ELAP-certified laboratory, will be used for all sample analyses to be performed as part of this Investigation. This laboratory will follow the following QA/QC protocols.

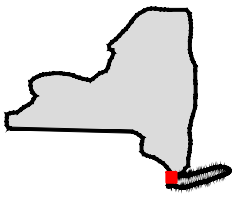
4.2.1. *Sample Custody*

All samples will be delivered to a NYSDEC ASP certified laboratory within 24 hours of sample collection. Samples will be received by laboratory personnel who will inspect the sample cooler(s) to check the integrity of the custody seals. The cooler(s) will then be opened, the samples unpackaged and the information on the chain-of-custody form examined. If the samples shipped match those described on the chain-of-custody form, the laboratory sample custodian will sign and date the form on the next "Received" blank and assume responsibility for the samples. If problems are noted with the sample shipment, the laboratory custodian will sign the form and record problems in the "Remarks" box. The custodian will then immediately notify the Project Manager so appropriate follow-up steps can be implemented on a timely basis.

All samples will then be logged into a sample log book and/or computerized information system. The following information will be recorded: 1) date and time of sample receipt; 2) project number; 3) field sample number; 4) laboratory sample number (assigned during log-in procedure); 5) sample matrix; 6) sample analytical parameters; 7) storage location; and 8) log-in person's initials. A record of the information detailing the handling of a particular sample through each stage of analysis will be provided by the completion of a laboratory chronicle form. The following information will be included on this form: 1) job reference; 2) sample matrix; 3) sample number; 4) date sampled; 5) date and time received by laboratory; 6) holding conditions; 7) analytical parameters; 8) extraction date, time and extractor's initials (if applicable), 9) analysis date, time, and analyst's initials, and 10) QA batch number, date reviewed, and reviewer's initials.

All information relevant to the samples will be secured at the end of each business day. All samples will be stored in a designated sample storage refrigerator, access to which will be limited to laboratory employees.

NEW YORK



QUADRANGLE LOCATION

SOURCE:

BASE MAP FROM THE FOLLOWING USGS QUADRANGLE MAP:
CENTRAL PARK, NY (2016).

DIGITAL TOPOGRAPHIC MAPS PROVIDED BY USGSSTORE.GOV.

CONTOUR ELEVATIONS REFERENCE NAVD 88,
CONTOURS ARE SHOWN IN FEET AT 10' INTERVALS

N
W E
S

180 EAST 132ND STREET
BRONX, NEW YORK

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
CARNEGIE MANAGEMENT

SITE LOCATION MAP

PROJ MGR: SH	REVIEWED BY: DW	CHECKED BY: SH	FIGURE 1
DESIGNED BY: LN	DRAWN BY: LN	SCALE: 1" = 2,000'	
DATE: AUGUST 2019	PROJECT NO. 12.0076605.10	REVISION NO.	SHEET NO.

GZA SITE-SPECIFIC HEALTH, SAFETY & ACCIDENT PREVENTION STANDARD-PLAN

1. CLIENT/SITE/PROJECT INFORMATION		
Client: Carnegie Management		
Site Address: 180 East 132nd Street, Bronx, New York		
Site Description (be sure to list pertinent site features, chemicals used at the facility, and other potential hazard sources: The Site is a paved asphalt parking lot with no buildings, currently leased to Flatrate Moving.		
Work Environment (active manufacturing, office, vacant site, undeveloped property, etc.): Building construction site.		
Job/Project #: 12.0076605.10	Estimated Start Date: 9/1/2022	Estimated Finish Date: 4/1/2023
Site is Covered by the Following Regulations:	OSHA HAZWOPER Standard ☒	Mine Safety and Health Administration ☐
	OSHA Construction Regulations ☒	

2. EMERGENCY INFORMATION		
Hospital Name: NYC Health & Hospitals/Harlem		Hospital Phone: 212-939-1000
Hospital Address: 506 Lenox Avenue, New York, NY		Directions and Street Map Attached: ☒ Yes
Local Fire #: 911 or	Local Ambulance #: 911 or	Local Police #: 911 or
WorkCare Incident Intervention Services:	**For non-emergencies, if an employee becomes hurt or sick call 888-449-7787**	
Other Emergency Contact(s): Sandra Huber	Phone #'s: 201-213-1045	
Site-Specific Emergency Preparedness/Response Procedures/Concerns: Call 911 in the event of an emergency; direct emergency responders to the corner of Willis Avenue and East 132nd Street, under Willis Avenue Bridge.		

- All EHS Events (incidents, first aid, near misses, unsafe acts/conditions, fires, chemical spills, property damage, and extraordinary safe behaviors) must be reported immediately to the Project Manager, and within 24hours to the EHS Event Reporting Portal at http://www.kelleronline.com. Username gempl1 Password 4Incidents&
- In the event of a chemical release greater than 5 gallons, site personnel will evacuate the affected area and relocate to an upwind location. The GZA Field Safety Officer and client site representative shall be contacted immediately.
- Site work shall not be conducted during severe weather, including high winds and lightning. In the event of severe weather, stop work, lower any equipment (drill rigs), and evacuate the affected area.

3. SCOPE OF WORK	
General project description, and phase(s) or work to which this H&S Plan applies[1].	Construction oversight
Specific Tasks Performed by GZA:	Construction environmental remediation oversight.
Concurrent Tasks to be Performed by GZA-hired Subcontractors (List Subcontractors by Name):	N/A
Concurrent Tasks to be Performed by Others:	Excavation, construction, and disposal to be performed by a contractor to be selected by Carnegie Mgmt Inc. at a later date.

Any OSHA PERMIT-REQUIRED CONFINED SPACE entry? ☐ YES ☒ NO IF YES, ADD CONFINED SPACE ENTRY PERMIT FOR THAT PORTION OF THE WORK	Any INDOOR fieldwork? ☐ YES ☒ NO IF YES, EXPLAIN:

[1] Copy from or reference proposal or applicable design plan as appropriate.

4. SUB-SURFACE WORK, UNDERGROUND UTILITY LOCATION	
Will subsurface explorations be conducted as part of this work (drilling or excavation)?	☒ Yes ☐ No
Will GZA personnel be required to use a hand-auger as part of this work?	☐ Yes ☒ No
Site property ownership where underground explorations will be conducted on: Carnegie Management	Public Access Property ☐ Yes ☒ No Private Property ☒ Yes ☐ No
Have Necessary Underground Utility Notifications for Subsurface Work Been Made?	☐ Yes ☒ Yet to be conducted
Specify Clearance Date & Time, Dig Safe Clearance I.D. #, And Other Relevant Information: Geophysical clearance was done on January 31, 2018 with Goldstar.	
IMPORTANT! For subsurface work, prior to the initiation of ground penetrating activities, GZA personnel to assess whether the underground utility clearance (UUC) process has been completed in an manner that appears acceptable, based on participation/ confirmation by other responsible parties (utility companies, subcontractor, client, owner, etc.), for the following:	

Electric:	☐ Yes	☐ No	☐ NA	☐ Other_____
Fuel (gas, petroleum, steam):	☐ Yes	☐ No	☐ NA	☐ Other_____
Communication:	☐ Yes	☐ No	☐ NA	☐ Other_____
Water:	☐ Yes	☐ No	☐ NA	☐ Other_____
Sewer:	☐ Yes	☐ No	☐ NA	☐ Other_____
Other:_____	☐ Yes	☐ No	☐ NA	☐ Other_____

Comments:

5. HAZARD ASSESSMENT (CHECK ALL THAT APPLY AND ADDRESS EACH HAZARD IN SECTION 6)

A. GENERAL FIELDWORK HAZARDS

☐ Confined Space Entry (Add Confined Space Entry Permit)	☒ Overhead Hazards (i.e. falling objects, overhead power lines)
☐ Abandoned or vacant building/Enclosed Spaces	☐ Portable Hand Tools or Power Tools
☒ Significant Slip/Trip/Fall Hazards	☐ Significant Lifting or Ergonomic Hazards
☐ Unsanitary/Infectious Hazards	☐ Electrical Hazards (i.e. Equipment 120 Volts or Greater, Work Inside Electrical Panels, or Maintenance of Electrical Equipment)
☐ Poisonous Plants	☐ Other Stored energy Hazards (i.e. Equipment with High Pressure or Stored Chemicals)
☒ Biting/Stinging Insects	☐ Fire and/or Explosion Hazard
☐ Feral Animal Hazards	☒ Elevated Noise Levels
☐ Water/Wetlands Hazards	☒ Excavations/Test Pits
☐ Remote Locations/Navigation/Orientation hazards	☐ Explosives or Unexploded Ordinance/MEC
☒ Heavy Traffic or Work Alongside a Roadway	☐ Long Distance or Overnight Travel
☒ Weather-Related Hazards	☒ Personal Security or High Crime Area Hazards
☒ Motor vehicle operation Hazards	☐ Working Alone
☒ Heavy Equipment Hazards	☐ Ionizing Radiation or Non-Ionizing Radiation
☐ Structural Hazards (i.e. unsafe floors/stairways/roof)	☒ Chemical/Exposure Hazards (See Part B for Details)
☐ Demolition/Renovation	☐ Other:
☒ Presence of Pedestrians or the General Public	

B. CHEMICAL/EXPOSURE HAZARDS (CONTAMINANTS ARE CONTAINED IN X SOIL, WATER, X GROUNDWATER)

☐ No chemical hazards anticipated	☐ Methane
☐ Hydrogen Sulfide (H2S)	☐ Chemicals Subject to OSHA Hazard Communication (attach Safety Data Sheet for each chemical GZA brings to the site)
☐ Cyanides, Hydrogen Cyanide (HCN)	☐ Containerized Waste, Chemicals in Piping & Process Equipment
☐ Carbon Monoxide	☐ Emissions from Gasoline-, Diesel-, Propane-fired Engine, Heater, Similar Equipment
☐ Herbicides, Pesticide, Fungicide, Animal Poisons	☒ General Work Site Airborne Dust Hazards
☒ Metals, Metal Compounds:	☒ Volatile Organic Compounds (VOCs), BTEX
☐ Corrosives, Acids, Caustics, Strong Irritants	☒ Chlorinated Organic Compounds
☐ Polychlorinated Biphenyls (PCBs)	☐ Fuel Oil, Gasoline, Petroleum Products, Waste Oil
☒ Polycyclic Aromatic Hydrocarbons (PAHs)	☐ Asbestos
☐ Compressed Gases	☐ Oxygen Deficiency, Asphyxiation Hazards
☐ Flammable/Combustible Liquids	☐ Other:
☐ Radiation Hazards (i.e. radioactive sealed/open source, x-rays, ultra violet, infrared, radio-frequency, etc.)	

6. SITE-SPECIFIC OVERVIEW OF H&S HAZARDS/MITIGATIONS (NOTE: Based on Hazard Assessment, Section 5)

Describe the major hazards expected to be present at the jobsite, and describe the safety measures to be implemented for worker protection (refer to items checked in Section 5 above). Use brief abstract statements or more detailed narrative as may be appropriate.

ON-SITE HAZARDS:	HAZARD MITIGATIONS:
Task Hazard Analyses	20.11 – Field Sampling; 21.01 Outdoor Field Work04.4A Excavation and Trenching, 20 COVID-19
Significant Slip/Trip/Fall Hazards	Keep sampling equipment and work area organized to avoid slips, trips, and falls. Keep work areas well lit. Inspect work area prior to starting work. Mark out or remove any potential hazards. Be aware and inspect area for uneven or sloped terrain, or around soil borings. Wear sturdy shoes with ankle support and good tread. Look for potential natural depressions/holes/animal burrows, downed trees/limbs and other obstructions in the area of work and travel. Maintain one free hand to break falls.
Struck by, caught by, run over by equipment	Do not stand near or where equipment operators cannot see you. Always be in line of sight. Do not make sudden moves and always let the operator know of your intentions. Wear high-visibility safety vest, hard hat, eye protection, steel toe boots and use common sense and good housekeeping practices to avoid injury. Stay within sight of rig/excavator operator but at least 6-10 feet away from rig and excavator swing area. Maintain clear lines of communication (verbal and/or visual) with the operator. Stand clear of exhaust from operating equipment and stay out of the swing radius of heavy equipment. Be aware of overhead equipment and potential for falling objects (i.e. tree branches). Avoid any "pinch points" where one could become trapped between the equipment and other objects. Maintain awareness of general rig movement/operation and communication with drill crew. Do not conduct soil classification/sampling directly adjacent to the drill rig. Hearing protection shall be worn when working near operating equipment. Equipment should be situated so that at full extension of bucket arm, the equipment is at least 10 feet away from overhead lines.
Excavation (heavy equipment)	As part of this work, GZA personnel shall be aware of limited space where work will take place. Park personal or GZA vehicle in designated parking locations, or select off-road area that is firm, and without hazards. Directly inspect parking location on foot if necessary. If you observe that contractor may back into structures, vehicles,

	fences, etc., notify contractor immediately with pre-determined signals. Do not cross the path of the heavy equipment. Refer to the above "Heavy Equipment Hazard" section. During construction, GZA employees must communicate and coordinate their actions and movements. Make sure excavation is secured and properly marked with caution signs. If excavation is to be open over night have subcontractor erect a fence or properly cover excavations to keep public out of the area and away from the excavation. **REVIEW AND BECOME FAMILIAR WITH THE REQUIREMENTS OF GZA POLICY 03-3006, *EXCAVATION SAFETY POLICY AND PROCEDURES*.** Workers will keep safe distance from equipment. Prepare and maintain an exclusion zone. Confirm utility locations and markout completed prior to excavation. Jim DuBroff (Highground) will be competent person on site. Do not enter a excavation unless a safe entry and egress pathway has been created. Do not enter excavations greater than 4 feet deep without proper sloping, shoring, or similar. Do not leave excavations open without controls. Keep heavy loads away from excavation edges.
Insects/Plants/Animals	Ticks carry risk of Lyme and other Diseases. Tick season is basically any field day above 40 degrees F. Tuck pants into long socks and apply DEET (or permethrinpre-treatment) to clothing in season to control exposure to ticks. Check clothing for ticks frequently. Check whole body immediately upon returning from field and shower. Be aware of intermittent seasonal reports of mosquito borne diseases, such as West Nile disease and Eastern Equine Encephalitis (EEE), and their locations relative to your field site. Use DEET or other mosquito repellant.
Chemcial Hazards-	Care will be taken to avoid exposure to potential chemical hazards present during sampling activities through use of nitrile glove, respiratory protection, and safety glasses with side shields. Hands will be washed at the end of the work day prior to eating/driving. Keep samples upright during transport. Sample containers may have broken during transport. Handle containers only while wearing nitrile gloves and use leather work gloves in addition to nitrile gloves to remove any broken or cracked containers. Pack containers in an upright orientation and use packaging (such as bubble wrap) between each glass container to prevent breakage
HAZARDOUS CONTAMINANTS INCLUDING SILICA	There may be opportunities for dust generation during the excavation of soils or dumping of soils collected. Soils may contain silica which impacts the respiratory system. Contractor should follow the OSHA construction regulations for silica dust, especially while operating excavation equipment or dumping collected soils. Table 1 of the regulations covers this operation and as long as those controls are in place no air monitoring is required. GZA employees should be aware of visible dust being generated and maintain a safe distance and not breathe in the dust. If respiratory protection is required due to site conditions generating significant dust, GZA employee must follow the OSHA respiratory protection standard and all its required elements before wearing a respirator.
Elevated noise levels	Work is to be performed in the Bronx: noise levels are generally those of a typical city. Wear ear protection during construction operations.
Weather-Related Hazards	Dress appropriately for weather conditions. No outside work is permitted during impeding electrical storms, tornadoes or when rain or icing creates a hazardous work environment. Dress accordingly, take breaks, keep hydrated, keep an eye on the weather and for your fellow coworkers, seek shelter as unacceptable field work conditions are not precise, but may include site specific conditions, general location, extreme weather conditions (e.g., icing, lightening, excessive cold, heat or

	wind), travel conditions, and other factors. Professional judgment is required, and personal assessment of safety must always be individually assessed. Take breaks, stay hydrated, apply sunscreen.
COVID-19 Outbreak	Observe social distancing, i.e. stay 6 feet away from others. 1. Begin each day by gathering everyone under GZA control together for a safety meeting, led by the GZA COVID-19 Safety Officer 2. Ask the following questions, and send any workers answering yes to any question below home: a. Have you traveled outside the US recently? b. Have you been in close contact with someone who has traveled outside the US recently? c. Have you been in close contact in the last 14 days with someone who has any of the symptoms of COVID-19? (persistent dry cough, fever, shortness of breath) d. Have you had symptoms of COVID-19 in the past 14 days? e. Do you feel well and fit to work today? 3. Establish the following good ground rules with everyone under GZA control during the meeting at a minimum: a. No one should work if they don't feel well b. If you start to feel unwell during the day, let someone know via phone and leave the site c. If you are unwell and can't leave the site immediately isolate yourself from all others until your transportation arrives d. We are not going to share pens or other equipment onsite as much as possible, and any shared equipment will be cleaned thoroughly before sharing e. We are going to stay at least 6 feet away from all others onsite and not go into enclosed spaces with others f. That means we will not be shaking hands, doing elbow bumps, knocking feet together, etc. g. We are going to wash our hands for at least 20 seconds with soap and water many times during the day, and at a minimum every time we remove our gloves **IF ANYONE BECOMES ANXIOUS OR BELIEVES SOMEONE IS ONSITE THAT IS SHOWING SYMPTOMS OF COVID-19 LET RICK ECORD KNOW** Check for updates in local COVID-19-related policies each day and whether or not project status is affected prior to mobilizing for field work. Gloves, mask (can be a simple face covering such as a scarf), and eye protection should be worn while COVID-19 restrictions are in place. Wash hands frequently with soap and water for at least 20 seconds. Potable water supplies are readily available at the site and water containers can be refilled as necessary. If a hand washing station is not readily available, containerized water and soap should be brought to the work site. Hand sanitizer should be limited or used sparingly during environmental monitoring work, being mindful that ethyl alcohol may contaminate samples for VOC analyses; hands should be washed with soap and water once available. Avoid touching the face. Do not share equipment, including writing utensils such as pens. Maintain at least 6 ft distance from other personnel on site, and no handshakes, elbow bumps, or other forms of personal contact. Upon exiting a room in which work was conducted, the doorknobs should be wiped down with disfecting cleaner. Verbally confirm with colleagues that they are feeling well and have not experienced symptoms of COVID-19 (dry cough, fever above 100 degrees F, shortness of breath), they have not traveled out of the country, and have not been in contact with people with confirmed COVID-19 infection. If someone begins to experience symptoms of

	COVID-19, they should leave the site. Call Rick Ecord to discuss (781-278-3809 or 404-234-2834). If someone who was on-site is diagnosed with COVID-19 or reports secondary contact, conduct a self assessment to determine whether or not exposure may have occurred in close contact – if so, self-quarantine and consult personal doctor. Call Rick Ecord to discuss (781-278-3809 or 404-234-2834). Required PPE: Nitrile gloves, disinfectant wipes, safety glasses, hand sanitizer, soap and water, respirator or face covering (if required to be within 6 ft of others for limited times doing limited tasks). The situation is rapidly developing, so keep up to date by checking guidelines from GZA's Pandemic Flu Response Team here regularly: https://gzainc.sharepoint.com/sites/HUB/HS/SitePages/Coronavirus-and-Pandemic-Flu-Preparedness.aspx See attached JHA.

7. AIR MONITORING ACTION LEVELS – Make sure air monitoring instruments are in working order, calibrated before use, and 'bump-checked' periodically throughout the day and/or over multiple days of use

Is air monitoring to be performed for this project? Yes ☒ No ☐

ACTION LEVELS FOR OXYGEN DEFICIENCY AND EXPLOSIVE ATMOSPHERIC HAZARDS (Action levels apply to occupied work space in general work area)

☐ Applicable, See Below. ☒ Not Applicable

Parameter	Response Actions for Elevated Airborne Hazards
Oxygen	At 19.5% or below – Exit area, provide adequate ventilation, or proceed to Level B, or discontinue activities Verify presence of adequate oxygen (approx. 12% or more) before taking readings with LEL meter. Note: If oxygen levels are below 12%, LEL meter readings are not valid.
LEL	Less than 10% LEL – Continue working, continue to monitor LEL levels Greater than or Equal to 10% LEL – Discontinue work operations and immediately withdraw from area. Resume work activities ONLY after LEL readings have been reduced to less than 10% through passive dissipation, or through active vapor control measures.

ACTION LEVELS FOR INHALATION OF TOXIC/HAZARDOUS SUBSTANCES (Action levels are for sustained breathing zone concentrations)

☒ Applicable, See Below. ☐ Not Applicable

Air Quality Parameters (Check all that apply)	Remain in Level D or Modified D	Response Actions for Elevated Airborne Hazards
☒ VOCs	0 to 5 ppm	From 5 ppm to 25 ppm: Proceed to Level C, or Ventilate, or Discontinue Activities If greater than 25 ppm: Discontinue Activities and consult EHS Team
☐ Carbon Monoxide	0 to 35 ppm	At greater than 35 ppm, exit area, provide adequate ventilation, proceed to Level B, or discontinue activities.
☐ Hydrogen Sulfide	0 to 10 ppm	At greater than 10 ppm, exit area, provide adequate ventilation, proceed to Level B, or discontinue activities
☐ Dust	0 to 0.25 mg/m^3	Adjust work practices to reduce dust generation, > 0.25 mg/m^3 unsustained, use water suppression > 0.25 mg/m^3 sustained, use repertory protection with PM100 filter cartridges
☐	0 to	

SPECIAL INSTRUCTIONS/COMMENTS REGARDING AIR MONITORING (IF APPLICABLE)

8. HEALTH AND SAFETY EQUIPMENT AND CONTROLS

AIR MONITORING INSTRUMENTS

- ☒ PID Type: MiniRae Lamp Energy: 10.6 eV
- ☐ FID Type:
- ☐ Carbon Monoxide Meter
- ☐ Hydrogen Sulfide Meter
- ☐ O_2/LEL Meter
- ☒ Particulate (Dust) Meter
- ☐ Calibration Gas Type
- ☐ Others:

OTHER H&S EQUIPMENT & GEAR

- ☐ Fire Extinguisher
- ☐ Caution Tape
- ☒ Traffic Cones or Stanchions
- ☒ Warning Signs or Placards
- ☒ Decon Buckets, Brushes, etc.
- ☐ Portable Ground Fault Interrupter (GFI)
- ☐ Lockout/Tagout Equipment
- ☐ Ventilation Equipment
- ☒ Others: First Aid Kit, Soap & Water, Hand Sanitizer

PERSONAL PROTECTIVE EQUIPMENT

- ☐ Respirator – Type
- ☐ Respirator - Cartridge Type:
- ☒ Hardhat
- ☒ Outer Gloves Type: Nitrile; work gloves, as needed
- ☐ Inner Gloves Type:
- ☒ Steel-toed boots/shoes
- ☐ Coveralls – Type
- ☐ Outer Boots – Type
- ☒ Eye Protection with side shields
- ☐ Face Shield
- ☒ Traffic Vest
- ☐ Personal Flotation Device (PFD)
- ☐ Fire Retardant Clothing
- ☐ EH (Electrical Hazard) Rated Boots, Gloves, etc.
- ☒ Noise/Hearing Protection
- ☒ Others: Cloth Face Mask

Discuss/Clarify, as Appropriate:

9. H&S TRAINING/QUALIFICATIONS FOR FIELD PERSONNEL

- ☒ Project-Specific H&S Orientation (Required for All Projects/Staff)
- ☒ OSHA 40-Hour HAZWOPER/8 Hour Refreshers
- ☒ Hazard Communication (for project-specific chemical products)
- ☒ First Aid/CPR (required for HAZWOPER for at least one individual on site)
- ☒ Current Medical Clearance Letter (required for HAZWOPER)
- ☒ OSHA 10-hour Construction Safety Training
- ☐ Fall Protection Training
- ☒ Trenching & Excavation
- ☐ Lockout/Tagout Training
- ☐ Electrical Safety Training
- ☐ Bloodborne Pathogen Training
- ☐
- ☐
- ☐
- ☐
- ☐

Discuss/Clarify, as needed:

10. PERSONNEL AND EQUIPMENT DECONTAMINATION (SECTION ONLY REQUIRED FOR HAZWOPER SITES)

Describe personnel decontamination procedures for the project site, including "dry decon" (simple removal of PPE)	PPE including nitrile gloves and ear plugs will be removed as necessary and disposed of on site. Equipment requiring decon will be washed with alconox and DI water.

11. PROJECT PERSONNEL - ROLES AND RESPONSIBILITIES

GZA ON-SITE PERSONNEL:

Name(s)	Project Title/Assigned Role	Telephone Numbers

TBD	Site Supervisor	Work: Cell:
TBD	Field Safety Officer	Work: Cell:
TBD	First Aid Personnel	Work: Cell
TBD	GZA Project Team Members	Work: Cell:

Site Supervisors and Project Managers (SS/PM): Responsibility for compliance with GZA Health and Safety programs, policies, procedures and applicable laws and regulations is shared by all GZA management and supervisory personnel. This includes the need for effective oversight and supervision of project staff necessary to control the Health and Safety aspects of GZA on-site activities.

Field Safety Officer (FSO): The FSO is responsible for implementation of the Site Specific Health and Safety Plan.

First Aid Personnel: At least one individual designated by GZA who has current training and certification in basic first aid and cardiopulmonary resuscitation (CPR) must be present during on-site activities involving multiple GZA personnel at HAZWOPER sites.

GZA Project Team: Follow instructions relayed by the HASP and GZA manager on-site.

OTHER PROJECT PERSONNEL:

Name	Project Title/Assigned Role	Telephone Numbers
David Winslow	Principal-in-Charge	Work: 973-774-3307 Cell: 347-242-7107
Sandra Huber	Project Manager	Work: 973-774-3304 Cell: 201-213-1045
Benjamin Flizack	Health and Safety Coordinator (HSC)	Work: 973-774-3300 Cell: 732-427-3946
Richard Ecord	GZA EHS Director	Work: 781-278-3809 Cell: 404-234-2834

Principal-in-Charge: Responsible of overall project oversight, including responsibility for Health and Safety.

Project Manager: Responsible for day-to-day project management, including Health and Safety.

Health and Safety Coordinator: General Health and Safety guidance and assistance.

GZA EHS Director: H &S technical and regulatory guidance, assistance regarding GZA H&S policies and procedures.

12. PLAN ACKNOWLEDGEMENT AND APPROVALS

GZA Project Site Worker Plan Acknowledgement

I have read, understood, and agree to abide by the information set forth in this Safety and Accident Prevention Plan. I will follow guidance in this plan and in the GZA Health and Safety Program Manual. I understand the training and medical monitoring requirements covered by the work outlined in this plan and have met those requirements.

GZA Employee Name	GZA Employee Signature	Date

Subcontractor Site Worker Plan Acknowledgement

GZA has prepared this plan solely for the purpose of protecting the health and safety of GZA employees. Subcontractors, visitors, and others at the site must refer to their organization's health and safety program or site-specific HASP for their protection. Subcontractor employees

may use this plan for general informational purposes only. Subcontractor firms are obligated to comply with safety regulations applicable to their work, and understand this plan covers GZA activities only.		
Subcontractor Employee Name	Subcontractor Employee Signatures	Date
GZA HASP Approval Signatures		
The following individuals indicate their acknowledgement and/or approval of the contents of this Site Specific H&S Plan based on their understanding of project work activities, associated hazards and the appropriateness of health and safety measures to be implemented. A signed copy of this document must be present at the project site at all times work is being performed.		
GZA Author/Reviewer Role	Signature	Date
HASP Preparer		**3/9/2021**
EHS Reviewer		**3/10/21**
Principal in Charge		**3/11/21**