

September 19, 2025

Manfred Magloire
New York State Department of Environmental Conservation
Division of Environmental Remediation
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Long Island City, NY 11101
manfred.magloire@dec.ny.gov

**Re: Supplemental Remedial Investigation Work Plan No. 1
691 Lenox Avenue – Phase 2
New York, NY
Langan Project No.: 170635401
NYSDEC BCP Site No.: C231146**

Dear Mr. Magloire:

Langan Engineering, Environmental, Survey, Landscape Architecture and Geology, D.P.C. (Langan) presents this Supplemental Remedial Investigation (SRI) Work Plan on behalf of One45 Lenox LLC for the property known as 691 Lenox Avenue – Phase 2 in New York, New York (the site). The site is located at 691 Lenox Avenue in New York, New York and is identified as Manhattan Tax Block 2013, Lot 29. The site comprises about 34,900 square feet (\pm 0.80 acres) and is part of a larger, two-part development property known as "One45".

The purpose of the SRI is to further evaluate the nature and extent of soil and groundwater contamination off-site and the potential for soil vapor intrusion (SVI) as an exposure pathway both on- and off-site. Co-located sub-slab soil vapor and indoor air samples will be collected from twelve locations within an occupied tenant space and occupied adjacent properties. Four groundwater monitoring wells will also be installed and sampled at four southern-adjointing properties. Supplemental sampling will be completed in accordance with the procedures (e.g., quality assurance/quality control) described in the July 19, 2022 Remedial Investigation Work Plan (RIWP). The data collected during the SRI will be incorporated into the draft Remedial Investigation Report (RIR) and may be used to inform potential Interim Remedial Measures (IRM) and/or the Remedial Action (RA) for the site.

Background

The Remedial Investigation (RI) was completed between February 2023 and July 2023. Groundwater sampling completed in May 2023 and July 2023 identified volatile organic compounds (VOC), semivolatile organic compounds (SVOC), metals (total and dissolved), and PFAS at the southern border of the site. One or more of thirteen petroleum VOCs were detected above the New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part

703.5 and the Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA water (collectively referred to as the NYSDEC SGVs) in groundwater samples collected from monitoring wells PH2_MW24_072523, PH2_MW25_071923, PH2_MW26_071923, PH2_MW29_050223, and PH2_MW31_050323. One chlorinated VOC (chloroform) was also detected above the NYSDEC SGVs in groundwater samples collected from monitoring wells PH2_MW27_0725523 and PH2_MW30_072523.

Soil vapor, sub-slab soil vapor, and indoor air sampling completed in July 2023 identified certain petroleum and chlorinated VOCs. Petroleum-related VOCs, including benzene, toluene, ethylbenzene, and total xylenes (collectively, BTEX), were detected in all soil vapor, sub-slab soil vapor, and indoor air samples. The maximum BTEX concentrations were detected in soil vapor sample PH2_SV23_072123 (benzene at 18.9 micrograms per cubic meter [$\mu\text{g}/\text{m}^3$], toluene at 138 $\mu\text{g}/\text{m}^3$, ethylbenzene at 35.1 $\mu\text{g}/\text{m}^3$, and total xylenes at 166 $\mu\text{g}/\text{m}^3$) located in the central part of the site. PCE was also detected in all soil vapor, sub-slab soil vapor, and indoor air samples, with a maximum concentration of 89.5 $\mu\text{g}/\text{m}^3$ in soil vapor sample PH2_SV25_072123, located in the western corner of the site.

According to the January 24, 2025 Phase 2 Revised Remedial Investigation Report (RIR) comment letter, NYSDEC and New York State Department of Health (NYSDOH) considered the Remedial Investigation (RI) incomplete because petroleum VOCs were identified in groundwater along the southern site boundary and no off-site SVI investigation was completed within occupied properties adjacent to the southern and western site boundaries.

Current Conditions

The site encompasses an area of about 34,900 square feet and is currently improved with a one-story commercial building utilized by a quick-serve restaurant chain (Dunkin Donuts) occupied only during business hours (former Lot 38), a vacant unoccupied building and canopy associated with a former Speedway gasoline filling station (former Lot 44), and an active Mobil gasoline filling station (open 24/7) with a one-story automotive repair garage and canopy occupied only during business hours (former Lot 50). Two 10,000-gallon and one 8,000-gallon active gasoline underground storage tanks (UST) and two active 250-gallon used oil and fuel oil aboveground storage tanks (AST) are present on former Lot 50 and are associated with the Mobil gasoline filling station. The western and southern-adjointing sites, where sampling will occur, are currently improved with a two-story building (a supermarket) with a cellar (Lot 61), a multi-story church (Lot 6), multiple multi-story residential buildings with cellars (Lots 9, 12, and 20), and multiple multi-story New York City Housing Authority (NYCHA) residential buildings with cellars (Lots 14, 16, 18, 22, 24, and 26).

Field Investigation

The SRI will be completed in accordance with the protocols set forth in Langan's July 19, 2022 RIWP. The SRI will include collection of twelve sub-slab soil vapor samples with twelve co-located indoor air samples and one ambient air sample. The SRI will also include the collection of four groundwater samples. The proposed sampling locations are illustrated on Figure 1. A sample summary matrix is provided as Table 1.

Monitoring Well Installation

The SRI will include installation of four permanent groundwater monitoring wells (PH2_MW32, PH2_MW33, PH2_MW34, and PH2_MW35) in the concrete-paved yards of four southern-adjointing off-site properties, pending the requisite grants of off-site access from the adjoining property owners. One of the groundwater monitoring wells will be installed in the concrete yard of a multi-story residential building (Lot 12) and the other three in the concrete yards of three multi-story NYCHA residential buildings (Lots 14, 18, and 24). There is a grade change between these off-site properties and the Phase 2 site with the off-site properties being about 7 to 10 feet higher than the Phase 2 site. Therefore, we expect to encounter groundwater at about 10 feet below ground surface (bgs) (about el. 2 NAVD88) at the off-site properties. Prior to installation, Langan will conduct a geophysical survey to locate USTs, underground structures, geophysical anomalies, identify utilities across accessible areas of the off-site locations, and clear proposed monitoring well locations of potential subsurface obstructions. The geophysical survey will be completed using a collection of geophysical instruments, including electromagnetic and utility line locator instruments and ground-penetrating radar (GPR). The results of the survey may require relocating monitoring wells.

Access to the rear yards is limited by a narrow alleyway and stairwell (both less than 4-feet wide) and cannot accommodate a standard track-mounted drilling rig; therefore, limited access drilling equipment will be used for monitoring well installation. The monitoring wells will be installed using a Geoprobe™ 420M limited access drill rig with 1.5-inch-inner-diameter rods to provide a borehole that is 2.25-inches in diameter. Continuous soil sampling will be completed using 4-foot or 5-foot, 2.25-inch-outer-diameter Macrocores® with dedicated acetate liners. A Langan field engineer, scientist or geologist will screen soil samples to the termination depth (about 20 feet bgs) for organic vapors with a PID equipped with a 10.6 electron volt (eV) bulb and for visual and olfactory evidence of chemical-like and/or petroleum-like impacts (e.g., NAPL, staining, odor). Soil will be visually classified for color, grain size, texture, and moisture/water content; observations will be recorded in a field log.

The monitoring wells will be constructed with 10 feet of screen that will be terminated at about 8 feet below the observed groundwater table using 0.75-inch-diameter, threaded, flush-joint, polyvinyl chloride (PVC) casing and pre-packed PVC well screen consisting of a 0.010-inch-slot inner screen, filtration sand (grade no. 20/40), and a stainless steel mesh outer screen. Clean sand (e.g., Morie No. 1) will be used to fill the annulus around the pre-packed screen up to about 2 feet above the top of the screened interval. The total thickness of each well's filter pack is expected to be about 1.5 inches, which is inclusive of clean sand added to borehole annulus and the pre-packed filtration sand. A 2-foot-thick bentonite seal will be installed above the sand, and the remaining borehole annulus will be backfilled with drill cuttings with no evidence of chemical or petroleum impacts (i.e., staining, odors, or elevated PID readings) to within 12 inches of the surface and/or grouted to the surface with bentonite and cement slurry. Monitoring wells will be capped with a locking monitoring well J-plug and finished at the surface with flush mounted access covers and cement pad.

After installation, the wells will be developed by surging using either a weighted bailer or surge block across the well screen and casing to agitate and remove fines. After surging, the well will be purged via pumping until the water becomes visually clear. The well will then be allowed to stabilize for a minimum of one week prior to sampling.

Groundwater Sampling and Analysis

Groundwater samples will be collected from each of the four newly installed groundwater monitoring wells in general accordance with NYSDEC DER-10 and USEPA's Low Flow Purging and Sampling Procedures for the Collection of Groundwater Samples from Monitoring Wells (EQASOP-GW4 Revised Sep. 2017). Before sampling, the headspace of each well will be monitored with a PID. Monitoring wells will be gauged with an interface probe to determine the depth to groundwater and thickness of NAPL (if any) prior to collecting groundwater samples. If NAPL is encountered, representative samples of the product will be collected for laboratory fingerprint analysis. No groundwater samples will be collected from monitoring wells containing NAPL.

Before the groundwater samples are collected, wells will be continuously purged until groundwater quality parameters (pH, conductivity, turbidity, dissolved oxygen, temperature, and oxidation-reduction potential) stabilize, to the extent practical, in accordance with the USEPA low-flow guidance. A multi-parameter water-quality system will be used to monitor the groundwater-quality parameters during sampling. Samples will be collected with a peristaltic pump, submersible pump, and/or bladder pump (or equivalent) and dedicated polyethylene tubing. Groundwater samples will be collected at a maximum flow rate of 0.5 liters per minute. The pump will be decontaminated with Alconox® and water between each sample location. Development and purge water will be containerized into UN/DOT-approved 55-gallon drums, labeled, and staged for off-site disposal.

The groundwater samples will be collected in laboratory-supplied containers and sealed, labeled, and placed in a chilled cooler (to attempt to maintain a temperature of <4°C) for delivery to an NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory. Groundwater samples will be analyzed for the following parameters:

- Target Contaminant List (TCL) VOCs by USEPA Method 8260C
- TCL SVOCs by USEPA Method 8270D (1,4-dioxane by 8270 SIM isotope dilution)

A sample summary matrix is provided as Table 1.

Sub-slab Soil Vapor Point Installation

The SRI will include installation of twelve permanent sub-slab soil vapor points (PH2_SSV29, PH2_SSV30, PH2_SSV31, PH2_SSV32, PH2_SSV33, PH2_SSV34, PH2_SSV35, PH2_SSV36, PH2_SSV37, PH2_SSV38, PH2_SSV39, and PH2_SSV40) in one occupied on-site tenant space (Dunkin Donuts) and eleven occupied adjacent off-site properties (a supermarket, a church, three multi-story residential buildings, and six multi-story NYCHA residential buildings). Eleven of the twelve sub-slab vapor points will be installed within the building cellars; the twelfth sub-slab vapor

point will be installed at ground level in the occupied on-site tenant space (Dunkin Donuts). Proposed sub-slab soil vapor points are shown on Figure 1.

The sub-slab vapor points will be constructed by installing Vapor Pins® within the concrete building foundation slabs and finished with 2-inch-diameter stainless steel integrated flush-mount covers. A hammer drill will be used to drill a 1.5-inch-diameter hole at least 1.75 inches into the slab, then a 5/8-inch-diameter hole will be drilled from the base of the first hole through the concrete slab and approximately 1 to 2 inches into underlying soil to form a void. Loose debris and concrete dust will be cleared from the hole using a bottle brush and shop vacuum. Each Vapor Pin® will be fitted with a silicone sleeve and installed within the inner 5/8-inch diameter hole using a dead-blow hammer until bulging of the silicone sleeve is observed, indicating an air-tight seal.

Product Inventory and NYSDOH Questionnaire

Prior to sample collection, a product inventory will be completed in the area of indoor air sample locations to document petroleum-based products, solvents, chemicals, and other materials/products containing VOCs or other ingredients that may influence the indoor air sample results. An NYSDOH Indoor Air Quality Questionnaire and Building Inventory form will be completed for each sampling location.

Sub-slab Soil Vapor and Indoor Air Sampling and Analysis

Soil vapor samples will be collected from each of the twelve newly installed sub-slab soil vapor points. Co-located indoor air samples will also be collected. Before collecting vapor samples, a maximum of three soil vapor point volumes (i.e., the volume of the soil vapor pin, void space, and tubing) will be purged from each sample location at a rate of less than 0.2 liters per minute using a Gilian GilAir® Plus Air Sampling Pump set at a low flow setting. The purged soil vapor will be captured in a Tedlar® bag and moved outside to prevent contamination of indoor air space. The Tedlar® bag will be screened for VOCs with the PID, then discharged to outdoor ambient air. A helium tracer gas will be used in accordance with the NYSDOH Guidance to serve as a quality assurance/quality control (QA/QC) technique to document the integrity of each sub-slab soil vapor point seal before sampling. The tracer gas will be introduced into a container, which will shroud the sub-slab soil vapor point and seal. Helium will be measured from the sampling tube and inside the container. If the sample tubing contains more than 10% of the tracer gas concentration that was introduced into the container, then the seal will be considered compromised and will be enhanced or reconstructed to reduce outdoor air infiltration. A log sheet for each sub-slab soil vapor sample will be completed to record sample identification; date and time of sample collection; sampling depth; name of the field engineer, geologist or scientist responsible for sampling; sampling methods and equipment; vapor purge volumes; volume of vapor extracted; flow rate; and vacuum of canisters before and after sample collection.

Sub-slab soil vapor and indoor air samples will be collected concurrently for a period of 24 hours using laboratory-supplied, individually certified-clean Summa® canisters (2.7- or 6-liter capacity) with 24-hour calibrated flow controllers. Co-located indoor air samples will be collected from a height above the ground representative of a typical breathing zone (about 3 to 5 feet). The

ambient air sample will be collected from a representative upwind outdoor location away from wind obstructions and obvious sources of volatile chemicals.

A total of 25 samples will be submitted to an NYSDOH ELAP-certified laboratory for analysis of VOCs via United States Environmental Protection Agency (USEPA) method TO-15. A sample summary matrix is provided as Table 1.

Reporting

Langan will revise the September 13, 2024 draft RIR to incorporate observations, sampling logs, product inventory sheets, NYSDOH questionnaires, analytical results, and conclusions from the SRI. Validated and tabulated sampling data will be included in the revised draft RIR and submitted to NYSDEC electronically as electronic data deliverables (EDDs). If an SVI condition is identified based on the SVI sampling data, Langan will notify NYSDEC/NYSDOH and provide unvalidated data in advance of submitting the RIR.

Schedule

An updated Brownfield Cleanup Program (BCP) project schedule is provided in Attachment 1. Mobilization for the SRI will commence during the 2025-2026 heating season, pending coordination of site access with on-site tenants and off-site property owners, including the NYCHA. The NYSDEC will be notified of the start date at least 7 days in advance and if the status of any occupied tenant space changed after NYSDEC approval of this SRIWP but prior to commencement of field work.

Once the SRI is complete and the analytical data is validated, the draft RIR will be revised and submitted to the NYSDEC and NYSDOH. We expect the updated RIR will also address other agency comments/edits received in the interim.

Certification

I, Jason J. Hayes, certify that I am currently a Qualified Environmental Professional [as defined in 6 NYCRR Part 375] and that this Report [SRI Work Plan No. 1] was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Sincerely,
**Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.**



Jason J. Hayes, P.E., LEED AP
Senior Principal

Enclosure(s):

Table 1 – Proposed Sample Summary

Figure 1 – Sample Location Plan

Attachment 1 – BCP Project Schedule

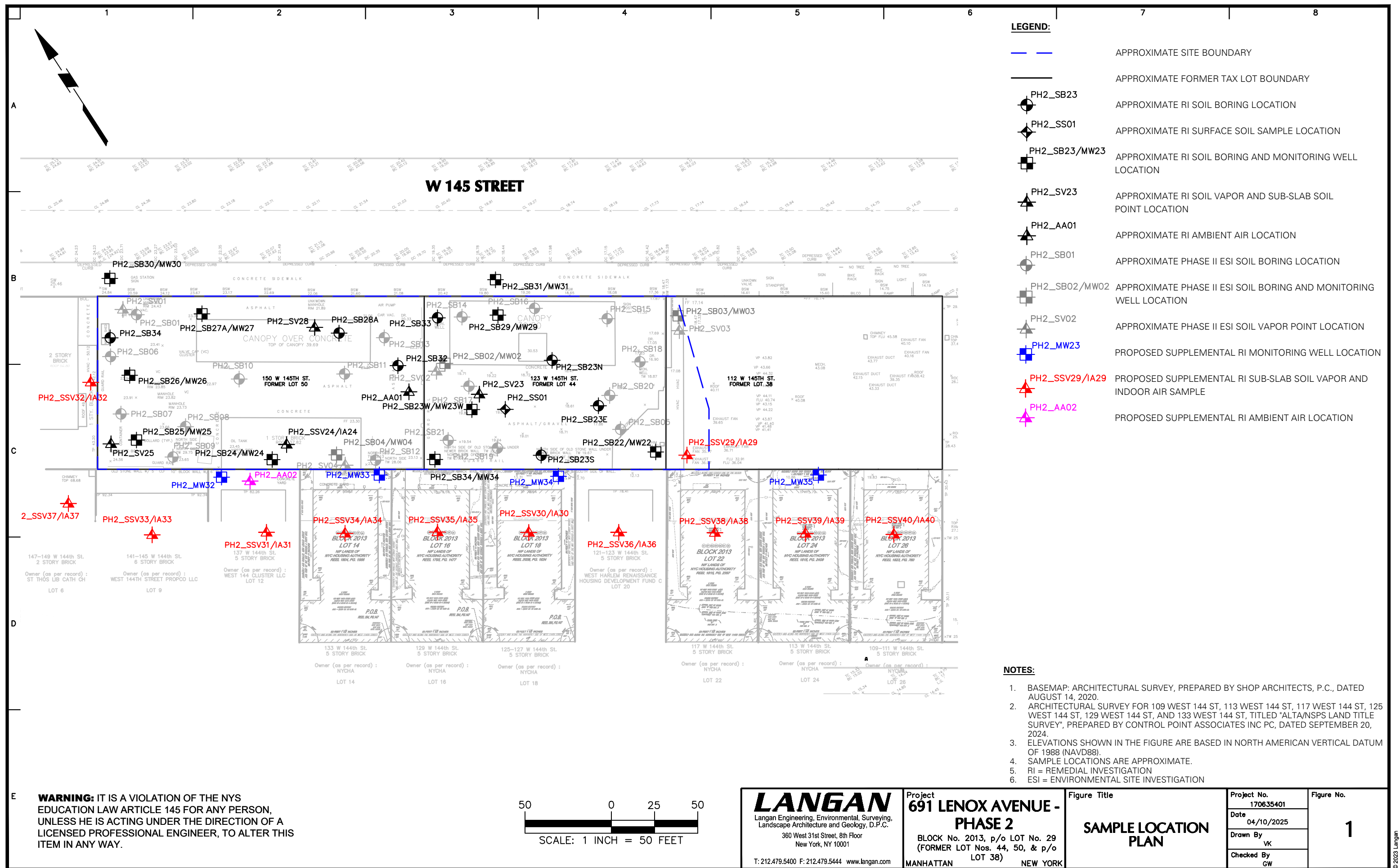
cc: C. Maycock, G. Nam - NYSDEC
A. Keegan – NYSDOH
M. Raygorodetsky, G. Wyka, N. Palumbo - Langan

Table 1
Supplemental Remedial Investigation Work Plan No. 1
Proposed Sample Summary

One 45 - Phase 2
NYSDEC BCP Site No. C231146
New York, New York
Langan Project No. 170635401

GROUNDWATER							
No.	Sample Location	Sample Type	Sample ID	Date	Time	Location	Analysis
1	PH2_MW32	Groundwater	PH2_MW32_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Concrete yard of multi-story residential building (Lot 12)	TCL VOCs via USEPA method 8260C TCL SVOCs via USEPA method 8270D 1,4-Dioxane via USEPA method 8270 SIM
2	PH2_MW33		PH2_MW33_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Concrete yard of multi-story NYCHA residential building (Lot 14)	
3	PH2_MW34		PH2_MW34_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Concrete yard of multi-story NYCHA residential building (Lot 18)	TCL VOCs via USEPA method 8260C TCL SVOCs via USEPA method 8270D 1,4-Dioxane via USEPA method 8270 SIM
4	PH2_MW35		PH2_MW35_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Concrete yard of multi-story NYCHA residential building (Lot 24)	
SUB-SLAB SOIL VAPOR							
No.	Sample Location	Sample Type	Sample ID	Date	Time	Location	Analysis
1	PH2_SSV29	Sub-Slab Soil Vapor	PH2_SSV29_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below ground floor slab of quick-serve restaurant (Dunkin Donuts)	VOCs via USEPA Method TO-15
2	PH2_SSV30		PH2_SSV30_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below cellar slab of multi-story NYCHA residential building (Lot 18)	
3	PH2_SSV31		PH2_SSV31_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below cellar slab of multi-story residential building (Lot 12)	
4	PH2_SSV32		PH2_SSV32_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below cellar slab of supermarket (Lot 61)	
5	PH2_SSV33		PH2_SSV33_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below cellar slab of multi-story residential building (Lot 9)	
6	PH2_SSV34		PH2_SSV34_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below cellar slab of multi-story NYCHA residential building (Lot 14)	
7	PH2_SSV35		PH2_SSV35_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below cellar slab of multi-story NYCHA residential building (Lot 16)	
8	PH2_SSV36		PH2_SSV36_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below cellar slab of multi-story NYCHPD residential building (Lot 20)	
9	PH2_SSV37		PH2_SSV37_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below cellar slab of multi-story church building (Lot 6)	
10	PH2_SSV38		PH2_SSV38_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below cellar slab of multi-story NYCHA residential building (Lot 22)	
11	PH2_SSV39		PH2_SSV39_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below cellar slab of multi-story NYCHA residential building (Lot 24)	
12	PH2_SSV40		PH2_SSV40_XXXXXXXX	XX/XX/XXXXXX	XX:XX	1 to 2 inches below cellar slab of multi-story NYCHPD residential building (Lot 26)	
INDOOR AIR							
1	PH2_IA29	Indoor Air	PH2_IA29_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above ground floor slab in quick-serve restaurant (Dunkin Donuts)	VOCs via USEPA Method TO-15
2	PH2_IA30		PH2_IA30_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above cellar slab of multi-story NYCHA residential building (Lot 18)	
3	PH2_IA31		PH2_IA31_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above cellar floor slab of multi-story residential building (Lot 12)	
4	PH2_IA32		PH2_IA32_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above cellar slab of supermarket (Lot 61)	
5	PH2_IA33		PH2_IA33_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above cellar slab of multi-story residential building (Lot 9)	
6	PH2_IA34		PH2_IA34_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above cellar floor slab of multi-story NYCHA residential building (Lot 14)	
7	PH2_IA35		PH2_IA35_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above cellar slab of multi-story NYCHA residential building (Lot 16)	
8	PH2_IA36		PH2_IA36_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above cellar floor slab of multi-story NYCHPD residential building (Lot 20)	
9	PH2_IA37		PH2_IA37_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above cellar slab of multi-story church building (Lot 6)	
10	PH2_IA38		PH2_IA38_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above cellar floor slab of multi-story NYCHA residential building (Lot 22)	
11	PH2_IA39		PH2_IA39_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above cellar slab of multi-story NYCHA residential building (Lot 24)	
12	PH2_IA40		PH2_IA40_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Co-located with soil vapor sample, three to five feet above cellar floor slab of multi-story NYCHPD residential building (Lot 26)	
AMBIENT AIR							
1	PH2_AA02	Ambient Air	PH2_AA02_XXXXXXXX	XX/XX/XXXXXX	XX:XX	Outside within the concrete yard of the multi-story residential building (Lot 12)	VOCs via USEPA Method TO-15

Notes:
1. TBD = To Be Determined
2. VOC = Volatile Organic Compound
3. USEPA = United States Environmental Protection Agency
4. NYCHA = New York City Housing Authority
5. NYCHPD = New York City Department of Housing Preservation and Development



**Brownfield Cleanup Program Project Schedule
Attachment 1
691 Lenox Avenue - Phase 2
New York, NY
Langan Project No. 170635401
BCP Site No. C231146**

[illegible]

Notes:

1. BCP = Brownfield Cleanup Program
2. COC = Certificate of Completion
3. CPP = Citizen Participation Plan
4. EE = Environmental Easement
5. EIS = Environmental Impact Statement
6. FER = Final Engineering Report
7. NYSDEC = New York State Department of Environmental Conservation
8. RAWP = Remedial Action Work Plan
9. RI = Remedial Investigation
10. RIR = Remedial Investigation Report
11. RIWP = Remedial Investigation Work Plan
12. SMP = Site Management Plan
13. ULURP = Uniform Land Use Review Procedure