SOIL VAPOR INTRUSION STUDY WORK PLAN

Brownfield Cleanup Program

March 7, 2023

Prepared for:

4380 Bullard Avenue Site
552 Nereid Avenue (formerly 4380 Bullard Avenue)
Bronx, NY 10466
Block: 5035 Lot: 30
NYSDEC BCP Site Number C203126

Submitted to:

New York State Department of Environmental Conservation
Division of Environmental Remediation
47-40 21st Street
Long Island City, NY

Report user:

SnL XX, LLC
3333 New Hyde Park Road, Suite 200
Lake Success, NY

IEEG Project Number:

16389

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CERTIFICATION

I, Kevin Kleaka, certify that I am a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Remedial Investigation Work Plan was prepared in accordance with applicable statues and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Kevin Kleaka	03/07/23	
Name	**Date**	**Signature**

1 INTRODUCTION

In February 2020, SnL XX, LLC (herein referred to as the "Volunteer") entered into a Brownfields Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC), to investigate and remediate a 0.367-acre property known as the 4380 Bullard Avenue Site (BCP # C203126) located at 553 Nereid Avenue (formerly 4380 Bullard Avenue), Bronx County, New York. Impact Environmental Engineering and Geology, Inc (IEEG) has prepared this post remedial Soil Vapor Intrusion Study Work Plan (SVISWP) on behalf of SnL XX, LLC, to address the NYSDEC BCP requirements, in accordance with the NYSDEC approved Remedial Action Work Plan (RAWP), produced by SESI Consulting Engineers ("SESI"), dated December 2020.

This SVISWP has been developed in accordance with the NYSDEC Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10), and the New York State Department of Health (NYSDOH) Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006, and subsequent May 2017 updates.

1.1 Site Description

The approximately 0.367-acre, rectangular-shaped parcel comprising the Site is located in an urban area in the Bronx County, New York and is identified as Block 5035, Lot 30 on the Bronx Tax Map. The Site is located on the western portion of the city block bordered by Nereid Avenue to the north, Block 5035, Lot 34 to the east, Block 5035, Lot 14 to the south, and Bullard Avenue to the west. The Site is bordered to the south by residential and commercial buildings and to the east by a multi-story commercial building. Historically, the Site was included and identified as part of Block 5035, Lot 34. In 2018, this former parcel was subdivided into two (2) separate lots; Lot 30 located in the western portion of the former parcel and Lot 34 located in the eastern portion of the parcel. See **Plate 1 - Site Location Map**.

The Site encompasses an area of approximately 16,000 square feet (0.367 acres). The parcel elevation generally increases from the lowest elevation on the southwestern portion of the Site (112 feet) to the highest elevation in the northeastern portion of the Site (124 feet) referenced to the NAVD88. Prior to redevelopment as a self-storage facility, the Site was most recently improved with an asphalt paved parking lot. The Site was historically occupied by a dry kiln associated with the former Cornell Dubilier facility, which historically operated at the Block 5035, Lot 34. Cornell Dubilier ceased operations at the Site in approximately 1940, when they relocated their operations to South Plainfield, New Jersey.

The property was remediated to Track 2 restricted residential use and has been developed as commercial self-storage building with a full basement.

1.2 Geologic Setting

According to the 1970 Geologic Map of New York – Lower Hudson Sheet published by the University of the State of New York, the bedrock underlying the site is of the Inwood Marble, and is comprised primarily of dolomite marble, calc-schist, granulite and quartzite overlain by calcite marble; grades into underlying patchy Lowerre Quartzite of Early Cambrian Age.

Soil borings were advanced to explore the subsurface conditions during the March 6, 2015, and February 2016, Jade investigation, August 2017, Soil Mechanics Drilling Corp (SMDC) investigation, and August 13, 2018, and March 20, 2019, SMES investigation. During the previous subsurface investigations at the site, three (3) feet of coal ash was encountered immediately beneath the asphalt surface cover. It was suspected that the ash was "generated by the former on-site burn plant". Additional historic fill was encountered to a depth of ten (10) feet below surface grade. Historic fill predominately consisted of gray to dark gray silt and sand with varying amounts of brick, concrete, gravel, and cinders. Sand with varying amounts of silt, gravel, and cobbles were observed beneath the historic fill. Previous reports completed for the Site were summarized and submitted to the NYSDEC within the SESI Remedial Investigation Work Plan (RIWP) revised February 2020.

1.3 Hydrogeologic Setting

Soil borings advanced during previous investigation from SMDC identified groundwater underlying the site at approximately 29 feet bgs. No additional information regarding the hydrogeologic conditions at the Site were documented.

1.4 Remedial Actions Completed

As part of the BCP approved RAWP, the following Remedial Actions have been completed at the Site:

1. The Decision Document states: Excavation and off-Site disposal of PCB-contaminated soil across the Site to a maximum depth of approximately 20 feet below grade. This was performed as an IRM and in accordance with a United States Environmental Protection Agency (USEPA)-approved Self-Implementing Cleanup and Disposal (SIP) Plan.
    a. The remedial action removed approximately 11,750 cubic yards (15,431.68 tons) of soil PCB, polynuclear aromatic hydrocarbons (PAHs), and metal impacted soil from the Site to an approximate depth of up to 20 feet. Endpoint sample results identified PCBs in exceedance of the CSCOs across the excavated area with few samples below the CSCOs and USCOs. Therefore, the Volunteer has achieved a Track 2 cleanup for soil. A seal-coated concrete slab was constructed in conjunction with a passive vapor mitigation sub-slab depressurization system (SSDS) was constructed following excavation as required by the USEPA SIP. See **Plate 2 – SSDS Layout Map**.

b. The capping system consists of a minimum six (6)-inch-thick concrete slab, underlain by a COL-PHENE-based moisture and vapor barrier or equivalent, underlain by 1.5-feet of 3/4" clean stone, densely graded aggregate (DGA), or approved equal.

2. The Decision Document states: Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to replace excavated soil and establish the designed grades at the Site.
    a. During the remedial activities, the Volunteer documented that clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) was brought in to complete the backfilling of the excavation and establish the designed grades at the Site.

1.4 Purpose and Scope

The Volunteer, SnL XX, LLC, intends to perform a Soil Vapor Intrusion Study (SVIS) to further characterize post remedial soil vapor and indoor air conditions at the Site in accordance with BCP requirements. This purpose of the SVIS is to collect sufficient information to confirm that the implemented remedial measures are sufficient.

The BCP Decision Document states: "*Any on-Site buildings will be required to have an SSDS, or other acceptable measures, to mitigate the migration of vapors into the building from soil. The USEPA- approved SIP discusses the SSDS and also requires: a vapor barrier under the basement; indoor air sampling of PCBs in the basement consisting of an initial baseline sampling event after building construction, as well as follow-up long-term sampling, if required; and seal coating of the basement floor in the event that indoor air results exceed Site-specific actionable levels for PCBs. Indoor air sampling for VOCs will also be conducted*".

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2 INVESTIGATION SCOPE

The previous Remedial Investigation completed at the Site documented soil vapor impacts in areas within the BCP Site. The purpose of the SVIS field activities is to collect data to confirm the post remedial environmental quality of the soil vapor beneath the Site.

This SVIS Work Plan proposes an investigation that will include: 1) installation of ten (10) sub-slab soil vapor points throughout the property for the collection of sub-slab soil vapor samples, 2) collection of two (2) indoor air samples, and 3) the collection of one (1) ambient outdoor air sample.

Upon completion of the SVIS work scope and receipt of the field and analytical data, an SVI Study Report will be prepared. The major tasks and elements associated with this SVISWP are described in detail within the following sections.

2.1 Soil Vapor Investigation

The main soil vapor contaminants detected during the previous sub-surface investigations requiring mitigation according to the relevant NYSDOH Decision Matrices were 1,1,1-trichloethane (1,1,1-TCA), vinyl chloride, and carbon tetrachloride. These samples were collected in March 2020, from two (2) of six (6) soil vapor sampling points (SV-5 and SV-6) beneath the asphalt parking lot, prior to remedial actions and construction. The soil vapor sampling implants were inserted at an appropriate depth of 2-feet below ground surface. The highest concentration of 1,1,1-TCA detected was in soil vapor point SV-5 at 105 µg/m³, in the southwest corner of the Site, while the highest concentrations of vinyl chloride and carbon tetrachloride detected were in soil vapor point SV-6, at 7.34 µg/m³ and 44 µg/m³ respectively, located in the southern corner of the Site. See **Table 1 – Remedial Investigation Soil Vapor Results Summary**.

This SVIS WP proposes installation of ten (10) soil vapor monitoring points (soil vapor pins) in the basement of the new self-storage facility, for the collection of ten (10) sub-slab soil vapor samples, along with the concurrent collection of two (2) indoor air samples within the basement, and one (1) outdoor ambient air sample. This soil vapor intrusion study will be performed during the winter "heating season", between November 15th and March 31st, according to NYSDOH guidance. See **Plate 3 – Proposed Soil Vapor, Indoor Air, Outdoor Air Sampling Location Map**.

The soil vapor implants will be installed in accordance with the protocols and procedures cited in Section 2.7.2 within the New York State Department of Health (NYSDOH) October 2006, Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York document to confirm the baseline post remedial soil vapor conditions. The soil vapor monitoring points will be located at least 10 feet from exterior walls of the building to minimize the potential for infiltration of outdoor air into the vadose zone. A 1.5-inch diameter hole will be drilled approximately 1.75-inches

down into the slab. Then a 5/8-inch diameter hole will be installed through the remainder of the slab. Once fully penetrated, the vapor pin and silicone sleeve are immediately installed using a vapor pin installation tool (impact protection) and dead-blow hammer. Once installed, the silicone sleeve creates an airtight seal, and the vapor pin is fitted with a protective cap to eliminate the potential for vapor migration into the building. The stainless-steel secure cover is then place over the vapor pin, and threads directly onto the vapor pin for a secure and flush mounted finish. A seal test will be performed on each implant, following the protocols and procedures cited in Section 2.7.5 of the NYSDOH October 2006, Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York document. Helium gas and a Model MGD-2002 Multi-Gas Leak Detector will be utilized for said seal test. A competent seal is considered achieved if 10% or less helium is detected.

Prior to sampling, the soil vapor points will be allowed to equilibrate for a minimum of 24 hours. The vapor points will then be purged of a minimum of three tube volumes of soil vapor, and the flow rates for both purging and sample collection will not exceed 0.2 liters per minute to ensure against outdoor air infiltration during sampling. The sampling flow rate will be controlled by an inlet flow regulator attached to the Summa canisters.

The indoor air and outside ambient air samples will be collected by placing the certified clean summa canister or connected inlet sample tubing at a height representative of the breathing zone (approximately 4-6 feet off the ground) and not within 10-feet of any exterior walls. The sampling flow rate will be controlled by an inlet flow regulator attached to the Summa canisters.

Sampling will occur for a duration of 8 hours and soil vapor, indoor air and outside ambient air samples will be contained in a laboratory prepared, Summa Canister which will be certified clean. The soil vapor, indoor air, and outside ambient air samples will be analyzed for volatile organic compounds (VOCs) via USEPA method TO-15. The indoor air samples will also be analyzed for PCBs in accordance with the USEPA Approved SIP, 2020. Refer to **Plate 3** for the proposed sample locations.

2.2 Quality Assurance/Quality Control Sampling

In addition to the soil vapor samples described above, field-specific quality assurance/quality control (QA/QC) samples will be collected and analyzed to ensure the reliability of the generated data to support the required third-party data usability assessment effort. Site- specific QA/QC samples will include blind duplicates.

3 SVI STUDY REPORT

Upon completion of the SVIS fieldwork, a comprehensive SVI Study Report will be completed for the Site as described below.

3.1 SVI Study Report

The SVI Study Report will include the following information and documentation, consistent with the NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation (May 2010).

- Introduction and background;
- A description of the Site and the investigation areas;
- A description of the field procedures and methods used during the SVIS;
- A discussion of the nature and rationale for any significant variances from the scope of work described in this SVIS Work Plan;
- The data obtained during the SVIS and historical data considered by IEEG to be of useable quality.
- A discussion of contaminant fate and transport.
- Conclusions regarding the extent and character of environmental impact in the media being investigated;
- The conclusions of the qualitative human health and environmental risk assessments, including recommendations for more detailed assessments, if applicable; and,
- Supporting materials for SVIS data. These will include soil vapor sample logs, vapor pin construction diagrams, laboratory analytical reports, and similar information.

Additionally, IEEG will require third-party data review by a qualified, independent data validation expert. Specifically, a DUSR will be prepared with appropriate data qualifiers added to the results. The DUSR will follow NYSDEC format per the NYSDEC's September 1997 DUSR guidelines and May 2010 DER-10 guidance. The DUSR and necessary qualifications to the data will be appended to the RIR Report.

4 INVESTIGATION SUPPORT DOCUMENTS

The following sections describe the support documents that will be used in conjunction with the RI.

4.1.1 Analytical Methods

The samples collected during the BCP SVIS will be analyzed using EPA-approved analytical methods that follow the most recent edition of the EPA's "Test Methods for Evaluating Solid Waste" (SW-846), Methods for Chemical Analysis of Water and Wastes" (EPA 600/4-79-020), and Standard Methods for Examination of Water and Wastewater" (prepared and published jointly by the American Public Health Association, American Water works Association and Water Pollution Control Federation).

4.1.2 Laboratory

The subcontracted laboratory will be a NYSDOH ELAP-certified analytical laboratory that can perform Contract Laboratory Program (CLP) analysis on the media to be sampled during this investigation. The laboratory will perform the sample analysis in accordance with the most recent NYSDEC Analytical Services Protocol (ASP).

4.1.3 Data Submittal

Analytical data will be submitted in complete ASP category B data packs. Procedures for chain of custody, laboratory instrumentation calibration, laboratory analyses, reporting of data, internal quality control, and corrective actions shall be followed as per SW-846 and as per the laboratory's Quality Assurance Plan. Where appropriate, field duplicates shall be performed at a rate of 10% (approximately one per twenty samples) and will be used to assess the quality of the data. The laboratory's in-house QA/QC limits will be utilized whenever they are more stringent than those suggested by the EPA methods.

4.1.4 Data Usability Summary Report

The data package will be sent to a qualified, independent, data validation specialist for evaluation of the accuracy and precision of the analytical results. A DUSR will be prepared to describe the compliance of the analyses with the analytical method protocols detailed in the NYSDEC Analytical Services Protocol (ASP). The DUSR will provide a determination of whether the data meets the project-specific criteria for data quality and data use. The validation effort will be completed in accordance with NYSDEC Division of Environmental Remediation DUSR guidelines.

5 PROJECT SCHEDULE

The SVIS will be conducted before the end of the 2022/2023 winter heating season, starting November 15th, 2022, and ending March 31st, 2023.

PLATES

4380 Bullard Avenue, Bronx, NY
NYSDEC BCP Site Number C203126

IMPACT ENVIRONMENTAL
170 Keyland Court
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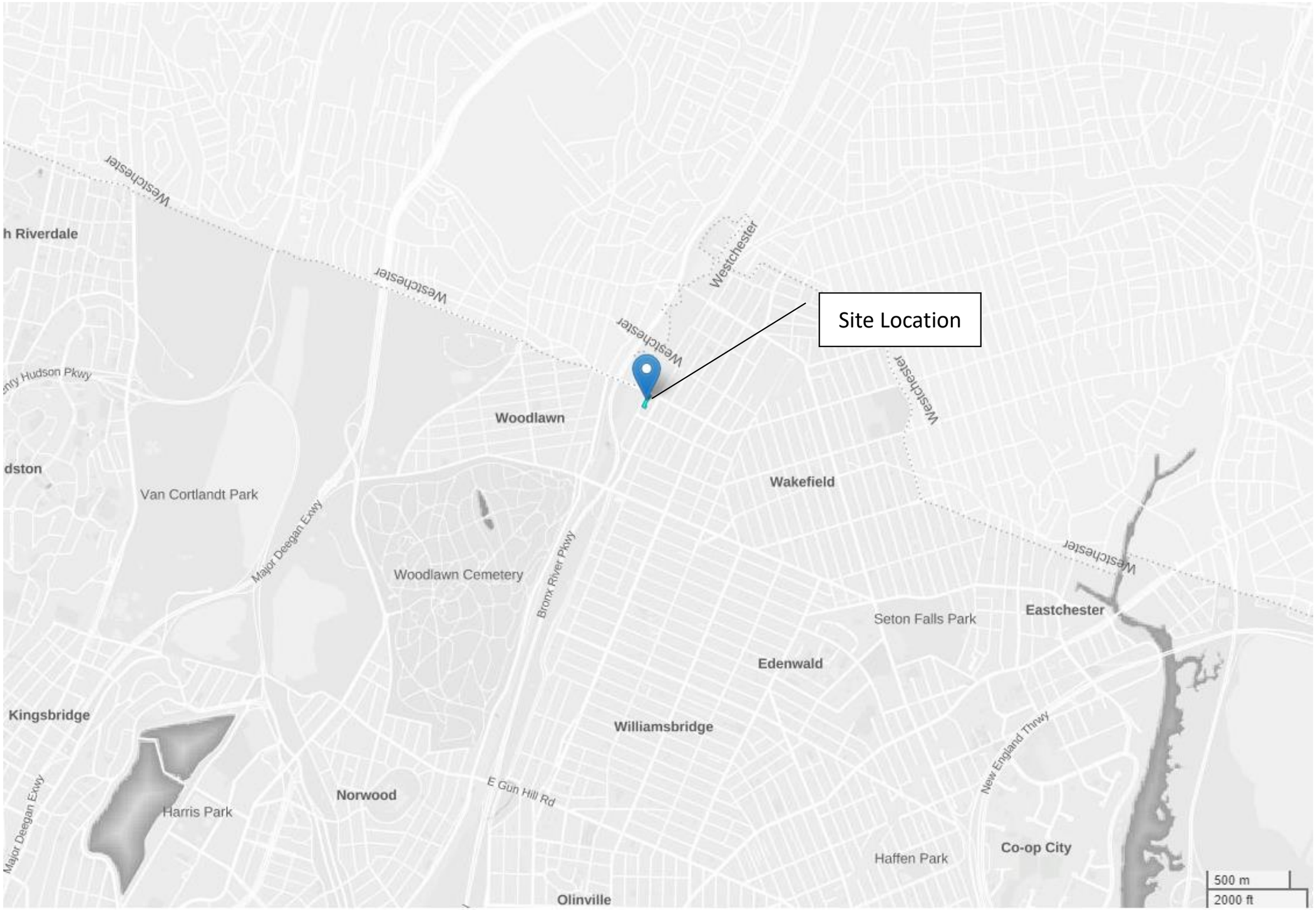

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Notes:
Base Map – NYCOER SPEED Map

SITE LOCATION MAP

4380 BULLARD AVENUE, BRONX, NY

Plate 1

PROJECT #	16389
DRAWN BY	CJC
CHECKED BY	KK
DATE	3/7/23

Revisions	

N

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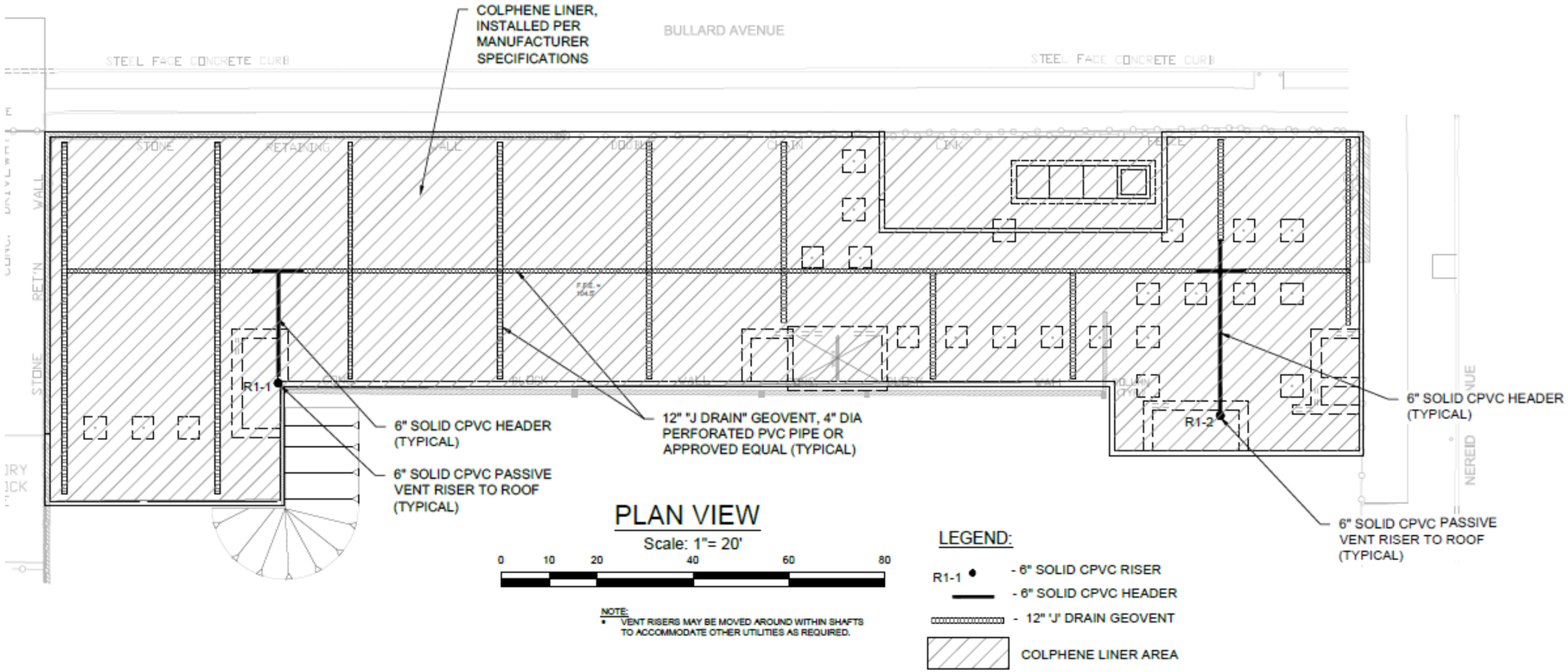

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Notes:

SSDS LAYOUT PLAN

4380 BULLARD AVENUE, BRONX, NY	**Plate 2**
PROJECT #	16389
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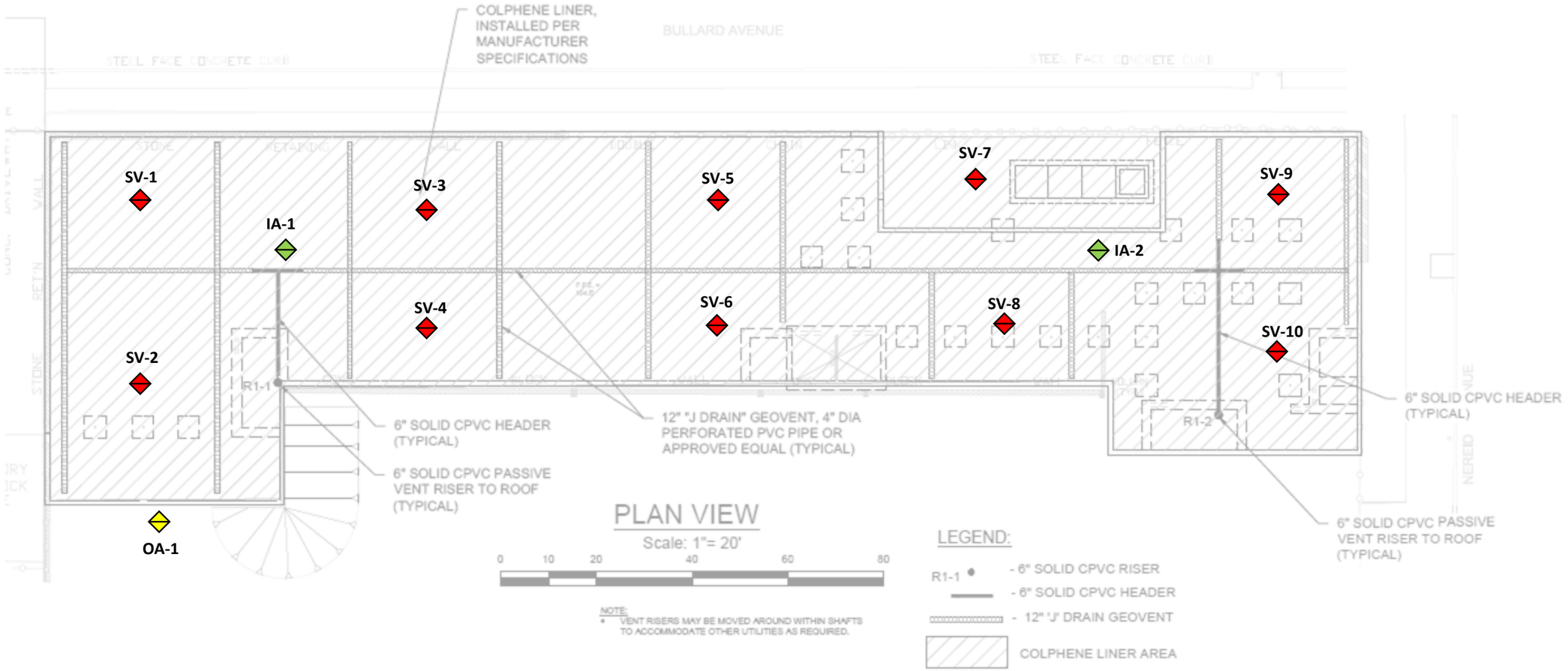

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PROPOSED SUB-SLAB SOIL VAPOR MONITORING POINT

PROPOSED INDOOR AIR SAMPLING LOCATION

PROPOSED AMBIENT OUTDOOR AIR SAMPLING LOCATION

Notes:

PROPOSED SOIL VAPOR, INDOOR AIR, OUTDOOR AIR SAMPLING LOCATION MAP

4380 BULLARD AVENUE, BRONX, NY

Plate 3

PROJECT #	16389
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TABLES

4380 Bullard Avenue, Bronx, NY
NYSDEC BCP Site Number C203126

IMPACT ENVIRONMENTAL
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Table 1
Remedial Investigation Soil Vapor Analytical Results
4380 Bullard Avenue, Bronx, NY
BCP# C203126

LOCATION								SV-1		SV-2		SV-3		SV-4		SV-5		SV-6		AMBIENT AIR	
SAMPLING DATE								3/18/2020		3/18/2020		3/18/2020		3/18/2020		3/18/2020		3/18/2020		3/18/2020	
LAB SAMPLE ID								L2012265-01		L2012265-02		L2012265-03		L2012265-04		L2012265-05		L2012265-06		L2012265-07	
SAMPLE TYPE								SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		SOIL_VAPOR		AIR	
SAMPLE DEPTH (ft.)																					
	NY-IAC-A	NY-IAC-B	NY-IAC-C	NY-SSC-A	NY-SSC-B	NY-SSC-C	Units	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual	Results	Qual
Volatile Organics in Air																					
Dichlorodifluoromethane							ug/m3	2.32	U	2.31	U	2.33	U	2.03	U	2.12		2	U	1.96	
Chloromethane							ug/m3	3.01		0.966	U	0.973	U	1.16		5.29		7.74		0.956	U
Freon-114							ug/m3	3.29	U	3.27	U	3.29	U	2.87	U	2.84	U	2.82	U	1.4	U
Vinyl chloride			0.2			6	ug/m3	1.2	U	1.2	U	1.2	U	1.05	U	4.5		7.34		0.511	U
1,3-Butadiene							ug/m3	2.65		1.09		2.88		10.5		16.2		22.1		0.442	U
Bromomethane							ug/m3	1.83	U	1.82	U	1.83	U	1.59	U	1.58	U	1.57	U	0.777	U
Chloroethane							ug/m3	2.27		1.23	U	1.24	U	3.46		1.07	U	1.39		0.528	U
Ethanol							ug/m3	40.7		30.9		70.1		48.6		45		37.7		9.42	U
Vinyl bromide							ug/m3	2.05	U	2.05	U	2.06	U	1.79	U	1.78	U	1.77	U	0.874	U
Acetone							ug/m3	53		49.4		359		124		93.1		84.8		7.51	
Trichlorofluoromethane							ug/m3	2.64	U	2.63	U	3.51		2.3	U	2.29	U	2.27	U	1.12	
Isopropanol							ug/m3	2.88	U	2.88	U	2.9	U	2.51	U	2.51	U	2.48	U	1.88	
1,1-Dichloroethene	0.2			6			ug/m3	1.86	U	1.86	U	1.87	U	1.63	U	1.61	U	1.6	U	0.793	U
Tertiary butyl Alcohol							ug/m3	6.55		9.37		3.88		3.4		6.43		6.76		1.52	U
Methylene chloride		3			100		ug/m3	4.06	U	4.06	U	4.1	U	3.54	U	3.54	U	3.51	U	1.74	U
3-Chloropropene							ug/m3	1.47	U	1.46	U	1.47	U	1.28	U	1.27	U	1.26	U	0.626	U
Carbon disulfide							ug/m3	8.5		5.79		4.17		25		4.58		14.6		0.623	U
Freon-113							ug/m3	3.6	U	3.59	U	3.61	U	3.14	U	3.12	U	3.1	U	1.53	U
trans-1,2-Dichloroethene							ug/m3	1.86	U	1.86	U	1.87	U	1.63	U	1.61	U	1.6	U	0.793	U
1,1-Dichloroethane							ug/m3	1.9	U	1.89	U	1.91	U	1.66	U	1.65	U	1.64	U	0.809	U
Methyl tert butyl ether							ug/m3	1.69	U	1.69	U	1.7	U	1.48	U	1.47	U	1.46	U	0.721	U
2-Butanone							ug/m3	40.7		45.1		140		64.9		87.6		97		1.47	U
cis-1,2-Dichloroethene	0.2			6			ug/m3	1.86	U	1.86	U	1.87	U	1.63	U	1.61	U	1.6	U	0.793	U
Ethyl Acetate							ug/m3	4.22	U	4.22	U	4.25	U	3.68	U	3.68	U	3.64	U	1.8	U
Chloroform							ug/m3	2.3	U	2.75		2.3	U	2	U	1.99	U	22.6		0.977	U
Tetrahydrofuran							ug/m3	3.45	U	3.45	U	14.7		6.55		5.9		6.58		1.47	U
1,2-Dichloroethane							ug/m3	1.9	U	1.89	U	1.91	U	1.66	U	1.65	U	1.64	U	0.809	U
n-Hexane							ug/m3	2.11		553		9.87		15.9		16.7		52.5		0.705	U
1,1,1-Trichloroethane		3			100		ug/m3	2.56	U	2.55	U	2.57	U	2.24	U	105		2.2	U	1.09	U
Benzene							ug/m3	1.5	U	1.5	U	4.5		3.09		10.9		6.84		0.639	U
Carbon tetrachloride	0.2			6			ug/m3	5.52		2.94	U	2.96	U	2.58	U	2.56	U	44		1.26	U
Cyclohexane							ug/m3	10.8		58.5		31		10.6		27.9		21		0.688	U
1,2-Dichloropropane							ug/m3	2.17	U	2.16	U	2.18	U	1.89	U	1.88	U	1.87	U	0.924	U
Bromodichloromethane							ug/m3	3.15	U	3.14	U	3.16	U	2.75	U	2.73	U	2.71	U	1.34	U
1,4-Dioxane							ug/m3	1.69	U	1.69	U	1.7	U	1.48	U	1.47	U	1.46	U	0.721	U
Trichloroethene	0.2			6			ug/m3	2.53	U	2.65		2.53	U	2.2	U	2.19	U	2.17	U	1.07	U
2,2,4-Trimethylpentane							ug/m3	4.21		9.43		3.89		5.89		13.2		9.34		0.934	U
Heptane							ug/m3	1.93	U	176		6.39		8.16		10.9		21.5		0.82	U
cis-1,3-Dichloropropene							ug/m3	2.13	U	2.12	U	2.14	U	1.86	U	1.85	U	1.83	U	0.908	U
4-Methyl-2-pentanone							ug/m3	4.79	U	4.79	U	4.84	U	4.18	U	4.18	U	4.14	U	2.05	U
trans-1,3-Dichloropropene							ug/m3	2.13	U	2.12	U	2.14	U	1.86	U	1.85	U	1.83	U	0.908	U
1,1,2-Trichloroethane							ug/m3	2.56	U	2.55	U	2.57	U	2.24	U	2.22	U	2.2	U	1.09	U
Toluene							ug/m3	5.58		9.27		11.6		5.69		10.7		8.29		0.908	
2-Hexanone							ug/m3	2.54		1.92	U	1.99		1.68	U	3.04		1.66	U	0.82	U
Dibromochloromethane							ug/m3	4	U	3.99	U	4.01	U	3.49	U	3.47	U	3.44	U	1.7	U
1,2-Dibromoethane							ug/m3	3.61	U	3.6	U	3.62	U	3.15	U	3.13	U	3.1	U	1.54	U
Tetrachloroethene		3			100		ug/m3	23.5		37.2		48.7		22.3		49.4		29.7		1.36	U
Chlorobenzene							ug/m3	2.16	U	2.16	U	2.17	U	1.89	U	1.87	U	1.86	U	0.921	U
Ethylbenzene							ug/m3	4.32		7.64		5.65		4.69		5.26		27.3		0.869	U
p/m-Xylene							ug/m3	20.1		32		25		19.7		20.8		120		1.74	U
Bromoform							ug/m3	4.86	U	4.84	U	4.87	U	4.24	U	4.21	U	4.18	U	2.07	U
Styrene							ug/m3	2	U	1.99	U	2.01	U	1.75	U	1.73	U	1.72	U	0.852	U
1,1,2,2-Tetrachloroethane							ug/m3	3.23	U	3.21	U	3.23	U	2.82	U	2.79	U	2.77	U	1.37	U
o-Xylene							ug/m3	12.7		18.5		13.4		10.3		11.7		43.9		0.869	U
4-Ethyltoluene							ug/m3	4.27		3.64		3.34		2.02	U	2.78		2.91		0.983	U
1,3,5-Trimethylbenzene							ug/m3	8.9		11		9.34		5.46		7.87		5.41		0.983	U
1,2,4-Trimethylbenzene							ug/m3	31.7		37.7		33.9		19.4		23.9		19.6		0.983	U
Benzyl chloride							ug/m3	2.43	U	2.42	U	2.44	U	2.12	U	2.11	U	2.09	U	1.04	U
1,3-Dichlorobenzene							ug/m3	2.83	U	2.81	U	2.83	U	2.47	U	2.45	U	2.43	U	1.2	U
1,4-Dichlorobenzene							ug/m3	2.83	U	2.81	U	2.83	U	2.47	U	2.45	U	2.43	U	1.2	U
1,2-Dichlorobenzene							ug/m3	2.83	U	2.81	U	2.83	U	2.47	U	2.45	U	2.43	U	1.2	U
1,2,4-Trichlorobenzene							ug/m3	3.49	U	3.47	U	3.5	U	3.04	U	3.02	U	3	U	1.48	U
Hexachlorobutadiene							ug/m3	5.01	U	4.99	U	5.02	U	4.37	U	4.34	U	4.31	U	2.13	U

* Comparison is not performed on parameters with non-numeric criteria.

NY-IAC-A: New York DOH Matrix A Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-IAC-B: New York DOH Matrix B Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-IAC-C: New York DOH Matrix C Indoor Air Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-B: New York DOH Matrix B Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-C: New York DOH Matrix C Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

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