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OFF-SITE SOIL VAPOR INTRUSION INVESTIGATION WORK PLAN

Site Name: 3547 Webster Avenue

Site Address: 3547 Webster Avenue
Bronx, New York 10467

NYSDEC P Site No.: 203165

Report Date: March 22, 2024

Prepared For:

3547 Webster Tower LLC
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Bronx, New York 10467

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CERTIFICATION

I, Hilmi U. Aydin, certify that I am currently a Qualified Environmental Professional as defined in 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 and that this Soil Vapor Intrusion Study was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10).

Hilmi U. Aydin, P.E., QEP
Principal Engineer

1.0 INTRODUCTION

This Off-Site Soil Vapor Intrusion (SVI) Investigation Work Plan was prepared on behalf of 3547 Webster Tower LLC (the Respondent) to evaluate off-site soil vapor conditions at the western adjacent property to 3547 Webster Avenue in the Norwood section of Bronx County, New York (the Site). The Site is identified as Tax Block 3356, Lots 196 and 200 on the New York City Tax Map. The Respondent has executed an Order on Consent and Administrative Settlement with the New York State Department of Environmental Conservation on November 10, 2023.

Previous investigations conducted at the Site confirmed the presence of contamination in groundwater and soil vapor. A Site Characterization (SC) was conducted at the Site on September 30, 2022 in accordance with a Mayor's Office of Environmental Remediation (NYCOER) approved Phase II Work Plan dated September 2022. The SC confirmed the presence of chlorinated volatile organic compounds (CVOCs) in soil vapor. Upon review of the SC findings and OER's briefing with the NYSDEC, the Site was referred to the NYSDEC, and a supplemental groundwater investigation was performed between February 27, 2023 and March 21, 2023, as required by the NYSDEC. The supplemental groundwater investigation identified the presence of CVOCs in groundwater beneath the Site. Although the 2023 SC partially determined the nature and extent of CVOCs contamination at the Site, it did not fully delineate the extent of contamination beneath the Site.

The purpose of this Off-Site Soil Vapor Intrusion (SVI) Investigation is to evaluate potential off-site soil vapor migration and if the air quality is impacted at the immediately adjacent buildings as required by the NYSDEC and the New York State Department of Health (NYSDOH). This Off-Site SVI Investigation Work Plan was prepared in accordance with the regulations and guidance applicable to the BCP, the NYSDEC Division of Environmental Remediation (DER) Program Policy: Technical Guidance for Site Investigation and Remediation (DER-10); and the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006, with updates.

The scope of work will include the installation and sampling of soil vapor points and sub-slab points and collection of indoor air and outdoor air samples at the west adjacent property at 3540 Decatur Avenue, south adjacent property at 3525-3545 Webster Avenue, and installation and sampling of soil vapor points at the adjacent sidewalk along the western side of Webster Avenue.

2.0 SITE BACKGROUND

2.1 Site Location and Description

The 18,663-square feet Site is located at 3547 Webster Avenue in the Norwood section of Bronx, New York, and is identified as Tax Block 3356, Lots 196 and 200 on the New York City Tax Map. Figure 1 shows the site location. Currently, Lot 200 (15,000 square feet) is undeveloped and capped with the former building's slab. The partial cellar, approximately 8.5 feet in depth and 435 square feet in area in the southern portion, is currently filled with demolition debris. Lot 196 (3,663 square feet) is vacant, and the one-story building is partially demolished. A site location map is provided as Figure 1.

The Site is currently owned by 3547 Webster Tower LLC.

The current zoning designation is C4-4, denoting the Site as a mixed commercial and residential use property.

2.2 Description of Surrounding Property

The Site is located within a primary mixed residential and commercial area of Bronx County and is bounded by Woodlawn Cemetery (4199 Webster Avenue) to the north, a two-story commercial building (3525-3545 Webster Avenue) to the south, Webster Avenue to the east, a six-story residential building (3540 Decatur Avenue) and a vacant (Block 3356, Lot 190) to the west.

There are two sensitive receptors within a 500-foot radius of the Site. A pre-school, Rose Hill Pre-K Center, is located approved 306 feet northeast of the Site. Mis Pequenos Angelitos day care center, with the address 3540 Decatur Avenue, is located immediately west adjacent to the Site. Figure 2 shows the site boundary and surrounding land usage.

The nearest ecological receptor is the Bronx River located approximately 0.1-miles east of the Site. Figure 2 shows the surrounding land usage.

The study will include the sampling of sub-slab vapor, indoor air, and outdoor air samples at the west adjacent six-story residential building at 3540 Decatur Avenue as well as sampling of soil vapor at the east adjacent sidewalk along Webster Avenue.

2.3 Site Topography, Geology, and Hydrogeology

According to the United States Geological Survey (USGS) Topographic Quadrangle for "Mount Vernon, New York" dated 2013, the subject property is located at approximately 110-feet above mean sea level (MSL). The contour lines in the subject property area indicate the area is sloping gently toward the east-southeast.

Based on prior investigations, the stratigraphy of the Site, from the surface down, consists of approximately 1-5 feet of brown to grey sand and varying degrees of silt and weathered rock. Bedrock was encountered from 1 to 5 feet across the Site.

According to the USGS and prior reports, the Site is situated within the New England Uplands section of the New England physiographic province of the State of New York. According to the USGS, this province consists of a dissected plateau, which has been greatly modified by glaciation. The underlying bedrock within this region is composed of consolidated rocks of sedimentary, igneous, and metamorphic origin. It is specifically identified as Inwood Marble, which consists of dolomite marble, calc-schist, granulite, and quartzite of Early Cambrian to Lower Ordovician age. Extensive glaciation has resulted in erosion and rounding off the bedrock topography, as well as numerous rock basin lakes.

The average depth to groundwater is approximately 5.99 feet below grade surface (bgs) and groundwater beneath the Site flows east towards the Bronx River, located 0.1 miles to the east of the subject property. Monitoring wells were surveyed by Montrose Surveying Co. LLP on March 16, 2023. The groundwater elevation range in depth is 89.5 feet (MW-5) (NAVD88) to 94.87 feet (MW-1) (NAVD88).

Groundwater beneath the Site is not used as a potable (drinking) water source. The potable water supply is provided to the Site by the City of New York and is derived from surface impoundments in the Croton, Catskill, and Delaware watersheds.

2.4 Site History

Based on a Phase I Environmental Site Assessment (ESA) performed by Partner Assessment Corporation, Inc. (Partner) in May 2019, an extensive site history was established. According to available historical sources, the Site was formerly undeveloped as early as 1896; and developed with the most recent structure in 1927. Numerous tenants have occupied the Site including Bernal Garage Inc. (1940), Garage & repair (1945), Super Metal Mfg Co Inc (1949), L & R Metal Prods Coro (1956), Astrospherics Inc (1971), Orion Electrnc Corp (1971, 1976, 1983), Panel-Maker Corp (1971, 1976, 1983), Fraass Surgical Mfg Co Inc (1976), Dialysis centers (1983-2005), Bronx Two (1993- 2000), Spectra Inc. (2005) and medical offices/center (1981-2005).

Based on a second Phase I ESA performed by Progea, Inc. on August 28, 2019, historical Sanborn fire insurance maps indicate the former warehouse on Lot 200 had two 550-gallon buried tanks containing gasoline. There were no available records indicating whether the tanks were removed or closed in place at the site, and there was no soil testing data available at the time of the Phase I ESA. The historical presence of two USTs containing gasoline,

without documentation of assessment and removal, was considered a REC which warranted further investigation.

2.5 Summary of Previous Investigations

The following reports were reviewed during the preparation of this Off-Site SVI Work Plan in order to determine potential hazards:

The following reports were provided to Vektor for review during this assessment:

- Phase I Environmental Site Assessment, May 2019, prepared by Partner Assessment Corporation, Inc.
- Subsurface Investigation Report, October 2019, prepared by ProGea, Inc.
- Phase II Plan, September 2022, prepared by Vektor
- Site Characterization Report by, November 2022 (updated May 2023), prepared by Vektor

Digital (PDF) copies of the above referenced environmental reports were submitted to the NYSDEC.

Phase I Environmental Site Assessment for Lot 200 by Partner Assessment Corporation, Inc. dated May 2019

- Partner Assessment Corporation, Inc. (Partner) prepared this report on behalf of Axos Bank in accordance with ASTM E1527-13.

- The ESA was conducted at Lot 200 only. Lot 200 consisted of one two-story building that encompassed the entire property parcel. The subject property was vacant with no ongoing business operations at the time of the Phase I ESA.

- Partner did not identify any historical recognized environmental conditions (HRECs) or controlled recognized environmental conditions (CRECs); however, identified the following recognized environmental conditions (RECs):

    - According to a review of the historical sources, the subject property was developed with the current structure in 1927. The subject property was occupied by numerous commercial tenants that included garage, auto repair, and manufacturing operations (metal products/electrical panels/surgical supplies) from at least the 1940s to the 1980s. These types of operations utilize various petroleum products as well as chlorinated solvents for metal cleaning operations. Chlorinated solvents are highly mobile and have the potential to impact the subject property through

subsurface conduits, such as cracks in the floor or floor drains. Based on the duration of operations and absence of prior subsurface investigation reports, the historical use of the subject property for garage, auto repair, and manufacturing operations is considered to represent a REC.

- Partner's research and onsite observations identified the presence of an active and historic aboveground and underground storage tanks (ASTs/USTs). The subject property is registered (Facility ID 2-293466) with one 5,000-gallon #2 Fuel Oil AST that was installed in 1986, which was noted to be present during Partner's site reconnaissance. In addition, a vent pipe and fill ports characteristic of USTs were observed. Four fill ports and one vent pipe were observed at the subject property; three fill ports along the sidewalk located southeast of the building along with a fill port in this vicinity; and one fill port along the northeastern interior (area of dock). Partner traced the aforementioned registered/active AST pipe to the fill port located along the northeastern interior. In addition, Partner noted two petrometer gauges to be present; one on the exterior of onsite active/registered tested AST vault and one within the partial basement. Due to flooding within the basement, Partner was unable to trace the possible petrometer fill line to a potential tank. However, according to a review of the Sanborn Maps, the subject property was depicted with two 550-gallon gasoline buried tanks as early as 1945 to at least 2007. No additional information regarding the fill ports or former USTs was provided during the course of this assessment. Therefore, it is unknown if oil was stored within ASTs or USTs located at the subject property or if USTs were properly closed and/or removed. Based on the lack of information regarding UST removal, it is possible that a release from the USTs has resulted in an impact to the subsurface of the subject property. Based on this information, the former presence of USTs and fill ports/vent pipes on the subject property is considered to represent a REC.

- Lot 200, Tax Block 3356 at 3547 Webster Avenue is listed as an E Designation site in the regulatory database report. The E Designation listing is identified as E-249 and was issued March 23, 2011 for "Hazardous Materials Phase I and Phase II Testing Protocol" and "Window Wall Attenuation & Alternate Ventilation." An E-Designation is a zoning map designation in the City of New York that indicates the presence of an environmental requirement pertaining to potential Hazardous Materials Contamination, Window/Wall Noise Attenuation or Air Quality impacts on a particular tax lot. These designations are assigned to properties during

rezoning events. A property can continue to be used as before, with no additional requirements. However, if a property is to be redeveloped with new construction or change of use, the environmental requirements of the E-Designation need to be satisfied prior to the issuance of building permits and Certificates of Occupancy. Partner contacted the New York City Department Office of Environmental Remediation to obtain the current status of the E-Designation. According to Myrna (OER Project Manager), as of May 8, 2019 no documents have been submitted to the OER to satisfy the E Designation requirements. Based on the abovementioned details, the E Designation listing is considered to represent a REC.

- Partner identified the following Environmental Issues during the course of this assessment:
    - Due to the age of the subject property building, there is a potential that asbestos-containing material (ACM) and lead based paint (LBP) are present. Several areas of the building materials were noted during the assessment to be broken, ripped, peeling and/or have signs of water damage. Should these materials be replaced, the identified suspect ACMs and LBP would need to be sampled to confirm the presence or absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants.
    - Partner observed several areas of water damage throughout the buildings, as well as flooding in the basement of the subject property. Partner notes this property is currently vacant, which presumably resulted in significant water damage to the building. Should any evidence of microbial growth be uncovered during renovation and/or demolition activities, it should be addressed at that time.
- Based on the findings, Partner recommended:
    - A limited subsurface investigation should be conducted in order to determine the presence or absence of soil, soil vapor and/or groundwater contamination due to the historical use of the subject property.
    - In the event the subject property is redeveloped with new construction or change of use, the environmental requirements of the E-Designation should be satisfied.

- An Operations and Maintenance (O&M) Program should be implemented in order to safely manage the suspect ACMs and LBP located at the subject property.

Subsurface Investigation Report for Lot 200 by ProGea, Inc. dated October 2019

- ProGea Inc. (Progea) conducted this investigation on behalf of NYC Top Construction at Lot 200 only.

- The Subsurface Investigation Report (SIR), included a summary of an August 2019 Phase I ESA was performed by Proegea, and identified the following RECs:

  - The historical presence of two USTs containing gasoline, without documentation of assessment and removal., Based on the available review of available Fire Insurance Maps Historical Sanborn fire insurance maps indicate the subject building had two 550-gallon buried tanks containing gasoline. However, there were no available records indicating whether the tanks were removed or closed in place at the site, and there was no soil testing data available at the time of the Phase I ESA. The historical presence of two USTs containing gasoline, without documentation of assessment and removal, was considered a REC which warranted further investigation.

A copy of Progea's August 2019 Phase I ESA Report was not provided to Vektor for review.

- Based on the findings of their Phase I ESA, Progea conducted a subsurface investigation at Lot 200 in October 2019. The scope of work consisted of performance of a ground penetrating radar (GPR) survey, installation of five soil borings, and collection of four soil samples for volatile organic compounds (VOCs) analysis, and installation and sampling of two soil vapor points along with an ambient air sample.

  - Results of the GPR Survey indicated there were no subsurface anomalies with reflections or signatures consistent with USTs.

  - A potential vapor intrusion risk was established as Trichloroethylene (TCE) and Tetrachloroethylene (PCE) were detected at concentrations above the applicable action levels in sub slab soil gas. When applied the NYSDOH Decision Matrices indicate mitigation as the recommended action prior to future permanent occupancy of the building.

- There does not appear to be a current indoor vapor intrusion risk related to subsurface contamination. No immediate actions are required.

- No subsurface soil contamination related to petroleum hydrocarbons or chlorinated solvents was identified. No detectable VOCs were identified in the soil samples.

- As part of future renovations for the site, Progea recommended vapor mitigation be incorporated into the future renovation/redevelopment plans. They've concluded that since there were no current exposure hazards, and no immediate actions were required.

Phase II Work Plan by Vektor dated September 2022

- Vektor prepared this work plan on behalf of Bedford Realty to collect data of sufficient quality and quantity to characterize the nature and extent of residual contamination associated with the historic operations at the Site and to complete a qualitative exposure assessment for future occupants of the proposed building and the surrounding community and to evaluate alternatives to remediate the contamination.

- The Phase II Work Plan proposed performance of a ground penetrating radar survey to confirm the locations of possible underground storage tanks and utilities, installation of 11 soil borings across the Site and collection of 22 soil samples to obtain additional information on soil quality with respect to Soil Cleanup Objective (SCOs), installation of four groundwater monitoring wells and the collection of four groundwater samples to assess groundwater impacts; and installation of nine soil vapor points and the collection of nine soil vapor samples.

Site Characterization Report by Vektor dated November 2022 (updated May 2023)

- Vektor conducted a SC on behalf of Bedford Realty in September 2022 under the oversight of NYCOER. The SC was conducted at both Lots 196 and 200.

- The SC consisted of a Site inspection to identify area of concerns (AOCs) and physical obstructions, a geophysical survey to locate utilities in the vicinity of the proposed boring locations and identify any unidentified underground storage tanks (USTs), installation of eleven soil borings and collection of twenty-two soil samples for chemical analysis, and installation and sampling of nine soil vapor points.

- Groundwater was not encountered during the SC due to refusals and shallow bedrock.

- Soil/fill samples collected during the SC were compared to NYSDEC Unrestricted Use Soil Cleanup Objectives (SCOs) and Restricted Residential Use SCOs as presented in 6NYCRR Part 375-6.8.

    - No semi-volatile organic compounds (SVOCs), Pesticides, Polychlorinated biphenyls (PCBs), or Per- and polyfluoroalkyl substances (PFAS) compounds were detected in any of the soil samples above their respective Unrestricted Use SCOs.

    - One volatile organic compound (VOC); methylene chloride (max. of 0.088 mg/kg) was detected above its respective Unrestricted Use SCO in three soil samples but below its respective Restricted Residential Use SCO. It should be noted that methylene chloride is a common laboratory contaminant.

    - Eight metals; barium (max. of 469 mg/kg), copper (max. of 125 mg/kg), lead (max. of 264 mg/kg), nickel (max. of 65.1 mg/kg), zinc (max. of 303 mg/kg), mercury (max. of 0.476 mg/kg), hexavalent chromium (max. of 3.35 mg/kg) and trivalent chromium (max. of 110 mg/kg) were detected above their respective Unrestricted Use SCOs in thirteen soil samples. Of these metals, only barium was detected above its respective Restricted Residential Use SCO in three soil samples SB-1 (0'-1'), SB-7 (3'-5'), and SB-8 (0'-2').

- Soil vapor samples collected during the SC showed elevated concentrations of petroleum-related VOCs and high concentrations of chlorinated solvents in the soil vapor beneath the Site.

    - Total concentrations of petroleum-related VOCs (BTEX) ranged from 33 $\mu g/m^3$ in SV-3 to 636 $\mu g/m^3$ in SV-4.

    - Chlorinated solvents 1,1,1-trichloroethane (max. of 750 $\mu g/m^3$ in SV-4), 1,1-dichloroethylene (max. of 17 $\mu g/m^3$ in SV-4), and cis-1,2-dichloroethylene (max. of 170 $\mu g/m^3$ in SV-4), and tetrachloroethylene (max. of 1,700 $\mu g/m^3$ in SV-4) were detected in six soil vapor samples. Carbon tetrachloride (max. of 6.4 $\mu g/m^3$ in SV-3) was detected in two soil vapor samples. Methylene chloride (at 1.1 $\mu g/m^3$ in SV-9) was detected at a trace concentration in one soil vapor sample. Trichloroethylene (max. of 13,000 $\mu g/m^3$ in SV-4) was detected in all nine soil vapor samples. Vinyl chloride (max. of 1 $\mu g/m^3$ in SV-8) was detected in two soil vapor samples.

- Chlorinated solvents 1,1,1-trichloroethane, carbon tetrachloride, tetrachloroethylene, and trichloroethylene were detected above the monitoring/mitigation range established by the NYSDOH soil vapor guidance matrix.

Figure 3 provides a summary of the soil vapor findings during the SC.

Supplemental Groundwater Investigation by Vektor between February and March 2023

- Based on the results of the RI, specifically due to the presence of elevated concentrations of chlorinated solvents in soil vapor beneath the Site, a supplemental groundwater investigation was conducted by Vektor between February 27, 2023 and March 21, 2023.

- The scope of work included a geophysical bedrock survey to investigate lithology, fracture location and orientation, flow in the borehole, and overall physical condition of the borehole, and installation of five permanent bedrock monitoring wells, collection of five groundwater samples for VOCs analysis, and survey of the monitoring wells.

- Depth to bedrock ranges between approximately 1-5 feet at the Site.

- The average depth to groundwater is approximately 5.99 feet bgs and groundwater beneath the Site flows east towards the Bronx River, located 0.1 miles to the east of the subject property. The groundwater range in depth is 89.5 feet (MW-5) (NAVD88) to 94.87 feet (MW-1) (NAVD88).

- The geophysical bedrock survey revealed that the boreholes at MW-1, MW-2, MW-3, and MW-5 have little or no vertical flow.

- Groundwater samples collected during the SI were compared to the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards (AWQS). Four chlorinated VOCs (CVOCs) including 1,1,1-trichloroethane (max. 412.2 ug/L in MW-1), cis-1,2-dichloroethylene (max. 33.8 ug/L in MW-5, trichloroethylene (max. 81.2 ug/L in MW-5), and vinyl chloride (max. 7.12 ug/L in MW-5), were detected above their respective AWQS in groundwater samples MW-1, MW-2, MW-3 and MW-5, which were collected from the southern and central portions of the Site.

- Based on the results of the SC, remedial action will be necessary to address the AOCs. Applicable strategies and technologies may include, but are not limited to,

the installation of an engineering control such as an active sub-slab depressurization system.

2.6 Supplemental Site Characterization Work Plan dated January 2024

A Supplemental Site Characterization Work Plan (SSCWP) was prepared to characterize the extent of known chlorinated volatile organic compounds (CVOCs) contamination. The proposed SSCWP consisted of the development of a Health and Safety Plan (HASP), Quality Assurance Project Plan (QAPP), and Community Air Monitoring Plan (CAMP), installation of eight bedrock monitoring wells, collection of eight groundwater samples and additional QA/QC samples, performance of a geophysical investigation to characterize bedrock conditions, and the preparation of a Supplemental Site Characterization Report (SSCR) to document the remedial activities.

The SSCWP was approved by the NYSDEC and NYSDOH on January 19, 2024.

2.6.1 Supplemental Site Characterization Activities Completed to Date

The following scope of work was performed between February 5, 2024 and February 20, 2024 as per the approved SSCWP:

- American Geophysics Inc. performed a geophysical survey to investigate for subsurface structures and to clear out bedrock well locations and utilities throughout the Site. American Geophysics Inc. precleared all bedrock well locations. The precleared locations were marked with spray paint on the concrete slab to ensure that utilities were not encountered during well installation.
- Enviroprobe Service Inc. utilized a Geoprobe® Model 8140 Sonic drill rig to advance bedrock wells into bedrock at MW-6 through MW-13. The bedrock wells were installed by advancing steel casing 5 feet into bedrock and grouting the annulus within the borehole at each well location. The depth of the steel casing of each respective well was installed as follows:
    - MW-6 steel casing set from 0 to 8.5 feet as bedrock begins at 3.5 feet
    - MW-7 steel casing set from 0 to 9 feet as bedrock begins at 4 feet
    - MW-8 steel casing set from 0 to 8.5 feet as bedrock begins at 3.5 feet
    - MW-9 steel casing set from 0 to 8.5 feet as bedrock begins at 3.5 feet
    - MW-10 steel casing set from 0 to 8 feet as bedrock begins at 3 feet
    - MW-11 steel casing set from 0 to 8 feet as bedrock begins at 3 feet
    - MW-12- steel casing set from 0 to 8 feet as bedrock begins at 3 feet
    - MW-13 steel casing set from 0 to 9 feet as bedrock begins at 4 feet

- Enviroprobe Service Inc. utilized a Geoprobe® Model 8140 Sonic rig to drill into

bedrock within the steel casing to install MW-7, MW-10, MW-12, and MW-13. A Geoprobe® Model 7822DT Air drill rig was utilized to drill into bedrock within the steel casing to install at MW-6, MW-8, MW-9, and MW-11. Final well depths and well screened intervals at each well location are as follows:

  - MW-6: Installed to 20 feet. Well screen PVC installed from 5-20 feet interval
  - MW-7: Installed to 22.5 feet. Well screen PVC installed from 3-22.5 feet interval
  - MW-8: Installed to 20 feet. Well screen PVC installed from 5-20 feet interval
  - MW-9: Installed to 20 feet. Well screen PVC installed from 5-20 feet interval
  - MW-10: Installed to 25 feet. Well screen PVC installed from 5-25 feet interval
  - MW-11: Installed to 20 feet. Well screen PVC installed from 5-20 feet interval
  - MW-12: Installed to 20 feet. Well screen PVC installed from 5-20 feet interval
  - MW-13: Installed to 20 feet. Well screen PVC installed from 5-20 feet interval

- CAMP was conducted during all intrusive work as well as any sampling work.

3.0 OFF-SITE SOIL VAPOR INTRUSION STUDY

An Off-site Soil Vapor Intrusion (SVI) study proposed herein will further the indoor air quality at the west-adjacent off-site residential building to determine potential soil vapor impacts to adjacent properties. The supplemental data, in conjunction with the existing data, will be analyzed to characterize the nature and extent of contamination and evaluate remedial action alternatives.

The proposed scope of work for the SVI Study is as follows:

- Pre-sampling inspection of the west adjacent residential property and south adjacent commercial property, where the sampling will occur,
- Installation and sampling of one sub-slab vapor point (SS-1) below the lowest slab of the west adjacent building at 3540 Decatur Avenue, collection of one co-located indoor air sample (IA-1), one duplicate sample (DUP-1), and one outdoor ambient background air sample (OA-1). Collection of additional contingent samples consisting of one sub-slab and one indoor air sample is planned as part of this work plan and will be determined by the NYSDEC and NYSDOH depending on the condition and use of documented spaces within the structure,
- Installation and sampling of two soil vapor points (SV-1 and SV-2) in the rear yard of 3540 Decatur Avenue,
- Installation and sampling of two soil vapor points (SV-3 and SV-4) in the sidewalk along the western side of Webster Avenue and
- Installation and sampling of one sub-slab vapor point (SS-2) below the lowest slab of the south adjacent building at 3525-3545 Webster Avenue, collection of one co-located indoor air sample (IA-2), and collection of one outdoor ambient background air sample (OA-2).

Table 1 provides a summary of the sampling protocol and rationale. Figure 4 provides proposed sampling locations.

If modifications to the scope of work are required due to site conditions, the NYSDEC and NYSDOH project managers will be notified. All deviations will be reported in the Final Report.

3.1 Pre-Sampling Inspection

A pre-sampling inspection will be conducted prior to sampling event(s) to evaluate the building floor layout, air flows, storage or use of volatile organic compounds (VOCs), and physical conditions of the building prior to testing. A photoionization detector (PID) will be utilized to identify potential sources of VOCs in the building. NYSDOH Indoor Air Quality Questionnaire and Building Inventory Form will be completed to document the existing conditions and chemical inventories. The results of the pre-sampling inspection will be

provided to the NYSDEC and NYSDOH. Based on the observation, additional sampling may be required.

3.2 Off-Site Sidewalk Sampling

Two soil vapor points (SV-3 and SV-4) will be installed at least 1 foot above the water table and above the bedrock/soil interface on the western sidewalk on Webster Avenue following the protocols described in Section 3.5, and two soil vapor samples will be collected. The sampling will take place for 8 hours.

3.3 3540 Decatur Avenue Sampling

This property is currently developed with a six-story residential use building with a cellar. One sub-slab vapor point will be installed, one sub-slab vapor sample (SS-1), one co-located indoor air sample (IA-1), one duplicate sample (DUP-1) co-located with the indoor air sample will be collected at the lowest level of 3540 Decatur Avenue (Tax Map ID: Block 3356, Lot 185). One outdoor ambient air sample (OA-1) will be collected concurrently with sub-slab/indoor air sampling. Two soil vapor points will be installed 10 feet below grade surface or refusal depth in the rear yard following the protocols described in Section 3.5. However, the final installation depth could be adjusted in the field based on site conditions, such as the actual groundwater elevation and bedrock beneath this property. The soil vapor points will not be installed within bedrock and will be installed at least one foot above the water table. The sampling will take place for 24 hours to reflect the exposure scenario (i.e., residential occupancy) being evaluated. Collection of additional contingent samples consisting of one sub-slab and one indoor air sample is planned as part of this work plan and will be determined by the NYSDEC and NYSDOH depending on the condition and use of documented spaces within the structure,

Access to this residential building's north adjacent tax parcel (Lot 190) is required in order to be able to mobilize the drill rig to the rear yard of this property. Letters to the owner of Lot 190 will be mailed to request access.

3.4 3525-3545 Webster Avenue Sampling

This property is currently developed with a two-story building utilized as an auto service. One sub-slab vapor point will be installed, one sub-slab vapor sample (SS-2), one co-located indoor air sample (IA-2) will be collected at the lowest level of 3525-3545 Webster Avenue (Block 3356, Lot 206). One outdoor ambient air sample (OA-2) will be collected concurrently with sub-slab/indoor air sampling. The sampling will take place for 8 hours to reflect the exposure scenario (i.e., commercial occupancy) being evaluated.

3.5 Sampling Procedure

The construction of the vapor points will follow the design of the NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006 with updates.

For the installation of temporary sub-slab vapor points (SS-1 and SS-2), a portable hammer drill will be utilized to core a small diameter hole in the lowest floor slabs. Sample points will be backfilled using glass beads followed by environmental-grade silica sand and topped with a bentonite layer to seal the tubing in the hole. The vapor points will be connected to ¼-inch outer diameter inert polyethylene, Teflon lined tubing, which will extend above the ground surface to allow for purging and sampling. Co-located indoor air samples (IA-1 and IA-2) and upwind exterior ambient air samples (OA-1 and OA-2) will be collected approximately 3-5 feet above the ground to represent a typical breathing zone. After purging approximately three volumes of air from the vapor point at a flow rate of less than 200 milliliters per minute, representative samples will be collected for laboratory analysis utilizing 6-liter SUMMA canisters fitted with the proper flow controllers (24 hours for 3540 Decatur Avenue samples and 8 hours for 3525-3545 Webster Avenue samples) set not to exceed 0.2 liters per minute as established by the NYSDOH Guidance document.

A direct-push drill rig operated by a licensed driller subcontractor will be utilized to install temporary soil vapor points (SV-1 through SV-4). Soil vapor points will be installed and sampled in accordance with the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006).

Soil vapor points (SV-1 and SV-2) will be installed approximately 10 feet below grade surface or refusal in the rear yard of 3540 Decatur Avenue. However, the final installation depth could be adjusted in the field based on site conditions, such as the actual groundwater elevation and bedrock beneath this property.

Soil vapor points (SV-3 and SV-4) will be installed at least one foot above the water table based on the nearest monitoring well observations and above the bedrock on the western side of the sidewalk along Webster Avenue. The sampling locations will be adjusted in the field to avoid subterranean conditions.

Sample points will be constructed of a dedicated stainless-steel screen fitted with ¼-inch outer diameter inert polyethylene, Teflon lined tubing, which will be extended above the ground surface to allow for purging and sampling. The points will be backfilled using glass beads followed by environmental-grade silica sand and topped with a bentonite layer to seal the tubing in the hole. After purging approximately three volumes of air from each vapor point at a flow rate of less than 200 milliliters per minute. SV-1 and SV-2 at 3540 Decatur Avenue will be collected for laboratory analysis utilizing 6-liter SUMMA canisters fitted with

24-hour flow controllers. SV-3 and SV-4 along Webster Avenue will be collected for laboratory analysis utilizing 6-liter SUMMA canisters fitted with 8-hour flow controllers set not to exceed 0.2 liters per minute as established by the NYSDOH Guidance document.

Prior to and immediately following testing, a tracer gas will be used in accordance with NYSDOH protocols to serve as a quality assurance/quality control (QA/QC) technique to verify the integrity of the soil vapor point seal. The integrity of vapor points will be tested by placing a plastic shroud over the vapor points to isolate them from ambient air. Then, a helium tracer gas will be applied into the shroud and screened utilizing a helium detector for the presence of helium. Tracer gas readings will be collected prior to testing, and if no helium is detected in any of the vapor points, then sampling will occur. If helium is detected, the points will be resealed properly before sampling. Tracer gas readings will be recollected following the completion of testing to ensure the integrity of the seals for the duration of the test.

Upon completion of the sampling event, all canisters will be labeled properly with the sample ID numbers and vacuum pressure readings in the canisters before and after the sample collection. The vapor samples will then be submitted to York Analytical Laboratories, a NYSDOH ELAP-certified laboratory, under proper chain of custody procedures to be analyzed for VOCs by EPA Method TO-15.

3.6 Management of Investigation Derived Waste

No significant investigation-derived waste is expected to be generated during the SVI investigation. Disposable sampling equipment, including gloves and tubing, will be placed in heavy-duty plastic bags, and disposed of properly.

3.7 Access Request

An access request letter will be distributed to each adjacent property owner as listed on the deeds for the aforementioned properties. A copy of the letter is provided in Appendix A. The letters will only be distributed after the NYSDEC and NYSDOH review and approval of this work plan. The letters will be mailed via certified mail, and copies of the receipts will be provided to the NYSDEC and NYSDOH.

4.0 STANDARDS, CRITERIA, AND GUIDANCE (SCGS)

Based on the findings of the prior investigation, the primary chemical of concern is CVOCs in soil vapor.

Soil vapor, sub-slab vapor, and co-located indoor air samples will be compared to the NYS DOH Decision Matrices included in the Guidance for Evaluating Soil Vapor Intrusion in the State of New York, 2006, with updates. Results will be evaluated to determine if engineering controls are required to prevent future off-site migration and exposure of these chemicals to neighboring properties.

5.0 QUALITY CONTROL/QUALITY ASSURANCE (QA/QC)

Ambient air samples will be collected as QA/QC during the Soil Vapor Intrusion Investigation. Duplicate ambient air samples will be collected at a rate of one per twenty samples or one per day of sample collection. Table 1 provides a sampling matrix with estimated QA/QC samples. Appendix B provides a quality assurance project plan that describes how QA/QC procedures will be implemented during the SVI Study.

5.1 Data Submittal

Analytical results will be provided by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory. Data will be supplied in Analytical Services Protocol (ASP) Category B Data Packages, and all results will be provided in accordance with the NYSDEC Environmental Information Management System (EIMS) electronic data deliverable (EDD) format (EQuIS).

5.2 Data Validation

Data validation will be performed in accordance with the EPA validation guidelines for organic and inorganic data review. A Data Usability Summary Report (DUSR) will be prepared by a third-party contractor upon receipt of the analytical laboratory reports. The DUSR will present the results of the data validation, including a summary assessment of laboratory data packages, sample preservation, and chain of custody procedures, and a summary assessment of the precision, accuracy, representativeness, comparability, and completeness of each analytical method.

6.0 HEALTH AND SAFETY PLAN (HASP)

A site-specific Health and Safety Plan (HASP) is prepared for this SVI investigation. All field personnel involved in investigation activities will participate in training required under 29 CFR 1910.120, such as 40-hour hazardous waste operator training and annual 8-hour refresher training. The Site Safety Officer will be responsible for maintaining workers' training records. The Site Safety Coordinator will be David Klein. An emergency contact sheet is included in the site-specific HASP.

All investigative work performed under this SVI investigation will comply with all applicable health and safety laws and regulations, including OSHA worker safety requirements and HAZWOPER requirements. Site-specific training will be provided to field personnel. Additional safety training may be added depending on the tasks performed. Sub-contractors may choose to utilize their own site-specific HASP or adopt this HASP.

A copy of the site-specific Health and Safety Plan is provided in Appendix C.

7.0 COMMUNITY AIR MONITORING PLAN (CAMP)

Community air monitoring will be performed during this SVI Investigation as required by the DER-10 (Appendix 1A, NYSDOH, Generic CAMP). Real-time air monitoring for volatile organic compounds (VOCs) and particulate levels will be performed during intrusive activities such as soil vapor point and sub-slab vapor installation. Continuous monitoring will be performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media.

Periodic monitoring for VOCs will be performed during non-intrusive activities such as the collection of soil samples or 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 bailing/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.

A detailed Community Air Monitoring Plan is provided in Appendix D.

8.0 REPORTING

Upon receipt of the analytical results, Vektor will prepare a Soil Vapor Intrusion Investigation Report, which will include the following sections:

- Introduction,
- Summary of site history,
- Summary of previous environmental investigation,
- Field methods and observations,
- Laboratory results section,
- Conclusions and recommendations, where necessary.

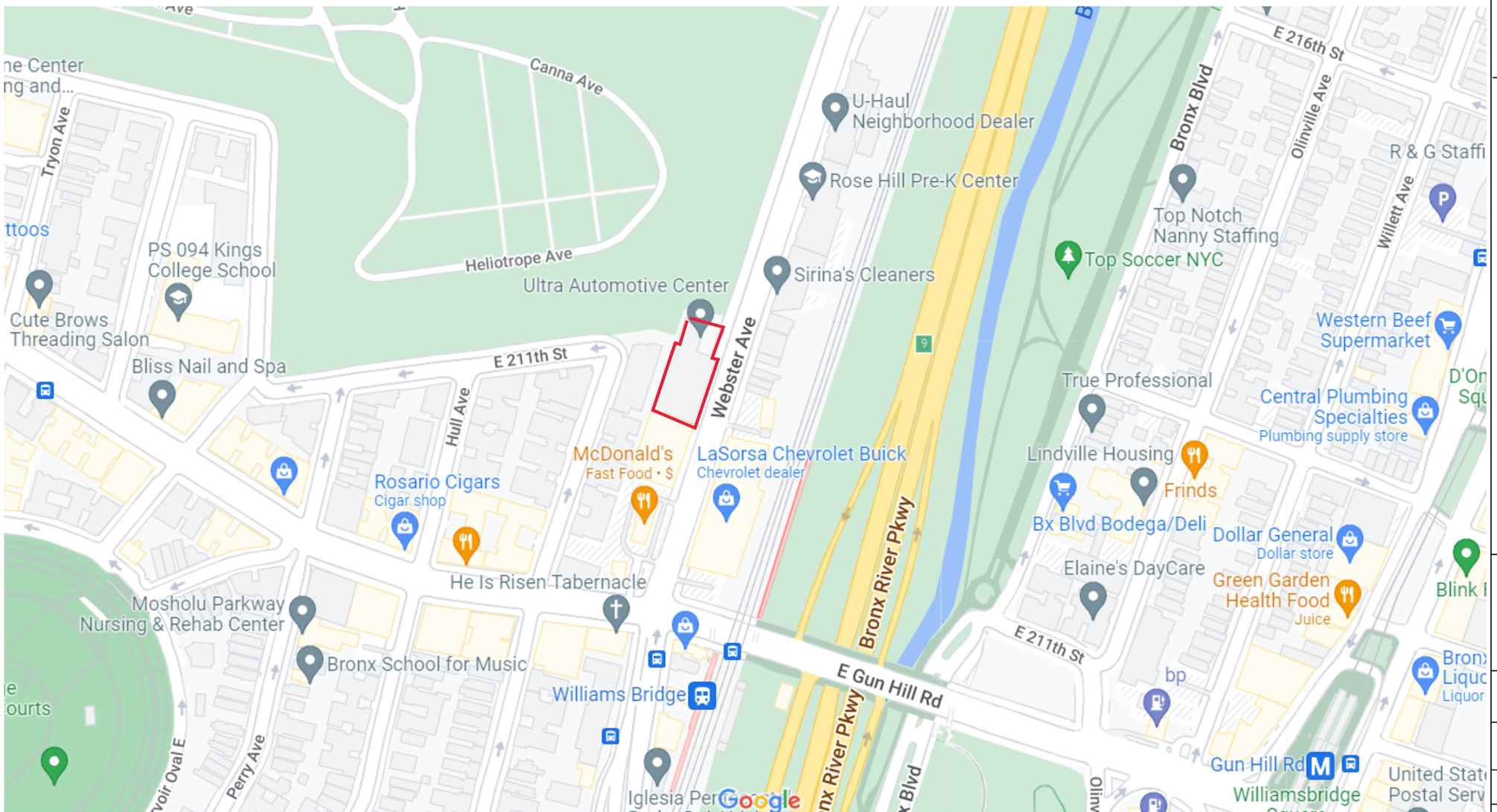
The report will also include scaled sampling plans showing all sample locations and exceedances, field logs, summary tables with comparison to respective standards, laboratory results, and a Qualitative Human Health Exposure Assessment in accordance with DER-10 (Appendix 3B) as appendices. All results will be provided in accordance with the NYSDEC EIMS EDD format (EQuIS).

9.0 SCHEDULE

The SVI Investigation will be implemented during the heating season upon approval of this Work Plan by the NYSDEC and NYSDOH. A 7-day notification will be provided to the NYSDEC and NYSDOH prior to implementation of this plan. The table below shows the anticipated schedule for completing the investigation:

Task	Estimated Date (weeks from NYSDEC SVI Investigation Work Plan approval)	Duration (weeks)
Mobilization & SVI Fieldwork	1	1
Laboratory Analysis and Deliverables	2	2
Draft SVI Report	4	1
Data Validation	4	3
SVI Investigation Report	7	1

FIGURES



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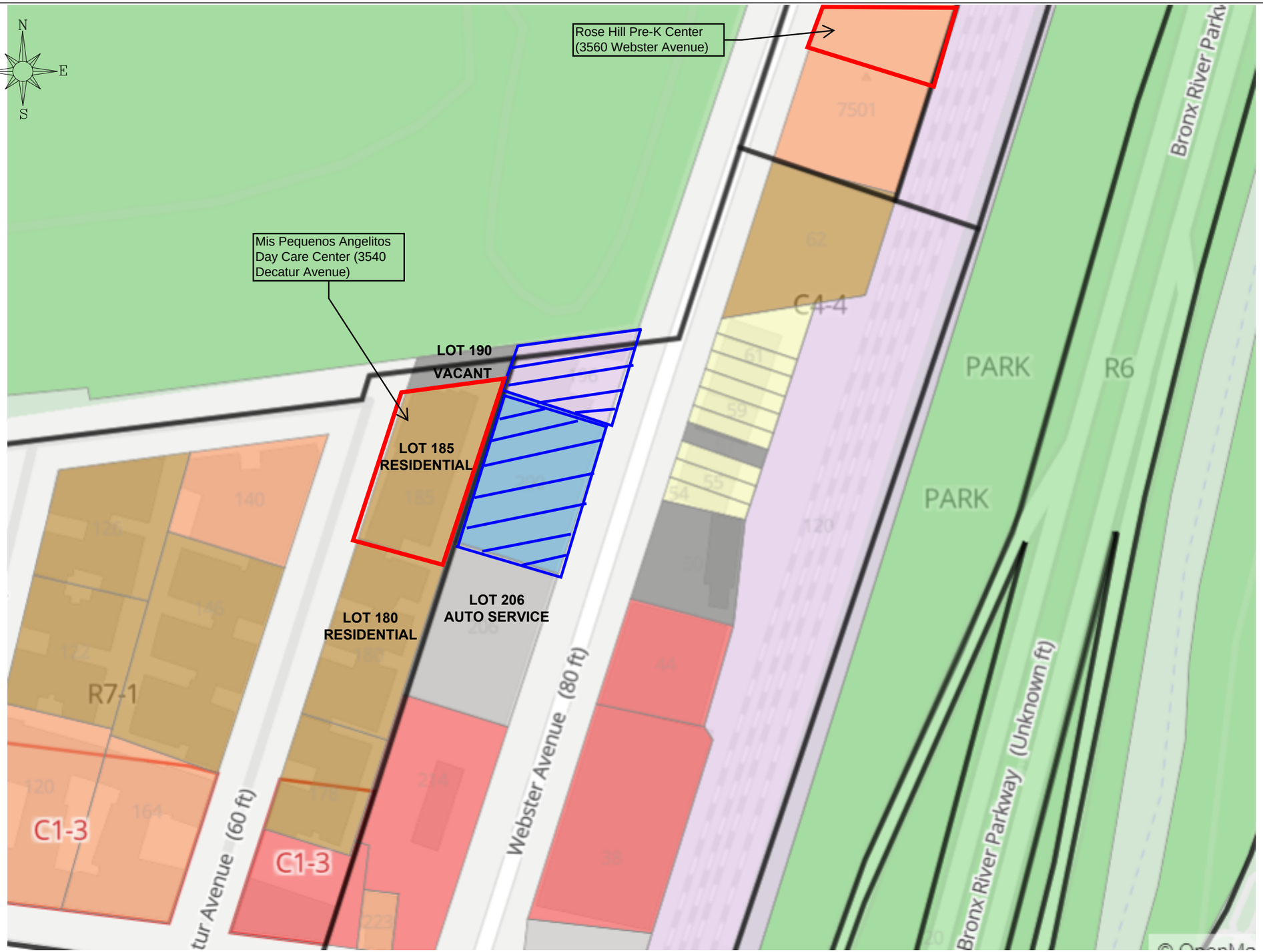
Legend:

Approximate Site Location

Base Map provided by Google

Scale:	Not to Scale
Figure No.	1
Figure Name:	Site Location Map
Report:	Off-Site SVI Work Plan
Date:	2/25/2024
Drawn By:	DK
Site Address:	3547 Webster Avenue Bronx, New York



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Legend:

- One and Two Family Buildings
- Multi-Family Walk-Up Buildings
- Multi-Family Elevator Buildings
- Mixed Residential and Commercial Buildings
- Commercial and Office Buildings
- Industrial and Manufacturing
- Transportation and Utility
- Public Facilities and Institutions
- Open Space and Outdoor Recreation
- Parking Facilities
- Vacant Land
- Other

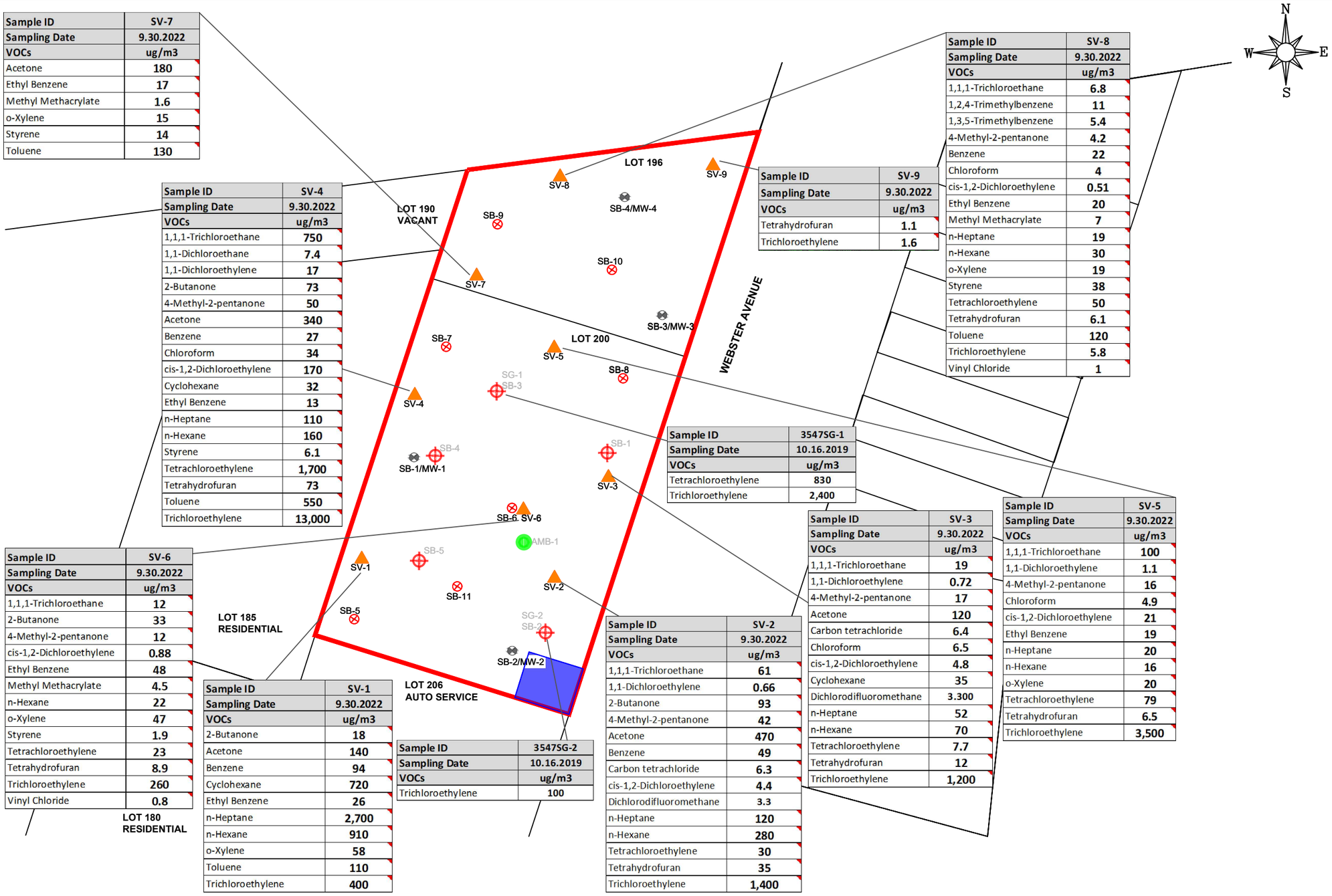
Mandatory Inclusionary Housing Areas

Site Boundary

Base map provided by NYC Planning

Scale: 0 100' 200'

Figure No.	2
Figure Name:	Site Boundary and Surrounding Land Use
Report:	Off-Site SVI Work Plan
Date:	2/13/2024
Drawn By:	TG
Site Address:	3547 Webster Avenue Bronx, NY



Sample ID	SV-7
Sampling Date	9.30.2022
VOCs	ug/m3
Acetone	180
Ethyl Benzene	17
Methyl Methacrylate	1.6
o-Xylene	15
Styrene	14
Toluene	130

Sample ID	SV-4
Sampling Date	9.30.2022
VOCs	ug/m3
1,1,1-Trichloroethane	750
1,1-Dichloroethane	7.4
1,1-Dichloroethylene	17
2-Butanone	73
4-Methyl-2-pentanone	50
Acetone	340
Benzene	27
Chloroform	34
cis-1,2-Dichloroethylene	170
Cyclohexane	32
Ethyl Benzene	13
n-Heptane	110
n-Hexane	160
Styrene	6.1
Tetrachloroethylene	1,700
Tetrahydrofuran	73
Toluene	550
Trichloroethylene	13,000

Sample ID	SV-9
Sampling Date	9.30.2022
VOCs	ug/m3
Tetrahydrofuran	1.1
Trichloroethylene	1.6

Sample ID	SV-8
Sampling Date	9.30.2022
VOCs	ug/m3
1,1,1-Trichloroethane	6.8
1,2,4-Trimethylbenzene	11
1,3,5-Trimethylbenzene	5.4
4-Methyl-2-pentanone	4.2
Benzene	22
Chloroform	4
cis-1,2-Dichloroethylene	0.51
Ethyl Benzene	20
Methyl Methacrylate	7
n-Heptane	19
n-Hexane	30
o-Xylene	19
Styrene	38
Tetrachloroethylene	50
Tetrahydrofuran	6.1
Toluene	120
Trichloroethylene	5.8
Vinyl Chloride	1

Sample ID	3547SG-1
Sampling Date	10.16.2019
VOCs	ug/m3
Tetrachloroethylene	830
Trichloroethylene	2,400

Sample ID	SV-6
Sampling Date	9.30.2022
VOCs	ug/m3
1,1,1-Trichloroethane	12
2-Butanone	33
4-Methyl-2-pentanone	12
cis-1,2-Dichloroethylene	0.88
Ethyl Benzene	48
Methyl Methacrylate	4.5
n-Hexane	22
o-Xylene	47
Styrene	1.9
Tetrachloroethylene	23
Tetrahydrofuran	8.9
Trichloroethylene	260
Vinyl Chloride	0.8

Sample ID	SV-1
Sampling Date	9.30.2022
VOCs	ug/m3
2-Butanone	18
Acetone	140
Benzene	94
Cyclohexane	720
Ethyl Benzene	26
n-Heptane	2,700
n-Hexane	910
o-Xylene	58
Toluene	110
Trichloroethylene	400

Sample ID	3547SG-2
Sampling Date	10.16.2019
VOCs	ug/m3
Trichloroethylene	100

Sample ID	SV-2
Sampling Date	9.30.2022
VOCs	ug/m3
1,1,1-Trichloroethane	61
1,1-Dichloroethylene	0.66
2-Butanone	93
4-Methyl-2-pentanone	42
Acetone	470
Benzene	49
Carbon tetrachloride	6.3
cis-1,2-Dichloroethylene	4.4
Dichlorodifluoromethane	3.3
n-Heptane	120
n-Hexane	280
Tetrachloroethylene	30
Tetrahydrofuran	35
Trichloroethylene	1,400

Sample ID	SV-3
Sampling Date	9.30.2022
VOCs	ug/m3
1,1,1-Trichloroethane	19
1,1-Dichloroethylene	0.72
4-Methyl-2-pentanone	17
Acetone	120
Carbon tetrachloride	6.4
Chloroform	6.5
cis-1,2-Dichloroethylene	4.8
Cyclohexane	35
Dichlorodifluoromethane	3.300
n-Heptane	52
n-Hexane	70
Tetrachloroethylene	7.7
Tetrahydrofuran	12
Trichloroethylene	1,200

Sample ID	SV-5
Sampling Date	9.30.2022
VOCs	ug/m3
1,1,1-Trichloroethane	100
1,1-Dichloroethylene	1.1
4-Methyl-2-pentanone	16
Chloroform	4.9
cis-1,2-Dichloroethylene	21
Ethyl Benzene	19
n-Heptane	20
n-Hexane	16
o-Xylene	20
Tetrachloroethylene	79
Tetrahydrofuran	6.5
Trichloroethylene	3,500

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Legend:

- Site Boundary
- SB-X — Soil Boring Location and Designated ID
- SV-X — Soil Vapor Location and Designated ID
- SB-X/MW-X — Soil Boring and Monitoring Well Location and Designated ID
- Cellar (Depth: 8.5 feet)
- AMB-1 — Previous Ambient Air Sample Location and Designated ID
- Previous Soil and Soil Gas Sample Location and Designated ID

Notes:

1. All feature locations are approximate
2. All reported units are in ug/m^3

Scale: 0 25 50 75 100

Figure No.	3
Figure Name:	Soil Vapor Results
Report:	Off-Site SVI Work Plan
Date:	2/21/2024
Drawn By:	KB
Site Address:	3547 WEBSTER AVENUE, BRONX, NY

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Legend:

- Site Boundary
- SS-X — Proposed Sub-slab Vapor Point Location and ID
- IA-X — Proposed Indoor Air Sample Location and ID
- OA-X — Proposed Outdoor Air Sample Location and ID
- SV-X — Proposed Soil Vapor Sample Location and ID
- Cellar

Notes:

1. All feature locations are approximate
2. All reported units are in ug/m^3

Scale: 0 25 50 75 100

Figure No.	4
Figure Name:	Offiste Soil Vapor Sampling Plan
Report:	SVIWP
Date:	3/21/2024
Drawn By:	DK
Site Address:	3547 WEBSTER AVENUE, BRONX, NY

TABLE

Table 1
Proposed Sampling Rationale and Summary
SVI Study

Address	Media	Sample ID	Sample Interval	Rationale	Analytical Parameters
3540 Decatur Avenue	Sub-Slab Vapor	SS-1	Immediately below slab of building	To evaluate sub-slab vapor concentrations at the property and potential for vapor migration	VOCs EPA Method TO-15
	(Contingent) Sub-Slab Vapor	SS-3			
	Indoor Ambient Air	IA-1	Collect 3-5 feet above the floor at the sub-slab soil vapor location	To evaluate indoor air quality and potential for vapor intrusion	
	(Contingent) Indoor Ambient Air	IA-3			
	Indoor Ambient Air	DUP-1			
	Soil Vapor	SV-1	10 feet below grade surface or to refusal depth	To evaluate soil vapor concentrations at the property boundary	
	Soil Vapor	SV-2			
3525-3545 Webster Avenue	Sub-Slab Vapor	SS-2	Immediately below slab of building	To evaluate sub-slab vapor concentrations at the property and potential for vapor migration	
	Indoor Ambient Air	IA-2	Collect 3-5 feet above the floor at the sub-slab soil vapor location	To evaluate indoor air quality and potential for vapor intrusion	
Adjacent Sidewalk along western side of Webster Avenue	Soil Vapor	SV-3	1 foot above groundwater level	To evaluate soil vapor concentrations at the property	
		SV-4			
QA/QC	Outdoor Ambient Air	OA-1	Collect 3-5 feet above the floor at an upwind location along Decatur Avenue	QA/QC and background conditions	
		OA-2	Collect 3-5 feet above the floor at an upwind location along Webster Avenue	QA/QC and background conditions	

APPENDICES

APPENDIX A

SAMPLE ACCESS REQUEST LETTER

vEKtor consultants

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DATE

Via USPS Certified Return Receipt Mail

Time Sensitive: Please respond before DATE

1394 B.P.R Realty Corp.
21 Kettell Avenue
Yonkers, New York 10704

Re: Request for Access to Conduct Sub-Slab Vapor and Indoor Air Sampling at 3525-3545 Webster Avenue, Bronx, NY (Tax Block: 3356, Lot: 206)

Dear Property Owner or Manager:

As part of an ongoing supplemental investigation at 3547 Webster Avenue, Bronx, New York (the Site) under the oversight of the New York State Department of Environmental Conservation (NYSDEC), Vektor Consultants, on behalf of 3547 Webster Tower, LLC (the Respondent) requests permission to have access to the property located at 3525-3545 Webster Avenue, Bronx, NY to conduct a soil vapor intrusion (SVI) investigation. The purpose of this investigation is to evaluate potential off-site migration of chlorinated solvents to your property from the adjacent Site. This voluntary investigation is requested by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) and will only be conducted with your written permission. Investigation and reporting costs will be covered by the adjacent property owner, 3547 Webster Tower, LLC (the Respondent).

Background

On November 10, 2023, the Respondent, 3547 Webster Tower, LLC, executed an Order on Consent and Administrative Settlement with the New York State Department of Environmental Conservation to characterize and remediate the contamination at 3547 Webster Avenue, Bronx, New York (P Site No. 203165).

Investigations conducted at the Site in 2022 and 2023 confirmed the presence of chlorinated volatile organic compounds (CVOCs)contamination in groundwater and soil vapor. Further groundwater investigation is currently being conducted at the Site.

Scope of Investigation

As part of the remedial efforts at the Site, the NYSDEC and NYSDOH request that the Respondent conduct a soil vapor investigation at your property. This includes the following tasks:

- A pre-sampling inspection (i.e., a visual walkthrough) will be conducted, and a chemical inventory will be collected prior to any intrusive sampling work,
- One sub-slab vapor point (¼-inch in diameter) will be installed in the basement floor slab with a handheld hammer drill. The floor penetration is minor and will be repaired after sampling. A co-located indoor air sample and an upwind exterior ambient air sample will be collected at approximately 3-5 feet above the ground to represent a typical breathing zone.
- Samples will be collected for 8 hours, and some noise will occur during hammer drilling for a short period of time. The investigation will not be intrusive to the tenants. Vektor personnel, the Respondent's environmental consultant, will conduct the investigation and coordinate the sampling locations with your designated representative.
- A copy of the findings will be provided to you once completed.

The Respondent understands you have the right to reject access and decline the proposed SVI investigation but encourages you to provide the requested access for the NYSDEC and NYSDOH to determine if there are site-related contaminates identified at your property. A mitigation system will be provided at no cost to the owner if it is determined that a mitigation system is necessary.

Vektor requests that you sign the access form attached to this letter and consent to entry onto your property by Vektor personnel. Please contact us with any questions you may have on this matter via email at ezgi@vektorconsultants.com or call (347) 871-0750.
If you have questions regarding the 3547 Webster Avenue Site or environmental remediation, please contact Erick Bower of NYSDEC at 518-402-9824 or erick.bower@dec.ny.gov. If you have health-related questions pertaining to this investigation, please contact Harolyn Hood of NYSDOH at 518-473-4780 or beei@health.ny.gov.

Sincerely,

Ezgi Karayel
Principal

Property Owner Acknowledgement for Access to 3525-3545 Webster Avenue, Bronx, NY

We consent to the investigation as described above and authorize Vektor Consultants to proceed.

Signed By: _____

Print Name: _____

Title: _____

Email: _____

Tel: _____

Date: _____

Ec:

Erick Bower, NYSDEC
Harolyn Hood, NYSDOH

vEKtor consultants

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f: +1.347.402.7735 www.vektorconsultants.com

DATE

Via USPS Certified Return Receipt Mail

Time Sensitive: Please respond before DATE

1394 B.P.R Realty Corp.
21 Kettell Avenue
Yonkers, New York 10704

Re: Request for Access to Conduct Sub-Slab Vapor and Indoor Air Sampling at 3540 Decatur Avenue, Bronx, NY (Tax Block: 3356, Lot: 185)

Dear Property Owner or Manager:

As part of an ongoing investigation at 3547 Webster Avenue, Bronx, New York (the Site) under the oversight of the New York State Department of Environmental Conservation (NYSDEC), Vektor Consultants, on behalf of 3547 Webster Tower, LLC (the Respondent) requests permission to have access to the property located at 3540 Decatur Avenue, Bronx, NY to conduct a soil vapor intrusion (SVI) investigation. The purpose of this investigation is to evaluate potential off-site migration of chlorinated solvents to your property from the adjacent Site. This voluntary investigation is requested by the NYSDEC and the New York State Department of Health (NYSDOH) and will only be conducted with your written permission. Investigation and reporting costs will be covered by the adjacent property owner, 3547 Webster Tower, LLC (the Respondent).

Background

On November 10, 2023, the Respondent , 3547 Webster Tower, LLC, executed an Order on Consent and Administrative Settlement with the NYSDEC to characterize and remediate the contamination at the 3547 Webster Avenue Site (P Site No. 203165).

Investigations conducted at the Site in 2022 and 2023 confirmed the presence of chlorinated volatile organic compounds (CVOCs)contamination in groundwater and soil vapor. Further groundwater investigation is currently being conducted at the Site.

Scope of Investigation

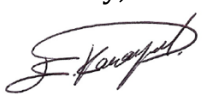
As part of the remedial efforts at the Site, the NYSDEC and NYSDOH request that the Respondent conduct a soil vapor investigation at your property. This includes the following tasks:

- A pre-sampling inspection (i.e., a visual walkthrough) will be conducted, and a chemical inventory will be collected prior to any intrusive sampling work,
- One to two sub-slab vapor points (¼-inch in diameter) will be installed in the basement floor slab with a handheld hammer drill. The floor penetration is minor and will be repaired after sampling. Co-located indoor air samples and an upwind exterior ambient air sample will be collected at approximately 3-5 feet above the ground to represent a typical breathing zone.
- Two 1-inch diameter soil vapor points will be installed in the rear yard with a direct-push drill rig.
- Samples will be collected for 24 hours, and some noise will occur during direct push drilling for a short period of time. The investigation will not be intrusive to the tenants. Vektor personnel, the Respondent's environmental consultant, will conduct the investigation and coordinate the sampling locations with your designated representative.
- A copy of the findings will be provided to you once completed.

The Respondent understands you have the right to reject access and decline the proposed investigation but encourages you to provide the requested access for the NYSDEC and NYSDOH to determine if there are site-related contaminants at your property. A mitigation system will be provided at no cost to the owner if it is determined that a mitigation system is necessary.

Vektor requests that you sign the access form attached to this letter and consent to entry onto your property by Vektor personnel. Please contact us with any questions you may have on this matter via email at ezgi@vektorconsultants.com or call (347) 871-0750.
If you have questions regarding the 3547 Webster Avenue Site or environmental remediation, please contact Erick Bower of NYSDEC at 518-402-9824 or erick.bower@dec.ny.gov. If you have health-related questions pertaining to this investigation, please contact Harolyn Hood of NYSDOH at 518-473-4780 or beei@health.ny.gov.

Sincerely,



Ezgi Karayel
Principal

Property Owner Acknowledgement for Access to 3540 Decatur Avenue, Bronx, NY

We consent to the investigation as described above and authorize Vektor Consultants to proceed.

Signed By: _____

Print Name: _____

Title: _____

Email: _____

Tel: _____

Date: _____

Ec:

Erick Bower, NYSDEC
Harolyn Hood, NYSDOH

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DATE

Via USPS Certified Return Receipt Mail

Time Sensitive:Please respond before DATE

1394 B.P.R Realty Corp.
21 Kettell Avenue
Yonkers, New York 10704

Re: Request for Access at Tax Block: 3356, Lot: 190, Bronx, NY

Dear Property Owner or Manager:

As part of an ongoing supplemental investigation at 3547 Webster Avenue, Bronx, New York (the Site) under the oversight of the New York State Department of Environmental Conservation (NYSDEC), Vektor Consultants, on behalf of 3547 Webster Tower, LLC (the Respondent) requests permission to have access to the property located at Tax Block: 3356, Lot: 190, Bronx, NY to conduct a soil vapor intrusion (SVI) investigation in the rear yard at the southern adjacent property located at 3540 Decatur Avenue (Tax Map ID: Block 3356, Lot 185). The purpose of this investigation is to evaluate potential off-site migration of chlorinated solvents to the southern adjacent property from the adjacent Site.
Access to the property in order to conduct a voluntary investigation at the southern adjacent property located at 3540 Decatur Avenue (Tax Map ID: Block 3356, Lot 185) is requested by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) and will only be conducted with your written permission. Investigation and reporting costs will be covered by the adjacent property owner, 3547 Webster Tower, LLC (the Respondent).

Background

On November 10, 2023, the Respondent , 3547 Webster Tower, LLC, executed an Order on Consent and Administrative Settlement with the NYSDEC to characterize and remediate the contamination at the 3547 Webster Avenue Site (P Site No. 203165).

Investigations conducted at the Site in 2022 and 2023 confirmed the presence of chlorinated volatile organic compounds (CVOCs)contamination in groundwater and soil vapor. Further groundwater investigation is currently being conducted at the Site.

Scope of Investigation

As part of the remedial efforts at the Site, the NYSDEC and NYSDOH request that the Respondent grant access in order to conduct a SVI investigation in the rear yard at southern adjacent property located at 3540 Decatur Avenue (Tax Map ID: Block 3356, Lot 185). The investigation includes a pre-sampling inspection, chemical inventory inspection, collection and analyses of vapor samples. The investigation will be conducted by Vektor personnel, the Respondent's environmental consultant. Vektor will coordinate access with a designated representative.

The Respondent understands you have the right to reject access and decline the proposed SVI investigation but encourages you to provide the requested access for the southern adjacent property for the NYSDEC and NYSDOH to determine if there are site-related contaminates identified at the southern adjacent property.

Vektor requests that you sign the access form attached to this letter and consent to entry onto your property by Vektor personnel. Please contact us with any questions you may have on this matter via email at ezgi@vektorconsultants.com or call (347) 871-0750.

If you have questions regarding the 3547 Webster Avenue Site or environmental remediation, please contact Erick Bower of NYSDEC at 518-402-9824 or erick.bower@dec.ny.gov. If you have health-related questions pertaining to this investigation, please contact Harolyn Hood of NYSDOH at 518-473-4780 or beei@health.ny.gov.

Sincerely,

Ezgi Karayel
Principal

Property Owner Acknowledgement for Access to Tax Block: 3356, Lot: 190, Bronx, NY

We consent to the investigation as described above and authorize Vektor Consultants to proceed.

Signed By: _____

Print Name: _____

Title: _____

Email: _____

Tel: _____

Date: _____

Ec:

Erick Bower, NYSDEC
Harolyn Hood, NYSDOH

APPENDIX B

QUALITY ASSURANCE PROJECT PLAN

vEKtor consultants

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QUALITY ASSURANCE PROJECT PLAN

Prepared For: 3547 Webster Tower, LLC

Project Name: 3547 Webster Avenue

Project Location: 3547 Webster Avenue, Bronx, New York 10467

Date: March 2024

37 West 37th Street, 6th Floor, New York, NY 10018

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Tables

Figures

Attachments

1.0 INTRODUCTION

This Quality Assurance Project Plan (QAPP) has been prepared on behalf of 3547 Webster Tower, LLC (the Respondent) for the implementation of an Off-site Soil Vapor Intrusion (SVI) Investigation by Vektor Consultants (Vektor) and its subcontractors to evaluate off-site soil vapor conditions in the Webster Avenue sidewalk and at the following properties located west and south to 3547 Webster Avenue, Bronx, New York (the Site);

- Six-story residential building at 3540 Decatur Avenue
- Two-story auto service building at 3525-3545 Webster Avenue

The investigation activities will be conducted in accordance with a New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) approved Off-site SVI Investigation Work Plan.

This QAPP describes the protocols and procedures to be followed during the implementation of the NYSDEC approved work plan. This QAPP was prepared in accordance with the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation and the NYSDEC BCP Guide.

1.1 Scope of Work

An off-site SVI investigation proposed herein will further investigate and evaluate potential off-site soil vapor migration and if the air quality is impacted at the immediately adjacent buildings. The supplemental data in conjunction with the existing data will be analyzed to characterize the nature and extent of contamination and to evaluate remedial action alternatives.

The proposed scope of work for the SVI Study is as follows:

- Pre-sampling inspection of the west adjacent residential property and south adjacent commercial property, where the sampling will occur,
- Installation and sampling of one sub-slab vapor point (SS-1) below the lowest slab of the west adjacent building at 3540 Decatur Avenue, collection of one co-located indoor air sample (IA-1), one duplicate sample (DUP-1), and one outdoor ambient background air sample (OA-1). Collection of additional contingent samples consisting of one sub-slab and one indoor air sample is planned as part of this work plan and will be determined by the NYSDEC and NYSDOH depending on the condition and use of documented spaces within the structure,
- Installation and sampling of two soil vapor points (SV-1 and SV-2) in the rear yard of 3540 Decatur Avenue,
- Installation and sampling of two soil vapor points (SV-3 and SV-4) in the sidewalk along the western side of Webster Avenue and

- Installation and sampling of one sub-slab vapor point (SS-2) below the lowest slab of the south adjacent building at 3525-3545 Webster Avenue, collection of one co-located indoor air sample (IA-2), and collection of one outdoor ambient background air sample (OA-2).

2.0 PROJECT TEAM

Vektor's team of trained and experienced environmental scientists, geologists, and engineers along with Vektor's licensed subcontractors will perform the below-listed tasks in a manner consistent with DER-10 Technical Guidance for Site Investigation and Remediation (DER-10).

Principal Engineer, P.E.	Hilmi U. Aydin	Hilmi U. Aydin, P.E.
Project Director, QEP	Ezgi Karayel	Vektor Consultants
Project Manager	David Klein	Vektor Consultants
Field Leader	Antonio Cardenas	Vektor Consultants
Laboratory QA/QC Officer	Benjamin Gulizia	York Analytical Laboratories, Inc.
Third-party Data Validator	Don Anne	Alpha Geoscience

2.1 Principal Engineer

Hilmi U. Aydin, Professional Engineer, will act as the Principal Engineer and will oversee the successful completion of this project. He will have the direct responsibility of preparation and certification of the SVI report.

2.2 Project Director

Ezgi Karayel, Qualified Environmental Professional, will act as the Project Director and Quality Assurance/Quality Control (QA/QC) officer and will ensure the successful completion of the SVI investigation.

2.3 Project Manager

David Klein of Vektor will act as the Project Manager. He will oversee the field activities and coordinate for all elements of the SVI investigation. He will be responsible for coordinating with the field leader and other field crew as necessary.

2.4 Field Leader

Antonio Cardenas of Vektor will lead the field activities and ensure implementation of Health and Safety Plan (HASP) during all field work. He has the authority to stop all work if unsafe conditions are observed. He will be responsible for coordinating with all subcontractors. He will oversee the subcontractors in the field and collect samples outlined in the work plan and in this QAPP.

2.4 Laboratory Quality Assurance/Quality Control Officer

Laboratory analysis will be completed by York Analytical Laboratories (York) of Stratford, CT. York is a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) certified laboratory (NY Cert. Numbers 10854 and 12058). Kriston Simmons is the Client Manager who will ensure that all glassware including laboratory prepared trip blanks and chain of custodies are properly packaged and shipped. QA/QC Officer is Sarah Widomski who will ensure that quality assurance procedures are followed. Quality Assurance requirements for analytical laboratory data include accuracy, precision, sensitivity, representativeness, and completeness. Data will be supplied in Analytical Services Protocol (ASP) Category B Data Packages.

2.5 Third-Party Data Validator

Don Anne of Alpha Geoscience will be the third-party validator. Data validation will be performed in accordance with the EPA validation guidelines for organic and inorganic data review. A Data Usability Summary Report (DUSR) will be prepared by Don Anne upon receipt of the analytical laboratory reports. The DUSR will present the results of the data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness of each analytical method.

3.0 SAMPLING METHODS PROCEDURES

This section describes the field protocol and procedures to be followed during the SVI investigation.

Table 1 provides a copy of the sampling summary. Figure 1 provides a copy of the proposed sampling plan.

3.1 Pre-Sampling Inspection

A pre-sampling inspection will be conducted prior to sampling event(s) to evaluate the building floor layout, air flows, storage or use of volatile organic compounds (VOCs), and physical conditions of the building prior to testing. A photoionization detector (PID) will be utilized to identify potential sources of VOCs in the building. NYSDOH Indoor Air Quality Questionnaire and Building Inventory Form will be completed to document the existing conditions and chemical inventories.

3.2 Off-Site Sidewalk Sampling

Two soil vapor points will be installed to at least 1 foot above the water table and above the bedrock/soil interface. and two soil vapor samples (SV-3 and SV-4) will be collected on the western sidewalk on Webster Avenue following the protocols described in Section 3.4. The sampling will take place for 8 hours.

The vapor samples will then be submitted to a NYSDOH ELAP-certified laboratory under proper chain of custody procedures to be analyzed for VOCs by EPA Method TO-15.

3.3 3540 Decatur Avenue Sampling

This property is currently developed with a six-story residential use building with a cellar. One sub-slab vapor point will be installed, one sub-slab vapor sample (SS-1), one co-located indoor air sample (IA-1), one duplicate sample (DUP-1) co-located with the indoor air sample will be collected at the lowest level of 3540 Decatur Avenue (Tax Map ID: Block 3356, Lot 185). One outdoor ambient air sample (OA-1) will be collected concurrently with sub-slab/indoor air sampling. Two soil vapor points will be installed 10 feet below grade surface or refusal depth in the rear yard following the protocols described in Section 3.5. However, the final installation depth could be adjusted in the field based on site conditions, such as the actual groundwater elevation and bedrock beneath this property. The soil vapor points will not be installed within bedrock and will be installed at least one foot above the water table. The sampling will take place for 24 hours to reflect the exposure scenario (i.e., residential occupancy) being evaluated. Collection of additional contingent samples consisting of one sub-slab and one indoor air sample is planned as part of this work plan and will be determined by the NYSDEC and NYSDOH depending on the condition and use of documented spaces within the structure,

Access to this residential building's north adjacent tax parcel (Lot 190) is required in order to be able to mobilize the drill rig to the rear yard of this property. Letters to the owner of Lot 190 will be mailed to request access.

The vapor samples will then be submitted to a NYSDOH ELAP-certified laboratory under proper chain of custody procedures to be analyzed for VOCs by EPA Method TO-15.

3.4 3525-3545 Webster Avenue Sampling

This property is currently developed with a two-story building utilized as an auto service. One sub-slab vapor point will be installed, one sub-slab vapor sample (SS-2), one co-located indoor air sample (IA-2) will be collected at the lowest level of 3525-3545 Webster Avenue (Block 3356, Lot 206). One outdoor ambient air sample (OA-2) will be collected concurrently with sub-slab/indoor air sampling. The sampling will take place for 8 hours to reflect the exposure scenario (i.e., commercial occupancy) being evaluated.

The vapor samples will then be submitted to a NYSDOH ELAP-certified laboratory under proper chain of custody procedures to be analyzed for VOCs by EPA Method TO-15.

3.5 Quality Assurance (QA)/ Quality Control (QC) Sampling

The accuracy, precision and completeness of the samples will be addressed by the certified laboratory for all data generated. Duplicate ambient air samples with be collected at a rate of one per twenty samples or one per day of sample collection. It is assumed that all sub-slab, soil vapor, indoor air, and outdoor ambient air samples will be collected in one day.

Prior to and immediately following testing, a tracer gas will be used in accordance with NYSDOH protocols to serve as a quality assurance/quality control (QA/QC) technique to verify the integrity of the soil vapor point seal. A container (box, plastic pail, etc.) will serve to keep the tracer gas in contact with the probe during testing. Then, a helium tracer gas will be applied into the shroud and will be screened utilizing a helium detector for presence of helium. Tracer gas reading will be collected prior to testing, and if no helium is detected in any of the vapor points, then sampling will occur. If helium is detected, then the points will be resealed properly prior to sampling. Tracer gas reading will be collected following the completion of testing to ensure integrity of the seals for the duration of the test.

3.6 Field Instrumentation

The field instruments such as PID to be used during the SVI investigation will be calibrated at the beginning of each day as per the manufacturers' specifications. Calibration records will be recorded in the field book.

4.0 DECONTAMINATION

All sampling equipment will be dedicated disposable tools and won't require decontamination.

4.1 Investigation Derived Waste

No significant investigation derived waste is expected to be generated during the SVI investigation. Disposable sampling equipment, including gloves and tubing, will be placed in heavy-duty plastic bags and disposed of properly.

TABLES

Table 1
Proposed Sampling Rationale and Summary
SVI Study

Address	Media	Sample ID	Sample Interval	Rationale	Analytical Parameters
3540 Decatur Avenue	Sub-Slab Vapor	SS-1	Immediately below slab of building	To evaluate sub-slab vapor concentrations at the property and potential for vapor migration	VOCs EPA Method TO-15
	(Contingent) Sub-Slab Vapor	SS-3			
	Indoor Ambient Air	IA-1	Collect 3-5 feet above the floor at the sub-slab soil vapor location	To evaluate indoor air quality and potential for vapor intrusion	
	(Contingent) Indoor Ambient Air	IA-3			
	Indoor Ambient Air	DUP-1			
	Soil Vapor	SV-1	10 feet below grade surface or to refusal depth	To evaluate soil vapor concentrations at the property boundary	
	Soil Vapor	SV-2			
3525-3545 Webster Avenue	Sub-Slab Vapor	SS-2	Immediately below slab of building	To evaluate sub-slab vapor concentrations at the property and potential for vapor migration	
	Indoor Ambient Air	IA-2	Collect 3-5 feet above the floor at the sub-slab soil vapor location	To evaluate indoor air quality and potential for vapor intrusion	
Adjacent Sidewalk along western side of Webster Avenue	Soil Vapor	SV-3	1 foot above groundwater level	To evaluate soil vapor concentrations at the property	
		SV-4			
QA/QC	Outdoor Ambient Air	OA-1	Collect 3-5 feet above the floor at an upwind location along Decatur Avenue	QA/QC and background conditions	
		OA-2	Collect 3-5 feet above the floor at an upwind location along Webster Avenue	QA/QC and background conditions	

Table 2
Preservation and Holding Times

Sample Matrix	Analysis	Container	Preservation	Holding Time
Vapor, Air	TO-15	Canister	Ambient	30 days

FIGURE 1

PROPOSED SAMPLING PLAN

vEKtor consultants

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Legend:

- Site Boundary
- SS-X — Proposed Sub-slab Vapor Point Location and ID
- IA-X — Proposed Indoor Air Sample Location and ID
- OA-X — Proposed Outdoor Air Sample Location and ID
- SV-X — Proposed Soil Vapor Sample Location and ID
- Cellar

Notes:

1. All feature locations are approximate
2. All reported units are in ug/m^3

Scale: 0 25 50 75 100

Figure No.	1
Figure Name:	Offiste Soil Vapor Sampling Plan
Report:	QAPP
Date:	3/21/2024
Drawn By:	DK
Site Address:	3547 WEBSTER AVENUE, BRONX, NY

ATTACHMENTS

ATTACHMENT 1
CHAIN OF CUSTODY EXAMPLES

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
132-02 89th Ave Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record - AIR

YORK Project No.

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company:	Company:	Company:		RUSH - Next Day ☐
Address:	Address:	Address:		RUSH - Two Day ☐
Phone.:	Phone.:	Phone.:	YOUR Project Name	RUSH - Three Day ☐
Contact:	Contact:	Contact:		RUSH - Four Day ☐
E-mail:	E-mail:	E-mail:	YOUR PO#:	**Standard (5-7 Day)** ☐

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Samples Collected by: (print your name above and sign below)

Air Matrix Codes

- AI - Indoor Ambient Air
- AO - Outdoor Amb. Air
- AE - Vapor Extraction Well/ Process Gas/Effluent
- AS - Soil Vapor/Sub-Slab

Samples From

- New York ☐
- New Jersey ☐
- Connecticut ☐
- Pennsylvania ☐
- Other ☐

Report / EDD Type (circle selections)

Summary Report	CT RCP	Standard Excel EDD
QA Report	CT RCP DQA/DUE	EQuIS (Standard)
NY ASP A Package	NJDEP Reduced Deliv.	NYSDEC EQuIS
NY ASP B Package	NJDKQP	NJDEP SRP HazSite
Other:		

YORK Reg. Comp.

Compared to the following Regulation(s): (please fill in)

Certified Canisters: Batch ___ Individual ___

Please enter the following REQUIRED Field Data

Reporting Units: ug/m^3 ___ ppbv ___ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested

Comments:

Detection Limits Required

≤ 1 ug/m^3 _____ NYSDEC V1 Limits _____
Routine Survey _____ Other _____

Sampling Media

- 6 Liter Canister ☐
- Tedlar Bag ☐

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Samples Received by / Company	**Date/Time**	**Samples Relinquished by / Company**	**Date/Time**	**Samples Received by / Company**	**Date/Time**
Samples Relinquished by / Company	**Date/Time**	**Samples Received by / Company**	**Date/Time**	**Samples Received in LAB by**	**Date/Time**

ATTACHMENT 2
RESUMES

Ezgi Karayel

Principal

Contact

347.871.0750
ezgi@vektorconsultants.com

Ezgi Karayel is an environmental engineer with extensive experience in brownfield redevelopment. She is the founder and Principal of Vektor Consultants and serves as Operations Officer of the firm. Ms. Karayel guides firm's clients through their due diligence processes. She manages all aspects of the firm strongly focusing on brownfield redevelopment and E-Designation projects across New York Metropolitan area. She has worked with major real estate developers and shareholders by developing strategic approaches to the environmental challenges of complex real estate transactions and brownfield redevelopment. Her experience also includes a broad range of environmental services including regulatory compliance, due diligence assessments, acquisition support, design and implementation of engineering controls and remediation systems, excavation support and soil disposal plans, and facility decommissioning.

She is the chair of the Partnership's Scholarship Program and works closely with committee members to support the education and training of students who are pursuing environmental careers.

Education

B.S. Environmental Engineering
University at Buffalo

Professional Registration

OSHA 10-hour Construction and 40-hour General Industry
OSHA 40-hour HAZWOPER and 8-hour HAZWOPER Refresher
Certified Environmental Manager and Certified Environmental Inspector

Affiliations

New York City Brownfield Partnership, President

Brownfield Coalition of the Northeast, Advisory Board Member

Select Projects

Linden Boulevard, Queens, New York – Site Investigation and Remediation of a 7-acre former landfill with a Restrictive Declaration. The scope of work for the project included preparation of a Remedial Investigation Work Plan for review and approval by the NYCOER, NYSDEC and NYCDOH, implementation of Remedial Investigation, preparation of Remedial Investigation Report, Remedial Action Work Plan, preparation and implementation of a waste characterization plan for soils for proper disposal, supervision of site remediation activities, coordination with remediation engineer to design a methane mitigation system as well as vapor barrier system and managing field staff during remediation.

Ezgi Karayel, Principal

Former Tunnel Diner, Jersey City, New Jersey – Remedial Investigation (RI) of a 1⁄2-acre property in accordance with the New Jersey Technical Requirements for Site Remediation. Ms. Karayel worked closely with the Licensed Site Remediation Professional (LSRP) of the project. Followed by the approval of the RAWP prepared by her, Ms. Karayel directed remediation activities at the site and managed field staff on a daily basis. Upon completion of remediation, she has prepared Remedial Action Outcome for review and certification of the LSRP.

249 North 7th Street, Brooklyn, New York – As a Project Director for a Remedial Investigation of a former auto repair shop with an active spill, Ms. Karayel was responsible for remediation of the property under the direct supervision of NYCOER and NYSDEC. Her responsibilities consisted of preparing the required reports and supervision of remediation including excavation, and installation of engineering controls. By successful coordination with NYCOER, she has managed to enroll the project in City's Clean Soil Bank program and saving the client over $160,000 for soil disposal.

9029 Flatlands Avenue, Brooklyn, New York – E-Designation for HazMat. She conducted a Phase I ESA prior to development, followed by remedial investigation and preparation of Remedial Investigation Report and Remedial Action Work Plan for the remediation. Remediation for the project included design and implementation of an active sub-slab depressurization system. For the engineering controls design and implementation, Ms. Karayel worked closely with the Professional Engineer for the project and performed all required pilot tests, initial start-up and inspections.

37-23 33rd Street, Queens, New York – Removal of "P" Designation. Ms. Karayel managed to prevent the property from becoming a Class II site by performing a thorough due-diligence and disproving the prior consultant's findings and recommendations. Furthermore, her due-diligence study and evaluation saved the client over $1,000,000 clean-up costs, regulatory and legal fees.

261 Grand Concourse, Bronx, New York – Brownfield Redevelopment
1-9 Wythe Avenue, Brooklyn, New York – Brownfield Redevelopment
42 Reeve Place, Brooklyn, New York – Spill Closure
21-01 21st Street, Queens, New York – Former Gasoline Station Decommissioning and Storage Tank Removal
260-262 Van Brunt Street, Brooklyn, New York – Brownfield Cleanup
299 East 161st Street, Bronx, New York – Voluntary Cleanup Program
122 East 32nd Street, New York, New York – Community Center, Remediation under Voluntary Cleanup Program
346 Metropolitan Avenue, Brooklyn, New York – Voluntary Cleanup Program
574 Broome Street, New York, New York – Voluntary Cleanup Program
173-175 McGuinness Boulevard, Brooklyn, New York – Voluntary Cleanup Program
4790 Broadway, New York, New York – Voluntary Cleanup Program

David B. Klein

Project Manager

Contact

347.871.0750
dklein@vektorconsultants.com

David B. Klein is a project manager with Vektor Consultants. David authored Remedial Action Work Plans, Remedial Investigation Reports, Remedial Action Reports, Final Engineering Reports, Noise Sampling Reports, Soil Vapor/Air Sampling Work Plans, Construction Health and Safety Plans, Interim Remedial Measures Summary Reports, Brownfield Cleanup Program Applications, Volunteer Cleanup Program Applications, Disposal Facility Applications, Underground Storage Tank Closure Reports, Phase I and Phase II Environmental Site Assessment Reports. David manages construction activities, drilling teams, excavations, tank removals, and waste disposals at multiple sites concurrently.

Education

B.S. Environmental Science &
Minor in Geology
University at Albany

Professional Registration

OSHA 10-hour Construction
OSHA 40-hour HAZWOPER and 8-hour HAZWOPER Refresher
10-Hour Site Safety Training
SWPPP Certification

Affiliations

New York City Brownfield Partnership

Select Projects

Far Rockaway Project Phases I, II, III, IV, and V, Queens, New York
Responsible for oversight and preparation of the Remedial Action Work Plan, Remedial Action Report, Final Engineering Report, Interim Remedial Measures Summary Report, NYSDEC Letter reports, and daily reports. Managed construction, drilling, excavation, waste disposal oversight of multiple phases concurrently.

Cropsey Avenue LLC, Brooklyn, New York
Authored Indoor Air Sampling Work Plan, Construction Health and Safety Plan, Interim Remedial Measures Summary Report and managed pilot tests for sub-slab depressurization system design and provided oversight during the installation of the engineering controls.

1815 West Farms Road, Bronx, New York – Voluntary Cleanup Program
315 Grand Concourse, Bronx, New York – Brownfield Redevelopment
261 Grand Concourse, Bronx, New York – Brownfield Redevelopment
960 Franklin Avenue, Brooklyn, New York – Brownfield Redevelopment

APPENDIX C

HEALTH AND SAFETY PLAN

vEKtor consultants

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HEALTH AND SAFETY PLAN

Prepared For: 3547 Webster Tower, LLC

Project Name: 3547 Webster Avenue

Project Location: 3547 Webster Avenue, Bronx, New York 10467

Date: March 2024

37 West 37th Street, 6th Floor, New York, NY 10018

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Emergency Contacts			
Position	**Name**	**Organization**	**Phone**
Remedial Engineer	Hilmi U. Aydin	Hilmi U. Aydin, P.E.	aydin@vektorconsultants.com
Project Director	Ezgi Karayel	Vektor Consultants	(347) 871-0750
Project Manager	David Klein	Vektor Consultants	(347) 871-0750
Field Representative	Antonio Cardenas	Vektor Consultants	(347) 871-0750
Site Health and Safety Supervisor	Antonio Cardenas	Vektor Consultants	(347) 871-0750
Client Contact	Jack Klein	B Contractors Group LLC	jack@bmanage.com
Project Manager	Harolyn Hood	NYSDOH	(518) 473-4780
Project Manager	Erick Bower	NYSDEC	(518) 402-9627
Emergency Response		FDNY	911
Spill Hotline		NYSDEC	(800) 457-7362

Emergency Medical Facility	
Primary	***Alternate***
Montefiore Medical Center Moses Campus Emergency Room 111 E 210th St, Bronx, NY 10467 Tel: (718) 920-5731 Open 24 Hours	MyDoc Urgent Care - Norwood and Jerome Park 161 E Gun Hill Rd, Bronx, NY 10467 Tel: (718) 882-0597 Monday-Friday: 9 am to 7 pm Saturday: 10 am to 6 pm Sunday: Closed
Route to emergency medical facility map attached to back of this health & safety plan	

Sign-in Sheet

Name	Signature	Company	Date

1.0 INTRODUCTION

This Health and Safety Plan Plan (HASP) has been prepared on behalf of 3547 Webster Tower, LLC for the implementation of an Off-Site Soil Vapor Intrusion (SVI) Investigation by Vektor Consultants LLC (Vektor) and its subcontractors to evaluate off-site soil vapor conditions in the Webster Avenue sidewalk and at the following properties located west and south to 3547 Webster Avenue, Bronx, New York (the Site);

- Six-story residential building at 3540 Decatur Avenue
- Two-story auto service building at 3525-3545 Webster Avenue

This HASP describes lines of authority, responsibility, and communication as they pertain to health and safety functions at this site in compliance with *29 CFR 1910.120(b)(2) and 29 CFR 1926.65(b)(2)*. This plan also details key personnel who are responsible for the development and implementation of the HASP. Vektor field personnel will implement this HASP during the implementation of the SVI Study.

1.1 Site Location and Description

The Site is 18,663-square feet and is bounded by Woodlawn Cemetery (4199 Webster Avenue) to the north, a two-story commercial building (3525 Webster Avenue) to the south, Webster Avenue to the east, and a six-story residential building (3540 Decatur Avenue) and vacant land to the west. The legal description of the subject property is Block 3356 and Lots 196 and 200. The Site is currently vacant, and the ground surface is capped by the former concrete building slabs. The former Site buildings are undergoing demolition as of the date of this plan. A site location map is provided as Figure 1.

1.2 Summary of Previous Investigations

The following reports were reviewed during the preparation of this HASP in order to determine potential hazards:

The following reports were provided to Vektor for review during this assessment:

- Phase I Environmental Site Assessment, May 2019, prepared by Partner Assessment Corporation, Inc.
- Subsurface Investigation Report, October 2019, prepared by ProGea, Inc.
- Phase II Plan, September 2022, prepared by Vektor
- Site Characterization Report by, November 2022 (updated May 2023), prepared by Vektor

Digital (PDF) copies of the above referenced environmental reports are included as Appendix A.

Phase I Environmental Site Assessment for Lot 200 by Partner Assessment Corporation, Inc. dated May 2019

- Partner Assessment Corporation, Inc. (Partner) prepared this report on behalf of Axos Bank in accordance with ASTM E1527-13.
- The ESA was conducted at Lot 200 only. Lot 200 consisted of one two-story building that encompassed the entire property parcel. The subject property was vacant with no ongoing business operations at the time of the Phase I ESA.
- Partner did not identify any historical recognized environmental conditions (HRECs) or controlled recognized environmental conditions (CRECs); however, identified the following recognized environmental conditions (RECs):
    - According to a review of the historical sources, the subject property was developed with the current structure in 1927. The subject property was occupied by numerous commercial tenants that included garage, auto repair, and manufacturing operations (metal products/electrical panels/surgical supplies) from at least the 1940s to the 1980s. These types of operations utilize various petroleum products as well as chlorinated solvents for metal cleaning operations. Chlorinated solvents are highly mobile and have the potential to impact the subject property through subsurface conduits, such as cracks in the floor or floor drains. Based on the duration of operations and absence of prior subsurface investigation reports, the historical use of the subject property for garage, auto repair, and manufacturing operations is considered to represent a REC.
    - Partner's research and onsite observations identified the presence of an active and historic aboveground and underground storage tanks (ASTs/USTs). The subject property is registered (Facility ID 2-293466) with one 5,000-gallon #2 Fuel Oil AST that was installed in 1986, which was noted to be present during Partner's site reconnaissance. In addition,

a vent pipe and fill ports characteristic of USTs were observed. Four fill ports and one vent pipe were observed at the subject property; three fill ports along the sidewalk located southeast of the building along with a fill port in this vicinity; and one fill port along the northeastern interior (area of dock). Partner traced the aforementioned registered/active AST pipe to the fill port located along the northeastern interior. In addition, Partner noted two petrometer gauges to be present; one on the exterior of onsite active/registered tested AST vault and one within the partial basement. Due to flooding within the basement, Partner was unable to trace the possible petrometer fill line to a potential tank. However, according to a review of the Sanborn Maps, the subject property was depicted with two 550-gallon gasoline buried tanks as early as 1945 to at least 2007. No additional information regarding the fill ports or former USTs was provided during the course of this assessment. Therefore, it is unknown if oil was stored within ASTs or USTs located at the subject property or if USTs were properly closed and/or removed. Based on the lack of information regarding UST removal, it is possible that a release from the USTs has resulted in an impact to the subsurface of the subject property. Based on this information, the former presence of USTs and fill ports/vent pipes on the subject property is considered to represent a REC.

- Lot 200, Tax Block 3356 at 3547 Webster Avenue is listed as an E Designation site in the regulatory database report. The E Designation listing is identified as E-249 and was issued March 23, 2011 for "Hazardous Materials Phase I and Phase II Testing Protocol" and "Window Wall Attenuation & Alternate Ventilation." An E-Designation is a zoning map designation in the City of New York that indicates the presence of an environmental requirement pertaining to potential Hazardous Materials Contamination, Window/Wall Noise Attenuation or Air Quality impacts on a particular tax lot. These designations are assigned to properties during rezoning events. A property can continue to be used as before, with no

additional requirements. However, if a property is to be redeveloped with new construction or change of use, the environmental requirements of the E-Designation need to be satisfied prior to the issuance of building permits and Certificates of Occupancy. Partner contacted the New York City Department Office of Environmental Remediation to obtain the current status of the E-Designation. According to Myrna (OER Project Manager), as of May 8, 2019 no documents have been submitted to the OER to satisfy the E Designation requirements. Based on the abovementioned details, the E Designation listing is considered to represent a REC.

- Partner identified the following Environmental Issues during the course of this assessment:
    - Due to the age of the subject property building, there is a potential that asbestos-containing material (ACM) and lead based paint (LBP) are present. Several areas of the building materials were noted during the assessment to be broken, ripped, peeling and/or have signs of water damage. Should these materials be replaced, the identified suspect ACMs and LBP would need to be sampled to confirm the presence or absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or building occupants.
    - Partner observed several areas of water damage throughout the buildings, as well as flooding in the basement of the subject property. Partner notes this property is currently vacant, which presumably resulted in significant water damage to the building. Should any evidence of microbial growth be uncovered during renovation and/or demolition activities, it should be addressed at that time.
- Based on the findings, Partner recommended:
    - A limited subsurface investigation should be conducted in order to determine the presence or absence of soil, soil vapor and/or groundwater contamination due to the historical use of the subject property.

- In the event the subject property is redeveloped with new construction or change of use, the environmental requirements of the E-Designation should be satisfied.
- An Operations and Maintenance (O&M) Program should be implemented in order to safely manage the suspect ACMs and LBP located at the subject property.

Subsurface Investigation Report for Lot 200 by ProGea, Inc. dated October 2019

- ProGea Inc. (Progea) conducted this investigation on behalf of NYC Top Construction at Lot 200 only.
- The Subsurface Investigation Report (SIR), included a summary of an August 2019 Phase I ESA was performed by Proegea, and identified the following RECs:
  - The historical presence of two USTs containing gasoline, without documentation of assessment and removal., Based on the available review of available Fire Insurance Maps Historical Sanborn fire insurance maps indicate the subject building had two 550-gallon buried tanks containing gasoline. However, there were no available records indicating whether the tanks were removed or closed in place at the site, and there was no soil testing data available at the time of the Phase I ESA. The historical presence of two USTs containing gasoline, without documentation of assessment and removal, was considered a REC which warranted further investigation.

A copy of Progea's August 2019 Phase I ESA Report was not provided to Vektor for review.

- Based on the findings of their Phase I ESA, Progea conducted a subsurface investigation at Lot 200 in October 2019. The scope of work consisted of performance of a ground penetrating radar (GPR) survey, installation of five soil borings, and collection of four soil samples for volatile organic compounds (VOCs) analysis, and installation and sampling of two soil vapor points along with an ambient air sample.

- Results of the GPR Survey indicated there were no subsurface anomalies with reflections or signatures consistent with USTs.
- A potential vapor intrusion risk was established as Trichloroethylene (TCE) and Tetrachloroethylene (PCE) were detected at concentrations above the applicable action levels in sub slab soil gas. When applied the NYSDOH Decision Matrices indicate mitigation as the recommended action prior to future permanent occupancy of the building.
- There does not appear to be a current indoor vapor intrusion risk related to subsurface contamination. No immediate actions are required.
- No subsurface soil contamination related to petroleum hydrocarbons or chlorinated solvents was identified. No detectable VOCs were identified in the soil samples.
- As part of future renovations for the site, Progea recommended vapor mitigation be incorporated into the future renovation/redevelopment plans. They've concluded that since there were no current exposure hazards, and no immediate actions were required.

Phase II Work Plan by Vektor dated September 2022

- Vektor prepared this work plan on behalf of Bedford Realty collect data of sufficient quality and quantity to characterize the nature and extent of residual contamination associated with the historic operations at the Site and to complete a qualitative exposure assessment for future occupants of the proposed building and the surrounding community and to evaluate alternatives to remediate the contamination.
- The Phase II Work Plan proposed performance of a ground penetrating radar survey to confirm the locations of possible underground storage tanks and utilities, installation of 11 soil borings across the Site and collection of 22 soil samples to obtain additional information on soil quality with respect to Soil Cleanup Objective (SCOs), installation of four groundwater monitoring wells and

the collection of four groundwater samples to assess groundwater impacts; and installation of nine soil vapor points and the collection of nine soil vapor samples.

Site Characterization Report by Vektor dated November 2022 (updated May 2023)

- Vektor conducted a SC on behalf of Bedford Realty in September 2022 under the oversight of NYCOER. The SC was conducted at both Lots 196 and 200.
- The SC consisted of a Site inspection to identify area of concerns (AOCs) and physical obstructions, a geophysical survey to locate utilities in the vicinity of the proposed boring locations and identify any unidentified underground storage tanks (USTs), installation of eleven soil borings and collection of twenty-two soil samples for chemical analysis, and installation and sampling of nine soil vapor points.
- Groundwater was not encountered during the SC due to refusals and shallow bedrock.
- Soil/fill samples collected during the SC were compared to NYSDEC Unrestricted Use Soil Cleanup Objectives (SCOs) and Restricted Residential Use SCOs as presented in 6NYCRR Part 375-6.8.
    - No semi-volatile organic compounds (SVOCs), Pesticides, Polychlorinated biphenyls (PCBs), or Per- and polyfluoroalkyl substances (PFAS) compounds were detected in any of the soil samples above their respective Unrestricted Use SCOs.
    - One volatile organic compound (VOC); methylene chloride (max. of 0.088 mg/kg) was detected above its respective Unrestricted Use SCO in three soil samples but below its respective Restricted Residential Use SCO. It should be noted that methylene chloride is a common laboratory contaminant.
    - Eight metals; barium (max. of 469 mg/kg), copper (max. of 125 mg/kg), lead (max. of 264 mg/kg), nickel (max. of 65.1 mg/kg), zinc (max. of 303 mg/kg), mercury (max. of 0.476 mg/kg), hexavalent chromium (max. of 3.35 mg/kg) and trivalent chromium (max. of 110 mg/kg) were detected above their respective Unrestricted Use SCOs in thirteen soil samples. Of these metals, only barium was detected above its respective

Restricted Residential Use SCO in three soil samples SB-1 (0'-1'), SB-7 (3'-5'), and SB-8 (0'-2').

- Soil vapor samples collected during the SC showed elevated concentrations of petroleum-related VOCs and high concentrations of chlorinated solvents in the soil vapor beneath the Site.
    - Total concentrations of petroleum-related VOCs (BTEX) ranged from 33 µg/m^3 in SV-3 to 636 µg/m^3 in SV-4.
    - Chlorinated solvents 1,1,1-trichloroethane (max. of 750 µg/m^3 in SV-4), 1,1-dichloroethylene (max. of 17 µg/m^3 in SV-4), and cis-1,2-dichloroethylene (max. of 170 µg/m^3 in SV-4), and tetrachloroethylene (max. of 1,700 µg/m^3 in SV-4) were detected in six soil vapor samples. Carbon tetrachloride (max. of 6.4 µg/m^3 in SV-3) was detected in two soil vapor samples. Methylene chloride (at 1.1 µg/m^3 in SV-9) was detected at a trace concentration in one soil vapor sample. Trichloroethylene (max. of 13,000 µg/m^3 in SV-4) was detected in all nine soil vapor samples. Vinyl chloride (max. of 1 µg/m^3 in SV-8) was detected in two soil vapor samples.
    - Chlorinated solvents 1,1,1-trichloroethane, carbon tetrachloride, tetrachloroethylene, and trichloroethylene were detected above the monitoring/mitigation range established by the NYSDOH soil vapor guidance matrix.

Supplemental Groundwater Investigation by Vektor between February and March 2023

- Based on the results of the RI, specifically due to the presence of elevated concentrations of chlorinated solvents in soil vapor beneath the Site, a supplemental groundwater investigation was conducted by Vektor between February 27, 2023 and March 21, 2023.
- The scope of work included a geophysical bedrock survey to investigate lithology, fracture location and orientation, flow in the borehole, and overall physical condition of the borehole, and installation of five permanent bedrock monitoring wells, collection of five groundwater samples for VOCs analysis, and survey of the monitoring wells.

- Depth to bedrock ranges between approximately 1-5 feet at the Site.
- The average depth to groundwater is approximately 5.99 feet bgs and groundwater beneath the Site flows east towards the Bronx River, located 0.1 miles to the east of the subject property. The groundwater range in depth is 89.5 feet (MW-5) (NAVD88) to 94.87 feet (MW-1) (NAVD88).
- The geophysical bedrock survey revealed that the boreholes at MW-1, MW-2, MW-3, and MW-5 have little or no vertical flow.
- Groundwater samples collected during the SI were compared to the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards (AWQS). Four chlorinated VOCs (CVOCs) including 1,1,1-trichloroethane (max. 412.2 ug/L in MW-1), cis-1,2-dichloroethylene (max. 33.8 ug/L in MW-5, trichloroethylene (max. 81.2 ug/L in MW-5), and vinyl chloride (max. 7.12 ug/L in MW-5), were detected above their respective AWQS in groundwater samples MW-1, MW-2, MW-3 and MW-5, which were collected from the southern and central portions of the Site.

- Based on the results of the SC, remedial action will be necessary to address the AOCs. Applicable strategies and technologies may include, but are not limited to, the installation of an engineering control such as an active sub-slab depressurization system.

1.3 Off-Site Soil Vapor Intrusion Investigation

An Off-Site SVI Investigation proposed herein will further the indoor air quality at the off-site adjacent properties to determine potential soil vapor impacts to adjacent properties. The supplemental data in conjunction with the existing data will be analyzed to characterize the nature and extent of contamination and to evaluate remedial action alternatives.

The proposed SVI Study will consist of the following scope of work:

- Pre-sampling inspection of the west adjacent residential property and south adjacent commercial property, where the sampling will occur,
- Installation and sampling of one sub-slab vapor point (SS-1) below the lowest slab of the west adjacent building at 3540 Decatur Avenue, collection of one co-located indoor air sample (IA-1), one duplicate sample (DUP-1), and one outdoor ambient background air sample (OA-1). Collection of additional contingent samples consisting

of one sub-slab and one indoor air sample is planned as part of this work plan and will be determined by the NYSDEC and NYSDOH depending on the condition and use of documented spaces within the structure,

- Installation and sampling of two soil vapor points (SV-1 and SV-2) in the rear yard of 3540 Decatur Avenue,
- Installation and sampling of two soil vapor points (SV-3 and SV-4) in the sidewalk along the western side of Webster Avenue and
- Installation and sampling of one sub-slab vapor point (SS-2) below the lowest slab of the south adjacent building at 3525-3545 Webster Avenue, collection of one co-located indoor air sample (IA-2), and collection of one outdoor ambient background air sample (OA-2).

2.0 ORGANIZATIONAL STRUCTURE

Vektor will provide a copy of this HASP to each contractor and subcontractor in accordance with 29 CFR 1910.120(b)(1)(iv) and 29 CFR 1926.65(b)(1)(iv) to inform them of site hazards and emergency procedures. All contractors and subcontractors are solely responsible for the safe and healthful performance of all work by each of its employees and/or support personnel who may enter the Site. Each contractor and subcontractor shall provide its own HASP as required by 29 CFR 1910.120 and 29 CFR 1926.65. However, they need to submit a copy of their HASP to Vektor or they can adopt this HASP during the SVI activities.

2.1 Site Supervisor

As required by *29 CFR 1910.120(b)(2)(i)(A) and 29 CFR 1926.65(b)(2)(i)(A)*, a Site Supervisor will be assigned to the project prior to the SVI. The Site Supervisor is responsible for directing all hazardous waste operations. All other site personnel report directly to the Site Supervisor unless otherwise noted. The Site Supervisor is directly responsible for:

- Ensuring the pre-entry briefing and/or tailgate-safety meetings are held prior to initiating any site activity, and at such other times as necessary to ensure that employees are apprised of site hazards
- Ensuring that all work activities conducted are consistent with this HASP and making any modifications as necessary
- Verifying all Job Hazard Analyses and ensuring that ongoing Hazard Analysis is conducted at this Site
- Overseeing the training program and ensuring that employees are trained for all tasks or operations they are asked to perform
- Providing a copy of this HASP to each contractor and subcontractor
- Updating the Site Control Program as needed
- Granting site workers site and zone access approval
- Registering all site visitors
- Establishing and maintaining security measures for this Site
- Directing how each work zone is adjusted
- Notified if emergency assistance is needed
- Supervising PPE use on this Site
- Approving any changes in PPE used on this Site
- Notified when any hazardous-substance spill occurs
- Evaluating the quality and safety of response activities after every emergency incident or evacuation of this Site
- Providing site workers with notifications and training on changes to the emergency response plan

- Evaluating confined spaces and responsible for the confined space permit program
- Performing initial monitoring to identify and evaluate any hazardous atmospheres during confined space operations
- Implementing the thermal stress program
- Authorizing the hot-work plan and cutting and welding operations
- Inspecting the hot-work permit area before work is authorized
- Monitoring site activities as they pertain to health and safety at this site
- Stopping any unsafe acts that pose an immediate or imminent health and safety hazard to anyone at this site
- Ensuring that all elements of this HASP are followed and correctly implemented
- Updating the Site Health and Safety Supervisor and other applicable personnel as to changes or work progress reports that may pertain to health and safety functions at this site
- Setting up decontamination lines and the solutions appropriate for the type of chemical contamination on Site
- Controlling the decontamination of all equipment, personnel and samples from the contaminated areas
- Ensuring that all required decontamination equipment is available and in working order
- Providing for collection, storage and disposal of decontamination waste (e.g., rinse water, contaminated sediment, etc.)

2.2 Site Health and Safety Supervisor

As required by *29 CFR 1910.120(b)(2)(i)(B) and 29 CFR 1926.65(b)(2)(i)(B)*,Antonio Cardenas (or designated alternate) is the Site Health and Safety Supervisor who has the responsibility and authority for all functions that may pertain to health and safety at this site. This is the individual located on a hazardous waste site that is responsible to the Site Supervisor and has the authority and knowledge necessary to implement the HASP and verify compliance with applicable safety and health requirements. The Site Health and Safety Supervisor is directly responsible for:

- Providing a copy of this HASP to each contractor and subcontractor
- Updating the Site Control Program as needed
- Notified if emergency assistance is needed
- Supervising PPE use on this Site
- Approving any changes in PPE used on this Site
- Notified when any hazardous-substance spill occurs
- Providing site workers with notifications and training on changes to the emergency response plan
- Performing initial monitoring to identify and evaluate any hazardous atmospheres during confined space operations
- Developing and implementing the HASP

- Monitoring site activities as they pertain to health and safety at this Site
- Stopping any unsafe acts that pose an immediate or imminent health and safety hazard to anyone at this Site
- Ensuring that all elements of this HASP are followed and correctly implemented
- Verifying compliance of subcontractors with respect to this HASP and reporting deviations to the Site Supervisor
- Evaluating site incidents including spills, releases of hazardous substances
- Determining the appropriate response including site evacuations
- Implementing the Emergency Response Plan
- Coordinating emergency response activities on this Site

2.3 Contractors and Subcontractors

Each contractor and subcontractor shall designate a Contractor Site Representative. The Contractor Site Representative will interface directly with the Site Supervisor, and Vektor Consultants, the Site Health and Safety Supervisor, with regards to all areas that relate to this HASP and safe and healthful performance of work conducted by the contractor and/or subcontractor workforce. Contractor/Subcontractor Site Representatives for this site are listed in the Contact Summary Table at the end of this section.

2.4 Local/State/Federal Agency Representative

Local, state, and/or federal agencies are responsible for ensuring the Site is in compliance with appropriate regulatory requirements, permits, and/or legal ruling(s). Local/State/Federal Agency Representatives for this Site are listed in the Contact Summary Table at the end of this section.

The organizational structure shall be reviewed and updated as necessary to reflect the current status of site operations.

Contact Summary Table

Position	Name	Organization	Phone/Email
Remedial Engineer	Hilmi U. Aydin	Hilmi U. Aydin, P.E.	aydin@vektorconsultants.com
Project Director	Ezgi Karayel	Vektor Consultants	(347) 871-0750
Project Manager	David Klein	Vektor Consultants	(347) 871-0750
Field Representative	Antonio Cardenas	Vektor Consultants	(347) 871-0750
Site Health and Safety Supervisor	Antonio Cardenas	Vektor Consultants	(347) 871-0750
Client Contact	Jack Klein	B Contractors Group LLC	jack@bmanage.com
Project Manager	Harolyn Hood	NYSDOH	(518) 473-4780
Project Manager	Erick Bower	NYSDEC	(518) 402-9627
Emergency Response		FDNY	911
Spill Hotline		NYSDEC	(800) 457-7362

3.0 HAZARD ANALYSIS

This section describes the safety and health hazards associated with site work and the control measures selected to protect workers in compliance with *29 CFR 1910.120(b)(4)(ii)(A) and 29 CFR 1926.65(b)(4)(ii)(A)*. This is accomplished by creating a specific Job Hazard Analysis for each task and operation to be conducted at the Site.

The purpose of the Job Hazard Analysis is to identify and, to the extent practicable, quantify the health and safety hazards associated with each site task and operation, and to evaluate the risks of each hazard to workers. With this information, appropriate control methods are selected to eliminate the identified risks if possible, or to effectively control them. The control methods are documented in each task-specific Job Hazard Analysis.

Job Hazard Analyses contained in this HASP have been developed by Vektor Consultants, the Site Health and Safety Supervisor. The Site Supervisor is the individual responsible for reviewing and "verifying" that all Job Hazard Analyses are complete and to ensure that ongoing hazard analyses are conducted at this site.

3.1 Hazard Notification Process

The information in the Job Hazard Analysis Worksheets, Hazardous Substance Profiles, and Safety Data Sheets (SDS) is made available to all employees who could be affected in the scope of their work at the Site. This shall be done prior to beginning work activities.

New, or modifications to existing, Job Hazard Analysis Worksheets, Hazardous Substance Profiles, or SDS are communicated during routine briefings. Consistent with *29 CFR 1910.120(i) and 29 CFR 1926.65(i)*, this information will also be made available to contractors and subcontractors.

The Site Supervisor is the person responsible for providing Site information, this HASP, and any modifications to this HASP to contractors and/or subcontractors working on this Site.

3.2 Phases, Site Tasks and Hazard Analysis

This HASP applies to the SVI Study phase at the Site. This HASP will apply to the following Tasks and/or Operations that will be accomplished during the SVI Study:

- Drilling (installation of soil vapor points)
- Decontamination
- Inspection
- Sampling (soil, groundwater, soil vapor, air, investigative derived waste)

3.3 Chemical Hazards

Exposure to chemical hazards should always be avoided. When working around chemical hazards it is important to be protected by administrative and/or engineered controls or, if

administrative and/or engineered controls are not practicable or fully protective, by use of proper personal protective equipment (PPE). A direct reading instrument must be used, as necessary, to establish potential worker exposure.

OSHA PEL. OSHA sets permissible exposure limits (PELs) to protect workers against the health effects of exposure to hazardous substances. PELs are regulatory limits on the amount or concentration of a substance in the air. They may also contain a skin designation. PELs are enforceable. OSHA PELs are based on an 8-hour time weighted average (TWA) exposure.

IDLH. Immediately dangerous to life or health (IDLH) is a regulatory value defined as the maximum exposure concentration in the workplace from which one could escape within 30 minutes without any escape-impairing symptoms or any irreversible health effects. This value should be referred to in respirator selection.

More specific chemical information is available in the Hazardous Substance Profiles included in this HASP. The Hazardous Substance Profiles are designed to assist with "chemical guidelines" in which further information may be needed, including but not limited to an SDS. This information is not intended to replace an SDS, rather to augment one.

3.4 Physical Hazards

Below is a list of physical hazards that may be encountered during SVI activities at this Site. Personal awareness, strict adherence to all safety requirements, and the use of proper PPE when applicable will help keep this work site safe.

- Hand Tool Use
- Heavy Manual Lifting/Moving
- Material Handling
- Noise (Sound Pressure Level), dBA
- Sharp Objects
- Slips/Trips/Falls
- Traffic - On or Near Site
- Utilities (electrical, gas, water, etc.) – Overhead
- Utilities (electrical, gas, water, etc.) – Underground

3.5 Biological Hazards

Below is a list of biological hazards that may be encountered during SVI activities at this Site. Personal awareness, strict adherence to all safety requirements, and the use of proper PPE when applicable will help keep this work site safe.

3.6 Radiological Hazards

Job hazard analysis indicates that workers are not expected to encounter radiological hazards at this Site for the phases, tasks and/or operations and work locations covered by this HASP.

3.7 Job Hazard Analysis Worksheets

The site-specific Job Hazard Analysis Worksheet is included in Attachment 1. A single Job Hazard Analysis Worksheet may be used for multiple locations provided that the task or operation, and hazards and control measures, are the same in each location.

The Job Hazard Analysis Worksheet lists the following information:

- Phase description
- Specific task or operation
- Specific location for task or operation
- Hazard analysis date(s) of task or operation
- Task or operation date(s)
- Person responsible for developing Job Hazard Analysis
- Person responsible for reviewing the Job Hazard Analysis
- Chemical, physical, biological and radiological hazards for each task or operation
- Specific control measures for each task or operation
- Required permit(s), if any

The Job Hazard Analysis Worksheet should be kept updated as information changes and previous copies should be retained.

4.0 TRAINING PROGRAM

The Site Safety and Health Training Program is designed to provide workers with the training necessary to work safely on this Site in compliance with *29 CFR 1910.120(b)(4)(ii)(B) and 29 CFR 1926.65(b)(4)(ii)(B)*. Training requirements for this site are based on the Job Hazard Analysis, contained in Attachment 1 of this HASP, and relevant OSHA requirements. Employees who have not been trained to a level required by their job function and responsibility are not permitted to participate in or supervise field activities.

4.1 Initial HazWoper Training

Initial training requirements for field personnel are based on the personnel's potential for exposure and compliance with the requirements of *29 CFR 1910.120(e)(3) and 29 CFR 1926.65(e)(3)*.

General Site Workers (such as equipment operators, general laborers and supervisory personnel) engaged in hazardous substance removal or other activities that expose, or potentially expose, them to hazardous substances and health hazards shall receive a minimum of 40 hours of instruction off site, and a minimum of three days of actual field experience under direct supervision of a trained, experienced supervisor as per *29 CFR 1910.120(e)(3)(i) and 29 CFR 1926.65(e)(3)(i)*.

Specific Limited Task Workers on site only occasionally for a specific limited task (such as, but not limited to, field sampling, land surveying, geophysical surveying, or drilling) and who are unlikely to be exposed over permissible exposure limits and published exposure limits shall receive a minimum of 24 hours of instruction off site, and a minimum of one day of actual field experience under direct supervision of a trained, experienced supervisor as per *29 CFR 1910.120(e)(3)(ii) and 29 CFR 1926.65(e)(3)(ii)*.

4.2 Site-Specific Training

In addition to the initial HAZWOPER training requirements outlined above, site personnel shall be trained on the following site-specific elements:

- Names of personnel and alternates responsible for site safety and health
- Health, safety, and other hazards present
- Use of specific personal protective equipment (PPE) detailed in this HASP
- Standard work practices by which the personnel can minimize risks from the hazards detailed in this HASP
- Safe use of administrative and/or engineering controls and equipment detailed in this HASP
- Medical surveillance requirements detailed in this HASP
- Decontamination procedures detailed in this HASP
- The emergency response plan detailed in this HASP

- Heat and cold stress prevention
- Working safely around heavy equipment

4.3 Site Briefings

A site-specific briefing shall be provided to visitors who enter this Site beyond the designated entry point. For visitors, the site-specific briefing shall include information about site hazards, the site layout including work zones and places of refuge, the emergency alarm system and emergency evacuation procedures, and other pertinent safety and health requirements, as appropriate.

5.0 MEDICAL SURVEILLANCE PROGRAM

The Medical Surveillance Program is designed to medically monitor worker health to ensure that personnel are not adversely affected by site hazards in compliance with *29 CFR 1910.120(b)(4)(ii)(D) and 29 CFR 1926.65(b)(4)(ii)(D)*.

Medical surveillance is not required at this site due to:

- There is NO potential for worker exposure to hazardous substances at levels above OSHA permissible exposure limits or other published limits for 30 days or more per year, without regard to use of respiratory protection.
- Personnel DO NOT wear a respirator for 30 days or more a year or as required by *29 CFR 1910.134 and 29 CFR 1926.103*.

Any worker who is injured, becomes ill, or develops signs or symptoms of possible over-exposure to hazardous substances or health hazards on this Site shall receive a medical examination as soon as possible after the occurrence, with follow-up examinations provided as required by the attending physician. Physical Exams shall be consistent with *29 CFR 1910.120(f) and 29 CFR 1926.65(f)*.

6.0 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) will be used at this Site to protect employees from biological, chemical and physical hazards in compliance with *29 CFR 1910.120(b)(4)(ii)(C) and 29 CFR 1926.65(b)(4)(ii)(C)*. This includes hazards associated with, but not limited to, SVI Study activities.

With employee safety being the number one priority, site health hazards will be eliminated or reduced to the greatest extent possible through administrative and/or engineering controls and safe work practices. Where hazards are still present, a combination of administrative and/or engineering controls, work practices, and PPE will be used to protect employees.

The Site Supervisor and/or Health and Safety Supervisor are responsible for PPE use on this Site.

6.1 PPE Selection Criteria

PPE shall be selected and used to protect site workers from the hazards and potential hazards they are likely to encounter, as identified during the site characterization and Job Hazard Analysis (see Attachment 1). A PPE ensemble shall be assigned to each work task or operation.

PPE selection shall be based upon many factors. Materials providing the greatest duration of protection shall be used. Tear and seam strength of the PPE shall also be considered to ensure ensemble durability while work is performed.

When necessary, multiple layers of protection shall be used to accommodate the range of hazards that may be encountered. All PPE shall be properly fitted.

PPE selection criteria shall also include:

- Level of PPE required (Level A, B, C, or D)
- PPE components
- Chemical suit and glove compatibility

All PPE ensembles shall be consistent with Appendix B of *29 CFR 1910.120 and 29 CFR 1926.65* and used in accordance with manufacturers' recommendations.

The following criteria were used to select PPE levels at this Site:

<u>Level D Protection was selected due to the following:</u>

- The atmosphere contains no known or suspected hazardous substances at concentrations that meet or exceed the published exposure limits

- Contact with hazardous levels of any chemicals through splashes, immersion, or by other means will not occur
- There is no potential for unexpected inhalation or contact with hazardous levels of any chemical

Training In Use of PPE

Employees receive general training regarding proper selection, use and inspection of PPE during initial HAZWOPER training and subsequent refresher training. Site-specific PPE requirements, including task-specific PPE, ensemble components, cartridge and canister service times, and inspection and maintenance procedures, as applicable, shall be communicated as identified in the Training Program.

Because chemical exposure levels present do not create a substantial possibility of immediate death, immediate serious illness or injury, or impair the ability to escape, positive pressure self-contained breathing apparatus or positive-pressure air-line respirators equipped with an escape air supply are not required.

7.0 ENVIRONMENTAL MONITORING

This section of the HASP describes how site worker exposures to hazardous substances will be monitored in compliance with *29 CFR 1910.120(b)(4)(ii)(E) and 29 CFR 1926.65(b)(4)(ii)(E)*.

7.1 Air Monitoring Procedures

Exposures to airborne hazardous substances shall be fully characterized throughout site operations to ensure that exposure controls are effectively selected and modified as needed. Air monitoring shall be used to identify and quantify airborne levels of hazardous substances and safety and health hazards to determine the appropriate level of site worker protection needed on site. Air monitoring procedures shall be consistent with OSHA requirements in *29 CFR 1910.120(c)(6) and 29 CFR 1926.65(c)(6)*.

Air monitoring shall be conducted using direct-reading instruments. Air monitoring includes:

- Initial monitoring prior to the beginning of SVI Study activities to identify conditions that may cause death or serious harm and to permit preliminary selection of site controls
- Periodic monitoring throughout SVI Study

7.2 Initial Monitoring Procedures

Upon initial entry, representative air monitoring shall be conducted to identify any IDLH condition, exposure over permissible exposure limits or published exposure levels, exposure over a radioactive material's dose limits, or other dangerous condition such as the presence of flammable atmospheres or oxygen-deficient environments.

7.3 Periodic Monitoring

Periodic monitoring shall be conducted when the possibility of an IDLH condition or flammable atmosphere has developed, or when there is indication that exposure may have risen over permissible exposure limits or published exposure levels since previous monitoring was conducted. Situations where it shall be considered that the possibility exposures have risen are as follows:

- When work begins on a portion of the Site that has not been previously monitored
- When contaminants other than those previously identified are being handled
- When a change in environmental conditions exist
- When site workers handle leaking drums or containers, or work in areas with obvious liquid contamination

- When site workers report or exhibit signs of exposure

7.4 Direct-Reading Instrument Monitoring Procedures

Direct-reading instrument monitoring will be used on this site as follows:

- VOCs by photoionization detector (PID)

Monitoring equipment calibration and maintenance procedures on this site are:

- Every morning

8.0 DECONTAMINATION

This HASP element describes procedures for decontaminating site workers and equipment when exiting the Exclusion Zone in compliance with *29 CFR 1910.120(b)(4)(ii)(G) and 29 CFR 1926.65(b)(4)(ii)(G)*. This section also describes disposal of waste from decontamination processes. Site decontamination procedures are designed to achieve a safe, logical removal or neutralization of contaminants that may accumulate on site workers and/or equipment. The Site Supervisor is responsible for decontamination procedures at this site.

These procedures are intended to minimize site worker contact with contaminants and protect against the transfer of contamination to clean areas of the site and away from the site. They may also extend the useful life of personal protective equipment (PPE) by reducing the amount of time that contaminants contact and permeate or otherwise affect the surfaces of PPE.

Decontamination procedures shall be communicated to site workers and implemented before any site workers or equipment are permitted to enter areas on site where potential for exposure to hazardous substances exists.

Emergency decontamination procedures are detailed in Section 8, the Emergency Response Plan of this HASP.

The decontamination procedures described below are designed to meet the requirements of *29 CFR 1910.120(k) and 29 CFR 1926.65(k)* and include site-specific information about:

- General and Specific Decontamination Procedures for Personnel and PPE
- General and Specific Decontamination Procedures for Equipment
- Location and Type of Site Decontamination Procedures
- Disposal of Residual Waste from Decontamination
- Monitoring the Effectiveness of Decontamination Procedures

8.1 General and Specific Decontamination Procedures for Site Workers and PPE

All site workers and PPE leaving a contaminated area shall be appropriately decontaminated. General decontamination guidelines for site workers and PPE include:

- Decontamination is required for all site workers exiting a contaminated area. Site workers may only re-enter uncontaminated areas after undergoing the decontamination procedures described in the next section.
- Protective clothing is decontaminated, cleaned, laundered, maintained and/or replaced as needed to ensure its effectiveness.
- PPE used at this site is decontaminated or prepared for proper disposal.

- The site requires and trains site workers that if their permeable clothing is splashed or becomes wetted with a hazardous substance, they will immediately exit the work zone, perform applicable decontamination procedures, shower, and change into uncontaminated clothing.

8.2 General and Specific Decontamination Procedures for Equipment

All contaminated clothing and equipment leaving a contaminated area shall be appropriately disposed of or decontaminated. General decontamination guidelines for equipment include:

- Decontamination is required for all equipment exiting a contaminated area. Equipment may only re-enter uncontaminated areas after undergoing specific decontamination as described in the Job Hazard Analysis Worksheets.
- Particular attention is given to decontaminating tires, scoops, and other parts of heavy equipment that are directly exposed to contaminants and contaminated soil.

8.3 Location and Type of Site Decontamination Procedures

Decontamination shall be performed in areas that will minimize the exposure of uncontaminated site workers or equipment to contaminated site workers or equipment. Decontamination on this site shall be conducted in the Contamination Reduction Zone. The Contamination Reduction Zone acts as a buffer between the Exclusion Zone and Support Zone. The location and design of decontamination stations minimize the spread of contamination beyond these stations.

8.4 Disposal of Waste from Decontamination

Procedures for disposal of decontamination waste shall meet applicable local, State, and Federal regulations.

8.5 Monitoring the Effectiveness of Decontamination Procedures

Decontamination procedures shall be monitored by a representative of Vektor Consultants, the Site Health and Safety Supervisor, to determine effectiveness. If procedures are found to be deficient, appropriate steps shall be taken to correct any deficiencies.

9.0 EMERGENCY RESPONSE PLAN

This section describes the site-specific Emergency Response Plan in compliance with *29 CFR 1910.120(b)(4)(ii)(H) and 29 CFR 1926.65(b)(4)(ii)(H)*. Specifically, the Emergency Response Plan addresses potential emergencies at this site, procedures for responding to these emergencies, roles and responsibilities during emergency response, and training. This element also describes the provisions this site has made to coordinate its emergency response planning with other contractors on site and with off-site emergency response organizations.

This Emergency Response Plan shall be available for inspection and copying by site workers, their representatives, OSHA personnel, and other governmental agencies with relevant responsibilities as required by *29 CFR 1910.120(l)(1)(i) and 29 CFR 1926.65(l)(1)(i)*.

In accordance with *29 CFR 1910.120(l)(3)(ii) and 29 CFR 1926.65(l)(3)(ii)*, this Emergency Response Plan is a separate section of the HASP.

9.1 Pre-Emergency Planning

This Emergency Response Plan is compatible and integrated with the disaster, fire and/or emergency response plans of local, state, and federal agencies.

This Site has been evaluated for potential emergency occurrences based on site hazards, the tasks within the work plan, the site topography, and prevailing weather conditions.

9.2 Personnel Roles, Lines of Authority, and Communication

Anyone may activate the Emergency Response Plan; however Antonio Cardenas (or designated alternate), Site Health and Safety Supervisor, is responsible for implementing the Emergency Response Plan and coordinating emergency response activities on this Site. Antonio Cardenas (or designated alternate) also provides specific direction for emergency action based upon information available regarding the incident and response capabilities, initiates emergency procedures including protection of the public, and ensures appropriate authorities are notified.

In accordance with *29 CFR 1910.38(a) and 29 CFR 1926.35*, in the event of an emergency, site workers are evacuated and do not participate in emergency response activities.

This Site relies upon the off-site emergency response organizations listed in the Emergency Response Contact Information list to respond to site emergencies. These organizations are appropriately trained, staffed, and equipped to provide emergency response to this site.

These organizations are contacted at least annually to verify the accuracy of phone numbers and contact names.

Communication on this site will be conducted by the following methods:

- Face to face
- Cell phone
- Hand signals

9.3 Site Security and Control

In case of an on-site emergency, site security and control for this site shall be provided by:

- Warning Signs
- Barrier Tape
- Locked Doors and Gates

9.4 Emergency Medical Treatment and First Aid

Any site worker who requires medical care and/or is transferred to a medical facility shall be accompanied by this HASP and other applicable information to apprise caregivers of the chemicals and hazards to which the victim has potentially been exposed. The emergency medical care facility for this site is:

Montefiore Medical Center Moses Campus Emergency Room
111 E 210th St, Bronx, NY 10467
Tel: (718) 920-5731
Open 24 Hours

The route to the facility is shown in on the map included in Attachment 2 of this HASP.

Attachment 1

Job Hazard Analysis Worksheets

JOB HAZARD ANALYSIS WORKSHEET			
Phase Description:	All Phases		
Task or Operation:	Construction, Decontamination, Demolition, Excavation, Inspection, Mobilization, Sampling - subsurface soil, Site survey, Traffic control, Welding, cutting, brazing		
Specific Location:	Entire Site		
Task or Operation Start Date(s):	TBD	**Task or Operation Duration:**	24 Months
Date of Hazard Analysis:	2/20/2024		
Job Hazard Analysis Developed by:	DK		
Job Hazard Analysis Reviewed by:	DK		

POTENTIAL HAZARDS DURING THIS TASK and/or OPERATION			
Chemical*	**Physical**	**Biological**	**Radiological**
	» Demolition Operations » Electrical » Excavation/Trenching Operations » Flammable Liquids - Storage and Use » Hand Tool Use » Heavy Manual Lifting/Moving » Hot Surfaces » Ladder Use » Material Handling » Noise (Sound Pressure Level), dBA » Scaffolding Use » Sharp Objects » Slips/Trips/Falls » Traffic - On or Near Site » Utilities (electrical, gas, water, etc.) - Overhead » Utilities (electrical, gas, water, etc.) - Underground » Welding/Cutting/Burn ing Operations		

HAZARD CONTROL MEASURES USED DURING THIS TASK and/or OPERATION	
Administrative Controls:	Log In/Out Sheets
Engineering Controls:	N/A

PPE Description:

Component	Description
Level A Ensemble	
Boots, chemical-resistant, steel toe and shank	
Gloves, inner, chemical-resistant	
Gloves, outer, chemical-resistant	
Supplied Air Respirator - air-line	
Totally-encapsulating vapor tight chemical protective suit	
Level B Ensemble	
Boots, chemical-resistant, steel toe and shank	
Disposable one-piece hooded chemical resistant splash clothing suit	
Gloves, inner, chemical-resistant	
Gloves, outer, chemical-resistant	

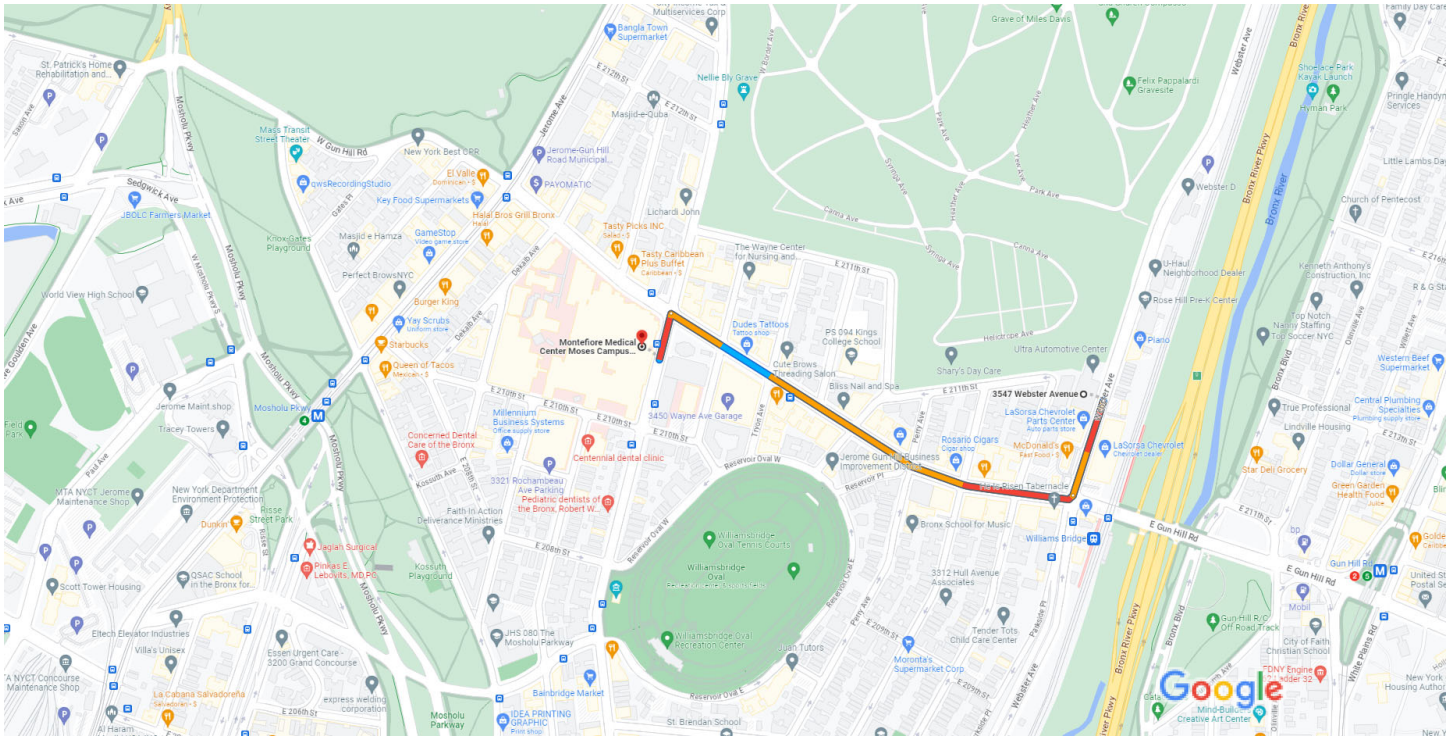
Attachment 2

Directions to Hospital

Google Maps

3547 Webster Ave, Bronx, NY 10467 to Montefiore Medical Center Moses Campus Emergency Room, 111 E 210th St, Bronx, NY 10467

Drive 0.5 mile, 5 min



Map data ©2023 Google 200 ft

via E Gun Hill Rd — 5 min
Fastest route now due to traffic conditions — 0.5 mile

via E 211th St — 6 min
Heavy traffic, as usual — 0.8 mile

Explore Montefiore Medical Center Moses Campus Emergency Room

Restaurants Hotels Gas stations Parking Lots More

APPENDIX D

COMMUNITY AIR MONITORING PLAN

vEKtor consultants

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f: +1.347.402.7735 www.vektorconsultants.com

COMMUNITY AIR MONITORING PLAN

Prepared For: 3547 Webster Tower, LLC

Project Name: 3547 Webster Avenue

Project Location: 3547 Webster Avenue, Bronx, New York 10467

Date: March 2024

37 West 37th Street, 6th Floor, New York, NY 10018

Table of Contents

1.0 INTRODUCTION

This site-specific Community Air Monitoring Plan (CAMP) has been prepared on behalf of 3547 Webster Tower, LLC for the implementation of an Off-Site Soil Vapor Intrusion Investigation by Vektor Consultants, LLC (Vektor) and its subcontractors to evaluate off-site soil vapor conditions in the Webster Avenue sidewalk and at the following property located west to 3547 Webster Avenue, Bronx, New York (the Site).

The study will include the sampling and analysis of sub-slab vapor, soil vapor, indoor air, and outdoor air samples in the Webster Avenue sidewalk and at the following properties located west and south to 3547 Webster Avenue, Bronx, New York (the Site);

- Six-story residential building at 3540 Decatur Avenue
- Two-story auto service building at 3525-3545 Webster Avenue

This CAMP was developed in accordance with the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan included within DER-10 Technical Guidance for Site Investigation and Remediation (May 2010). All instruments will be operated and calibrated as per the manufacturer's specifications.

A 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.

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

2.0 COMMUNITY AIR MONITORING PLAN

Although Vektor does not have any environmental data identifying potential contaminants of concern at the western adjacent property, where the SVI investigation is proposed, a real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be conducted during the investigation.

Continuous monitoring will be required for all ground intrusive activities. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil vapor points.

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. 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 baling/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.

Meteorological monitoring including temperature, wind direction and speed will be conducted by the field personnel and the data will be logged in the field book on a daily basis. CAMP station(s) will be relocated based on the direction of the wind.

3.0 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.

- 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.
- 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.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.
- All 15-minute readings must be recorded and be available for the NYSDEC and NYSDOH personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

4.0 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 (i.e.: DustTrak). 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.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) 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/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 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/m^3 of the upwind level and in preventing visible dust migration.
- All readings must be recorded and be available for the NYSDEC and NYSDOH personnel to review.

Dust suppression will be achieved by applying water as needed.

APPENDIX A

ACTION LIMIT REPORT

CAMP
ACTION LIMIT REPORT

Project Location: _____

Date: _____ Time: _____

Name: _____

Contaminant: _____ PM-10: _____ VOC: _____

Wind Speed: _____ Wind Direction: _____

Temperature: _____ Barometric Pressure: _____

DOWNWIND DATA

Monitor ID #: _____ Location: _____ Level Reported: _____

Monitor ID#: _____ Location: _____ Level Reported: _____

UPWIND DATA

Monitor ID #: _____ Location: _____ Level Reported: _____

Monitor ID#: _____ Location: _____ Level Reported: _____

BACKGROUND CORRECTED LEVELS

Monitor ID #: Location: _____ Level Reported: Level Reported: _____

ACTIONS TAKEN

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