

Monthly Progress Report No. 4
Enclave on 241st Street Development
714 East 241st Street, Bronx, New York
Brownfield Cleanup Program Site #: C203077
Reporting Period: November 2015

1. Introduction

In accordance with Article XI – Progress Reports of the Brownfield Cleanup Agreement (BCA) for the above-referenced site, Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) prepared this monthly progress report, on behalf of Enclave on 241 Street, LLC (“Volunteer”), to summarize the work performed at 714 east 241st Street in the Wakefield section of the Bronx, New York (the “Site”) during November 2015.

The Site (Block 5087, Lot 1) consists of an approximate 24,060-square-foot irregularly shaped lot and includes approximately 100 feet of frontage along White Plains Road, 185 feet of frontage along 241st Street, and 135 feet of frontage along Furman Avenue. The New York City Transit Authority (NYCTA) #2 rail corridor and station platform are allocated above grade along the northwestern property line. The Site contains three buildings including an approximate 1,086-square-foot one-story office building with basement, an approximate 3,375-square foot one-story former auto body shop building, and an approximate 1,500-square foot one-story former auto body shop building. The Site also contains asphalt- and concrete-paved exterior driving/parking areas and sparsely vegetated undeveloped area. The Site is subject to NYSDEC review under the Spills Program (Spill No. 12-14956).

A Site Location Map is attached to this progress report as Figure 1.

2. Remedial Actions Relative to the Site during this Reporting Period

As described in the October Monthly Progress Report, a Remedial Investigation (RI) was performed at the site by Langan in October 2015 in accordance with the NYSDEC approved Remediation Investigation Work Plan (RIWP) dated 6 February 2015 (approved 18 August 2015). The RI included the following:

- Advancement of 23 soil borings and installation of 9 monitoring wells & 11 soil vapor probes.
- Collection and submittal of 44 soil samples (plus QA/QC samples) for analysis of:
 - NYSDEC Part 375 Volatile Organic Compounds (VOCs), Semi-volatile Organic Compounds (SVOCs), Metals, Polychlorinated Biphenyls (PCBs), and Pesticides.
- Collection of 10 groundwater samples (plus QA/QC samples) for analysis of:
 - NYSDEC Target Compound List (TCL) VOCs, SVOCs, and Target Analyte List (TAL) Metals (filtered and unfiltered)
- Collection of free product from monitoring well MW29 analysis of:
 - Petroleum Identification
- Collection of 11 soil vapor samples (plus QA/QC samples) for analysis of:
 - USEPA TO-15 VOCs

The RI analytical results are discussed briefly in Section 5. Draft RI tables; including, Sample Summary Table, Soil Sample Analytical Results, Groundwater Analytical Results, and Soil Vapor Analytical Results are attached as Tables 1, 2, 3, and 4, respectively. Draft RI Figures; including, RI Site Plan, Groundwater Isocontour Map, Soil Sample Locations & Results Map, Groundwater

Locations & Results Map, and Soil Vapor Locations & Results Map are attached as Figures 2, 3, 4, 5, and 6, respectively.

3. Actions Relative to the Site Anticipated for the Next Reporting Period

Enclave on 241 Street, LLC (the "Volunteer") is evaluating the possibility of purchasing additional/adjacent properties to the south of the project site in order to increase the footprint of the proposed building. Potential lot acquisitions include lot(s) 9, 55, and 58. Adjacent lot acquisitions may trigger the need to further investigation at previously uninvestigated lots. Preparation and submission of the Remediation Investigation Report (RIR) to NYSDEC is anticipated in December 2015.

4. Approved Activity Modifications (changes of work scope and/or schedule)

None in this period.

5. Results of Sampling, Testing and Other Relevant Data

Results from RI activities conducted in October 2015 are presented below:

Soil Analytical Summary

VOCs

Numerous VOCs, including; 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, acetone, benzene, ethyl benzene, methylene chloride, n-propylbenzene, toluene, and total xylenes were detected above the NYSDEC Unrestricted Use SCOs and Restricted Residential SCOs in multiple soil samples, including; SB08_9-10, SB09_9-10, SB09_13-14, SB19_4.5-5.5, SB19_9-10, SB22_8-9, SB22_10-11, and SB29_9-10. VOC impacts were primarily found in soil borings SB08, SB09, SB19, and SB22. These boring are generally located on the western and northwest portions of the Subject Property, in the vicinity of the USTs. VOC impacts were found to exist in soil samples collected at depths ranging from 8 to 11 feet bgs, which is in the vicinity of the groundwater interface.

SVOCs

Five SVOCs, including; benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and ideno(1,2,3-cd)pyrene were detected at concentrations above their Restricted-Residential SCOs, and two SVOCs, including benzo(k)fluoranthene and chrysene were detected at concentrations above their Unrestricted Use SCOs in SB23_8.5-9.5. The SVOC ideno(1,2,3-cd)pyrene was also detected above the Restricted-Residential SCOs in sample SB16_3-4 and above the Unrestricted Use SCOs in sample SB27_1-2. SVOC impacts were primarily found in soil boring SB23 (in the vicinity of the closed-in-place gasoline USTs) at depths of 8.5 to 9.5 bgs. SVOCs were also found in the historic fill of the site in soil borings SB27 and SB16 at depths ranging from 1 to 4 feet bgs.

PCBs

No PCBs were detected above the Unrestricted Use SCOs or the Restricted-Residential SCOs in soil samples collected.

Pesticides

No herbicides or pesticides were detected above the Unrestricted Use SCOs or the Restricted-Residential SCOs in soil samples collected.

Metals

Eight metals, including; barium, chromium, copper, lead, mercury, nickel, selenium, and zinc were detected at concentrations above their Unrestricted Use SCOs in 17 soil samples at 13 borings across the Subject Property. Lead was detected above the Restricted Residential SCO in soil borings SB07, SB12, SB15, SB21, SB25, SB26, SB27, and SB28 at depths ranging from 0.5 to 3.5 feet bgs. Barium and copper were also detected above the Restricted Residential SCO in soil boring SB15 at 2.5-3.5 feet bgs. Historical fill is the likely source of metals across the Subject Property.

A Soil Sample Analytical Results summary table is attached as Table 2 and a Soil Sample Locations and Results Map is attached as Figure 4.

Groundwater Analytical Summary

VOCs

VOCs, including; 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, ethyl benzene, isopropylbenzene, n-propylbenzene, o-xylene, p- & m- xylenes, p-isopropyltoluene, sec-butylbenzene, toluene, and total xylenes were detected in groundwater at concentrations above their NYSDEC Division of Water Technical and Operation Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) for Class GA groundwater criteria at monitoring wells MW07, MW08, and MW19 which are located on the western and northwestern portion of the Subject Property in the vicinity and hydraulically down gradient of the USTs. The VOC methyl ter-butyl ether (MTBE) was detected in groundwater above the TOGS SGVs in monitoring well MW07, which is located on the southern portion of the Subject Property, hydraulically down gradient of the USTs.

SVOCs

No SVOCs were detected above the TOGS SGVs in groundwater samples collected.

Dissolved Metals

Dissolved metals, including; magnesium, manganese, and sodium were detected in groundwater at concentrations above the TOGS SGVs criteria at monitoring wells MW07, MW11, MW13, MW15, MW16, and MW17 which are located throughout the Subject Property.

Metals

Metals, including; magnesium, manganese, and sodium were detected in groundwater at concentrations above the TOGS SGVs criteria at monitoring wells MW07, MW11, MW13, MW15, MW16, and MW17 which are located throughout the Subject Property. Concentrations of metals detected in groundwater were are similar concentrations as the concentrations of dissolved metals.

Light, Nonaqueous-Phase Liquid

LNAPL was detected in monitoring well MW29, located in the central western portion of the Subject property during groundwater sampling. Due to the presence of LNAPL, groundwater in this well was not sampled. Fingerprint analysis completed on the LNAPL indicated that the pattern resembles a degraded fuel oil.

A Groundwater Analytical Results summary table is attached as Table 3 and a Groundwater Sample Locations and Results Map is attached as Figure 5.

Soil Vapor Analytical Summary

VOCs

Total VOCs in the subsurface soil vapor samples ranged from 2,095 $\mu\text{g}/\text{m}^3$ at SV07 to 3,900,750 $\mu\text{g}/\text{m}^3$ at SV02. VOC concentrations in soil vapor are greatest in the northern portion of the Site in the vicinity of the USTs; however, VOCs were detected across the entire Subject Property. Efforts to mitigate soil vapor intrusion will be included in the Remedial Action Work Plan.

A Soil Vapor Analytical Results summary table is attached as Table 4 and a Soil Vapor Sample Locations and Results Map is attached as Figure 6.

6. Deliverables Submitted During This Reporting Period

Draft RI tables and Figures were submitted to NYSDEC on 2 December 2015.

7. Information Regarding Percentage of Completion

RI complete: <5%

8. Unresolved Delays Encountered or Anticipated That May Affect the Schedule and Mitigation Efforts

None in this period.

9. Community Participation (CP) Plan Activities during This Reporting Period

None in this period.

10. Activities Anticipated in Support of the CP Plan for the Next Reporting Period:

None in this period.

11. Miscellaneous Information

Enclave on 241 Street, LLC (the "Volunteer") is evaluating the possibility of purchasing additional/adjacent properties to the south of the project site in order to increase the footprint of the proposed building. Potential lot acquisitions include lot(s) 9, 55, and 58. Adjacent lot acquisitions may trigger the need to further investigation at previously uninvestigated lots.

Enclosed:

Table 1 – Sample Summary

Table 2 – Soil Analytical Results – Remedial Investigation

Table 3 – Groundwater Analytical Results – Remedial Investigation

Table 4 – Soil Gas Analytical Results – Remedial Investigation

Figure 1 – Site Location Map

Figure 2 – Remedial Investigation Site Plan

Figure 3 – Groundwater Isocontour Map

Figure 4 – Soil Sample Locations and Results Map

Figure 5 – Groundwater Locations and Results Map

Figure 6 – Soil Vapor Locations and Results Map

Table 1
Sample Summary
Remediation Investigation Report
714 East 241 Street
Bronx, New York
Langan Project No. 140115301

Sample Name	Sample Depth (ft bgs)	Date	Observations ⁽¹⁾	PID Reading (ppm)	Observed Depth to Groundwater ⁽²⁾	Sample Analyses
Soil Samples						
SB07_2-3	2.0 to 3.0	30-Sep-15	Fill	12.5	12.5 feet bgs	Part 375 VOCs, SVOCs, Metals, PCBs, Pesticides
SB07_12-13	12.0 to 13.0	30-Sep-15	Virgin	0.8		
SB08_2-3	2.0 to 3.0	30-Sep-15	Fill	88.9	9.5 feet bgs	
SB08_9-10	9.0 to 10.0	30-Sep-15	Virgin	2478		
SB09_9-10	9.0 to 10.0	30-Sep-15	Virgin	2400	13.5 feet bgs	
SB09_13-14	13.0 to 14.0	30-Sep-15	Virgin	2400		
SB10_8-9	8.0 to 9.0	30-Sep-15	Virgin	131	12 feet bgs	
SB10_11-12	11.0 to 12.0	30-Sep-15	Virgin	415		
SB11_8.5-9.5	8.5 to 9.5	29-Sep-15	Virgin	15.3	12.5 feet bgs	
SB11_12-13	12.0 to 13.0	29-Sep-15	Virgin	8.9		
SB12_1-2	1.0 to 2.0	28-Sep-15	Fill	4.8	12 feet bgs	
SB12_11.5-12.5	11.5 to 12.5	28-Sep-15	Virgin	0.2		
SB13_9-10	9.0 to 10.0	28-Sep-15	Virgin	45.1	14.5 feet bgs	
SB13_14-15	14.0 to 15.0	28-Sep-15	Virgin	68.1		
SB14_2-3	2.0 to 3.0	28-Sep-15	Fill	0.0	12 feet bgs	
SB14_11.5-12.5	11.5 to 12.5	28-Sep-15	Virgin	3.0		
SB15_2.5-3.5	2.5 to 3.5	29-Sep-15	Fill	5.3	12 feet bgs	
SB15_11.5-12.5	11.5 to 12.5	29-Sep-15	Virgin	1.8		
SB16_3-4	3.0 to 4.0	29-Sep-15	Fill	90.7	12 feet bgs	
SB16_11.5-12.5	11.5 to 12.5	29-Sep-15	Virgin	9.3		
SB17_3.5-4.5	3.5 to 4.5	29-Sep-15	Fill	102	12 feet bgs	
SB17_11.5-12.5	11.5 to 12.5	29-Sep-15	Virgin	18.4		
SB18_6-7	6.0 to 7.0	30-Sep-15	Virgin	0.0	13.5 feet bgs	
SB18_11-12	11.0 to 12.0	30-Sep-15	Virgin	0.0		
SB19_4.5-5.5	4.5 to 5.5	30-Sep-15	Fill	69.1	10 feet bgs	
SB19_9-10	9.0 to 10.0	30-Sep-15	Virgin	3380		
SB20_2-3	2.0 to 3.0	30-Sep-15	Fill	400	12 feet bgs	
SB20_11-12	11.0 to 12.0	30-Sep-15	Virgin	136		
SB21_0.5-1.5	0.5 to 1.5	30-Sep-15	Fill	140	12 feet bgs	
SB21_10-11	10.0 to 11.0	30-Sep-15	Virgin	15.1		
SB22_8-9	8.0 to 9.0	30-Sep-15	Virgin	426	10.5 feet bgs	
SB22_10-11	10.0 to 11.0	30-Sep-15	Virgin	2500		
SB23_8.5-9.5	8.5 to 9.5	29-Sep-15	Virgin	50.1	12 feet bgs	
SB23_11.5-12.5	11.5 to 12.5	29-Sep-15	Virgin	21.4		
SB24_3.5-4.5	3.5 to 4.5	29-Sep-15	Virgin	4.7	11.5 feet bgs	
SB24_11-12	11.0 to 12.0	29-Sep-15	Virgin	4.1		
SB25_1-2	1.0 to 2.0	29-Sep-15	Fill	0.0	N/A	
SB26_1-2	1.0 to 2.0	29-Sep-15	Fill	0.9	N/A	
SB27_1-2	1.0 to 2.0	29-Sep-15	Fill	10.7	N/A	
SB28_1-2	1.0 to 2.0	30-Sep-15	Fill	7.8	N/A	
SB29_9-10	9.0 to 10.0	28-Sep-15	Virgin	142	12 feet bgs	
SB29_11.5-12.5	11.5 to 12.5	28-Sep-15	Virgin	153		
SODUP01_9.28.15 (SB13_14-15)	14.0 to 15.0	28-Sep-15	Virgin	68.1	14.5 feet bgs	
SODUP02_9.29.15 (SB15_2.5-3.5)	2.5 to 3.5	29-Sep-15	Fill	5.3	12 feet bgs	
SODUP03_9.29.15 (SB17_3.5-4.5)	3.5 to 4.5	29-Sep-15	Fill	102	12 feet bgs	
MS/MSD-S001_9.30.15 (SB18_11-12)	11.0 to 12.0	30-Sep-15	Virgin	0.0	13.5 feet bgs	
SBTB01_9.29.15	--	29-Sep-15	--	--	--	
SBTB02_9.30.15	--	30-Sep-15	--	--	--	
SBTB03_9.30.15	--	30-Sep-15	--	--	--	
SBFB01_9.30.15	--	30-Sep-15	--	--	--	Part 375 VOCs, SVOCs, Metals, PCBs, Pesticides
SBFB02_9.30.15	--	30-Sep-15	--	--	--	
Groundwater Samples						
MW07_10.6.15	--	6-Oct-15	GW	45.7	12.01 feet bgs	TCL VOCs, SVOCs, TAL Metals (unfiltered & lab filtered)
MW08_10.6.15	--	6-Oct-15	GW	1831	9.47 feet bgs	TCL VOCs
MW11_10.6.15	--	6-Oct-15	GW	65.1	11.76 feet bgs	TCL VOCs, SVOCs, TAL Metals (unfiltered & lab filtered)
MW13_10.6.15	--	6-Oct-15	GW	0.5	13.43 feet bgs	
MW15_10.6.15	--	6-Oct-15	GW	0.0	11.72 feet bgs	
MW16_10.6.15	--	6-Oct-15	GW	0.6	12.52 feet bgs	
MW17_10.6.15	--	6-Oct-15	GW	104	11.73 feet bgs	
MW19_10.6.15	--	6-Oct-15	GW	1594	10.20 feet bgs	
MW29_10.6.15	--	6-Oct-15	Product	0.0	12.10 feet bgs	Petroleum I.D.
GWDUP01_10.6.15 (MW08_10.6.15)	--	6-Oct-15	GW	1831	9.47 feet bgs	TCL VOCs
MS/MSD-GW01_10.6.15 (MW16_10.6.15)	--	6-Oct-15	GW	0.6	12.52 feet bgs	TCL VOCs, SVOCs, TAL Metals (unfiltered & lab filtered)
GWFB01_10.6.15	--	6-Oct-15	--	--	--	TCL VOCs, SVOCs, TAL Metals (unfiltered & lab filtered)
GWTB01_10.6.15	--	6-Oct-15	--	--	--	TCL VOCs
Soil Vapor Samples						
SV01_10.8.15	8-feet bgs	8-Oct-15	SV	--	N/A	EPA TO-15 Volatiles
SV02_10.8.15	8-feet bgs	8-Oct-15	SV	--		
SV03_10.8.15	10-feet bgs	8-Oct-15	SV	182.4		
SV04_10.8.15	10-feet bgs	8-Oct-15	SV	52.3		
SV05_10.8.15	11-feet bgs	8-Oct-15	SV	67.9		
SV06_10.8.15	10-feet bgs	8-Oct-15	SV	384		
SV07_10.8.15	9-feet bgs	8-Oct-15	SV	15.8		
SV08_10.8.15	9-feet bgs	8-Oct-15	SV	187.4		
SV09_10.8.15	9-feet bgs	8-Oct-15	SV	41.6		
SV10_10.8.15	10-feet bgs	8-Oct-15	SV	22.1		
SV11_10.8.15	9-feet bgs	8-Oct-15	SV	58.3		
SVDUP01_10.8.15 (SV03_10.8.15)	10-feet bgs	8-Oct-15	SV	184.4		
AMB01_10.8.15	--	8-Oct-15	Ambient	0		

Notes:

- 1) Soil types based on field observations.
- 2) Groundwater depths based on field observations (soil), and monitoring well gauging (groundwater)

Acronyms:

BGS = Below grade surface
GW = Groundwater
SV = Soil Vapor
N/A = Not applicable
PID = Photoionization detector
PPM = Parts per million
TCL = Target Compound List
TAL = Target Analyte List
VOCs = Volatile organic compounds
SVOCs = Semivolatile organic compounds
PCBs = Polychlorinated biphenyls
EPA = United States Environmental Protection Agency

Table 2
Soil Analytical Results - Remedial Investigation
714 East 241 Street
Bronx, New York
Langan Project No.: 140115301

Table with 24 columns for sampling dates and 2 rows for Objectives (Unrestricted Use, Restricted Residential). Parameters include VOCs (mg/kg), SVOCs (mg/kg), Pesticides/Herbicides (mg/kg), PCBs (mg/kg), and Metals (mg/kg). Values range from ND<0.002 to 10000, with some highlighted in bold (e.g., 390 D, 3.90 D, 155, 392, 331).

Notes:

Soil samples were compared to Title 6 of the New York Codes, Rules and Regulations (NYCRR), Part 375 Unrestricted Use Soil Cleanup Objectives
ND = Not detected above laboratory reporting limits
B = Analyte found in the analysis batch blank
D = Result from an analysis that required a dilution
E = Result is estimated and cannot be accurately reported due to level encountered or interferences
J = Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL); therefore, the result is an estimated concentration
= indicates that no regulatory limit has been established for this analyte

Indicates exceedance of the Unrestricted Use Objectives
Indicates exceedance of the Restricted Residential Soil Cleanup Objectives
Indicates laboratory reporting limits were above the applicable criteria

Table 3
Groundwater Analytical Results - Remediation Investigation
714 East 241 Street
Bronx, New York
Langan Project No.: 140115301

Parameters	NYSDEC TOGS Standards and Guidance Values - GA	Sample ID Sample Date	MW07_10.6.15	MW08_10.6.15	GWDUP01_10.6.15	MW11_10.6.15	MW13_10.6.15	MW15_10.6.15	MW16_10.6.15	MW17_10.6.15	MW19_10.6.15	MW29_10.6.15
			10/6/2015	10/6/2015	10/6/2015 (MW08_10.6.15)	10/6/2015	10/6/2015	10/6/2015	10/6/2015	10/6/2015	10/6/2015	10/6/2015
		Sample Medium	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
VOCs (µg/l)												
1,2,4-Trimethylbenzene	5		1.60	910 D	880 D	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	2,000 D	NT
1,3,5-Trimethylbenzene	5		0.81	260 D	240 D	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	1,800 D	NT
1,4-Dioxane	~		ND<40	ND<40	ND<40	ND<40	ND<40	ND<40	ND<40	ND<40	ND<200	NT
2-Butanone	50		0.82 J	4.40	5.80	1.3 J	ND<0.2	ND<0.2	ND<0.2	ND<0.2	18 D	NT
Acetone	50		1.8 J	ND<1.0	12	3	ND<1.0	ND<1.0	ND<1.0	1.3 J	36 BD	NT
Benzene	1		0.47 J	20	31	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	1,200 D	NT
Bromomethane	5		0.58 B	ND<0.2	ND<0.2	0.47 JB	0.3 JB	0.26 JB	ND<0.2	ND<0.2	ND<1.0	NT
Carbon disulfide	~		0.26 JB	0.29 JB	0.30 JB	0.31 JB	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<1.0	NT
Chloroform	7		ND<0.2	ND<0.2	4.20	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<1.0	NT
cis-1,2-Dichloroethylene	5		ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	0.23 J	ND<0.2	ND<1.0	NT
Cyclohexane	~		ND<0.2	69	110	1.80	ND<0.2	ND<0.2	ND<0.2	ND<0.2	240 D	NT
Ethyl Benzene	5		1.60	450 D	420 D	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	2,600 D	NT
Isopropylbenzene	5		ND<0.2	65	70	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	99 D	NT
Methyl tert-butyl ether (MTBE)	10		ND<0.2	2.70	3.30	ND<0.2	ND<0.2	0.96	240 D	1.10	ND<1.0	NT
Methylcyclohexane	~		ND<0.2	91	100	0.88	ND<0.2	ND<0.2	ND<0.2	ND<0.2	200 D	NT
Methylene chloride	5		ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<5.0	NT
n-Propylbenzene	5		0.23 J	130	140	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	220 D	NT
o-Xylene	5		8.20	73	55 D	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	4,900 D	NT
p- & m- Xylenes	5		12	1,300 D	1,200 DE	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9,800 D	NT
p-Isopropyltoluene	5		ND<0.2	4.30	4.60	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	6.8 D	NT
sec-Butylbenzene	5		ND<0.2	7.40	7.80	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<1.0	NT
tert-Butyl alcohol (TBA)	~		ND<0.5	7.10	8.90	1.8 J	ND<0.5	ND<0.5	70	ND<0.5	ND<2.5	NT
Tetrachloroethylene	5		3.60	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<1.0	NT
Toluene	5		1.70	23	18	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	19,000 DE	NT
Trichloroethylene	5		0.33 J	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<0.2	ND<1.0	NT
Xylenes, Total	5		20	1,500 D	1,300 DE	ND<0.6	ND<0.6	ND<0.6	ND<0.6	ND<0.6	15,000 D	NT
SVOCs (µg/l)												
Acenaphthene	20		ND<0.05	NT	NT	ND<0.05	0.13	ND<0.05	ND<0.0513	ND<0.0513	NT	NT
Anthracene	50		ND<0.05	NT	NT	ND<0.05	0.087	ND<0.05	ND<0.0513	ND<0.0513	NT	NT
Bis(2-ethylhexyl)phthalate	5		0.70	NT	NT	ND<0.5	3.09	0.55	1.66	0.69	NT	NT
Fluoranthene	50		ND<0.05	NT	NT	ND<0.05	0.15	ND<0.05	ND<0.0513	ND<0.0513	NT	NT
Fluorene	50		ND<0.05	NT	NT	ND<0.05	0.23	ND<0.05	ND<0.0513	ND<0.0513	NT	NT
Naphthalene	10		ND<0.05	NT	NT	ND<0.05	0.065	ND<0.05	ND<0.0513	ND<0.0513	NT	NT
Phenanthrene	50		ND<0.05	NT	NT	ND<0.05	0.065	ND<0.05	ND<0.0513	ND<0.0513	NT	NT
Pyrene	50		ND<0.05	NT	NT	ND<0.05	0.087	ND<0.05	ND<0.0513	ND<0.0513	NT	NT
Metals, Dissolved (µg/l)												
Aluminum	~		ND<56	NT	NT	ND<56	ND<56	ND<56	ND<56	126	NT	NT
Barium	1000		72	NT	NT	103	90	130	129	314	NT	NT
Calcium	~		94,800	NT	NT	217,000	84,700	131,000	100,000	126,000	NT	NT
Cobalt	~		ND<6	NT	NT	6	ND<6	ND<6	ND<6	ND<6	NT	NT
Copper	200		5	NT	NT	9	6	7	8	10	NT	NT
Iron	~		54	NT	NT	ND<22	66	26	30	332	NT	NT
Magnesium	35000		21,400	NT	NT	37,000	16,200	44,500	29,200	11,900	NT	NT
Manganese	300		4,220	NT	NT	2,780	1,110	298	902	2,890	NT	NT
Nickel	100		12 B	NT	NT	13 B	14 B	10 B	12 B	12 B	NT	NT
Potassium	~		3,520	NT	NT	9,080	4,970	5,090	6,140	15,200	NT	NT
Sodium	20000		26,800	NT	NT	116,000	44,000	29,800	32,300	75,300	NT	NT
Zinc	2000		26	NT	NT	17	46	33	32	31	NT	NT
Metals (µg/l)												
Aluminum	~		ND<56	NT	NT	101	ND<56	ND<56	128	702	NT	NT
Barium	1000		75	NT	NT	100	89	130	125	322	NT	NT
Calcium	~		92,300	NT	NT	203,000	81,100	126,000	96,700	117,000	NT	NT
Copper	200		7	NT	NT	10	5	6	7	15	NT	NT
Iron	~		134	NT	NT	253	110	44	310	1,150	NT	NT
Magnesium	35000		20,400	NT	NT	35,400	15,500	44,000	29,500	12,000	NT	NT
Manganese	300		4,190	NT	NT	2,630	1,090	293	878	2,860	NT	NT
Nickel	100		8	NT	NT	12	10	ND<6	9	11	NT	NT
Potassium	~		3,470	NT	NT	9,020	4,900	5,110	6,320	14,900	NT	NT
Sodium	20000		26,200	NT	NT	114,000	41,700	28,700	30,700	69,700	NT	NT
Zinc	2000		24	NT	NT	40	44	27	28	38	NT	NT
Petroleum Identification	~		NT	NT	NT	NT	NT	NT	NT	NT	NT	Pattern resembles weathered Fuel Oil No. 2/Diesel

Notes:

Groundwater samples were compared to NYSDEC Division of Water Technical and Operation Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values (GV) for Class GA (drinking water) groundwater.

ND = Not detected above laboratory reporting limits

NT = Not tested

B = Analyte found in the analysis batch blank

D = Result is from an analysis that required a dilution

E = Result is estimated and cannot be accurately reported due to levels encountered or interferences

J = Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL);

therefore, the result is an estimated concentration

~ = Indicates that no regulatory limit has been established for this analyte

Indicates exceedance of the NYSDEC TOGS Standards and Guidance Values - GA

Indicates laboratory reporting limits were above the applicable criteria

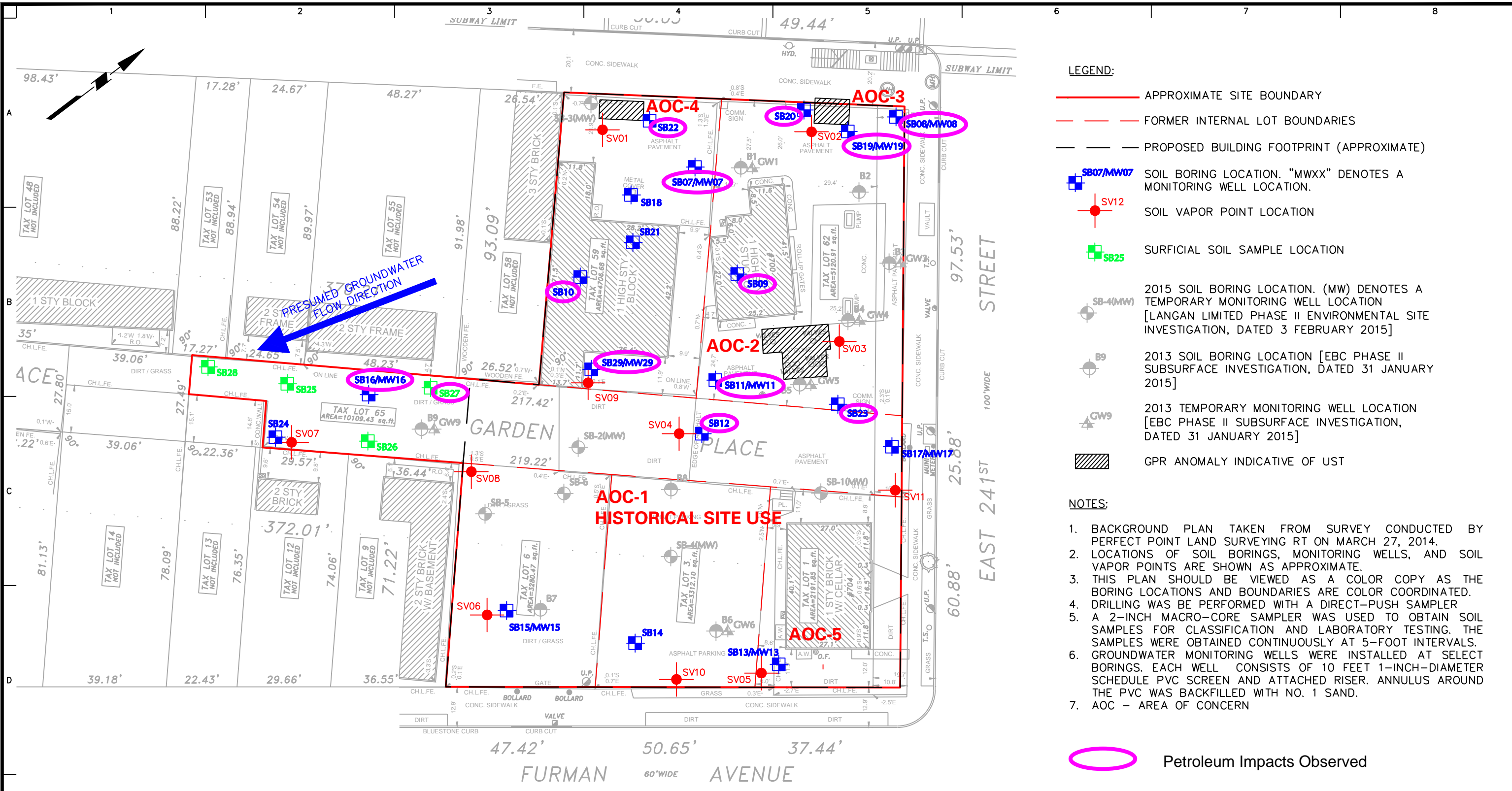
Table 4
 Soil Gas Analytical Results - Remedial Investigation
 714 East 241 Street
 Bronx, New York
 Langan Project No.: 140115301

Parameters	NYSDOH AGV	Sample ID Sample Date Units	SV01_10.8.15 10/8/2015 µg/m3	SV02_10.8.15 10/8/2015 µg/m3	SV03_10.8.15 10/8/2015 µg/m3	SVDUP01_10.8.15 (SV03) 10/8/2015 µg/m3	SV04_10.8.15 10/8/2015 µg/m3	SV05_10.8.15 10/8/2015 µg/m3	SV06_10.8.15 10/8/2015 µg/m3	SV07_10.8.15 10/8/2015 µg/m3	SV08_10.8.15 10/8/2015 µg/m3	SV09_10.8.15 10/8/2015 µg/m3	SV10_10.8.15 10/8/2015 µg/m3	SV11_10.8.15 10/8/2015 µg/m3	AMB01_10.8.15 10/8/2015 µg/m3
VOCs															
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	~		ND<36	ND<570	ND<1,400	ND<730	ND<290	ND<58	ND<57	ND<15	ND<53	ND<56	ND<150	ND<62	0.81 D
1,2,4-Trimethylbenzene	~		23 D	ND<370	ND<900	ND<470	ND<190	ND<37	ND<37	ND<9.5	ND<34	ND<36	120 D	ND<40	ND<0.52
1,3,5-Trimethylbenzene	~		ND<23	ND<370	ND<900	ND<470	ND<190	ND<37	ND<37	ND<9.5	ND<34	ND<36	94 D	ND<40	ND<0.52
2-Butanone	~		38 D	ND<220	ND<540	2,100 D	390 D	440 D	290 D	150 D	230 D	110 D	750 D	440 D	1.2 D
2-Hexanone	~		ND<39	ND<610	ND<1,500	ND<780	ND<310	ND<62	ND<61	38 D	ND<57	ND<60	ND<160	ND<66	ND<0.86
Acetone	~		620 D	ND<350	ND<870	29,000 D	8,300 D	7,700 D	5,000 D	1,800 D	4,500 D	1,900 D	13,000 D	6,700 D	8.3 D
Benzene	~		380 D	35,000 D	11,000 D	13,000 D	1,200 D	ND<24	ND<24	ND<6.2	ND<22	ND<23	2,700 D	ND<26	5.1 D
Carbon disulfide	~		44 D	ND<230	ND<570	ND<300	ND<120	57 D	30 D	13 D	ND<22	ND<23	ND<59	ND<25	ND<0.33
Carbon tetrachloride	~		ND<7.5	ND<120	ND<290	ND<150	ND<60	ND<12	ND<12	ND<3.0	ND<11	ND<12	ND<30	ND<13	0.80 D
Chloromethane	~		13 D	ND<150	ND<380	ND<200	ND<79	ND<16	ND<15	ND<4.0	ND<14	ND<15	ND<39	ND<17	1.3 D
cis-1,2-Dichloroethylene	~		ND<19	ND<300	ND<730	ND<380	ND<150	ND<30	ND<30	ND<7.7	ND<28	4,500 D	4,600 D	ND<32	ND<0.42
Cyclohexane	~		1,200 D	640,000	60,000 D	42,000 D	6,600 D	ND<26	ND<26	ND<6.7	ND<24	9,600 D	20,000 D	28 D	10 D
Dichlorodifluoromethane	~		ND<24	ND<370	ND<910	ND<470	ND<190	ND<38	ND<37	ND<9.6	ND<34	ND<36	ND<94	ND<40	2.3 D
Ethyl Benzene	~		430 D	2,700 D	3,700 D	6,700 D	660 D	ND<33	ND<32	ND<8.4	ND<30	ND<32	2,000 D	35 D	3.8 D
Methylene chloride	60		ND<33	ND<520	ND<1,300	ND<660	ND<260	ND<53	ND<52	ND<13	82 D	ND<51	ND<130	ND<56	ND<0.73
n-Heptane	~		1,800 D	ND<3,100	120,000 D	52,000 D	20,000 D	ND<31	ND<31	ND<7.9	ND<28	6,700 D	24,000 D	ND<33	15 D
n-Hexane	~		5,000 D	3,000,000 E	NT	150,000 D	38,000 D	29 D	42 D	6.8 D	250 D	8,600 D	44,000 D	160 D	36 D
o-Xylene	~		190 D	450 D	1,000 D	2,000 D	180 D	ND<33	ND<32	ND<8.4	ND<30	ND<32	630 D	42 D	1.4 D
p- & m- Xylenes	~		940 D	2,600 D	5,100 D	9,300 D	930 D	ND<66	ND<65	18 D	ND<60	ND<64	2,900 D	110 D	6.2 D
p-Ethyltoluene	~		58 D	ND<370	ND<900	700 D	ND<190	ND<37	ND<37	ND<9.5	ND<34	ND<36	240 D	ND<40	0.67 D
Propylene	~		42 D	ND<130	ND<320	1,600 D	270 D	230 D	140	23 D	54 D	150 D	790 D	210 D	0.83 D
Tetrachloroethylene	30		170 D	ND<130	ND<310	ND<160	230 D	ND<13	20 D	32 D	ND<12	30 D	130 D	ND<14	0.57 D
Toluene	~		1,000 D	220,000	27,000 D	6,100 D	5,500 D	ND<29	ND<28	15 D	ND<26	ND<28	4,500 D	ND<30	3.6 D
trans-1,2-Dichloroethylene	~		ND<19	ND<300	ND<730	ND<380	ND<150	ND<30	ND<30	ND<7.7	ND<28	100 D	150 D	ND<32	ND<0.42
Trichloroethylene	5		ND<6.4	ND<100	ND<250	ND<130	ND<51	ND<10	ND<10	ND<2.6	ND<9.3	ND<9.9	760 D	ND<11	ND<0.14
Trichlorofluoromethane (Freon 11)	~		ND<27	ND<420	ND<1,000	ND<530	ND<210	ND<43	ND<42	ND<11	ND<39	ND<41	ND<110	ND<45	2.3 D
Vinyl Chloride	~		ND<12	ND<190	ND<470	ND<240	ND<97	ND<19	ND<19	ND<5.0	ND<18	350 D	430 D	ND<21	ND<0.27

Notes:
 Soil Vapor samples were compared to New York State Department of Health (NYSDOH) Air Guidance Values (AGVs)
 ND = Not detected above laboratory reporting limits
 NT = Not tested
 D = Result is from an analysis that required a dilution
 ~ = Indicates that no regulatory limit has been established for this analyte
Indicates exceedance of the NYSDOH Air Guidance Values criteria
Indicates laboratory reporting limits were above the applicable criteria



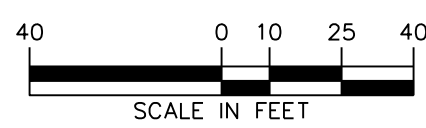
SITE LOCATION MAP
C203077
ENCLAVE ON 241ST STREET
DEVELOPMENT



- LEGEND:**
- APPROXIMATE SITE BOUNDARY
 - FORMER INTERNAL LOT BOUNDARIES
 - PROPOSED BUILDING FOOTPRINT (APPROXIMATE)
 - SB07/MW07 SOIL BORING LOCATION. "MWXX" DENOTES A MONITORING WELL LOCATION.
 - SV12 SOIL VAPOR POINT LOCATION
 - SB25 SURFICIAL SOIL SAMPLE LOCATION
 - SB-4(MW) 2015 SOIL BORING LOCATION. (MW) DENOTES A TEMPORARY MONITORING WELL LOCATION [LANGAN LIMITED PHASE II ENVIRONMENTAL SITE INVESTIGATION, DATED 3 FEBRUARY 2015]
 - B9 2013 SOIL BORING LOCATION [EBC PHASE II SUBSURFACE INVESTIGATION, DATED 31 JANUARY 2015]
 - GW9 2013 TEMPORARY MONITORING WELL LOCATION [EBC PHASE II SUBSURFACE INVESTIGATION, DATED 31 JANUARY 2015]
 - ▨ GPR ANOMALY INDICATIVE OF UST

- NOTES:**
1. BACKGROUND PLAN TAKEN FROM SURVEY CONDUCTED BY PERFECT POINT LAND SURVEYING RT ON MARCH 27, 2014.
 2. LOCATIONS OF SOIL BORINGS, MONITORING WELLS, AND SOIL VAPOR POINTS ARE SHOWN AS APPROXIMATE.
 3. THIS PLAN SHOULD BE VIEWED AS A COLOR COPY AS THE BORING LOCATIONS AND BOUNDARIES ARE COLOR COORDINATED.
 4. DRILLING WAS BE PERFORMED WITH A DIRECT-PUSH SAMPLER
 5. A 2-INCH MACRO-CORE SAMPLER WAS USED TO OBTAIN SOIL SAMPLES FOR CLASSIFICATION AND LABORATORY TESTING. THE SAMPLES WERE OBTAINED CONTINUOUSLY AT 5-FOOT INTERVALS.
 6. GROUNDWATER MONITORING WELLS WERE INSTALLED AT SELECT BORINGS. EACH WELL CONSISTS OF 10 FEET 1-INCH-DIAMETER SCHEDULE PVC SCREEN AND ATTACHED RISER. ANNULUS AROUND THE PVC WAS BACKFILLED WITH NO. 1 SAND.
 7. AOC - AREA OF CONCERN

○ Petroleum Impacts Observed



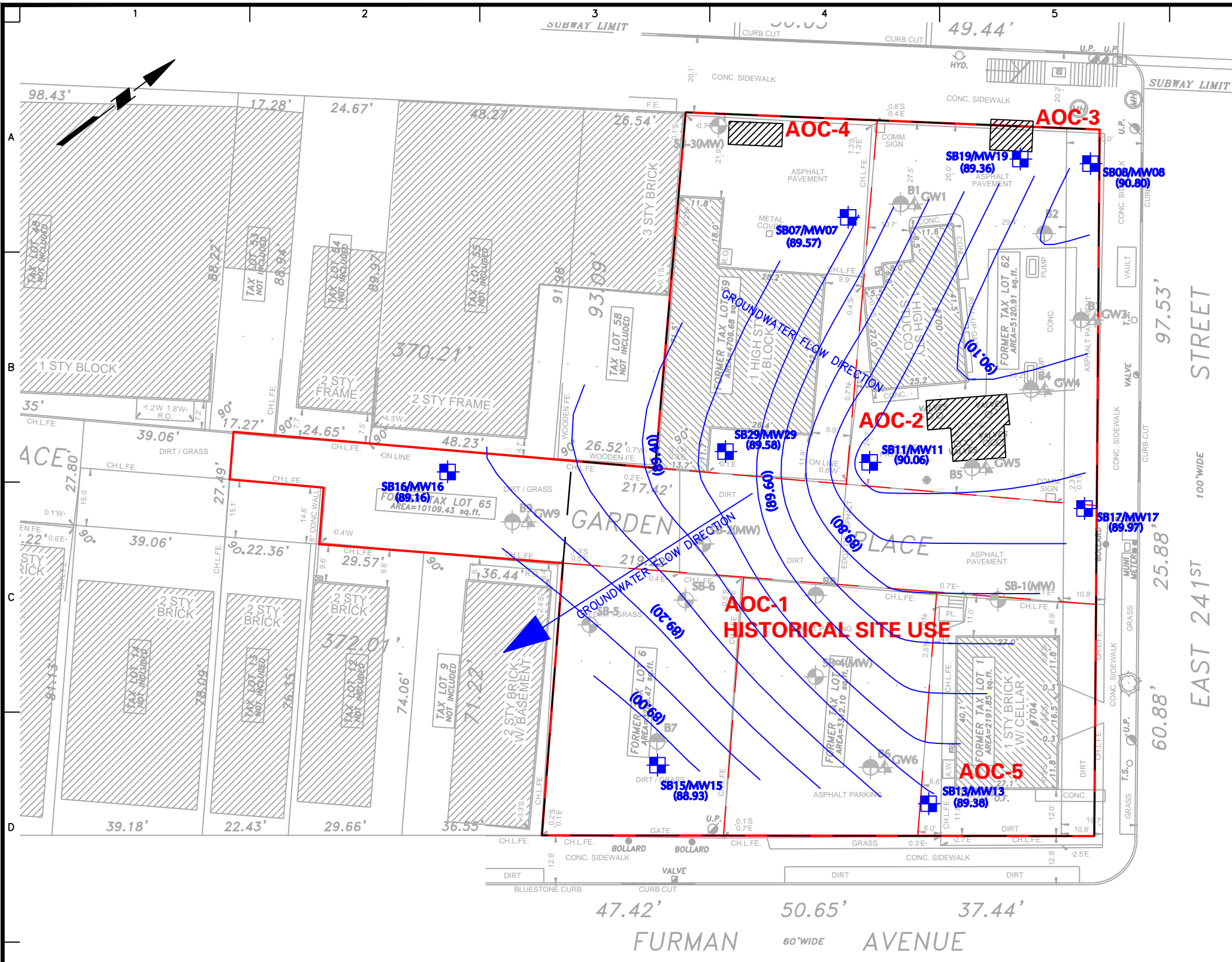
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LANGAN
 555 Long Wharf Drive
 New Haven, CT 06511
 T: 203.562.5771 F: 203.789.6142 www.langan.com
 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
 Langan Engineering and Environmental Services, Inc.
 Langan CT, Inc.
 Langan International LLC
 Collectively known as Langan

Project
ENCLAVE ON 241ST STREET DEVELOPMENT
 BLOCK No. 5087 LOT Nos. 1, 3, 6, 59, 62, p/o 65
 BRONX NEW YORK

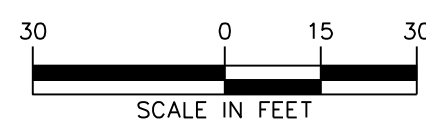
Drawing Title
REMEDIATION INVESTIGATION SITE PLAN

Project No. 140115301	Drawing No.
Date 10/12/2015	2
Scale 1"=30'	
Drawn By JPH	Checked By RJW
Submission Date	



- LEGEND:**
- APPROXIMATE SITE BOUNDARY
 - - - FORMER INTERNAL LOT BOUNDARIES
 - PROPOSED BUILDING FOOTPRINT (APPROXIMATE)
 - SOIL BORING LOCATION. "MWXX" DENOTES A MONITORING WELL LOCATION. (XX.XX) DENOTES OBSERVED GROUNDWATER ELEVATION.
 - GROUNDWATER CONTOUR WITH GROUNDWATER ELEVATION (ARBITRARY SITE SPECIFIC ELEVATION)
 - 2015 SOIL BORING LOCATION. (MW) DENOTES A TEMPORARY MONITORING WELL LOCATION [LANGAN LIMITED PHASE II ENVIRONMENTAL SITE INVESTIGATION, DATED 3 FEBRUARY 2015]
 - 2013 SOIL BORING LOCATION [EBC PHASE II SUBSURFACE INVESTIGATION, DATED 31 JANUARY 2015]
 - ▲ 2013 TEMPORARY MONITORING WELL LOCATION [EBC PHASE II SUBSURFACE INVESTIGATION, DATED 31 JANUARY 2015]
 - GPR ANOMALY INDICATIVE OF UST

- NOTES:**
1. BACKGROUND PLAN TAKEN FROM SURVEY CONDUCTED BY PERFECT POINT LAND SURVEYING RT ON MARCH 27, 2014.
 2. MONITORING WELLS LOCATIONS AND TOP OF PVC ELEVATIONS SURVEYED BY LANGAN ON OCTOBER 9, 2015, REFERENCED TO ARBITRARY ELEVATION OF 100.0 FEET AT ONSITE SURVEY CONTROL POINT. DEPTH TO GROUNDWATER WAS GAUGED AND COMPARED TO SURVEYED ELEVATIONS, THESE GROUNDWATER ELEVATIONS ARE PRESENTED HERE.
 3. THIS PLAN SHOULD BE VIEWED AS A COLOR COPY AS THE BORING LOCATIONS AND BOUNDARIES ARE COLOR COORDINATED.
 4. AOC – AREA OF CONCERN



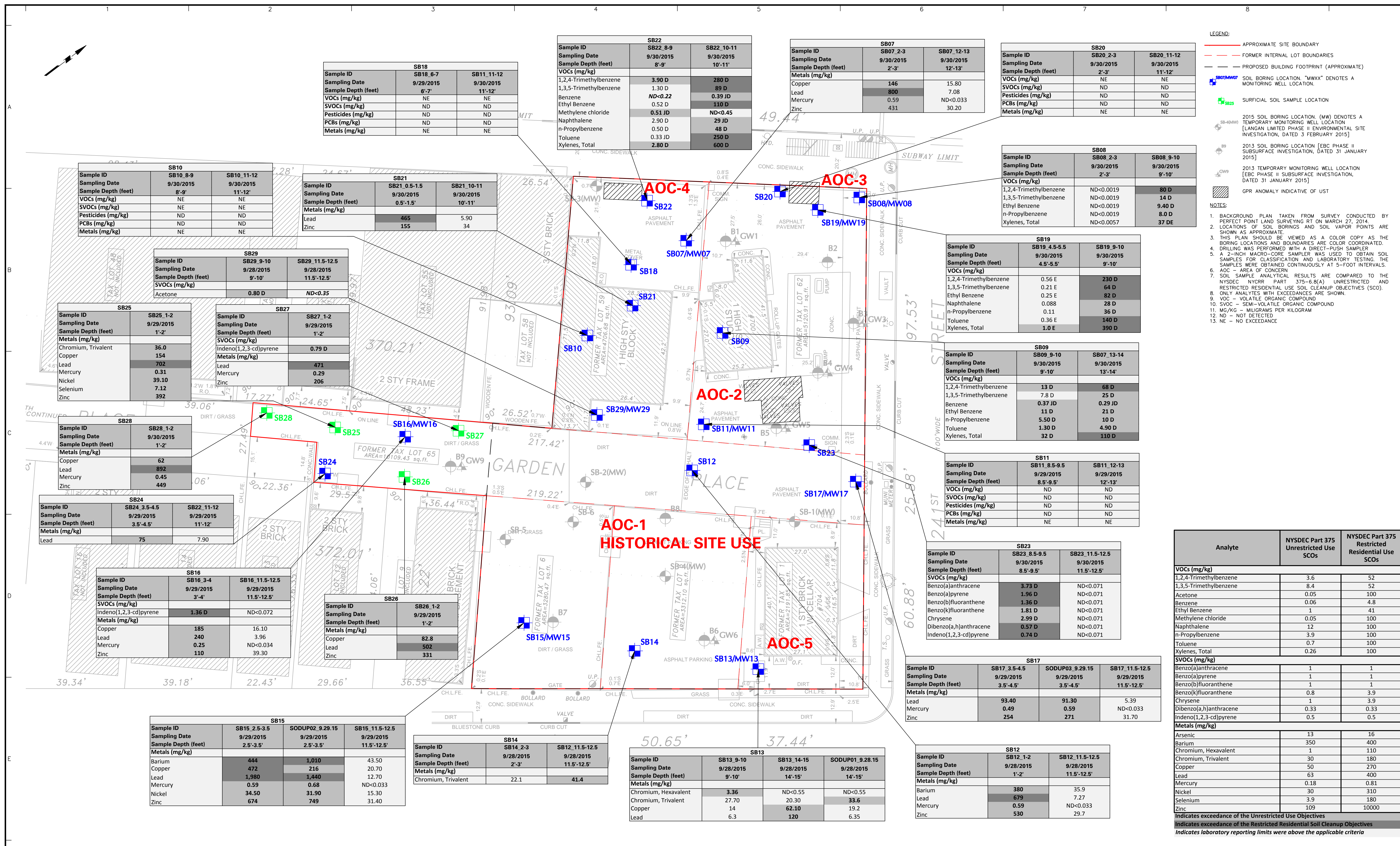
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LANGAN
 555 Long Wharf Drive
 New Haven, CT 06511
 T: 203.562.5771 F: 203.789.6142 www.langan.com
 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
 Langan Engineering and Environmental Services, Inc.
 Langan CT, Inc.
 Langan International LLC
 Collectively known as Langan

Project
ENCLAVE ON 241ST STREET DEVELOPMENT
 BLOCK No. 5087 LOT No. 1
 BRONX NEW YORK

Drawing Title
GROUNDWATER ISOCONTOUR MAP

Project No. 140115301	Drawing No.
Date NOVEMBER 2015	3
Scale 1"=30'	
Drawn By JPH	Checked By RJW
Submission Date NOVEMBER 2015	



LEGEND:

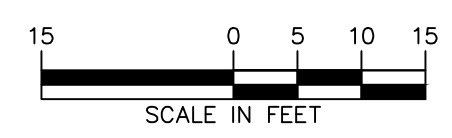
- APPROXIMATE SITE BOUNDARY
- FORMER INTERNAL LOT BOUNDARIES
- PROPOSED BUILDING FOOTPRINT (APPROXIMATE)
- SOIL BORING LOCATION, "MWXX" DENOTES A MONITORING WELL LOCATION.
- SURFICIAL SOIL SAMPLE LOCATION
- 2015 SOIL BORING LOCATION (MW DENOTES A TEMPORARY MONITORING WELL LOCATION [LANGAN LIMITED PHASE II ENVIRONMENTAL SITE INVESTIGATION, DATED 31 FEBRUARY 2015])
- 2013 SOIL BORING LOCATION [EBC PHASE II SUBSURFACE INVESTIGATION, DATED 31 JANUARY 2015]
- 2013 TEMPORARY MONITORING WELL LOCATION [EBC PHASE II SUBSURFACE INVESTIGATION, DATED 31 JANUARY 2015]
- GPR ANOMALY INDICATIVE OF UST

- NOTES:
- BACKGROUND PLAN TAKEN FROM SURVEY CONDUCTED BY PERFECT POINT LAND SURVEYING RT ON MARCH 27, 2014.
 - LOCATIONS OF SOIL BORINGS AND SOIL VAPOR POINTS ARE SHOWN AS APPROXIMATE.
 - THIS PLAN SHOULD BE VIEWED AS A COLOR COPY AS THE BORING LOCATIONS AND BOUNDARIES ARE COLOR COORDINATED.
 - DRILLING WAS PERFORMED WITH A DIRECT-PUSH SAMPLER.
 - A 2-INCH MACRO-CORE SAMPLER WAS USED TO OBTAIN SOIL SAMPLES FOR CLASSIFICATION AND LABORATORY TESTING. THE SAMPLES WERE OBTAINED CONTINUOUSLY AT 5-FOOT INTERVALS.
 - AOC - AREA OF CONCERN
 - SOIL SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NYSDEC NYCRR PART 375-6.8(A) UNRESTRICTED AND RESTRICTED RESIDENTIAL USE SOIL CLEANUP OBJECTIVES (SCO).
 - ONLY ANALYTES WITH EXCEEDANCES ARE SHOWN.
 - VOC - VOLATILE ORGANIC COMPOUND
 - SVOC - SEMI-VOLATILE ORGANIC COMPOUND
 - MG/KG - MILLIGRAMS PER KILOGRAM
 - ND - NOT DETECTED
 - NE - NO EXCEEDANCE

Analyte	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Residential Use SCOs
VOCs (mg/kg)		
1,2,4-Trimethylbenzene	3.6	52
1,3,5-Trimethylbenzene	8.4	52
Acetone	0.05	100
Benzene	0.06	4.8
Ethyl Benzene	1	41
Methylene chloride	0.05	100
Naphthalene	12	100
n-Propylbenzene	3.9	100
Toluene	0.7	100
Xylenes, Total	0.26	100
SVOCs (mg/kg)		
Benzo(a)anthracene	1	1
Benzo(a)pyrene	1	1
Benzo(b)fluoranthene	1	1
Benzo(k)fluoranthene	0.8	3.9
Chrysene	1	3.9
Dibenzo(a,h)anthracene	0.33	0.33
Indeno(1,2,3-cd)pyrene	0.5	0.5
Metals (mg/kg)		
Arsenic	13	16
Barium	350	400
Chromium, Hexavalent	1	110
Chromium, Trivalent	30	180
Copper	50	270
Lead	63	400
Mercury	0.18	0.81
Nickel	30	310
Selenium	3.9	180
Zinc	109	10000

Indicates exceedance of the Unrestricted Use Objectives
 Indicates exceedance of the Restricted Residential Soil Cleanup Objectives
 Indicates laboratory reporting limits were above the applicable criteria

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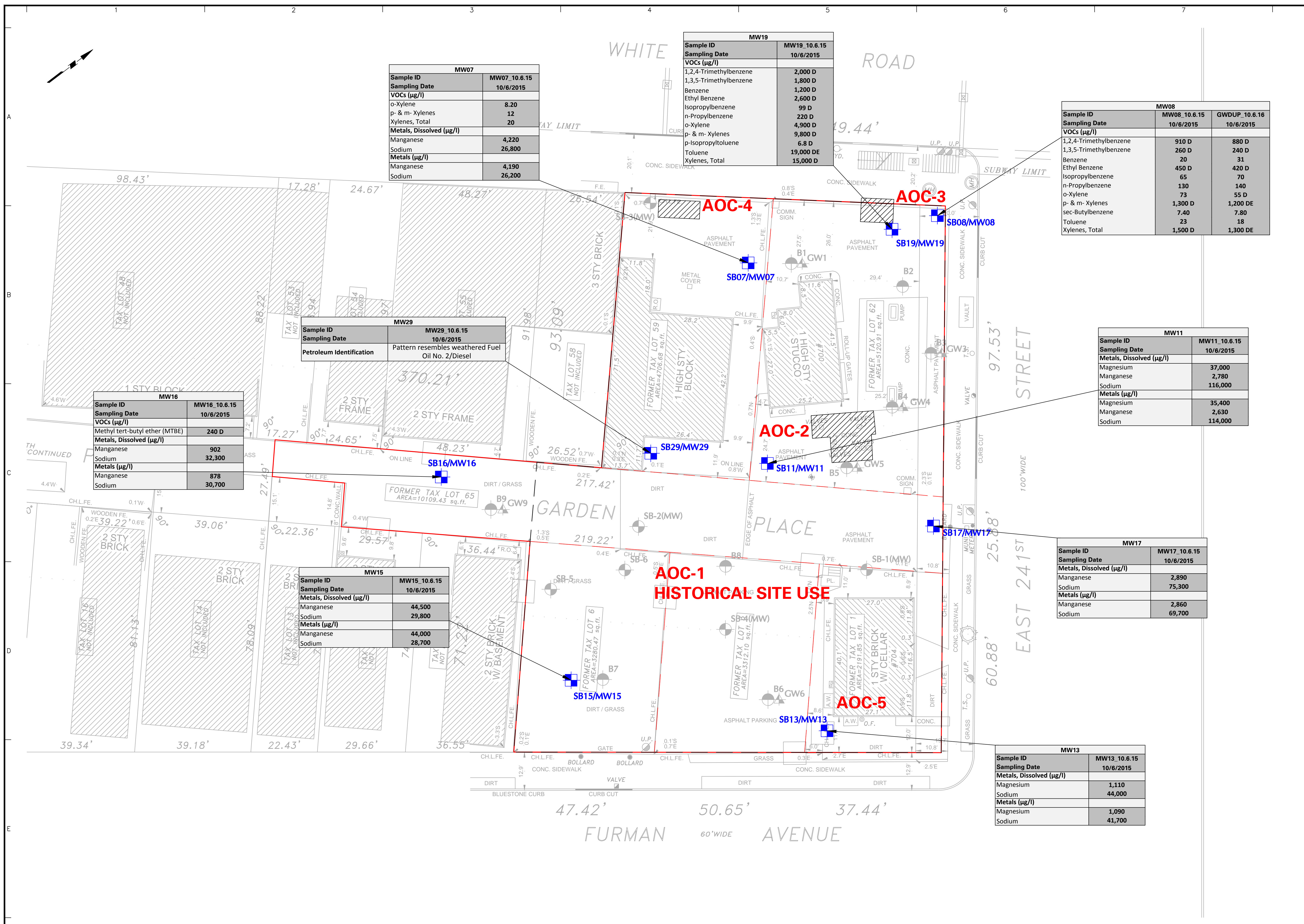


LANGAN
 555 Long Wharf Drive, New Haven, CT 06511
 T: 203.962.5771 F: 203.788.6142 www.langan.com
 NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA
 OHIO WASHINGTON, DC FLORIDA TEXAS CALIFORNIA
 ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA LONDON
 Langan Engineering, Environmental, Surveying and Landscape Architecture, P.C. S.A.
 Langan Engineering, Environmental, Surveying and Landscape Architecture, P.C.
 Langan Engineering and Environmental Services, Inc.
 Langan International Ltd.
 Collectively known as Langan

Project
ENCLAVE ON 241ST STREET DEVELOPMENT
 BLOCK No. 5087, LOT No. 1
 BRONX NEW YORK

Drawing Title
SOIL SAMPLE LOCATIONS AND RESULTS MAP

Project No. **140115301**
 Date **NOVEMBER 2015**
 Scale **1"=15'**
 Drawing No. **4**
 Drawn By **JPH** Checked By **RW**
 Submission Date **NOVEMBER 2015** Sheet **4** of **6**



MW07	
Sample ID	MW07_10.6.15
Sampling Date	10/6/2015
VOCs (µg/l)	
o-Xylene	8.20
p- & m- Xylenes	12
Xylenes, Total	20
Metals, Dissolved (µg/l)	
Manganese	4,220
Sodium	26,800
Metals (µg/l)	
Manganese	4,190
Sodium	26,200

MW19	
Sample ID	MW19_10.6.15
Sampling Date	10/6/2015
VOCs (µg/l)	
1,2,4-Trimethylbenzene	2,000 D
1,3,5-Trimethylbenzene	1,800 D
Benzene	1,200 D
Ethyl Benzene	2,600 D
Isopropylbenzene	99 D
n-Propylbenzene	220 D
o-Xylene	4,900 D
p- & m- Xylenes	9,800 D
p-Isopropyltoluene	6.8 D
Toluene	19,000 DE
Xylenes, Total	15,000 D

MW08		
Sample ID	MW08_10.6.15	GWDUP_10.6.16
Sampling Date	10/6/2015	10/6/2015
VOCs (µg/l)		
1,2,4-Trimethylbenzene	910 D	880 D
1,3,5-Trimethylbenzene	260 D	240 D
Benzene	20	31
Ethyl Benzene	450 D	420 D
Isopropylbenzene	65	70
n-Propylbenzene	130	140
o-Xylene	73	55 D
p- & m- Xylenes	1,300 D	1,200 DE
sec-Butylbenzene	7.40	7.80
Toluene	23	18
Xylenes, Total	1,500 D	1,300 DE

MW29	
Sample ID	MW29_10.6.15
Sampling Date	10/6/2015
Petroleum Identification	
Pattern resembles weathered Fuel Oil No. 2/Diesel	

MW11	
Sample ID	MW11_10.6.15
Sampling Date	10/6/2015
Metals, Dissolved (µg/l)	
Magnesium	37,000
Manganese	2,780
Sodium	116,000
Metals (µg/l)	
Magnesium	35,400
Manganese	2,630
Sodium	114,000

MW16	
Sample ID	MW16_10.6.15
Sampling Date	10/6/2015
VOCs (µg/l)	
Methyl tert-butyl ether (MTBE)	240 D
Metals, Dissolved (µg/l)	
Manganese	902
Sodium	32,300
Metals (µg/l)	
Manganese	878
Sodium	30,700

MW15	
Sample ID	MW15_10.6.15
Sampling Date	10/6/2015
Metals, Dissolved (µg/l)	
Manganese	44,500
Sodium	29,800
Metals (µg/l)	
Manganese	44,000
Sodium	28,700

MW17	
Sample ID	MW17_10.6.15
Sampling Date	10/6/2015
Metals, Dissolved (µg/l)	
Manganese	2,890
Sodium	75,300
Metals (µg/l)	
Manganese	2,860
Sodium	69,700

MW13	
Sample ID	MW13_10.6.15
Sampling Date	10/6/2015
Metals, Dissolved (µg/l)	
Magnesium	1,110
Sodium	44,000
Metals (µg/l)	
Magnesium	1,090
Sodium	41,700

- LEGEND:
- APPROXIMATE SITE BOUNDARY
 - FORMER INTERNAL LOT BOUNDARIES
 - PROPOSED BUILDING FOOTPRINT (APPROXIMATE)
 - SOIL BORING LOCATION. "MWXX" DENOTES A MONITORING WELL LOCATION.
 - 2015 SOIL BORING LOCATION. "MW" DENOTES A TEMPORARY MONITORING WELL LOCATION [LANGAN LIMITED PHASE II ENVIRONMENTAL SITE INVESTIGATION, DATED 3 FEBRUARY 2015]
 - 2013 SOIL BORING LOCATION [EBC PHASE II SUBSURFACE INVESTIGATION, DATED 31 JANUARY 2015]
 - 2013 TEMPORARY MONITORING WELL LOCATION [EBC PHASE II SUBSURFACE INVESTIGATION, DATED 31 JANUARY 2015]
 - GPR ANOMALY INDICATIVE OF UST

- NOTES:
- BACKGROUND PLAN TAKEN FROM SURVEY CONDUCTED BY PERFECT POINT LAND SURVEYING RT ON MARCH 27, 2014.
 - MONITORING WELLS LOCATIONS AND TOP OF PVC ELEVATIONS SURVEYED BY LANGAN ON OCTOBER 9, 2015, REFERENCED TO ARBITRARY ELEVATION OF 100.0 FEET AT ONSITE SURVEY CONTROL POINT.
 - LOCATIONS OF SOIL BORINGS AND SOIL VAPOR POINTS ARE SHOWN AS APPROXIMATE.
 - THIS PLAN SHOULD BE VIEWED AS A COLOR COORDINATED. THE BORING LOCATIONS AND BOUNDARIES ARE COLOR COORDINATED.
 - DRILLING WAS PERFORMED WITH A DIRECT-PUSH SAMPLER.
 - GROUNDWATER MONITORING WELL CONSISTS OF 10 FEET 1-INCH-DIAMETER SCHEDULE PVC SCREEN AND ATTACHED RISER. ANNULUS AROUND THE PVC WAS BACKFILLED WITH NO. 1 SAND.
 - AOO - AREA OF CONCERN
 - GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NYSDC TECHNICAL OPERATION AND GUIDANCE SERIES (TOGS) STANDARDS AND GUIDANCE VALUES FOR CLASS GA WATER SUPPLIES.
 - VOC - VOLATILE ORGANIC COMPOUND
 - SVOC - SEMI-VOLATILE ORGANIC COMPOUND
 - MG/L - MILLIGRAMS PER LITER
 - UG/L - MICROGRAMS PER LITER
 - ND - NOT DETECTED

Analyte	NYSDC TOGS Standards and Guidance Values - GA
VOCs (µg/l)	
1,2,4-Trimethylbenzene	5
1,3,5-Trimethylbenzene	5
Benzene	1
Ethyl Benzene	5
Isopropylbenzene	5
Methyl tert-butyl ether (MTBE)	10
n-Propylbenzene	5
o-Xylene	5
p- & m- Xylenes	5
p-Isopropyltoluene	5
sec-Butylbenzene	5
Toluene	5
Xylenes, Total	5
Metals, Dissolved (µg/l)	
Magnesium	35,000
Manganese	300
Sodium	20,000
Metals (µg/l)	
Magnesium	35,000
Manganese	300
Sodium	20,000
Petroleum Identification	
Indicates exceedance of the Groundwater Quality Standards Part 703	

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

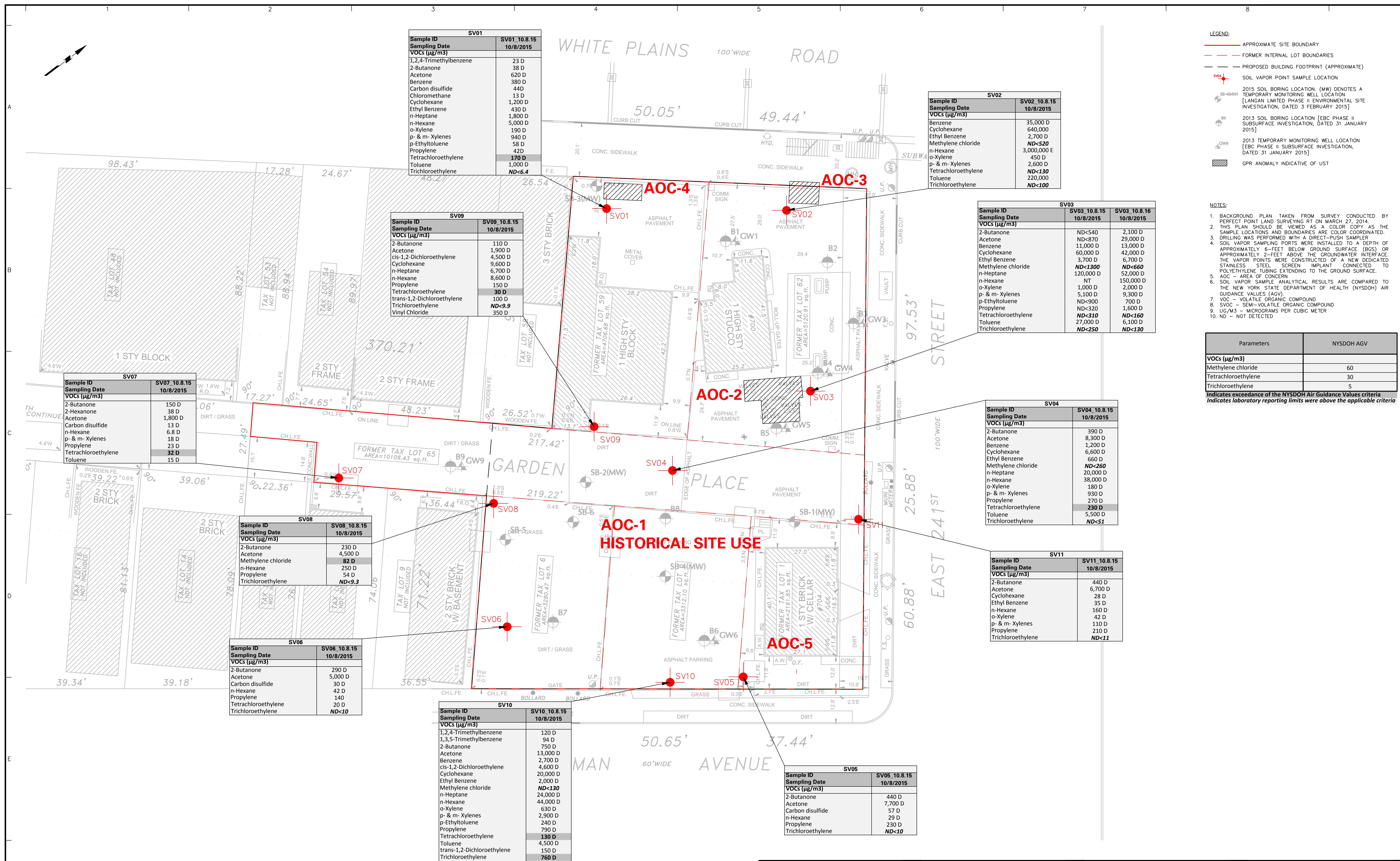


LANGAN
555 Long Wharf Drive, New Haven, CT 06511
T: 203.682.5771 F: 203.788.6142 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA
OHIO WASHINGTON, DC FLORIDA TEXAS CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA LONDON
Langan Engineering, Environmental, Surveying and Landscape Architecture, P.C. S.A.
Langan Engineering and Environmental Services, Inc.
Langan International, LLC
Collectively known as Langan

Project
ENCLAVE ON 241ST STREET DEVELOPMENT
BLOCK No. 5087, LOT No. 1
BRONX NEW YORK

Drawing Title
GROUNDWATER LOCATIONS AND RESULTS MAP

Project No. 140115301
Date NOVEMBER 2015
Scale 1"=15'
Drawing No. 5
Drawn By JPH Checked By RW
Submission Date NOVEMBER 2015
Sheet 5 of 6



- LEGEND:**
- APPROXIMATE SITE BOUNDARY
 - FORMER INTERNAL LOT BOUNDARIES
 - PROPOSED BUILDING FOOTPRINT (APPROXIMATE)
 - SOIL VAPOR POINT SAMPLE LOCATION
 - 2015 SOIL BORING LOCATION (MW) DENOTES A TEMPORARY MONITORING WELL LOCATION [LANGAN LIMITED PHASE II ENVIRONMENTAL SITE INVESTIGATION, DATED 3 FEBRUARY 2015]
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- NOTES:**
- BACKGROUND PLAN TAKEN FROM SURVEY CONDUCTED BY PERFECT POINT LAND SURVEYING RT ON MARCH 27, 2014.
 - THIS PLAN SHOULD BE VIEWED AS A COLOR COPY AS THE SAMPLE LOCATIONS AND BOUNDARIES ARE COLOR COORDINATED.
 - DRILLING WAS PERFORMED WITH A DIRECT-PUSH SAMPLER.
 - SOIL VAPOR SAMPLING PORTS WERE INSTALLED TO A DEPTH OF APPROXIMATELY 6- FEET BELOW GROUND SURFACE (BGS) OR APPROXIMATELY 2- FEET ABOVE THE GROUNDWATER INTERFACE. THE VAPOR POINTS WERE CONSTRUCTED OF A NEW DEDICATED STAINLESS STEEL SCREEN IMPLANT CONNECTED TO POLYETHYLENE TUBING EXTENDING TO THE GROUND SURFACE.
 - AOC - AREA OF CONCERN
 - SOIL VAPOR SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH) AIR GUIDANCE VALUES (AGV).
 - VOC - VOLATILE ORGANIC COMPOUND
 - SVOC - SEMI-VOLATILE ORGANIC COMPOUND
 - UG/M3 - MICROGRAMS PER CUBIC METER
 - ND - NOT DETECTED

Parameters	NYSDOH AGV
VOCs (µg/m3)	
Methylene chloride	60
Tetrachloroethylene	30
Trichloroethylene	5

Indicates exceedance of the NYSDOH Air Guidance Values criteria
Indicates laboratory reporting limits were above the applicable criteria

Sample ID	SV01	SV01 10.8.15
Sampling Date		10/8/2015
VOCs (µg/m3)		
1,2,4-Trimethylbenzene		23 D
2-Butanone		38 D
Acetone		620 D
Benzene		380 D
Carbon disulfide		44D
Chloromethane		13 D
Cyclohexane		1,200 D
Ethyl Benzene		430 D
n-Heptane		1,800 D
n-Hexane		5,000 D
o-Xylene		190 D
p- & m- Xylenes		940 D
p-Ethyltoluene		58 D
Propylene		42D
Tetrachloroethylene		170 D
Toluene		1,000 D
Trichloroethylene		ND<6.4

Sample ID	SV02	SV02 10.8.15
Sampling Date		10/8/2015
VOCs (µg/m3)		
Benzene		35,000 D
Cyclohexane		640,000 D
Ethyl Benzene		2,700 D
Methylene chloride		ND<520
n-Hexane		3,000,000 E
o-Xylene		450 D
p- & m- Xylenes		2,600 D
Tetrachloroethylene		ND<130
Toluene		220,000 D
Trichloroethylene		ND<100

Sample ID	SV03	SV03 10.8.15	SV03 10.8.16
Sampling Date		10/8/2015	10/8/2015
VOCs (µg/m3)			
2-Butanone		ND<540	2,100 D
Acetone		ND<870	29,000 D
Benzene		11,000 D	13,000 D
Cyclohexane		60,000 D	42,000 D
Ethyl Benzene		3,700 D	6,700 D
Methylene chloride		ND<1300	ND<660
n-Heptane		120,000 D	52,000 D
n-Hexane		NT	150,000 D
o-Xylene		1,000 D	2,000 D
p- & m- Xylenes		5,100 D	9,300 D
p-Ethyltoluene		ND<900	700 D
Propylene		ND<320	1,600 D
Tetrachloroethylene		ND<310	ND<160
Toluene		27,000 D	6,100 D
Trichloroethylene		ND<250	ND<130

Sample ID	SV07	SV07 10.8.15
Sampling Date		10/8/2015
VOCs (µg/m3)		
2-Butanone		150 D
2-Hexanone		38 D
Acetone		1,800 D
Carbon disulfide		13 D
n-Hexane		6.8 D
p- & m- Xylenes		18 D
Propylene		23 D
Tetrachloroethylene		32 D
Toluene		15 D

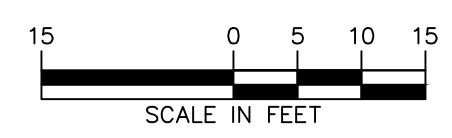
Sample ID	SV08	SV08 10.8.15
Sampling Date		10/8/2015
VOCs (µg/m3)		
2-Butanone		230 D
Acetone		4,500 D
Methylene chloride		82 D
n-Hexane		250 D
Propylene		54 D
Trichloroethylene		ND<9.3

Sample ID	SV06	SV06 10.8.15
Sampling Date		10/8/2015
VOCs (µg/m3)		
2-Butanone		290 D
Acetone		5,000 D
Carbon disulfide		30 D
n-Hexane		42 D
Propylene		140
Tetrachloroethylene		20 D
Trichloroethylene		ND<10

Sample ID	SV10	SV10 10.8.15
Sampling Date		10/8/2015
VOCs (µg/m3)		
1,2,4-Trimethylbenzene		120 D
1,3,5-Trimethylbenzene		94 D
2-Butanone		750 D
Acetone		13,000 D
Benzene		2,700 D
cis-1,2-Dichloroethylene		4,600 D
Cyclohexane		20,000 D
Ethyl Benzene		2,000 D
Methylene chloride		ND<130
n-Heptane		24,000 D
n-Hexane		44,000 D
o-Xylene		630 D
p- & m- Xylenes		2,900 D
p-Ethyltoluene		240 D
Propylene		790 D
Tetrachloroethylene		130 D
Toluene		4,500 D
trans-1,2-Dichloroethylene		150 D
Trichloroethylene		760 D
Vinyl Chloride		430 D

Sample ID	SV05	SV05 10.8.15
Sampling Date		10/8/2015
VOCs (µg/m3)		
2-Butanone		440 D
Acetone		7,700 D
Carbon disulfide		57 D
n-Hexane		29 D
Propylene		230 D
Trichloroethylene		ND<10

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