Table 6
Remedial Investigation Report
Soil Sample Analytical Results Summary
Gerard Avenue and East 146th Street
Bronx, New York
BCP No.: C203111
Langan Project No.: 170487001

Site Address Location Sample ID Laboratory ID Sample Date Depth Range (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use - Restricted Residential SCOs	NYSDEC Part 375 Protection of Groundwater SCOs	445GERARD RB14 RB14_0-2 L1900707-05 1/7/2019 0-2		445GERARD RB14 RB14_18-20 L1900707-06 1/7/2019 18-20		445GERARD RB14 RB14_23-25 L1900707-07 1/7/2019 23-25		445GERARD RB14 SODUP04_010719 L1900707-09 1/7/2019 23-25		445GERARD RB14 RB14_33-35 L1900707-08 1/7/2019 33-35		445GERARD RB15 RB15_0-2 L1900879-04 1/8/2019 0-2		445GERARD RB15 RB15_18-20 L1900879-05 1/8/2019 18-20		445GERARD RB15 RB15_23-25 L1900879-06 1/8/2019 23-25		445GERARD RB15 SODUP05_010819 L1900879-11 1/8/2019 23-25		445GERARD RB15 RB15_28-30 L1900879-07 1/8/2019 28-30		445GERARD RB16 RB16_0-2 L1900879-08 1/8/2019 0-2		445GERARD RB16 RB16_13-15 L1900879-09 1/8/2019 13-15		445GERARD RB16 RB16_18-20 L1900879-10 1/8/2019 18-20		445GERARD RB17 RB17_0-2 L1900536-01 1/4/2019 0-2		445GERARD RB17 RB17_4-6 L1900536-02 1/4/2019 4-6		445GERARD RB17 RB17_8-10 L1900536-03 1/4/2019 8-10		445GERARD RB17 RB17_18-20 L1900536-04 1/4/2019 18-20	
Volatile Organic Compounds (mg/kg)																																					
1,2,3-Trichloropropane	~	~	~	0.0024	U	0.3	U	1.2		0.47	U	0.0018	U	0.15	U	0.0016	U	0.12	U	0.13	U	0.002	U	0.0019	U	0.0019	U	0.002	U	0.002	U	0.0023	U	0.12	U	0.0026	U
1,2,4,5-Tetramethylbenzene	~	~	~	0.0024	U	9.7		27	J	12	J	0.0018	U	0.15	U	0.0043		0.44		0.26		0.0012	J	0.0019	U	0.0019	U	0.002	U	0.002	U	0.0023	U	0.12	U	0.0026	U
1,2,4-Trimethylbenzene	3.6	52	3.6	0.0024	U	0.059	J	0.52	J	0.47	U	0.0018	U	0.15	U	0.00086	J	0.023	J	0.13	U	0.002	U	0.0019	U	0.0019	U	0.002	U	0.002	U	0.0023	U	0.12	U	0.0026	U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	~	0.0024	U	0.2	J	**23**	J	4.8	J	0.0018	U	0.15	U	0.00059	J	0.14		0.062	J	0.002	U	0.0019	U	0.0019	U	0.002	U	0.002	U	0.0023	U	0.024	J	0.0026	U
1,4-Diethyl Benzene	~	~	~	0.0024	U	2.6		7.9	J	3.3	J	0.0018	U	0.15	U	0.0015	J	0.14		0.081	J	0.00051	J	0.0019	U	0.0019	U	0.002	U	0.002	U	0.0023	U	0.12	U	0.0026	U
4-Ethyltoluene	~	~	~	0.0024	U	0.15	J	2.5		0.57		0.0018	U	0.15	U	0.00095	J	0.031	J	0.13	U	0.002	U	0.0019	U	0.0019	U	0.002	U	0.002	U	0.0023	U	0.12	U	0.0026	U
Acetone	0.05	100	~	0.012	U	*1.5*	U	*6.2*	U	*2.4*	U	0.011		*0.74*	U	**0.051**		*0.62*	U	*0.66*	U	0.023		0.0095	UJ	0.0095	UJ	0.0098	UJ	0.017		0.011	J	*0.59*	U	0.031	
Benzene	0.06	4.8	0.06	0.00059		*0.075*	U	*0.31*	U	*0.12*	U	0.00044	U	**0.13**		0.00026	J	**0.61**		**0.28**	J	0.00031	J	0.00048	U	0.00048	U	0.00049	U	0.00049	U	0.00058	U	0.029	U	0.00064	U
Carbon Disulfide	~	~	~	0.012	U	1.5	U	6.2	U	2.4	U	0.0089	U	0.74	U	0.0081	U	0.62	U	0.66	U	0.01	U	0.0095	U	0.0095	U	0.0098	U	0.0098	U	0.012	U	0.59	U	0.013	U
Carbon Tetrachloride	0.76	2.4	~	0.0012	U	0.15	U	0.62	U	0.24	U	0.00089	U	0.074	U	0.00081	U	0.062	U	0.066	U	0.001	U	0.00095	U	0.00095	U	0.00098	U	0.00098	U	0.0012	U	0.059	U	0.0013	U
Chloroform	0.37	49	~	0.0018	U	0.22	U	*0.93*	U	0.35	U	0.0013	U	0.11	U	0.0012	U	0.093	U	0.099	U	0.0015	U	0.0014	U	0.0014	U	0.0015	U	0.0015	U	0.0018	U	0.088	U	0.0019	U
Cymene	~	~	~	0.0012	U	0.58		2.6	J	1.1	J	0.00089	U	0.074	U	0.00015	J	0.043	J	0.012	J	0.001	U	0.00095	U	0.00095	U	0.00098	U	0.00098	UJ	0.0012	UJ	0.059	U	0.0013	UJ
Ethylbenzene	1	41	1	0.0012	U	0.32		**2.3**	J	0.62	J	0.00017	J	0.074	U	0.00081	U	0.024	J	0.016	J	0.001	U	0.00095	U	0.00095	U	0.00098	U	0.00098	U	0.0012	U	0.059	U	0.0013	U
Hexachlorobutadiene	~	~	~	0.0047	U	0.6	U	2.5	U	0.95	U	0.0036	U	0.29	U	0.0032	U	0.25	U	0.26	U	0.0041	U	0.0038	U	0.0038	U	0.0039	U	0.0039	U	0.0047	U	0.23	U	0.0051	U
Isopropylbenzene (Cumene)	~	~	~	0.0012	U	2.4		12	J	4.6	J	0.00089	U	0.074	U	0.0056		0.28		0.15		0.0011		0.00095	U	0.00095	U	0.00098	U	0.00098	U	0.0012	U	0.059	U	0.0013	U
M,P-Xylene	~	~	~	0.0024	U	0.3	U	0.42	J	0.47	U	0.0018	U	0.15	U	0.0016		0.057	J	0.13	U	0.002	U	0.0019	U	0.0019	U	0.002	U	0.002	U	0.0023	U	0.12	U	0.0026	U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	~	0.012	U	*1.5*	U	*6.2*	U	*2.4*	U	0.0089	U	*0.74*	U	0.0081	U	*0.62*	U	*0.66*	U	0.01	U	0.0095	UJ	0.0095	UJ	0.0098	UJ	0.0098	U	0.012	U	*0.59*	U	0.0043	J
n-Butylbenzene	12	100	12	0.0012	U	3.2		**17**	J	6.1	J	0.00089	U	0.074	U	0.00024	J	0.09		0.044	J	0.00028	J	0.00095	U	0.00095	U	0.00098	U	0.00098	UJ	0.0012	UJ	0.059	U	0.0013	UJ
n-Propylbenzene	3.9	100	3.9	0.0012	U	**7.6**		**33**	J	**13**	J	0.00089	U	0.074	U	0.0053		0.53	J	0.27	J	0.00059	J	0.00095	U	0.00095	U	0.00098	U	0.00098	U	0.0012	U	0.059	U	0.0013	U
o-Xylene (1,2-Dimethylbenzene)	~	~	~	0.0012	U	0.15	U	0.62	U	0.24	U	0.00089	U	0.074	U	0.001		0.046	J	0.027	J	0.001	U	0.00095	U	0.00095	U	0.00098	U	0.00098	U	0.0012	U	0.059	U	0.0013	U
Sec-Butylbenzene	11	100	11	0.0012	U	1.2		4	J	1.7	J	0.00089	U	0.074	U	0.0025		0.09		0.051	J	0.00072	J	0.00095	U	0.00095	U	0.00098	U	0.00098	U	0.0012	U	0.059	U	0.0013	U
Styrene	~	~	~	0.0012	U	0.15	U	0.62	U	0.24	U	0.00089	U	0.074	U	0.00081	U	0.062	U	0.066	U	0.001	U	0.00095	U	0.00095	U	0.00098	U	0.00098	U	0.0012	U	0.059	U	0.0013	U
T-Butylbenzene	5.9	100	~	0.0024	U	0.11	J	0.36	J	0.15	J	0.0018	U	0.15	U	0.00045	J	0.014	J	0.13	U	0.00035	J	0.0019	U	0.0019	U	0.002	U	0.002	UJ	0.0023	UJ	0.12	U	0.0026	UJ
Tert-Butyl Methyl Ether	0.93	100	~	0.0024	U	0.3	U	*1.2*	U	0.47	U	0.0018	U	0.15	U	0.0016	U	0.12	U	0.13	U	0.002	U	0.0019	U	0.0019	U	0.002	U	0.002	U	0.0023	U	0.12	U	0.0026	U
Tetrachloroethene (PCE)	1.3	19	~	0.00062		0.075	U	0.31	U	0.12	U	0.00044	U	1.1		0.00041	U	0.031	U	0.033	U	0.00051	U	0.0014		0.0004	J	0.00049	U	0.00041	J	0.00038	J	0.41		0.0004	J
Toluene	0.7	100	0.7	0.00082	J	0.15	U	0.62	U	0.24	U	0.00089	U	**1.9**		0.00081	U	0.062	U	0.066	U	0.001	U	0.00095	U	0.00095	U	0.00098	U	0.00098	U	0.0012	U	0.059	U	0.0013	U
Total Xylenes	0.26	100	1.6	0.0012	U	0.15	U	**0.42**	J	0.24	U	0.00089	U	0.074	U	0.0026		0.1	J	0.027	J	0.001	U	0.00095	U	0.00095	U	0.00098	U	0.00098	U	0.0012	U	0.059	U	0.0013	U
Semivolatile Organic Compounds (mg/kg)																																					
2-Methylnaphthalene	~	~	~	0.21	J	0.2	J	12	J	0.18	J	0.22	U	0.049	J	0.021	J	1.4	J	0.1	J	0.24	U	0.048	J	0.14	J	0.033	J	0.092	J	0.094	J	0.075	J	0.28	U
2-Methylphenol (o-Cresol)	0.33	100	~	0.19	U	0.19	U	*0.98*	U	0.2	U	0.18	U	*0.38*	U	0.17	U	0.2	U	0.2	U	0.2	U	0.17	U	*0.36*	U	0.2	U	0.17	U	*0.36*	U	0.18	U	0.23	U
3 & 4 Methylphenol (m&p Cresol)	0.33	100	~	0.28	U	0.28	U	*1.4*	U	0.28	U	0.26	U	*0.54*	U	0.24	U	0.29	U	0.28	U	0.29	U	0.25	U	*0.53*	U	0.28	U	0.25	U	0.15	J	0.089	J	*0.34*	U
Acenaphthene	20	100	98	0.052	J	0.15	U	0.79	U	0.16	U	0.14	U	0.21	J	0.028	J	0.021	J	0.16	U	0.16	U	0.048	J	0.27	J	0.16	U	0.14	U	0.045	J	0.019	J	0.19	U
Acenaphthylene	100	100	~	0.1	J	0.15	U	0.79	U	0.16	U	0.14	U	0.066	J	0.14	U	0.16	U	0.16	U	0.16	U	0.041	J	0.12	J	0.16	U	0.04	J	0.52		0.42		0.19	U
Acetophenone	~	~	~	0.39		0.19	U	0.98	U	0.2	U	0.18	U	0.38	U	0.17	U	0.2	U	0.2	U	0.2	U	0.021	J	0.36	U	0.21		0.17	U	0.36	U	0.18	U	0.23	U
Anthracene	100	100	~	0.28		0.12	U	0.59	U	0.12	U	0.11	U	0.48		0.11		0.12	U	0.12	U	0.12	U	0.13		0.6		0.044	J	0.043	J	0.81		0.31		0.14	U
Benzo(a)Anthracene	1	1	1	0.5		0.12	U	0.12	J	0.12	U	0.11	U	0.94		0.34		0.024	J	0.12	U	0.12	U	0.5		**1.3**		0.13		0.29		**1.3**		0.84		0.14	U
Benzo(a)Pyrene	1	1	22	0.65		0.15	U	0.79	U	0.16	U	0.14	U	0.8		0.36		0.16	U	0.16	U	0.16	U	0.45		**1.3**		0.11	J	0.29		**1.7**		0.9		0.19	U
Benzo(b)Fluoranthene	1	1	1.7	0.72		0.12	U	0.59	U	0.12	U	0.11	U	**1.1**		0.41		0.12	U	0.12	U	0.12	U	0.6		**1.6**		0.14		0.37		**2.6**		**1.3**		0.14	U
Benzo(g,h,i)Perylene	100	100	~	0.59		0.15	U	0.79	U	0.16	U	0.14	U	0.55		0.24		0.16	U	0.16	U	0.16	U	0.32		0.82		0.07	J	0.22		1.6		0.89		0.19	U
Benzo(k)Fluoranthene	0.8	3.9	1.7	0.2		0.12	U	0.59	U	0.12	U	0.11	U	0.33		0.14		0.12	U	0.12	U	0.12	U	0.19		0.49		0.036	J	0.1		0.78		0.38		0.14	U
Benzyl Butyl Phthalate	~	~	~	0.19	U	0.19	U	0.98	U	0.2	U	0.18	U	0.38	UJ	0.17	U	0.2	U	0.2	U	0.2	U	0.17	U	0.36	UJ	0.2	U	0.17	UJ	0.36	U	0.18	U	0.23	UJ
Biphenyl (Diphenyl)	~	~	~	0.44	U	0.44	U	2.2	U	0.45	U	0.41	U	0.86	U	0.39	U	0.46	U	0.45	U	0.46	U	0.39	U	0.83	U	0.45	U	0.39	U	0.83	U	0.4	U	0.53	U
Bis(2-Ethylhexyl) Phthalate	~	~	~	0.14	J	0.19	U	0.98	U	0.2	U	0.18	U	0.23	J	0.17	U	0.2	U	0.2	U	0.2	U	0.17	U	0.36	U	0.2	U	0.17	U	0.36	U	0.18	U	0.23	U
Carbazole	~	~	~	0.11	J	0.19	U	0.98	U	0.2	U	0.18	U	0.12	J	0.032	J	0.2	U	0.2	U	0.2	U	0.04	J	0.14	J	0.2	U	0.018	J	0.15	J	0.076	J	0.23	U
Chrysene	1	3.9	1	0.53		0.12	U	0.59	U	0.12	U	0.11	U	0.87		0.29		0.12	U	0.12	U	0.12	U	0.57		**1.2**		0.12		0.24		**1.3**		0.86		0.14	U
Dibenz(a,h)Anthracene	0.33	0.33	~	0.092	J	0.12	U	*0.59*	U	0.12	U	0.11	U	0.12	J	0.046	J	0.12	U	0.12	U	0.12	U	0.075	J	0.19	J	0.12	U	0.056	J	**0.38**		0.17		0.14	U
Dibenzofuran	7	59	~	0.057	J	0.19	U	0.98	U	0.2	U	0.18	U	0.1	J	0.02	J	0.2	U	0.2	U	0.2	U	0.024	J	0.16	J	0.2	U	0.025	J	0.36	U	0.025	J	0.23	U
Di-N-Butyl Phthalate	~	~	~	0.19	U	0.19	U	0.98	U	0.2	U	0.18	U	0.094	J	0.17	U	0.2	U	0.2	U	0.2	U	0.17	U	0.36	U	0.2	U	0.17	U	0.36	U	0.18	U	0.23	U
Di-N-Octylphthalate	~	~	~	0.19	U	0.19	U	0.98	U	0.2	U	0.18	U	0.38	U	0.17	U	0.2	U	0.2	U	0.2	U	0.17	U	0.36	U	0.2	U	0.17	UJ	0.36	U	0.18	U	0.23	UJ
Fluoranthene	100	100	~	1.1		0.049	J	0.25	J	0.12	U	0.11	U	2.2		0.75		0.064	J	0.12	U	0.12	U	0.76		2.8		0.21		0.47		1.9		1.5		0.14	U
Fluorene	30	100	~	0.082	J	0.019	J	0.98	U	0.2	U	0.18	U	0.18	J	0.034	J	0.023	J	0.2	U	0.2	U	0.047	J	0.2	J	0.2	U	0.17	U	0.052	J	0.029	J	0.23	U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	8.2	**0.54**		0.15	U	*0.79*	U	0.16	U	0.14	U	**0.59**		0.24		0.16	U	0.16	U	0.16	U	0.3		**0.87**		0.078	J	0.22		**1.5**		**0.79**		0.19	U
Naphthalene	12	100	12	0.51		0.12	J	9.4	J	0.14	J	0.18	U	0.056	J	0.039	J	1.5	J	0.068	J	0.2	U	0.056	J	0.76		0.5		0.076	J	0.1	J	0.069	J	0.23	U
Pentachlorophenol	0.8	6.7	0.8	0.15	U	0.15	U	0.79	U	0.16	U	0.14	U	0.3	U	0.14	UJ	0.16	U	0.16	U	0.16	U	0.14	U	0.29	U	0.16	U	0.14	UJ	0.29	U	0.14	U	0.19	UJ
Phenanthrene	100	100	~	0.87		0.045	J	0.14	J	0.12	U	0.11	U	1.8		0.48		0.093	J	0.12	U	0.12	U	0.66		2.3		0.19		0.17		0.36		0.33		0.14	U
Phenol	0.33	100	0.33	0.19	U	0.19	U	*0.98*	U	0.2	U	0.18	U	*0.38*	U	0.17	U	0.2	U	0.2	U	0.2	U	0.17	U	*0.36*	U	0.2	U	0.17	U	*0.36*	U	0.031	J	0.23	U
Pyrene	100	100	~	1.1		0.044	J	0.24	J	0.12	U	0.11	U	2		0.65		0.052	J	0.12	U	0.12	U	0.96		2.8		0.19		0.47		1.8		1.4		0.14	U

Notes provided on Page 13.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.
Concentrations above Protection of Groundwater SCOs are red.

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Remedial Investigation Report
Soil Sample Analytical Results Summary
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Bronx, New York
BCP No.: C203111
Langan Project No.: 170487001

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Pesticides (mg/kg)																						
4,4'-DDD	0.0033	13	~	0.00183 U	0.00177 U	0.00186 U	0.00187 U	0.00173 U	0.00179 U	0.00161 U	0.00182 U	0.00184 U	0.00191 U	0.00167 U	**0.00669**	0.00184 U	0.00168 U	0.00174 UJ	0.00166 U	0.00222 U
4,4'-DDE	0.0033	8.9	~	0.00183 U	0.00177 U	0.00186 U	0.00187 U	0.00173 U	0.00179 U	0.00161 U	0.00182 U	0.00184 U	0.00191 U	0.00167 U	0.0017 U	0.00184 U	0.00168 U	0.00174 UJ	0.00166 U	0.00222 U
4,4'-DDT	0.0033	7.9	~	*0.00343* U	*0.00333* U	*0.00349* U	*0.00351* U	0.00324 U	*0.00336* U	0.00302 U	*0.00342* U	*0.00345* U	*0.00358* U	0.00313 U	**0.00553** IP	*0.00345* U	0.00314 U	0.00326 UJ	0.00311 U	*0.00417* U
Alpha Chlordane	0.094	4.2	~	0.00228 U	0.00222 U	0.00233 U	0.00234 U	0.00216 U	0.00224 U	0.00201 U	0.00228 U	0.0023 U	0.00239 U	0.00209 U	0.00212 U	0.0023 U	0.00209 U	0.00217 UJ	0.00207 U	0.00278 U
Beta Endosulfan	2.4	24	~	0.00183 U	0.00177 U	0.00186 U	0.00187 U	0.00173 U	0.000787 P	0.00161 U	0.00182 U	0.00184 U	0.00191 U	0.00117 JIP	0.0017 U	0.00184 U	0.00168 U	0.00174 UJ	0.00166 U	0.00222 U
Dieldrin	0.005	0.2	~	0.00114 U	0.00111 U	0.00116 U	0.00117 U	0.00108 U	0.00112 U	0.00101 U	0.00114 U	0.00115 U	0.00119 U	0.00104 U	0.00106 U	0.00115 U	0.00105 U	0.00108 UJ	0.00104 U	0.00139 U
Endosulfan Sulfate	2.4	24	~	0.000762 U	0.00074 U	0.000776 U	0.00078 U	0.000721 U	0.000747 U	0.000671 U	0.00076 U	0.000766 U	0.000796 U	0.000696 U	0.000706 U	0.000767 U	0.000698 U	0.000723 UJ	0.000692 U	0.000926 U
Endrin	0.014	11	~	0.000762 U	0.00074 U	0.000776 U	0.00078 U	0.000721 U	0.000747 U	0.000671 U	0.00076 U	0.000766 U	0.000796 U	0.000696 U	**0.0252** P	0.000767 U	0.000698 U	0.000723 UJ	0.000692 U	0.000926 U
Endrin Aldehyde	~	~	~	0.00228 U	0.00222 U	0.00233 U	0.00234 U	0.00216 U	0.0012 J	0.00201 U	0.00228 U	0.0023 U	0.00239 U	0.00209 U	0.00212 U	0.0023 U	0.00209 U	0.00217 UJ	0.00207 U	0.00278 U
Gamma Chlordane	~	~	~	0.00228 U	0.00222 U	0.00233 U	0.00234 U	0.00216 U	0.00224 U	0.00201 U	0.00228 U	0.0112 IP	0.00239 U	0.00209 U	0.00212 U	0.0023 U	0.00209 U	0.00217 UJ	0.00207 U	0.00278 U
Heptachlor	0.042	2.1	~	0.000914 U	0.000887 U	0.000932 U	0.000937 U	0.000865 U	0.000896 U	0.000806 U	0.000912 U	0.000919 U	0.000956 U	0.000836 U	0.000848 U	0.00092 U	0.000838 U	0.000868 UJ	0.00083 U	0.00111 U
Heptachlor Epoxide	~	~	~	0.00343 U	0.00333 U	0.00349 U	0.00351 U	0.00324 U	0.00336 U	0.00302 U	0.00342 U	0.00345 U	0.00358 U	0.00313 U	0.00318 U	0.00345 U	0.00314 U	0.00326 UJ	0.00311 U	0.00417 U
Herbicides (mg/kg)	~	~	~	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Polychlorinated Biphenyls (mg/kg)																				
PCB-1254 (Aroclor 1254)	~	~	~	0.0387 U	0.0369 U	0.0396 U	0.0395 U	0.0368 U	0.0358 U	0.0333 U	0.0381 U	0.039 U	0.0395 U	0.0352 U	0.0363 U	0.0381 U	0.0347 U	0.0349 U	0.0344 U	0.0457 U
PCB-1260 (Aroclor 1260)	~	~	~	0.0387 U	0.0369 U	0.0396 U	0.0395 U	0.0368 U	0.0358 U	0.0333 U	0.0381 U	0.039 U	0.0395 U	0.0352 U	0.0363 U	0.0381 U	0.00942 J	0.0394	0.0344 U	0.0457 U
PCB-1268 (Aroclor 1268)	~	~	~	0.0387 U	0.0369 U	0.0396 U	0.0395 U	0.0368 U	0.0358 U	0.0333 U	0.0381 U	0.039 U	0.0395 U	0.0352 U	0.0363 U	0.0381 U	0.0347 U	0.0349 U	0.0344 U	0.0457 U
Total PCBs	0.1	1	~	0.0387 U	0.0369 U	0.0396 U	0.0395 U	0.0368 U	0.0358 U	0.0333 U	0.0381 U	0.039 U	0.0395 U	0.0352 U	0.0363 U	0.0381 U	0.00942 J	0.0394	0.0344 U	0.0457 U
Inorganics (mg/kg)																				
Aluminum	~	~	~	7,870	3,360	4,380	4,800	7,220	6,690	6,310	4,200	4,490	5,550	5,030	12,000	5,860	3,000	9,550	3,280	10,400
Antimony	~	~	~	0.348 J	4.5 U	4.63 U	4.64 U	3.31 J	4.46 U	3.99 U	4.76 U	4.72 U	1.68 J	2.07 J	4.3 U	4.6 J	3.56 J	4.3 U	1.09 J	5.49 U
Arsenic	13	16	~	4.92	0.846 J	0.852 J	0.835 J	0.613 J	5.31	2.99	0.999	2.19	2.08	3.4	2.28	2.93	7.41 J	8.77 J	4.65 J	5.45 J
Barium	350	400	~	61	11.5	12.2	13.2	46.7	134	56.2	5.38	7.45	10.8	44	157	64.8	156 J	132 J	43.8 J	25.2 J
Beryllium	7.2	72	~	0.183 J	0.126 J	0.139 J	0.167 J	0.426 U	0.446 U	0.399 U	0.133 J	0.151 J	0.154 J	0.405 U	4.3 U	0.476 U	0.416 U	0.43 U	0.406 U	0.253 J
Cadmium	2.5	4.3	~	0.183 J	0.9 U	0.926 U	0.928 U	0.851 U	0.17 J	0.08 J	0.951 U	0.943 U	0.965 U	0.251 J	0.206 J	0.143 J	**3.17** J	0.997	0.828	0.89 J
Calcium	~	~	~	33,100	572	414	482	10,400	67,500	24,400	486	493	814	18,600	2,720	24,200	28,100 J	14,300	84,000	2,920
Chromium, Hexavalent	1	110	~	0.221 J	0.932 U	0.972 U	0.96 U	0.887 U	0.284 J	0.835 UJ	0.967 UJ	0.964 UJ	0.718 J	0.856 UJ	0.88 UJ	0.97 UJ	0.842 U	0.288 J	0.846 U	*1.14* U
Chromium, Total	~	~	~	18.9	7.34	8.44	10.2	21.4	11.3	11.2	10.7	11.1	12	11.8	22	10.8	13.7 J	19.8 J	6.64 J	23.4 J
Chromium, Trivalent	30	180	~	19 J	7.3	8.4	10	21	11 J	11	11	11	11 J	12	22	11	14	20 J	6.6	23
Cobalt	~	~	~	5.76	2.85	4.06	4.53	11.2	4.69	5.91	2.64	3.48	5.65	5.41	15.2	4.55	4.73	8.01	3.66	7.65
Copper	50	270	~	24.4	4.34	7.55	8.6	9.33	24.4	22.4	8.83	9.26	12.1	32.3	**77.7**	24	**271** J	47.7	**265**	10.2
Cyanide	27	27	~	1.1 UJ	1.2 UJ	1.2 UJ	1.2 UJ	1.1 UJ	1.1 UJ	0.31 J	1.2 UJ	1.1 UJ	1.2 UJ	1 UJ	1 UJ	1.1 UJ	1 UJ	1.1 UJ	1 UJ	1.3 UJ
Iron	~	~	~	13,800	7,990	9,340	9,820	11,600	10,300	12,800	7,520	10,200	13,400	17,200	28,700	12,700	32,600 J	16,900	14,300	25,500
Lead	63	400	~	**169**	5.19	11.3	7.53	2.4 J	**244**	**69.4**	3.87 J	6.01	5.27	**288**	39.2	**351**	**905**	**444**	**379**	11.2
Magnesium	~	~	~	2,710	1,340	1,650	1,850	10,500	2,380	3,660	1,340	1,520	2,070	7,350	4,990	3,750	5,500 J	4,010	4,850	4,970
Manganese	1,600	2,000	2,000	242	171	78.8 J	159 J	140	136	352	50.2	67.5	831	302	149	257	208	292	183	310
Mercury	0.18	0.81	~	**0.186**	0.073 U	0.076 U	0.075 U	0.071 U	0.076	**0.276**	0.076 U	0.076 U	0.078 U	**0.638**	**0.46**	**1.45**	**0.639**	**5.62**	**0.2**	0.09 U
Nickel	30	310	~	11	5.4	6.96	8.05	17	8.92	9.74	6.45	6.86	9.17	10.2	22.2	8.44	18 J	18.5	11.4	16.8
Potassium	~	~	~	1,000	321	493	487	2,480	1,960	1,290	442	591	698	1,800	7,900	1,010	959 J	1,820	505	2,140
Selenium	3.9	180	~	1.83 U	1.8 U	1.85 U	1.86 U	1.7 U	1.78 U	0.671 J	1.9 U	1.89 U	0.492 J	0.235 J	1.72 U	0.38 J	0.483 J	1.12 J	1.62 U	2.2 U
Silver	2	180	~	0.915 U	0.9 U	0.926 U	0.928 U	0.851 U	0.892 U	0.799 U	0.951 U	0.943 U	0.965 U	0.81 U	0.861 U	0.951 U	0.691 J	0.447 J	0.333 J	1.1 U
Sodium	~	~	~	272	35.6 J	55.6 J	56.5 J	321	456	186	90.2 J	91.8 J	150 J	781	215	110 J	560	254	147 J	254
Vanadium	~	~	~	16.1	10.3	11.1	12.7	26.4	18.7	15.8	19.8	12.8	13.4	14.4	42.8	17.2	12.5	29.6	12	30
Zinc	109	10,000	~	**119**	14.8	16.9	19.7	32	102	53.1	15.3	16.6	24.2	94.4	82	59	**1,170**	**395**	**176**	55.5
General Chemistry (%)																				
Total Solids	~	~	~	85.8	85.8	82.3	83.3	90.2	87.9	95.8	82.7	83	80.8	93.4	90.9	82.5	95	90.4	94.5	70.4

Notes provided on Page 13.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.
Concentrations above Protection of Groundwater SCOs are red.

Table 6
Remedial Investigation Report
Soil Sample Analytical Results Summary
Gerard Avenue and East 146th Street
Bronx, New York
BCP No.: C203111
Langan Project No.: 170487001

Site Address Location Sample ID Laboratory ID Sample Date Depth Range (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use - Restricted Residential SCOs	NYSDEC Part 375 Protection of Groundwater SCOs	445GERARD RB18 RB18_0-2 L1900536-05 1/4/2019 0-2		445GERARD RB18 RB18_6-8 L1900536-06 1/4/2019 6-8		445GERARD RB18 RB18_15-17 L1900536-07 1/4/2019 15-17		445GERARD RB18 RB18_18-20 L1900536-08 1/4/2019 18-20		445GERARD RB19 RB19_0-2 L1900324-06 1/3/2019 0-2		445GERARD RB19 RB19_20-22 L1900324-07 1/3/2019 20-22		445GERARD RB19 RB19_24-25 L1900324-08 1/3/2019 24-25		445GERARD RB20 RB20_0-2 L1900536-09 1/4/2019 0-2		445GERARD RB20 RB20_7-9 L1900536-10 1/4/2019 7-9		445GERARD RB20 RB20_13-15 L1900536-11 1/4/2019 13-15		445GERARD RB20 RB20_18-20 L1900536-12 1/4/2019 18-20		445GERARD RB21 RB21_0-2 L1900324-01 1/3/2019 0-2		445GERARD RB21 RB21_2-4 L1900324-02 1/3/2019 2-4		445GERARD RB21 RB21_18-20 L1900324-03 1/3/2019 18-20		445GERARD RB22 RB22_0-2 L1900324-04 1/3/2019 0-2		445GERARD RB22 RB22_3-5 L1900324-05 1/3/2019 3-5		445GERARD RB22 RB22_20-22 L1900536-13 1/4/2019 20-22	
Volatile Organic Compounds (mg/kg)																																					
1,2,3-Trichloropropane	~	~	~	0.12	U	0.38	U	0.0017	U	0.0013	U	0.002	UJ	0.28	U	0.0027	UJ	0.0022	U	0.0024	U	0.0023	U	0.0019	U	0.0022	UJ	0.0023	UJ	0.0015	UJ	0.0021	UJ	0.0021	UJ	0.0024	U
1,2,4,5-Tetramethylbenzene	~	~	~	0.12	U	3.6		0.00047	J	0.0002	J	0.002	UJ	0.95		0.0027	UJ	0.0012	J	0.0024	U	0.0023	U	0.0019	U	0.0022	UJ	0.0023	UJ	0.0015	UJ	0.0021	UJ	0.0021	UJ	0.0024	U
1,2,4-Trimethylbenzene	3.6	52	3.6	0.026	J	0.38	U	0.0017	U	0.0013	U	0.002	U	0.34		0.0027	U	0.0049		0.0024	U	0.0023	U	0.0019	U	0.0022	U	0.0023	U	0.0015	U	0.0021	U	0.0021	U	0.0024	U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	~	0.12	U	0.28	J	0.0017	U	0.0013	U	0.002	U	0.058	J	0.0027	U	0.0033		0.0024	U	0.0023	U	0.0019	U	0.0022	U	0.0023	U	0.0015	U	0.0021	U	0.0021	U	0.0024	U
1,4-Diethyl Benzene	~	~	~	0.018	J	6.7		0.00078	J	0.0013	U	0.002	U	0.12	J	0.0027	U	0.0045		0.0024	U	0.0023	U	0.0019	U	0.0022	U	0.0023	U	0.0015	U	0.0021	U	0.0021	U	0.0024	U
4-Ethyltoluene	~	~	~	0.047	J	0.38	U	0.0017	U	0.0013	U	0.002	UJ	0.23	J	0.0027	UJ	0.0021	J	0.0024	U	0.0023	U	0.0019	U	0.0022	UJ	0.0023	UJ	0.0015	UJ	0.0021	UJ	0.0021	UJ	0.0024	U
Acetone	0.05	100	~	*0.61*	U	*1.9*	U	0.0085	U	0.0044	J	0.01	U	*1.4*	U	0.044		0.017	J	0.0092	J	0.023		0.0094	U	0.011		0.011	U	0.007	J	0.014		0.0053	J	0.012	UJ
Benzene	0.06	4.8	0.06	0.03	U	*0.094*	U	0.00042	U	0.00033	U	0.0005	U	*0.071*	U	0.00068	U	0.00096		0.00061	U	0.00021	J	0.00047	U	0.00054	U	0.00057	U	0.00039	U	0.00054	U	0.00053	U	0.00061	U
Carbon Disulfide	~	~	~	0.61	U	1.9	U	0.0085	U	0.0065	U	0.01	U	1.4	U	0.014	U	0.011	U	0.012	U	0.012	U	0.0094	U	0.011	U	0.011	U	0.0077	U	0.011	U	0.01	U	0.012	U
Carbon Tetrachloride	0.76	2.4	~	0.061	U	0.19	U	0.00085	U	0.00065	U	0.001	U	0.14	U	0.0014	U	0.0011	U	0.0012	U	0.0012	U	0.00094	U	0.0011	U	0.0011	U	0.00077	U	0.0011	U	0.001	U	0.0012	U
Chloroform	0.37	49	~	0.091	U	0.28	U	0.0013	U	0.00098	U	0.0015	U	0.21	U	0.002	U	0.0017	U	0.0018	U	0.0017	U	0.0014	U	0.0016	U	0.0017	U	0.0012	U	0.0016	U	0.0002	J	0.00021	J
Cymene	~	~	~	0.061	U	0.19		0.00085	UJ	0.00065	UJ	0.001	U	0.016	J	0.0014	U	0.0011	U	0.0012	UJ	0.0012	UJ	0.00094	UJ	0.0011	U	0.0011	U	0.00077	U	0.0011	U	0.001	U	0.0012	U
Ethylbenzene	1	41	1	0.031	J	0.19	U	0.00085	U	0.00065	U	0.001	U	0.024	J	0.0014	U	0.00036	J	0.0012	U	0.0012	U	0.00094	U	0.0011	U	0.0011	U	0.00077	U	0.0011	U	0.001	U	0.0012	U
Hexachlorobutadiene	~	~	~	0.24	U	0.75	U	0.0034	U	0.0026	U	0.004	U	0.57	U	0.0054	U	0.0044	U	0.0049	U	0.0046	U	0.0038	U	0.0044	U	0.0045	U	0.0031	U	0.0043	U	0.0042	U	0.0049	U
Isopropylbenzene (Cumene)	~	~	~	0.061	U	0.19	U	0.00085	U	0.00065	U	0.001	U	0.043	J	0.0014	U	0.00032	J	0.0012	U	0.0012	U	0.00094	U	0.0011	U	0.0011	U	0.00077	U	0.0011	U	0.001	U	0.0012	U
M,P-Xylene	~	~	~	0.076	J	0.38	U	0.0017	U	0.0013	U	0.002	U	0.24	J	0.0027	U	0.0021	J	0.0024	U	0.0023	U	0.0019	U	0.0022	U	0.0023	U	0.0015	U	0.0021	U	0.0021	U	0.0024	U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	~	*0.61*	U	*1.9*	U	0.0085	U	0.0065	U	0.01	U	*1.4*	U	0.0074	J	0.011	U	0.012	U	0.012	U	0.0094	U	0.011	U	0.011	U	0.0077	U	0.011	U	0.01	U	0.012	U
n-Butylbenzene	12	100	12	0.01	J	0.32		0.00085	UJ	0.00065	UJ	0.001	U	0.033	J	0.0014	U	0.00019	J	0.0012	UJ	0.0012	UJ	0.00094	UJ	0.0011	U	0.0011	U	0.00077	U	0.0011	U	0.001	U	0.0012	U
n-Propylbenzene	3.9	100	3.9	0.018	J	0.19	U	0.00085	U	0.00065	U	0.001	U	0.038	J	0.0014	U	0.00028	J	0.0012	U	0.0012	U	0.00094	U	0.0011	U	0.0011	U	0.00077	U	0.0011	U	0.001	U	0.0012	U
o-Xylene (1,2-Dimethylbenzene)	~	~	~	0.027	J	0.19	U	0.00085	U	0.00065	U	0.001	U	0.066	J	0.0014	U	0.0017		0.0012	U	0.0012	U	0.00094	U	0.0011	U	0.0011	U	0.00077	U	0.0011	U	0.001	U	0.0012	U
Sec-Butylbenzene	11	100	11	0.061	U	0.21		0.00085	U	0.00065	U	0.001	U	0.061	J	0.0014	U	0.00019	J	0.0012	U	0.0012	U	0.00094	U	0.0011	U	0.0011	U	0.00077	U	0.0011	U	0.001	U	0.0012	U
Styrene	~	~	~	0.061	U	0.19	U	0.00085	U	0.00065	U	0.001	U	0.14	U	0.0014	U	0.0011	U	0.0012	U	0.0012	U	0.00094	U	0.0011	U	0.0011	U	0.00077	U	0.0011	U	0.001	U	0.0012	U
T-Butylbenzene	5.9	100	~	0.12	U	0.025	J	0.0017	UJ	0.0013	UJ	0.002	U	0.28	U	0.0027	U	0.0022	U	0.0024	UJ	0.0023	UJ	0.0019	UJ	0.0022	U	0.0023	U	0.0015	U	0.0021	U	0.0021	U	0.0024	U
Tert-Butyl Methyl Ether	0.93	100	~	0.12	U	0.38	U	0.0017	U	0.0013	U	0.002	U	0.28	U	0.0027	U	0.0022	U	0.0024	U	0.0023	U	0.0019	U	0.0022	U	0.0023	U	0.0015	U	0.0021	U	0.0021	U	0.0024	U
Tetrachloroethene (PCE)	1.3	19	~	0.028	J	0.094	U	0.00042	U	0.00033	U	0.00095		0.071	U	0.00068	U	0.0003	J	0.0013		0.0016		0.00024	J	0.00021	J	0.00057	U	0.00039	U	0.00054	U	0.00053	U	0.00061	U
Toluene	0.7	100	0.7	0.048	J	0.19	U	0.00085	U	0.00065	U	0.001	U	0.14	U	0.0014	U	0.0034		0.0012	U	0.0012	U	0.00094	U	0.0011	U	0.0011	U	0.00077	U	0.0011	U	0.001	U	0.0012	U
Total Xylenes	0.26	100	1.6	0.1	J	0.19	U	0.00085	U	0.00065	U	0.001	U	**0.31**	J	0.0014	U	0.0038	J	0.0012	U	0.0012	U	0.00094	U	0.0011	U	0.0011	U	0.00077	U	0.0011	U	0.001	U	0.0012	U
Semivolatile Organic Compounds (mg/kg)																																					
2-Methylnaphthalene	~	~	~	0.46	J	2.4		0.21	U	0.21	U	0.067	J	1	U	0.05	J	0.034	J	0.024	J	0.1	J	0.24	U	0.23	J	0.2	U	0.2	U	0.03	J	0.22	U	0.26	U
2-Methylphenol (o-Cresol)	0.33	100	~	*0.97*	U	*1.1*	U	0.17	U	0.18	U	0.18	U	*0.83*	U	0.24	U	0.18	U	0.18	U	0.18	U	0.2	U	*0.36*	U	0.17	U	0.17	U	0.18	U	0.18	U	0.21	U
3 & 4 Methylphenol (m&p Cresol)	0.33	100	~	*1.4*	U	*1.6*	U	0.25	U	0.26	U	0.26	U	**0.37**	J	0.19	J	0.26	U	0.26	U	0.27	U	0.28	U	*0.51*	U	0.24	U	0.24	U	0.26	U	0.26	U	0.31	U
Acenaphthene	20	100	98	0.77	U	0.9	U	0.14	U	0.14	U	0.091	J	0.66	U	0.033	J	0.025	J	0.14	U	0.15	U	0.16	U	0.66		0.14	U	0.028	J	0.089	J	0.14	U	0.17	U
Acenaphthylene	100	100	~	0.77	U	0.9	U	0.14	U	0.14	U	0.71		0.66	U	0.061	J	0.082	J	0.14	U	0.1	J	0.16	U	0.22	J	0.14	U	0.13	U	0.16		0.14	U	0.035	J
Acetophenone	~	~	~	0.97	U	1.1	U	0.17	U	0.18	U	0.18	U	0.83	U	0.24	U	0.18	U	0.18	U	0.18	U	0.2	U	0.36	U	0.17	U	0.17	U	0.18	U	0.18	U	0.21	U
Anthracene	100	100	~	0.58	U	1		0.1	U	0.11	U	0.36		0.5	U	0.13	J	0.096	J	0.11	U	0.1	J	0.12	U	1.7		0.1	U	0.059	J	0.26		0.11	U	0.11	J
Benzo(a)Anthracene	1	1	1	0.25	J	2.8		0.027	J	0.11	U	1.2		0.2	J	0.38		0.41		0.15		0.23		0.12	U	5.9		0.12		0.23		1.1		0.062	J	0.37	
Benzo(a)Pyrene	1	1	22	0.3	J	**2.4**		0.14	U	0.14	U	**1.3**		0.25	J	0.58		0.44		0.13	J	0.2		0.16	U	**5.1**		0.12	J	0.19		**1.1**		0.048	J	0.36	
Benzo(b)Fluoranthene	1	1	1.7	**1.1**		4.8		0.032	J	0.11	U	**1.7**		0.23	J	0.58		0.58		0.19		0.27		0.12	U	6.3		0.18		0.24		**1.4**		0.085	J	0.42	
Benzo(g,h,i)Perylene	100	100	~	0.73	J	2.7		0.14	U	0.14	U	1.2		0.18	J	0.37		0.33		0.086	J	0.1	J	0.16	U	3.2		0.08	J	0.12	J	0.71		0.032	J	0.28	
Benzo(k)Fluoranthene	0.8	3.9	1.7	0.27	J	**1.3**		0.1	U	0.11	U	0.6		0.5	U	0.18		0.18		0.058	J	0.082	J	0.12	U	**2.3**		0.046	J	0.085	J	0.52		0.11	U	0.12	J
Benzyl Butyl Phthalate	~	~	~	0.97	U	1.1	U	0.17	UJ	0.18	UJ	0.18	U	0.83	U	0.24	U	0.18	U	0.18	UJ	0.18	UJ	0.2	UJ	0.36	U	0.17	UJ	0.17	U	0.18	U	0.18	U	0.21	UJ
Biphenyl (Diphenyl)	~	~	~	2.2	U	3.5		0.39	U	0.4	U	0.42	U	1.9	U	0.56	U	0.42	U	0.41	U	0.42	U	0.45	U	0.81	U	0.39	U	0.38	U	0.41	U	0.41	U	0.49	U
Bis(2-Ethylhexyl) Phthalate	~	~	~	0.97	U	1.1	U	0.17	U	0.18	U	0.18	U	0.83	U	0.24	U	0.18	U	0.18	U	0.18	U	0.2	U	0.36	U	0.17	UJ	0.17	U	0.18	U	0.18	U	0.092	J
Carbazole	~	~	~	0.97	U	1.1	U	0.17	U	0.18	U	0.12	J	0.83	U	0.24	U	0.04	J	0.18	U	0.058	J	0.2	U	0.85		0.17	U	0.032	J	0.12	J	0.18	U	0.21	U
Chrysene	1	3.9	1	0.67		3.3		0.027	J	0.11	U	1.2		0.19	J	0.37		0.4		0.16		0.22		0.12	U	6		0.14		0.22		1.1		0.067	J	0.34	
Dibenz(a,h)Anthracene	0.33	0.33	~	0.14	J	**0.5**	J	0.1	U	0.11	U	0.25		*0.5*	U	0.06	J	0.071	J	0.023	J	0.027	J	0.12	U	**0.82**		0.1	U	0.036	J	0.17		0.11	U	0.056	J
Dibenzofuran	7	59	~	0.97	U	1.8		0.17	U	0.18	U	0.072	J	0.83	U	0.033	J	0.18	U	0.018	J	0.078	J	0.2	U	0.52		0.17	U	0.021	J	0.063	J	0.18	U	0.21	U
Di-N-Butyl Phthalate	~	~	~	0.97	U	1.1	U	0.17	U	0.18	U	0.18	U	0.83	U	0.24	U	0.18	U	0.18	U	0.18	U	0.2	U	0.36	U	0.17	UJ	0.17	U	0.18	U	0.18	U	0.21	U
Di-N-Octylphthalate	~	~	~	0.97	U	1.1	U	0.17	UJ	0.18	UJ	0.18	U	0.83	U	0.24	U	0.18	U	0.18	UJ	0.18	UJ	0.2	UJ	0.36	U	0.17	UJ	0.17	U	0.18	U	0.18	U	0.21	UJ
Fluoranthene	100	100	~	0.73		8.3		0.041	J	0.11	U	1.8		0.44	J	0.48		0.74		0.34		0.56		0.025	J	12		0.28		0.44		2.4		0.18		0.78	
Fluorene	30	100	~	0.97	U	1.2		0.17	U	0.18	U	0.082	J	0.83	U	0.058	J	0.022	J	0.18	U	0.1	J	0.2	U	0.67		0.17	U	0.026	J	0.079	J	0.18	U	0.21	U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	8.2	**0.76**	J	**2.6**		0.14	U	0.14	U	**1.2**		0.14	J	0.34		0.32		0.089	J	0.12	J	0.16	U	**3.5**		0.085	J	0.14		**0.75**		0.029	J	0.25	
Naphthalene	12	100	12	0.3	J	0.57	J	0.17	U	0.18	U	0.13	J	0.3	J	0.24		0.042	J	0.027	J	0.16	J	0.2	U	0.41		0.023	J	0.023	J	0.063	J	0.18	U	0.045	J
Pentachlorophenol	0.8	6.7	0.8	0.77	U	*0.9*	U	0.14	UJ	0.14	UJ	0.15	U	0.66	U	0.2	U	0.15	U	0.14	UJ	0.15	UJ	0.16	UJ	0.28	U	0.14	U	0.13	U	0.14	U	0.14	U	0.17	UJ
Phenanthrene	100	100	~	1.9		14		0.022	J	0.11	U	0.96		0.17	J	0.27		0.35		0.28		0.58		0.12	U	9.9		0.13		0.37		1.4		0.1	J	0.2	
Phenol	0.33	100	0.33	*0.97*	U	*1.1*	U	0.17	U	0.18	U	0.18	U	*0.83*	U	0.24	U	0.18	U	0.18	U	0.18	U	0.2	U	*0.36*	U	0.17	U	0.17	U	0.18	U	0.18	U	0.21	U
Pyrene	100	100	~	1.5		8.6		0.044	J	0.11	U	1.5		0.57		0.54		0.67		0.28		0.44		0.024	J	11		0.29		0.42		2		0.16		0.72	

Notes provided on Page 13.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.
Concentrations above Protection of Groundwater SCOs are red.

Table 6
Remedial Investigation Report
Soil Sample Analytical Results Summary
Gerard Avenue and East 146th Street
Bronx, New York
BCP No.: C203111
Langan Project No.: 170487001

Site Address Location Sample ID Laboratory ID Sample Date Depth Range (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use - Restricted Residential SCOs	NYSDEC Part 375 Protection of Groundwater SCOs	445GERARD RB18 RB18_0-2 L1900536-05 1/4/2019 0-2	445GERARD RB18 RB18_6-8 L1900536-06 1/4/2019 6-8	445GERARD RB18 RB18_15-17 L1900536-07 1/4/2019 15-17	445GERARD RB18 RB18_18-20 L1900536-08 1/4/2019 18-20	445GERARD RB19 RB19_0-2 L1900324-06 1/3/2019 0-2	445GERARD RB19 RB19_20-22 L1900324-07 1/3/2019 20-22	445GERARD RB19 RB19_24-25 L1900324-08 1/3/2019 24-25	445GERARD RB20 RB20_0-2 L1900536-09 1/4/2019 0-2	445GERARD RB20 RB20_7-9 L1900536-10 1/4/2019 7-9	445GERARD RB20 RB20_13-15 L1900536-11 1/4/2019 13-15	445GERARD RB20 RB20_18-20 L1900536-12 1/4/2019 18-20	445GERARD RB21 RB21_0-2 L1900324-01 1/3/2019 0-2	445GERARD RB21 RB21_2-4 L1900324-02 1/3/2019 2-4	445GERARD RB21 RB21_18-20 L1900324-03 1/3/2019 18-20	445GERARD RB22 RB22_0-2 L1900324-04 1/3/2019 0-2	445GERARD RB22 RB22_3-5 L1900324-05 1/3/2019 3-5	445GERARD RB22 RB22_20-22 L1900536-13 1/4/2019 20-22
Pesticides (mg/kg)																					
4,4'-DDD	0.0033	13	~	0.00184 U	0.00217 U	0.00162 U	0.00171 U	0.00171 U	*0.00725* U	0.00233 U	0.0017 U	0.00174 U	0.00173 U	0.00182 U	0.00168 U	0.00161 U	0.00162 U	0.00177 U	0.00177 U	0.00209 U
4,4'-DDE	0.0033	8.9	~	0.00184 U	0.00217 U	0.00162 U	0.00171 U	0.00171 U	*0.00725* U	0.00233 U	0.0017 U	0.00174 U	0.00173 U	0.00182 U	0.00168 U	0.00161 U	0.00162 U	0.00177 U	0.000619 J	0.00209 U
4,4'-DDT	0.0033	7.9	~	*0.00345* U	*0.00406* U	0.00304 U	0.00321 U	0.0032 U	*0.0136* U	*0.00437* U	0.0032 U	0.00326 U	0.00325 U	*0.00341* U	0.00314 U	0.00301 U	0.00304 U	*0.00332* U	*0.00332* U	*0.00392* U
Alpha Chlordane	0.094	4.2	~	0.0023 U	0.00271 U	0.00203 U	0.00214 U	0.00213 U	0.00906 U	0.00291 U	0.00213 U	0.00217 U	0.00216 U	0.00227 U	0.0021 U	0.00201 U	0.00203 U	0.00221 U	0.00221 U	0.00261 U
Beta Endosulfan	2.4	24	~	0.00184 U	0.00217 U	0.00162 U	0.00171 U	0.00171 U	0.00725 U	0.00233 U	0.0017 U	0.00174 U	0.00173 U	0.00182 U	0.00379 J	0.00161 U	0.00081 J	0.00177 U	0.00177 U	0.00209 U
Dieldrin	0.005	0.2	~	0.00115 U	0.00136 U	0.00101 U	0.00107 U	0.00107 U	0.00453 U	0.00146 U	0.00106 U	0.00109 U	0.00108 U	0.00114 U	0.00105 U	0.001 U	0.00101 U	0.0011 U	0.0011 U	0.00131 U
Endosulfan Sulfate	2.4	24	~	0.000766 U	0.000903 U	0.000676 U	0.000713 U	0.000711 U	0.00302 U	0.000971 U	0.00071 U	0.000725 U	0.000722 U	0.000757 U	0.000699 U	0.00067 U	0.000676 U	0.000737 U	0.000737 U	0.000871 U
Endrin	0.014	11	~	0.000766 U	0.000903 U	0.000676 U	0.000713 U	0.000711 U	0.00302 U	0.000971 U	0.00071 U	0.000725 U	0.000722 U	0.000757 U	0.000699 U	0.00067 U	0.000676 U	0.000737 U	0.000737 U	0.000871 U
Endrin Aldehyde	~	~	~	0.0023 U	0.00271 U	0.00203 U	0.00214 U	0.00213 U	0.00906 U	0.00291 U	0.00213 U	0.00217 U	0.00216 U	0.00227 U	0.0021 U	0.00201 U	0.00203 U	0.00221 U	0.00221 U	0.00261 U
Gamma Chlordane	~	~	~	0.0145 J	0.00271 U	0.00203 U	0.00214 U	0.00213 U	0.00906 U	0.00291 U	0.00213 U	0.00217 U	0.00216 U	0.00227 U	0.0021 U	0.00201 U	0.00203 U	0.00221 U	0.00221 U	0.00261 U
Heptachlor	0.042	2.1	~	0.00092 U	0.00108 U	0.000811 U	0.000855 U	0.000854 U	0.00362 U	0.00116 U	0.000852 U	0.00087 U	0.000866 U	0.000909 U	0.000839 U	0.000804 U	0.000812 U	0.000885 U	0.000884 U	0.00104 U
Heptachlor Epoxide	~	~	~	0.00345 U	0.00406 U	0.00304 U	0.00321 U	0.0032 U	0.0136 U	0.00437 U	0.0032 U	0.00326 U	0.00325 U	0.00341 U	0.00314 U	0.00301 U	0.00304 U	0.00332 U	0.00332 U	0.00392 U
Herbicides (mg/kg)	~	~	~	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Polychlorinated Biphenyls (mg/kg)																					
PCB-1254 (Aroclor 1254)	~	~	~	0.0392 U	0.0442 U	0.0329 U	0.036 U	0.0358 U	0.146 U	0.0146 J	0.0363 U	0.036 U	0.0371 U	0.0387 U	0.035 U	0.0332 U	0.0341 U	0.0349 U	0.0353 U	0.0436 U
PCB-1260 (Aroclor 1260)	~	~	~	0.0392 U	0.0442 U	0.0329 U	0.036 U	0.0358 U	0.146 U	0.0489 U	0.0363 U	0.036 U	0.0371 U	0.0387 U	0.035 U	0.0332 U	0.0341 U	0.0349 U	0.0353 U	0.0436 U
PCB-1268 (Aroclor 1268)	~	~	~	0.0392 U	0.0442 U	0.0329 U	0.036 U	0.0358 U	0.146 U	0.0489 U	0.0363 U	0.036 U	0.0371 U	0.0387 U	0.035 U	0.0332 U	0.0341 U	0.0349 U	0.0353 U	0.0436 U
Total PCBs	0.1	1	~	0.0392 U	0.0442 U	0.0329 U	0.036 U	0.0358 U	*0.146* U	0.0146 J	0.0363 U	0.036 U	0.0371 U	0.0387 U	0.035 U	0.0332 U	0.0341 U	0.0349 U	0.0353 U	0.0436 U
Inorganics (mg/kg)																					
Aluminum	~	~	~	6,780	9,970	10,100	10,800	9,090	14,700	13,800	5,310	3,250	1,840	9,280	5,110	6,910	12,200	4,240	13,100	8,220
Antimony	~	~	~	4.45 U	5.46 U	4.12 U	4.32 U	4.23 UJ	6.9 UJ	5.82 UJ	4.34 U	1.14 J	0.79 J	4.73 U	6.53 J	4.14 UJ	4.11 UJ	4.38 UJ	4.43 UJ	5.08 U
Arsenic	13	16	~	8.8 J	0.229 J	0.825 UJ	0.863 UJ	12.3 J	**17** J	**17.8** J	3.71 J	9.24 J	4.96 J	0.993 J	10.4 J	9.28 J	1.37 J	3.67 J	2.43 J	3.66 J
Barium	350	400	~	81.1 J	94.9 J	127 J	110 J	**1,210**	70.4	80.2	110 J	24.5 J	24.9 J	51.4 J	260	153	142	121	187	128 J
Beryllium	7.2	72	~	0.445 U	0.546 U	0.412 U	0.432 U	0.068 J	0.373 J	0.256 J	0.434 U	0.044 J	0.439 U	0.473 U	0.153 J	0.414 U	0.411 U	0.053 J	0.443 U	0.163 J
Cadmium	2.5	4.3	~	0.622 J	0.753 J	0.676 J	0.69 J	0.778 J	1.04 J	1.09 J	0.321 J	**3.08**	1.65	0.615 J	0.968	0.712 J	0.485 J	0.456 J	0.62 J	0.579 J
Calcium	~	~	~	18,200	41,300	2,530	1,540	8,680	3,300	2,500	31,300	968	2,010	2,070	34,000	57,200	9,590	35,700	22,800	2,020
Chromium, Hexavalent	1	110	~	0.946 U	*1.12* U	0.833 U	0.871 U	0.293 J	*1.39* U	*1.21* U	0.888 U	0.886 U	0.895 U	0.954 U	0.867 U	0.845 U	0.832 U	0.889 U	0.892 U	*1.06* U
Chromium, Total	~	~	~	13.6 J	25.8 J	18.1 J	18.9 J	16.8 J	40 J	36.8 J	8.02 J	5.63 J	4.76 J	20.7 J	10.9 J	14 J	27.9 J	9.84 J	24.8 J	15.6 J
Chromium, Trivalent	30	180	~	14	26	18	19	16 J	**40**	**37**	8	5.6	4.8	21	11	14	28	9.8	25	16
Cobalt	~	~	~	6.8	14.6	17.5	15	9.79	11.2	10.9	5.69	47.4	4.95	9.23	4.56	7.18	19.7	4.45	17.8	6.5
Copper	50	270	~	31.1	**55.9**	**67.2**	**69**	**52.1**	**78.2**	**96.5**	27.5	**969**	**694**	20.2	47	**191**	**54**	32.5	**81.5**	17.6
Cyanide	27	27	~	1.2 UJ	1.4 UJ	1 UJ	1 UJ	0.24 J	1.6 U	1.4 UJ	1.1 UJ	1.1 UJ	0.27 J	1.2 UJ	0.97 J	1 UJ	1 UJ	1 UJ	1 UJ	0.31 J
Iron	~	~	~	11,200	21,500	20,100	22,200	24,800	30,800	29,000	7,490	19,300	22,300	18,300	15,000	21,500	26,400	10,800	29,900	13,800
Lead	63	400	~	**152**	**85.8**	6.51	4.99	**366**	**203**	**252**	**75.7**	**287**	**1,070**	19.6	**2,940**	**304**	19.6	**425**	**77.4**	**492**
Magnesium	~	~	~	2,950	18,600	6,610	6,050	4,980	6,350	6,020	4,110	735	791	5,990	4,210	5,000	10,600	6,820	11,600	2,840
Manganese	1,600	2,000	2,000	228	479	236	193	400	449	292	130	232	216	382	241	236	312	212	376	288
Mercury	0.18	0.81	~	**0.317**	**0.623**	0.14	0.057 J	**2.32** J	**4.38** J	**3.75** J	0.071 U	0.061 J	0.116	0.023 J	**0.881** J	**0.52** J	0.066 UJ	**0.318** J	**0.2** J	**5.03**
Nickel	30	310	~	12.2	19.2	23.5	19.3	14.5	22.9	21.4	10	**8,770**	12.3	21.4	10.7	13.8	24.3	8.81	24.7	10.7
Potassium	~	~	~	1,780	3,840	6,530	7,010	1,750 J	2,970 J	2,920 J	1,680	367	369	1,780	808 J	1,680 J	6,430 J	866 J	7,630 J	699
Selenium	3.9	180	~	0.889 UJ	0.316 J	1.65 UJ	0.242 J	1.46 J	1.62 J	1.36 J	1.25 J	0.315 J	1.75 UJ	1.89 UJ	1.38 J	0.72 J	0.567 J	0.727 J	0.434 J	0.701 J
Silver	2	180	~	0.889 UJ	1.09 UJ	0.825 UJ	0.863 UJ	0.846 UJ	0.497 J	0.663 J	0.868 UJ	1.22	0.386 J	0.946 UJ	0.45 J	0.256 J	0.822 UJ	0.876 UJ	0.885 UJ	1.02 UJ
Sodium	~	~	~	359	204 J	132 J	131 J	215	558	601	909	139 J	152 J	161 J	616	270	159 J	185	315	88 J
Vanadium	~	~	~	20.5	32.8	28	31	24.2	37.8	33.8	17.8	14.8	14.4	27.6	14.9	21.5	41.1	13.3	38.9	16.2
Zinc	109	10,000	~	**127**	101	68.2	65.9	**1,200**	**177**	**226**	59.3	**801**	**474**	48.2	**874**	**212**	78.5	**171**	**132**	77.1
General Chemistry (%)																					
Total Solids	~	~	~	84.6	71.6	96	91.8	88.7	57.4	66.2	90.1	90.3	89.4	83.9	92.3	94.7	96.2	90	89.7	75.8

Notes provided on Page 13.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.
Concentrations above Protection of Groundwater SCOs are red.

Table 6
Remedial Investigation Report
Soil Sample Analytical Results Summary
Gerard Avenue and East 146th Street
Bronx, New York
BCP No.: C203111
Langan Project No.: 170487001

Site Address Location Sample ID Laboratory ID Sample Date Depth Range (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use - Restricted Residential SCOs	NYSDEC Part 375 Protection of Groundwater SCOs	404EXTERIOR RB23 RB23_0-2 L1930096-07 7/10/2019 0-2		404EXTERIOR RB23 RB23_10-12 L1930096-08 7/10/2019 10-12		404EXTERIOR RB23 RB23_13-15 L1930096-09 7/10/2019 13-15		404EXTERIOR RB24 RB24_0-2 L1930096-01 7/10/2019 0-2		404EXTERIOR RB24 RB24_8-10 L1930096-02 7/10/2019 8-10		404EXTERIOR RB24 RB24_13-15 L1930096-03 7/10/2019 13-15		404EXTERIOR RB25 RB25_0-2 L1930404-01 7/11/2019 0-2		404EXTERIOR RB25 RB25_9-11 L1930404-02 7/11/2019 9-11		404EXTERIOR RB25 RB25_11-13 L1930404-03 7/11/2019 11-13		404EXTERIOR RB26 RB26_0-2 L1930096-04 7/10/2019 0-2		404EXTERIOR RB26 RB26_10-12 L1930096-05 7/10/2019 10-12		404EXTERIOR RB26 RB26_14-16 L1930096-06 7/10/2019 14-16		404EXTERIOR RB27 RB27_0-2 L1930404-04 7/11/2019 0-2		404EXTERIOR RB27 RB27_9-11 L1930404-05 7/11/2019 9-11		404EXTERIOR RB27 RB27_11-13 L1930404-06 7/11/2019 11-13		404EXTERIOR RB28 RB28_0-2 L1930404-07 7/11/2019 0-2		404EXTERIOR RB28 RB28_6-8 L1930404-08 7/11/2019 6-8		404EXTERIOR RB28 SODUP06_071119 L1930404-10 7/11/2019 6-8		404EXTERIOR RB28 RB28_14-16 L1930404-09 7/11/2019 14-16	
Volatile Organic Compounds (mg/kg)																																									
1,2,3-Trichloropropane	~	~	~	0.0033	U	0.0023	U	0.0021	U	0.0035	U	0.0018	U	0.003	U	0.0034	U	0.0021	U	0.0022	U	0.0024	U	0.0018	U	0.0033	U	0.0021	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0021	U	0.0029	U
1,2,4,5-Tetramethylbenzene	~	~	~	0.0033	U	0.0023	U	0.0021	U	0.0035	U	0.0018	U	0.003	U	0.0034	U	0.0021	U	0.0022	U	0.0024	U	0.0018	U	0.0033	U	0.0021	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0021	U	0.0029	U
1,2,4-Trimethylbenzene	3.6	52	3.6	0.0033	U	0.0023	U	0.0021	U	0.0035	U	0.0018	U	0.003	U	0.0034	U	0.0021	U	0.0022	U	0.0024	U	0.0018	U	0.0033	U	0.0021	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0021	U	0.0029	U
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	~	0.0033	U	0.0023	U	0.0021	U	0.0035	U	0.0018	U	0.003	U	0.0034	U	0.0021	U	0.0022	U	0.0024	U	0.0018	U	0.0033	U	0.0021	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0021	U	0.0029	U
1,4-Diethyl Benzene	~	~	~	0.0033	U	0.0023	U	0.0021	U	0.0035	U	0.0018	U	0.003	U	0.0034	U	0.0021	U	0.0022	U	0.0024	U	0.0018	U	0.0033	U	0.0021	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0021	U	0.0029	U
4-Ethyltoluene	~	~	~	0.0033	U	0.0023	U	0.0021	U	0.0035	U	0.0018	U	0.003	U	0.0034	U	0.0021	U	0.0022	U	0.0024	U	0.0018	U	0.0033	U	0.0021	U	0.0018	U	0.0018	U	0.00063	J	0.0019	U	0.0021	U	0.002	J
Acetone	0.05	100	~	0.028		0.015		0.014		0.018	U	0.018		0.027		0.018		0.037		0.032		0.014		0.0049	J	**0.15**		0.0092	J	0.0067	J	0.01		0.011		0.013		0.0074	J	0.032	
Benzene	0.06	4.8	0.06	0.00083	U	0.00057	U	0.00018	J	0.00088	U	0.00019	J	0.00074	U	0.0005	J	0.00028	J	0.00028	J	0.0006	U	0.00014	J	0.00083	U	0.00052	U	0.00016	J	0.00026	J	0.00047	U	0.00017	J	0.00054	U	0.00032	J
Carbon Disulfide	~	~	~	0.016	U	0.011	U	0.01	U	0.018	U	0.0092	U	0.015	U	0.017	U	0.01	U	0.011	U	0.012	U	0.0088	U	0.011	J	0.01	U	0.0092	U	0.0091	U	0.0095	U	0.0094	U	0.011	U	0.015	U
Carbon Tetrachloride	0.76	2.4	~	0.0016	U	0.0011	U	0.001	U	0.0018	U	0.00092	U	0.0015	U	0.00081	J	0.001	U	0.0011	U	0.0012	U	0.00088	U	0.0017	U	0.001	U	0.00092	U	0.00091	U	0.00095	U	0.00094	U	0.0011	U	0.0015	U
Chloroform	0.37	49	~	0.0025	U	0.0017	U	0.0015	U	0.0026	U	0.0014	U	0.0022	U	0.0026	U	0.0016	U	0.0017	U	0.0018	U	0.0013	U	0.0025	U	0.0016	U	0.0014	U	0.0014	U	0.0014	U	0.0014	U	0.0016	U	0.0022	U
Cymene	~	~	~	0.0016	U	0.0011	U	0.001	U	0.0018	U	0.00092	U	0.0015	U	0.0017	U	0.001	U	0.0011	U	0.0012	U	0.00088	U	0.0017	U	0.001	U	0.00092	U	0.00091	U	0.00095	U	0.00094	U	0.0011	U	0.00039	J
Ethylbenzene	1	41	1	0.0016	U	0.0011	U	0.00016	J	0.0018	U	0.00092	U	0.0015	U	0.0017	U	0.001	U	0.0011	U	0.0012	U	0.00088	U	0.0017	U	0.001	U	0.00092	U	0.00091	U	0.00095	U	0.00094	U	0.0011	U	0.00039	J
Hexachlorobutadiene	~	~	~	0.0066	U	0.0045	U	0.0041	U	0.007	U	0.0037	U	0.006	U	0.0068	U	0.0041	U	0.0045	U	0.0048	U	0.0035	U	0.0067	U	0.0042	U	0.0037	U	0.0036	U	0.0038	U	0.0038	U	0.0043	U	0.0059	U
Isopropylbenzene (Cumene)	~	~	~	0.0016	U	0.0011	U	0.001	U	0.0018	U	0.00092	U	0.0015	U	0.0017	U	0.001	U	0.0011	U	0.0012	U	0.00088	U	0.0017	U	0.001	U	0.00092	U	0.00091	U	0.00095	U	0.00094	U	0.0011	U	0.0015	U
M,P-Xylene	~	~	~	0.0033	U	0.0023	U	0.0021	U	0.0035	U	0.0018	U	0.003	U	0.0034	U	0.0021	U	0.0022	U	0.0024	U	0.0018	U	0.0033	U	0.0021	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0021	U	0.0029	U
Methyl Ethyl Ketone (2-Butanone)	0.12	100	~	0.016	U	0.011	U	0.01	U	0.018	U	0.0092	U	0.015	U	0.017	U	0.01	U	0.011	U	0.012	U	0.0088	U	0.0084	J	0.01	U	0.0092	U	0.0091	U	0.0095	U	0.0094	U	0.011	U	0.015	U
n-Butylbenzene	12	100	12	0.0016	U	0.0011	U	0.001	U	0.0018	U	0.00092	U	0.0015	U	0.0017	U	0.001	U	0.0011	U	0.0012	U	0.00088	U	0.0017	U	0.001	U	0.00092	U	0.00091	U	0.00095	U	0.00094	U	0.0011	U	0.0015	U
n-Propylbenzene	3.9	100	3.9	0.0016	U	0.0011	U	0.001	U	0.0018	U	0.00092	U	0.0015	U	0.0017	U	0.001	U	0.0011	U	0.0012	U	0.00088	U	0.0017	U	0.001	U	0.00092	U	0.00091	U	0.00095	U	0.00094	U	0.0011	U	0.0015	U
o-Xylene (1,2-Dimethylbenzene)	~	~	~	0.0016	U	0.0011	U	0.001	U	0.0018	U	0.00092	U	0.0015	U	0.0017	U	0.001	U	0.0011	U	0.0012	U	0.00088	U	0.0017	U	0.001	U	0.00092	U	0.00091	U	0.00095	U	0.00094	U	0.0011	U	0.0015	U
Sec-Butylbenzene	11	100	11	0.0016	U	0.0011	U	0.001	U	0.0018	U	0.00092	U	0.0015	U	0.0017	U	0.001	U	0.0011	U	0.0012	U	0.00088	U	0.0017	U	0.001	U	0.00092	U	0.00091	U	0.00095	U	0.00094	U	0.0011	U	0.0015	U
Styrene	~	~	~	0.0016	U	0.0011	U	0.001	U	0.0018	U	0.00092	U	0.0015	U	0.0017	U	0.001	U	0.0011	U	0.0012	U	0.00088	U	0.0017	U	0.001	U	0.00092	U	0.00091	U	0.00095	U	0.00094	U	0.0011	U	0.0015	U
T-Butylbenzene	5.9	100	~	0.0033	U	0.0023	U	0.0021	U	0.0035	U	0.0018	U	0.003	U	0.0034	U	0.0021	U	0.0022	U	0.0024	U	0.0018	U	0.0033	U	0.0021	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0021	U	0.0029	U
Tert-Butyl Methyl Ether	0.93	100	~	0.0033	U	0.00034	J	0.0021	U	0.0035	U	0.0018	U	0.003	U	0.0034	U	0.0021	U	0.0022	U	0.0024	U	0.0018	U	0.0033	U	0.0021	U	0.0018	U	0.0018	U	0.0019	U	0.0019	U	0.0021	U	0.0029	U
Tetrachloroethene (PCE)	1.3	19	~	0.024		0.00057	U	0.021		0.00088	U	0.00046	U	0.00074	U	0.0061		0.00034	J	0.00056	U	0.0006	U	0.00044	U	0.00083	U	0.00061		0.00046	U	0.00041	J	0.00024	J	0.00047	U	0.00054	U	0.00092	
Toluene	0.7	100	0.7	0.0016	U	0.00066	J	0.001	U	0.0018	U	0.00087	J	0.0015	U	0.0016	J	0.0014		0.0012		0.0012	U	0.00062	J	0.0017	U	0.001	U	0.00074	J	0.00092		0.00061	J	0.00091	J	0.00092	J	0.0013	J
Total Xylenes	0.26	100	1.6	0.0016	U	0.0011	U	0.001	U	0.0018	U	0.00092	U	0.0015	U	0.0017	U	0.001	U	0.0011	U	0.0012	U	0.00088	U	0.0017	U	0.001	U	0.00092	U	0.00091	U	0.00095	U	0.00094	U	0.0011	U	0.0015	U
Semivolatile Organic Compounds (mg/kg)																																								
2-Methylnaphthalene	~	~	~	0.21	U	0.23	U	0.24	U	0.22	U	0.21	U	0.3	U	0.029	J	0.23	U	0.25	U	0.027	J	0.21	U	0.33	U	0.045	J	0.22	U	0.25	U	0.21	U	0.22	U	0.22	U	0.22	U
2-Methylphenol (o-Cresol)	0.33	100	~	0.18	U	0.19	U	0.2	U	0.18	U	0.18	U	0.25	U	0.19	U	0.2	U	0.21	U	0.18	U	0.18	U	0.27	U	0.18	U	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
3 & 4 Methylphenol (m&p Cresol)	0.33	100	~	0.25	U	0.28	U	0.29	U	0.26	U	0.25	U	*0.36*	U	0.28	U	0.28	U	0.3	U	0.26	U	0.26	U	*0.39*	U	0.27	U	0.26	U	0.3	U	0.26	U	0.26	U	0.26	U	0.26	U
Acenaphthene	20	100	98	0.14	U	0.15	U	0.16	U	0.15	U	0.14	U	0.2	U	0.12	J	0.16	U	0.16	U	0.046	J	0.14	U	0.22	U	0.12	J	0.15	U	0.16	U	0.14	U	0.14	U	0.14	U	0.15	U
Acenaphthylene	100	100	~	0.14	U	0.15	U	0.16	U	0.15	U	0.14	U	0.2	U	0.095	J	0.16	U	0.16	U	0.039	J	0.14	U	0.22	U	0.25		0.15	U	0.16	U	0.14	U	0.14	U	0.14	U	0.15	U
Acetophenone	~	~	~	0.18	U	0.19	U	0.2	U	0.18	U	0.18	U	0.25	U	0.19	U	0.2	U	0.21	U	0.18	U	0.18	U	0.27	U	0.18	U	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
Anthracene	100	100	~	0.11	U	0.12	U	0.12	U	0.11	U	0.1	U	0.15	U	0.39		0.12	U	0.12	U	0.11		0.11	U	0.16	U	0.34		0.11	U	0.12	U	0.11	U	0.11	U	0.11	U	0.11	U
Benzo(a)Anthracene	1	1	1	0.047	J	0.12	U	0.12	U	0.062	J	0.11		0.15	U	1		0.07	J	0.12	U	0.44		0.04	J	0.16	U	0.97		0.11	U	0.12	U	0.091	J	0.11	U	0.027	J	0.11	U
Benzo(a)Pyrene	1	1	22	0.14	U	0.15	U	0.16	U	0.048	J	0.058	J	0.2	U	0.97		0.064	J	0.16	U	0.41		0.05	J	0.22	U	1		0.15	U	0.16	U	0.085	J	0.14	U	0.14	U	0.15	U
Benzo(b)Fluoranthene	1	1	1.7	0.053	J	0.12	U	0.12	U	0.08	J	0.1		0.15	U	**1.2**		0.082	J	0.12	U	0.53		0.049	J	0.16	U	**1.3**		0.11	U	0.12	U	0.11		0.034	J	0.11	U	0.11	U
Benzo(g,h,i)Perylene	100	100	~	0.033	J	0.15	U	0.16	U	0.05	J	0.041	J	0.2	U	0.72		0.047	J	0.16	U	0.27		0.046	J	0.22	U	0.86		0.15	U	0.16	U	0.062	J	0.074	J	0.14	U	0.15	U
Benzo(k)Fluoranthene	0.8	3.9	1.7	0.11	U	0.12	U	0.12	U	0.11	U	0.04	J	0.15	U	0.38		0.12	U	0.12	U	0.16		0.11	U	0.16	U	0.39		0.11	U	0.12	U	0.037	J	0.11	U	0.11	U	0.11	U
Benzyl Butyl Phthalate	~	~	~	0.18	U	0.19	U	0.2	U	0.18	U	0.2		0.25	U	0.19	U	0.2	U	0.21	U	0.18	U	0.18	U	0.27	U	0.18	U	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
Biphenyl (Diphenyl)	~	~	~	0.4	U	0.44	U	0.46	U	0.42	U	0.4	U	0.57	U	0.44	U	0.44	U	0.47	U	0.41	U	0.41	U	0.62	U	0.42	U	0.42	U	0.47	U	0.4	U	0.41	U	0.42	U	0.42	U
Bis(2-Ethylhexyl) Phthalate	~	~	~	0.18	U	0.19	U	0.2	U	0.18	U	0.24		0.25	U	0.08	J	0.094	J	0.21	U	0.18	U	0.18	U	0.27	U	0.18	U	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
Carbazole	~	~	~	0.18	U	0.19	U	0.2	U	0.18	U	0.043	J	0.25	U	0.12	J	0.2	U	0.21	U	0.067	J	0.18	U	0.27	U	0.13	J	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
Chrysene	1	3.9	1	0.051	J	0.12	U	0.12	U	0.068	J	0.11		0.15	U	0.96		0.07	J	0.12	U	0.43		0.035	J	0.16	U	0.9		0.11	U	0.12	U	0.086	J	0.11	U	0.023	J	0.11	U
Dibenz(a,h)Anthracene	0.33	0.33	~	0.11	U	0.12	U	0.12	U	0.11	U	0.1	U	0.15	U	0.14		0.12	U	0.12	U	0.061	J	0.11	U	0.16	U	0.17		0.11	U	0.12	U	0.11	U	0.11	U	0.11	U	0.11	U
Dibenzofuran	7	59	~	0.18	U	0.19	U	0.2	U	0.18	U	0.18	U	0.25	U	0.088	J	0.2	U	0.21	U	0.045	J	0.18	U	0.27	U	0.072	J	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
Di-N-Butyl Phthalate	~	~	~	0.18	U	0.19	U	0.2	U	0.18	U	0.035	J	0.25	U	0.19	U	0.2	U	0.21	U	0.18	U	0.18	U	0.27	U	0.18	U	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
Di-N-Octylphthalate	~	~	~	0.18	U	0.19	U	0.2	U	0.18	U	0.18	U	0.25	U	0.19	U	0.2	U	0.21	U	0.18	U	0.18	U	0.27	U	0.18	U	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
Fluoranthene	100	100	~	0.067	J	0.12	U	0.12	U	0.12		0.24		0.15	U	2.2		0.14		0.12	U	0.93		0.044	J	0.16	U	1.9		0.11	U	0.024	J	0.16		0.11	U	0.041	J	0.11	U
Fluorene	30	100	~	0.18	U	0.19	U	0.2	U	0.18	U	0.18	U	0.25	U	0.074	J	0.2	U	0.21	U	0.045	J	0.18	U	0.27	U	0.077	J	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	8.2	0.03	J	0.15	U	0.16	U	0.045	J	0.045	J	0.2	U	**0.68**		0.084	J	0.16	U	0.27		0.036	J	0.22	U	**0.78**		0.15	U	0.16	U	0.094	J	0.094	J	0.14	U	0.15	U
Naphthalene	12	100	12	0.18	U	0.19	U	0.2	U	0.025	J	0.18	U	0.25	U	0.054	J	0.2	U	0.21	U	0.047	J	0.18	U	0.27	U	0.093	J	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
Pentachlorophenol	0.8	6.7	0.8	0.14	U	0.15	U	0.16	U	0.15	U	0.14	U	0.2	U	0.15	U	0.16	U	0.16	U	0.14	U	0.14	U	0.22	U	0.15	U	0.15	U	0.16	U	0.14	U	0.14	U	0.14	U	0.15	U
Phenanthrene	100	100	~	0.046	J	0.12	U	0.12	U	0.062	J	0.13		0.15	U	1.6		0.097	J	0.12	U	0.61		0.11	U	0.16	U	1.3		0.11	U	0.03	J	0.074	J	0.11	U	0.026	J	0.11	U
Phenol	0.33	100	0.33	0.18	U	0.19	U	0.2	U	0.18	U	0.18	U	0.25	U	0.19	U	0.2	U	0.21	U	0.18	U	0.18	U	0.27	U	0.18	U	0.18	U	0.21	U	0.18	U	0.18	U	0.18	U	0.18	U
Pyrene	100	100	~	0.068	J	0.12	U	0.12	U	0.1	J	0.18		0.15	U	2		0.13		0.12	U	0.84		0.053	J	0.16	U	1.7		0.11	U	0.12	U	0.16		0.02	J	0.039	J	0.11	U

Notes provided on Page 13.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.
Concentrations above Protection of Groundwater SCOs are red.

Table 6
Remedial Investigation Report
Soil Sample Analytical Results Summary
Gerard Avenue and East 146th Street
Bronx, New York
BCP No.: C203111
Langan Project No.: 170487001

Site Address Location Sample ID Laboratory ID Sample Date Depth Range (feet bgs)	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use - Restricted Residential SCOs	NYSDEC Part 375 Protection of Groundwater SCOs	404EXTERIOR RB23 RB23_0-2 L1930096-07 7/10/2019 0-2	404EXTERIOR RB23 RB23_10-12 L1930096-08 7/10/2019 10-12	404EXTERIOR RB23 RB23_13-15 L1930096-09 7/10/2019 13-15	404EXTERIOR RB24 RB24_0-2 L1930096-01 7/10/2019 0-2	404EXTERIOR RB24 RB24_8-10 L1930096-02 7/10/2019 8-10	404EXTERIOR RB24 RB24_13-15 L1930096-03 7/10/2019 13-15	404EXTERIOR RB25 RB25_0-2 L1930404-01 7/11/2019 0-2	404EXTERIOR RB25 RB25_9-11 L1930404-02 7/11/2019 9-11	404EXTERIOR RB25 RB25_11-13 L1930404-03 7/11/2019 11-13	404EXTERIOR RB26 RB26_0-2 L1930096-04 7/10/2019 0-2	404EXTERIOR RB26 RB26_10-12 L1930096-05 7/10/2019 10-12	404EXTERIOR RB26 RB26_14-16 L1930096-06 7/10/2019 14-16	404EXTERIOR RB27 RB27_0-2 L1930404-04 7/11/2019 0-2	404EXTERIOR RB27 RB27_9-11 L1930404-05 7/11/2019 9-11	404EXTERIOR RB27 RB27_11-13 L1930404-06 7/11/2019 11-13	404EXTERIOR RB28 RB28_0-2 L1930404-07 7/11/2019 0-2	404EXTERIOR RB28 RB28_6-8 L1930404-08 7/11/2019 6-8	404EXTERIOR RB28 SODUP06_071119 L1930404-10 7/11/2019 6-8	404EXTERIOR RB28 RB28_14-16 L1930404-09 7/11/2019 14-16
Pesticides (mg/kg)																									
4,4'-DDD	0.0033	13	~	0.0017 U	0.00179 U	0.00192 U	0.00178 U	0.00168 U	0.00236 U	0.00187 U	0.00183 U	0.00191 U	0.00174 U	0.00169 U	0.00261 U	0.00178 U	0.00172 U	0.002 U	0.00171 U	0.0017 U	0.00174 U	0.00172 U
4,4'-DDE	0.0033	8.9	~	0.0017 U	0.00179 U	0.00192 U	0.00178 U	0.00168 U	0.00236 U	0.00187 U	0.00183 U	0.00191 U	0.00174 U	0.00169 U	0.00261 U	0.00178 U	0.00172 U	0.002 U	0.00171 U	0.0017 U	0.00174 U	0.00172 U
4,4'-DDT	0.0033	7.9	~	0.00318 U	*0.00336* U	*0.0036* U	*0.00333* U	0.00314 U	*0.00443* U	*0.00351* U	*0.00344* U	*0.00359* U	0.00326 U	0.00318 U	*0.0049* U	*0.00334* U	0.00323 U	*0.00375* U	0.00321 U	0.00319 U	0.00325 U	0.00322 U
Alpha Chlordane	0.094	4.2	~	0.00212 U	0.00224 U	0.0024 U	0.00222 U	0.0021 U	0.00295 U	0.00234 U	0.00229 U	0.00239 U	0.00218 U	0.00212 U	0.00327 U	0.00223 U	0.00215 U	0.0025 U	0.00214 U	0.00212 U	0.00217 U	0.00214 U
Beta Endosulfan	2.4	24	~	0.0017 U	0.00179 U	0.00192 U	0.00178 U	0.00168 U	0.00236 U	0.00187 U	0.00183 U	0.00191 U	0.00174 U	0.00169 U	0.00261 U	0.00178 U	0.00172 U	0.002 U	0.00171 U	0.0017 U	0.00174 U	0.00172 U
Dieldrin	0.005	0.2	~	0.00106 U	0.00112 U	0.0012 U	0.00111 U	0.00105 U	0.00148 U	0.00117 U	0.00114 U	0.0012 U	0.00109 U	0.00106 U	0.00163 U	0.00111 U	0.00108 U	0.00125 U	0.00107 U	0.00106 U	0.00108 U	0.00107 U
Endosulfan Sulfate	2.4	24	~	0.000706 U	0.000747 U	0.000801 U	0.000741 U	0.000699 U	0.000985 U	0.00078 U	0.000764 U	0.000798 U	0.000726 U	0.000706 U	0.00109 U	0.000743 U	0.000717 U	0.000833 U	0.000713 U	0.000708 U	0.000723 U	0.000715 U
Endrin	0.014	11	~	0.000706 U	0.000747 U	0.000801 U	0.000741 U	0.000699 U	0.000985 U	0.00078 U	0.000764 U	0.000798 U	0.000726 U	0.000706 U	0.00109 U	0.000743 U	0.000717 U	0.000833 U	0.000713 U	0.000708 U	0.000723 U	0.000715 U
Endrin Aldehyde	~	~	~	0.00212 U	0.00224 U	0.0024 U	0.00222 U	0.0021 U	0.00295 U	0.00234 U	0.00229 U	0.00239 U	0.00218 U	0.00212 U	0.00327 U	0.00223 U	0.00215 U	0.0025 U	0.00214 U	0.00212 U	0.00217 U	0.00214 U
Gamma Chlordane	~	~	~	0.00212 U	0.00224 U	0.0024 U	0.00222 U	0.0021 U	0.00295 U	0.00234 U	0.00229 U	0.00239 U	0.00218 U	0.00212 U	0.00327 U	0.00223 U	0.00215 U	0.0025 U	0.00214 U	0.00212 U	0.00217 U	0.00214 U
Heptachlor	0.042	2.1	~	0.000848 U	0.000896 U	0.000961 U	0.000889 U	0.000838 U	0.00118 U	0.000936 U	0.000916 U	0.000957 U	0.000871 U	0.000847 U	0.00131 U	0.000892 U	0.000861 U	0.000999 U	0.000856 U	0.00085 U	0.000868 U	0.000858 U
Heptachlor Epoxide	~	~	~	0.00318 U	0.00336 U	0.0036 U	0.00333 U	0.00314 U	0.00443 U	0.00351 U	0.00344 U	0.00359 U	0.00326 U	0.00318 U	0.0049 U	0.00334 U	0.00323 U	0.00375 U	0.00321 U	0.00319 U	0.00325 U	0.00322 U
Herbicides (mg/kg)	~	~	~	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Polychlorinated Biphenyls (mg/kg)																									
PCB-1254 (Aroclor 1254)	~	~	~	0.0351 U	0.0372 U	0.0402 U	0.0368 U	0.00402 J	0.0478 U	0.0373 U	0.0385 U	0.0399 U	0.0363 U	0.0347 U	0.0162 J	0.0364 U	0.0362 U	0.0421 U	0.036 U	0.0348 U	0.0347 U	0.0358 U
PCB-1260 (Aroclor 1260)	~	~	~	0.0351 U	0.0372 U	0.0402 U	0.0368 U	0.0352 U	0.0478 U	0.0373 U	0.0385 U	0.0399 U	0.0363 U	0.0347 U	0.0545 U	0.0364 U	0.0362 U	0.0421 U	0.036 U	0.0348 U	0.0347 U	0.0358 U
PCB-1268 (Aroclor 1268)	~	~	~	0.0351 U	0.0372 U	0.0402 U	0.0368 U	0.0352 U	0.0478 U	0.0373 U	0.0385 U	0.0399 U	0.0363 U	0.0347 U	0.0545 U	0.0364 U	0.0362 U	0.0421 U	0.036 U	0.0348 U	0.0347 U	0.0358 U
Total PCBs	0.1	1	~	0.0351 U	0.0372 U	0.0402 U	0.0368 U	0.00402 J	0.0478 U	0.0373 U	0.0385 U	0.0399 U	0.0363 U	0.0347 U	0.0162 J	0.0364 U	0.0362 U	0.0421 U	0.036 U	0.0348 U	0.0347 U	0.0358 U
Inorganics (mg/kg)																									
Aluminum	~	~	~	5,400	6,290	11,200	2,860	12,400	17,800	6,940	7,600	8,280	3,840	11,200	13,000	2,920	6,540	6,130	6,770	5,860	9,930	9,750
Antimony	~	~	~	1.97 J	0.554 J	0.508 J	0.935 J	4.18 U	5.74 U	0.576 J	4.44 U	4.73 U	4.25 U	4.15 U	1.26 J	1.46 J	4.47 U	5.04 U	1.83 J	4.1 U	4.11 U	4.22 U
Arsenic	13	16	~	7.79	2.3	5.21	5.82	0.836 U	1.22	9.47	2.09	2.43	9.02	1.23	8.48	8.58	1.85	1.76	**14.3**	1.94	1.89	0.844 U
Barium	350	400	~	231	26.9	112	125	187	225	216	35.3	32.7	67.8	170	29.9	76.5	31.3	25.7	177	44.9	97.4	140
Beryllium	7.2	72	~	0.259 J	0.259 J	0.277 J	0.187 J	0.259 J	0.448 J	0.45 U	0.133 J	0.142 J	0.297 J	0.307 J	0.684	0.035 J	0.179 J	0.141 J	0.409 U	0.213 J	0.411 U	0.422 U
Cadmium	2.5	4.3	~	0.81 U	0.893 U	0.924 U	0.85 U	0.836 U	1.15 U	1.11	0.498 J	0.549 J	0.85 U	0.831 U	1.31 U	1.62	0.402 J	0.363 J	2.11	0.36 J	0.666 J	0.616 J
Calcium	~	~	~	34,800	656	61,400	8,260	1,820	6,830	9,220	988	1,060	12,500	10,400	2,440	17,000	727	648	3,790	812	13,400	1,740
Chromium, Hexavalent	1	110	~	0.863 U	0.937 U	0.986 U	0.892 U	0.245 J	*1.22* U	0.944 U	0.946 U	0.288 J	0.877 U	0.182 J	*1.34* U	0.901 U	0.901 U	0.216 J	0.485 J	0.184 J	0.876 U	0.891 U
Chromium, Total	~	~	~	11.3	8.65	20.9	10.4	22.8	35.6	14.1	11.6	12.2	8.13	22.9	27.3	7.8	8.59	8.1	22.4	8.18	18.9	14.3
Chromium, Trivalent	30	180	~	11	8.6	21	10	22 J	**36**	14	12	12 J	8.1	23 J	27	7.8	8.6	7.9 J	22 J	8 J	19	14
Cobalt	~	~	~	6.74	4.81	12.7	4.92	19.7	23.8	8.1	6.12	6.52	5.92	17.5	10.2	4.27	4.91	4.22	13.6	4.18	11.6	15.8
Copper	50	270	~	**952**	7.24	41.6	35.1	40	**95.3**	**57.5**	9.67	16.5	21.4	**71.4**	13.2	**134**	6.3	6.4	**139**	7.18	24.4	12.5
Cyanide	27	27	~	1 U	1.1 U	1.2 U	1.1 U	0.98 U	1.5 U	0.8 J	1.2 U	1.2 U	1.1 U	1 U	1.6 U	1.1 U	1.1 U	1.2 U	0.73 J	1 U	1 U	1 U
Iron	~	~	~	15,900	10,900	28,200	11,000	23,600	32,000	19,800	15,000	16,400	7,990	21,700	26,700	14,500	12,400	11,900	55,100	10,800	19,600	19,800
Lead	63	400	~	**2,080**	10.2	62.4	**174**	8.82	**108**	**1,650**	18.1	32.1	43.8	22.8	10.7	**516**	10.9	15	**496**	46.3	**80.5**	16.6
Magnesium	~	~	~	5,270	2,190	9,750	1,070	6,360	9,620	4,340	2,700	2,730	1,590	6,280	6,540	1,520	2,290	2,210	2,970	1,960	6,530	5,460
Manganese	1,600	2,000	2,000	253	253	332	112	235	389	263	299	261	80.5	275	341	131	334	184	525	343	344	168
Mercury	0.18	0.81	~	0.088	0.074 U	0.057 J	**0.367**	0.164	**0.213**	**0.431**	0.103	0.08 U	0.162	**0.216**	0.105 U	**0.313**	0.071 U	0.08 U	**1.23**	0.122	0.117	0.07 U
Nickel	30	310	~	20.4	9.62	19.6	12.7	26	**33.8**	15.3	11.3	11.6	10.9	21.8	21	11	9.94	8.99	25.6	8.56	17.8	22.3
Potassium	~	~	~	2,030	382	5,570	885	8,270	9,430	1,940	578	630	1,460	6,720	2,860	575	398	434	2,150	385	3,890	7,430
Selenium	3.9	180	~	1.62 U	1.79 U	1.85 U	0.332 J	1.67 U	2.3 U	0.45 J	1.78 U	0.246 J	0.586 J	1.66 U	2.63 U	0.502 J	1.79 U	2.02 U	0.286 J	1.64 U	1.64 U	1.69 U
Silver	2	180	~	0.348 J	0.893 U	0.924 U	0.85 U	0.836 U	1.15 U	0.9 U	0.889 U	0.947 U	0.85 U	0.831 U	1.31 U	0.866 U	0.894 U	1.01 U	0.817 U	0.819 U	0.822 U	0.844 U
Sodium	~	~	~	257	43.4 J	302	402	177	331	220	87.8 J	63.9 J	306	210	342	123 J	39.9 J	56.9 J	151 J	40.6 J	109 J	144 J
Vanadium	~	~	~	15.7	11.6	30.8	12	37.9	52.9	21.6	16.1	16.2	18.1	34.4	35.2	14.5	11.5	11.1	37.6	10.9	29	28.4
Zinc	109	10,000	~	**425**	27.8	59.6	**161**	74.9	**112**	**456**	35.5	61.4	**123**	70.6	63	**1,220**	29.8	28.2	**334**	32.1	63.6	72.3
General Chemistry (%)																						
Total Solids	~	~	~	92.7	85.4	81.1	89.7	93.9	65.5	84.7	84.6	80	91.2	93.3	59.7	88.8	88.8	78.6	92.7	92.4	91.3	89.8

Notes provided on Page 13.
Concentrations above Unrestricted Use SCOs are bolded.
Concentrations above Restricted Use Restricted-Residential SCOs are shaded.
Concentrations above Protection of Groundwater SCOs are red.

Table 6
Remedial Investigation Report
Soil Sample Analytical Results Summary
Gerard Avenue and East 146th Street
Bronx, New York
BCP No.: C203111
Langan Project No.: 170487001

Notes:
1. Soil sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules, and Regulations (NYCRR) Part 375 Unrestricted Use, Restricted Use Restricted-Residential and Protection of Groundwater Soil Cleanup Objectives (SCO).
2. Only detected analytes are shown in the table.
3. Detected analytical results above Unrestricted Use SCOs are bolded.
4. Detected analytical results above Restricted Use Restricted-Residential SCOs are shaded.
5. Detected analytical results above Protection of Groundwater SCOs are red.
6. Analytical results with reporting limits (RL) above the lowest applicable criteria are italicized.
7. Sample SODUP01_122118 is a duplicate sample of RB04_8-10; sample SODUP02_122718 is a duplicate sample of RB08_14-16; sample SODUP03_010219 is a duplicate sample of RB09_19-21; sample SODUP04_010719 is a duplicate sample of RB14_23-25; sample SODUP05_010819 is a duplicate sample of RB15_23-25; and sample SODUP06_071119 is a duplicate sample of RB28_6-8.
8. ~ = Regulatory limit for this analyte does not exist
9. bgs = below grade surface
10. mg/kg = milligrams per kilogram
11. % = percent
12. NA = Not analyzed
13. ND = Not detected

Qualifiers:
I = The lower value for the two columns has been reported due to obvious interference.
P = The relative percent difference (RPD) between the results for the two columns exceeds the method-specified criteria.
J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ – The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Table 7
Remedial Investigation Report
Soil Sample Analytical Results Summary - Total and TCLP Lead

Gerard Avenue and East 146th Street
Bronx, New York
BCP Site No.: C203111
Langan Project No.: 170487001

Sample ID **Laboratory Sample ID** **Sample Date** **Sample Depth (feet bgs)**	**NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives**	**NYSDEC Part 371 Maximum Concentration of Contaminants for the Toxicity Characteristic**	**RB06_0-2** **L1904428-01** **12/21/2018** **0 to 2**	**RB20_13-15** **L1904428-02** **1/4/2019** **13-15**	**RB21_0-2** **L1904428-03** **1/3/2019** **0 to 2**	
Total Lead (mg/kg)						
Total Lead	63	~	**1,120**	**1,070**	**2,940**	
TCLP Lead (mg/L)						
TCLP Lead	~	5	7.08	0.448 J	0.255 J	

Notes:
1. Grab soil sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 375 Unrestricted Use (UU) Soil Cleanup Objectives (SCO) and NYSDEC Title 6 NYCRR Part 371 - Maximum Concentration of Contaminants for the Toxicity Characteristic.
2. Results above the UU SCOs are in bold.
3. Results above the Maximum Concentration for the Toxicity Characteristic are shaded.
4. ~ = Criteria does not exist
5. mg/kg = milligrams per kilogram
6. mg/L = milligrams per liter
7. TCLP = Toxicity Characteristic Leaching Procedure
8. bgs = below grade surface

Qualifiers:
J = The analyte was detected above the Method Detection Limit (MDL), but below the Reporting Limit (RL); therefore, the result is an estimated concentration.

Table 8
Remedial Investigation Report
Groundwater Sample Analytical Results Summary

Gerard Avenue and East 146th Street
Bronx, New York
Regulatory Site No.: C203111
Langan Project No.: 170487001

Location Sample ID Laboratory ID Sample Date	NYSDEC SGVs	RMW01 RMW01_011619 L1902070-01 1/16/2019	RMW03 RMW03_011519 L1901865-01 1/15/2019	RMW03 GWDUP01_011519 L1901865-04 1/15/2019	RMW04 RMW04_011519 L1901865-02 1/15/2019	RMW05 RMW05_011519 L1901865-03 1/15/2019	RMW07 RMW07_011619 L1902070-02 1/16/2019	RMW09 RMW09_011619 L1902070-03 1/16/2019	RMW10 RMW10_011719 L1902340-01 1/17/2019
Volatile Organic Compounds (µg/L)									
1,2,4,5-Tetramethylbenzene	5	**10**	**20**	**20**	2 U	2 U	2 U	**66**	**110** J
1,2,4-Trimethylbenzene	5	2.5 U	**8.4**	**8.6**	2.5 U	2.5 U	2.5 U	*50* U	5 U
1,3,5-Trimethylbenzene (Mesitylene)	5	2.5 U	0.73 J	0.77 J	2.5 U	2.5 U	2.5 U	*50* U	5 U
1,4-Diethyl Benzene	~	1.3 J	2.4	2.5	2 U	2 U	2 U	40 U	21
4-Ethyltoluene	~	5.4	2.3	2.3	2 U	2 U	2 U	24 J	4 U
Acetone	50	5 U	5 U	5 U	5 U	5 U	5 U	*100* U	3.5 J
Acrylonitrile	5	5 U	5 U	5 U	5 U	5 U	5 U	*100* U	*10* U
Benzene	1	**2.5**	**92**	**89**	0.49 J	0.5 U	0.5 U	**840**	**71**
Chloroform	7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	*50* U	5 U
Cymene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	*50* U	5 U
Ethylbenzene	5	2.5 U	2.2 J	2.2 J	2.5 U	2.5 U	2.5 U	**130**	2 J
Isopropylbenzene (Cumene)	5	4.3	**20**	**21**	2.5 U	2.5 U	2.5 U	**130**	**72**
M,P-Xylene	5	0.97 J	**11**	**11**	2.5 U	2.5 U	2.5 U	**28** J	4.4 J
Methylene Chloride	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	*50* U	5 U
n-Butylbenzene	5	2.5 U	1.2 J	1.3 J	2.5 U	2.5 U	2.5 U	*50* U	**9.4**
n-Propylbenzene	5	2.5 U	**13**	**13**	2.5 U	2.5 U	2.5 U	**220**	**100**
o-Xylene (1,2-Dimethylbenzene)	5	2.5 U	2 J	2 J	2.5 U	2.5 U	2.5 U	*50* U	3 J
Sec-Butylbenzene	5	2.1 J	3.5	3.5	2.5 U	2.5 U	2.5 U	*50* U	**13**
T-Butylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	*50* U	1.6 J
Tetrachloroethene (PCE)	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	*10* U	1 U
Toluene	5	2.5 U	2 J	2 J	2.5 U	2.5 U	2.5 U	**48** J	2.3 J
Total Xylenes	5	0.97 J	**13** J	**13** J	2.5 U	2.5 U	2.5 U	**28** J	**7.4** J
Semivolatile Organic Compounds (µg/L)									
1,4-Dioxane (P-Dioxane)	~	NA	NA	NA	NA	NA	0.144 U	0.139 U	NA
2-Chloronaphthalene	10	0.2 U	0.2 U	0.04 J	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Methylnaphthalene	~	0.1 U	0.1 UJ	0.26 J	0.3	0.15	0.1 U	64	1
2-Methylphenol (o-Cresol)	~	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
3 & 4 Methylphenol (m&p Cresol)	~	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthene	20	**32**	**33**	**32**	3.3	4.8	0.03 J	0.28	1.1
Acenaphthylene	~	3.3	1.4	1.3	0.23	0.1 U	0.1 U	0.1 U	0.06 J
Anthracene	50	0.85	0.61	0.59	0.21	0.27	0.01 J	0.32	0.24
Benzo(a)Anthracene	0.002	**0.3**	**0.22**	**0.14**	**0.18**	**0.25**	**0.04** J	**0.1** J	**0.05** J
Benzo(a)Pyrene	0	**0.14**	**0.2** J	**0.09** J	**0.18**	**0.26**	**0.04** J	**0.06** J	**0.03** J
Benzo(b)Fluoranthene	0.002	**0.14**	**0.16**	**0.08** J	**0.21**	**0.28**	**0.06** J	**0.1**	**0.04** J
Benzo(g,h,i)Perylene	~	0.1	0.14	0.07 J	0.15	0.17	0.04 J	0.05 J	0.02 J
Benzo(k)Fluoranthene	0.002	**0.06** J	**0.05** J	**0.03** J	**0.07** J	**0.09** J	**0.03** J	**0.04** J	**0.02** J
Biphenyl (Diphenyl)	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Bis(2-Ethylhexyl) Phthalate	5	3 U	2 J	3 U	2.1 J	3 U	3 U	3 U	3 U
Carbazole	~	2 U	2 U	2 U	2 U	2 U	2 U	1.5 J	2 U
Chrysene	0.002	**0.31**	**0.19**	**0.12**	**0.15**	**0.2**	**0.05** J	**0.1**	**0.06** J
Dibenz(a,h)Anthracene	~	0.03 J	0.02 J	0.02 J	0.04 J	0.04 J	0.1 U	0.01 J	0.1 U
Fluoranthene	50	2.6	2.8	2.5	0.57	0.85	0.11	0.48	0.61
Fluorene	50	1.3	0.9	0.83	0.46	0.39	0.1 U	0.19	0.7
Indeno(1,2,3-c,d)Pyrene	0.002	**0.08** J	**0.08** J	**0.05** J	**0.11**	**0.15**	**0.04** J	**0.04** J	**0.02** J
Naphthalene	10	0.52	**18**	**19**	3.3	0.4	0.06 J	**290**	4.1
Pentachlorophenol	1	0.8 U	0.8 U	0.8 U	**9.2**	0.8 U	0.8 U	0.8 U	0.8 U
Phenanthrene	50	0.52	0.53	0.5	0.84	0.94	0.06 J	1.3	0.88
Phenol	1	*5* U	0.85 J	*5* U	*5* U	*5* U	*5* U	**9.5**	**1.2** J
Pyrene	50	3.6	2.7	2.3	0.87	0.96	0.11	0.4	0.49
Pesticides (µg/L)									
4,4'-DDT	0.2	0.029 U	*0.286* U	0.143 U	0.029 U	*1.43* U	0.029 U	0.029 U	0.029 U
Herbicides (µg/L)	~	ND	ND	ND	ND	ND	ND	ND	ND
Polychlorinated Biphenyls (µg/L)	~	ND	ND	ND	ND	ND	ND	ND	ND
Inorganics (µg/L)									
Aluminum	~	154	225	221	1,140	1,580	294	192	162
Aluminum (Dissolved)	~	4.39 J	4.43 J	5.43 J	5.22 J	5.51 J	10 U	4.74 J	3.61 J
Antimony	3	*4* U	*4* U	*4* U	*4* U	*4* U	*4* U	*4* U	*4* U
Antimony (Dissolved)	3	*4* U	*4* U	*4* U	*4* U	*4* U	*4* U	*4* U	*4* U
Arsenic	25	0.49 J	1.55	1.43	2.21	1.44	1.65	11.85	1.71
Arsenic (Dissolved)	25	0.35 J	0.91	0.64	1.49	0.36 J	1.25	11.52	1.75
Barium	1,000	383	416	409.5	403.2	214.6	144.6	103.3	148
Barium (Dissolved)	1,000	357	405.7	419.4	351.8	160.1	120.5	102.4	148.1
Beryllium	3	0.5 U	0.5 U	0.5 U	0.5 U	0.1 J	0.5 U	0.5 U	0.5 U
Cadmium	5	0.2 U	0.2 U	0.2 U	0.2 U	0.07 J	0.19 J	0.2 U	0.2 U
Cadmium (Dissolved)	5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.17 J	0.2 U	0.2 U
Calcium	~	481,000	427,000	417,000	354,000	151,000	147,000	162,000	121,000
Calcium (Dissolved)	~	457,000	423,000	421,000	327,000	147,000	141,000	161,000	126,000
Chromium, Hexavalent	50	10 U	10 U	10 U	10 U	10 U	3 J	3 J	6 J
Chromium, Total	50	0.9 J	2.94	2.84	6.44	11.69	1.39	0.83 J	9.23
Chromium, Total (Dissolved)	50	1 U	1 U	1 U	1 U	1.15	1 U	1 U	0.46 J
Chromium, Trivalent	~	10 U	10 U	10 U	10 U	11	10 U	10 U	10 U
Cobalt	~	0.23 J	0.4 J	0.41 J	1.78	1.76	0.86	0.97	0.42 J
Cobalt (Dissolved)	~	0.5 U	0.18 J	0.17 J	0.59	0.2 J	0.48 J	0.6	0.25 J
Copper	200	2.02	2.58	2.47	7.12	11.53	11.51	0.82 J	1.31
Copper (Dissolved)	200	1 U	1 U	1 U	1 U	1 U	4.22	1 U	1 U
Cyanide	200	16	23 J	16 J	37	7	2 J	9	6
Iron	300	**1,560**	**984**	**919**	**8,990**	**3,200**	**656**	**32,000**	**8,530**
Iron (Dissolved)	300	**1,040**	**439**	**418**	**5,870**	**313**	50 U	**31,800**	**8,000**
Lead	25	3.96	7.77	7.67	**37.52**	**55.22**	**30.03**	6.53	**28.11**
Lead (Dissolved)	25	1 U	1 U	1 U	1 U	1 U	2.06	2.66	0.49 J
Magnesium	35,000	**62,400**	**59,100**	**57,100**	**52,700**	**80,600**	**35,800**	**43,100**	26,400
Magnesium (Dissolved)	35,000	**60,400**	**57,600**	**58,000**	**49,600**	**80,800**	34,700	**42,800**	27,700
Manganese	300	**570.4**	**950.9**	**935.4**	**1,036**	**342.5**	138.2	**2,410**	199
Manganese (Dissolved)	300	**540.4**	**955.1**	**965.4**	**977.6**	294.7	123.2	**2,390**	194.2
Mercury	0.7	0.2 U	0.2 U	0.2 U	0.09 J	0.2	0.2 U	0.2 U	0.2 U
Mercury (Dissolved)	0.7	0.2 U	0.06 J	0.2 U	0.2 UJ	0.2 U	0.2 U	0.2 U	0.2 U
Nickel	100	2.16	3.83	3.65	5.66	7.59	3.64	1.23 J	4.63
Nickel (Dissolved)	100	1.31 J	1.83 J	1.48 J	2.33	0.59 J	2.41	0.83 J	2 U
Potassium	~	25,700	25,200	24,800	23,100	29,600	13,200	14,800	12,900
Potassium (Dissolved)	~	24,500	25,300	25,400	21,500	29,200	12,600	14,400	13,100
Selenium	10	5 U	5 U	5 U	5 U	5 U	8.88	5 U	5 U
Selenium (Dissolved)	10	5 U	5 U	5 U	5 U	5 U	8.08	5 U	5 U
Silver	50	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Silver (Dissolved)	50	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Sodium	20,000	**523,000**	**377,000**	**369,000**	**189,000**	**43,800**	**39,800**	**77,900**	**47,100**
Sodium (Dissolved)	20,000	**517,000**	**370,000**	**371,000**	**181,000**	**44,100**	**39,000**	**79,800**	**50,100**
Thallium	0.5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vanadium	~	5 U	5 U	5 U	4.16 J	5.15	3.16 J	5 U	5 U
Vanadium (Dissolved)	~	5 U	5 U	5 U	5 U	5 U	2.24 J	5 U	5 U
Zinc	2,000	10 U	5.6 J	5.49 J	19.78	32	52.97	10 U	4.26 J
Zinc (Dissolved)	2,000	10 U	10 U	10 U	10 U	10 U	36.94	10 U	10 U
Per and Polyfluoroalkyl Substances (ng/L	**USEPA Health Advisory for Emerging Contaminants**								
N-ethyl perfluorooctane- sulfonamidoacetic acid (NEtFOSAA)	~	NA	NA	NA	NA	NA	1.82 U	2.07 U	NA
Perfluorobutanesulfonic Acid (PFBS)	~	NA	NA	NA	NA	NA	3.49	2.07 U	NA
Perfluorobutanoic acid (PFBA)	~	NA	NA	NA	NA	NA	4.73	7.08	NA
Perfluoroheptanoic acid (PFHpA)	~	NA	NA	NA	NA	NA	1.42 J	1.76 J	NA
Perfluorohexanesulfonic Acid (PFHxS)	~	NA	NA	NA	NA	NA	0.782 J	2.07 U	NA
Perfluorohexanoic Acid (PFHxA)	~	NA	NA	NA	NA	NA	1.66 J	2.16	NA
Perfluorononanoic Acid (PFNA)	~	NA	NA	NA	NA	NA	0.6 J	2.07 U	NA
Perfluorooctanesulfonic acid (PFOS)	70	NA	NA	NA	NA	NA	7.55	4.19	NA
Perfluorooctanoic Acid (PFOA)	70	NA	NA	NA	NA	NA	10.6	1.76	NA
Perfluoropentanoic Acid (PFPeA)	~	NA	NA	NA	NA	NA	1.73 J	2.07 U	NA

Notes:
1. Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (NYSDEC SGVs).
2. Only detected analytes are shown in the table.
3. Analytes detected with concentrations above NYSDEC SGVs are bolded and shaded.
4. Analytical results with reporting limits (RL) above NYSDEC SGVs are italicized.
5. Sample GWDUP01_011519 is a duplicate sample of RMW03_011519 and sample GWDUP_071219 is a duplicate sample of RMW23_071219.
6. ~ = Regulatory limit for this analyte does not exist
7. µg/L = micrograms per liter
8. ND = Not detected

Qualifiers:
J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ – The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Table 8
Remedial Investigation Report
Groundwater Sample Analytical Results Summary

Gerard Avenue and East 146th Street
Bronx, New York
Regulatory Site No.: C203111
Langan Project No.: 170487001

Location Sample ID Laboratory ID Sample Date	NYSDEC SGVs	RMW11 RMW11_011719 L1902340-02 1/17/2019		RMW14 RMW14_011719 L1902340-03 1/17/2019		RMW16 RMW16_011719 L1902340-04 1/17/2019		RMW17 RMW17_011719 L1902340-05 1/17/2019		RMW18 RMW18_011419 L1901689-01 1/14/2019		RMW22 RMW22_011419 L1901689-02 1/14/2019		RMW23 RMW23_071219 L1930730-02 7/12/2019		RMW23 GWDUP_071219 L1930730-05 7/12/2019		RMW25 RMW25_071219 L1930730-01 7/12/2019	
Volatile Organic Compounds (µg/L)																			
1,2,4,5-Tetramethylbenzene	5	**95**	J	**120**	J	2	UJ	2	UJ	2	U	2	U	2	U	2	U	2	U
1,2,4-Trimethylbenzene	5	**13**	J	*50*	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0.77	J	2.5	U
1,3,5-Trimethylbenzene (Mesitylene)	5	*25*	U	**210**		2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,4-Diethyl Benzene	~	47		42		2	U	2	U	2	U	2	U	2	U	2	U	2	U
4-Ethyltoluene	~	18	J	30	J	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Acetone	50	34	J	38	J	5	U	5	U	5	U	5	U	2.5	J	2.3	J	5	U
Acrylonitrile	5	**77**		*100*	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Benzene	1	*5*	U	**20**		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	7	*25*	U	*50*	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.7	
Cymene	5	*25*	U	*50*	U	2.5	U	2.5	U	2.5	U	2.5	U	4.9		4.8		2.5	U
Ethylbenzene	5	**120**		**200**		2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Isopropylbenzene (Cumene)	5	**140**		**180**		2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
M,P-Xylene	5	*25*	U	**32**	J	2.5	U	2.5	U	2.5	U	2.5	U	1.1	J	1.1	J	2.5	U
Methylene Chloride	5	*25*	U	*50*	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	0.82	J
n-Butylbenzene	5	**18**	J	**40**	J	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
n-Propylbenzene	5	**260**		**380**		2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
o-Xylene (1,2-Dimethylbenzene)	5	*25*	U	*50*	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Sec-Butylbenzene	5	**12**	J	**16**	J	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
T-Butylbenzene	5	*25*	U	*50*	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Tetrachloroethene (PCE)	5	5	U	*10*	U	0.5	U	0.5	U	0.5	U	0.5	U	0.32	J	0.32	J	0.5	U
Toluene	5	*25*	U	*50*	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Total Xylenes	5	*25*	U	**32**	J	2.5	U	2.5	U	2.5	U	2.5	U	1.1	J	1.1	J	2.5	U
Semivolatile Organic Compounds (µg/L)																			
1,4-Dioxane (P-Dioxane)	~	NA		NA		NA		NA		NA		0.147	U	0.166		0.181		0.169	
2-Chloronaphthalene	10	0.2	U	0.2	U	0.2	U	0.07	J	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
2-Methylnaphthalene	~	54		65		0.04	J	0.17		0.08	J	0.06	J	0.06	J	0.1	U	0.1	U
2-Methylphenol (o-Cresol)	~	5	U	5	U	5	U	1.8	J	5	U	5	U	5	U	5	U	5	U
3 & 4 Methylphenol (m&p Cresol)	~	5	U	5	U	5	U	1.3	J	5	U	5	U	5	U	5	U	5	U
Acenaphthene	20	0.19		0.41		0.1	U	0.22		0.03	J	0.11		0.1	U	0.1	U	0.05	J
Acenaphthylene	~	0.06	J	0.1	J	0.1	UJ	0.18	J	0.09	J	0.11		0.1	U	0.1	U	0.1	U
Anthracene	50	0.04	J	0.32		0.02	J	0.16		0.08	J	0.05	J	0.1	U	0.1	U	0.1	U
Benzo(a)Anthracene	0.002	*0.1*	U	**0.28**		**0.04**	J	**0.17**		**0.05**	J	**0.08**	J	*0.1*	U	*0.1*	U	*0.1*	U
Benzo(a)Pyrene	0	*0.1*	U	**0.28**		**0.06**	J	**0.14**		**0.02**	J	**0.19**		*0.1*	U	*0.1*	U	*0.1*	U
Benzo(b)Fluoranthene	0.002	*0.1*	U	**0.33**		**0.07**	J	**0.14**		**0.03**	J	**0.27**		*0.1*	U	*0.1*	U	*0.1*	U
Benzo(g,h,i)Perylene	~	0.1	U	0.2		0.05	J	0.07	J	0.02	J	0.33		0.1	U	0.1	U	0.1	U
Benzo(k)Fluoranthene	0.002	*0.1*	U	**0.13**		**0.03**	J	**0.05**	J	**0.01**	J	**0.11**		*0.1*	U	*0.1*	U	*0.1*	U
Biphenyl (Diphenyl)	5	2	U	1.7	J	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Bis(2-Ethylhexyl) Phthalate	5	3	U	3	U	3	U	3	U	2.8	J	2.9	J	3	U	3	U	3	U
Carbazole	~	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Chrysene	0.002	*0.1*	U	**0.28**		**0.06**	J	**0.18**		**0.03**	J	**0.06**	J	*0.1*	U	*0.1*	U	*0.1*	U
Dibenz(a,h)Anthracene	~	0.1	U	0.03	J	0.1	U	0.02	J	0.1	U	0.09	J	0.1	U	0.1	U	0.1	U
Fluoranthene	50	0.08	J	1		0.11		0.37		0.1	J	0.09	J	0.1	U	0.1	U	0.1	U
Fluorene	50	0.23		0.55		0.1	U	0.14		0.07	J	0.09	J	0.1	U	0.1	U	0.1	U
Indeno(1,2,3-c,d)Pyrene	0.002	*0.1*	U	**0.2**		**0.04**	J	**0.06**	J	**0.02**	J	**0.31**		*0.1*	U	*0.1*	U	*0.1*	U
Naphthalene	10	**220**		**210**		0.22		0.42		0.08	J	0.22		0.08	J	0.1		0.1	U
Pentachlorophenol	1	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8	U
Phenanthrene	50	0.25		1.4		0.08	J	0.68		0.26		0.13		0.1	U	0.1	U	0.1	U
Phenol	1	*5*	U	*5*	U	*5*	U	**1.8**	J	*5*	U	*5*	U	*5*	U	*5*	U	*5*	U
Pyrene	50	0.1		0.97		0.12		0.52		0.16		0.1	J	0.1	U	0.1	U	0.1	U
Pesticides (µg/L)																			
4,4'-DDT	0.2	0.029	U	0.029	U	0.005	J	0.007	J	0.029	U	0.029	U	0.029	U	0.029	U	0.029	U
Herbicides (µg/L)	~	ND		ND		ND		ND		ND		ND		ND		ND		ND	
Polychlorinated Biphenyls (µg/L)	~	ND		ND		ND		ND		ND		ND		ND		ND		ND	
Inorganics (µg/L)																			
Aluminum	~	464		1,950		1,540		608		21,700		2,220		49.9		118		1,850	
Aluminum (Dissolved)	~	4.88	J	14.3		10	U	3.7	J	3.59	J	7.7	J	4.14	J	3.62	J	11.3	
Antimony	3	*4*	U	*4*	U	*4*	U	*4*	U	*4*	U	*4*	U	0.58	J	0.52	J	1.32	J
Antimony (Dissolved)	3	*4*	U	*4*	U	*4*	U	*4*	U	*4*	U	*4*	U	0.72	J	0.52	J	1.21	J
Arsenic	25	7.23		17.01		2.44		2.73		6.84		5.32		1.72		1.59		6.63	
Arsenic (Dissolved)	25	7.46		15.84		1.14		1.94		2.31		3.92		1.36		1.38		5.18	
Barium	1,000	28.71		54.78		141.8		108.4		326.1		161.2		64.63		61.47		82.46	
Barium (Dissolved)	1,000	24.74		45.56		126		103.7		111.9		91.09		60.76		58.21		52.86	
Beryllium	3	0.5	U	0.14	J	0.5	U	0.5	U	1.26		0.15	J	0.5	U	0.5	U	0.5	U
Cadmium	5	0.2	U	0.2	U	0.2	U	0.2	U	0.29		0.08	J	0.09	J	0.08	J	0.16	J
Cadmium (Dissolved)	5	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Calcium	~	40,400		120,000		267,000		212,000		137,000		55,300		72,300		66,700		82,800	
Calcium (Dissolved)	~	43,200		124,000		263,000		202,000		130,000		53,000		71,400		65,900		83,600	
Chromium, Hexavalent	50	4	J	4	J	8	J	5	J	10	U	10	U	10	U	10	U	10	U
Chromium, Total	50	6.09		28.35		14.98		7.11		36.72		4.68		0.26	J	0.49	J	4.56	
Chromium, Total (Dissolved)	50	0.19	J	0.89	J	0.33	J	0.46	J	0.26	J	0.35	J	1	U	1	U	0.23	J
Chromium, Trivalent	~	10	U	24	J	10	U	10	U	36		10	U	10	U	10	U	10	U
Cobalt	~	0.49	J	1.89		1.92		1.01		18.46		2.12		1.36		1.36		3.95	
Cobalt (Dissolved)	~	0.17	J	0.25	J	0.99		0.48	J	2.74		0.71		1.13		1.13		2.15	
Copper	200	1.48		6.68		12.61		5.01		48.24		9		11.57		11.37		30.7	
Copper (Dissolved)	200	1	U	1	U	0.92	J	1	U	0.78	J	2.09		4.58		4.37		0.51	J
Cyanide	200	5	U	4	J	9		3	J	3	J	3	J	5	U	5	U	5	U
Iron	300	**3,700**		**14,100**		**4,100**		**1,920**		**36,400**		**4,770**		**1,200**		**1,200**		**10,600**	
Iron (Dissolved)	300	**2,950**		**10,900**		**1,150**		**558**		**5,450**		**1,750**		**728**		**656**		**6,950**	
Lead	25	2.69		22.47		**54.01**		19.82		**226.8**		**239.4**		4.77		7.02		**136**	
Lead (Dissolved)	25	1	U	6.83		1.01		1	U	1.24		3.23		1.2		1.29		0.87	J
Magnesium	35,000	6,220		23,700		**57,200**		**62,200**		**43,200**		13,200		17,600		16,500		13,200	
Magnesium (Dissolved)	35,000	6,400		24,300		**57,200**		**60,900**		**36,900**		12,400		16,600		15,800		12,700	
Manganese	300	**641.8**		**1,003**		**396.8**		298.8		**2,553**		**1,111**		**1,403**		**1,348**		**1,444**	
Manganese (Dissolved)	300	**639.3**		**949.9**		**354**		263.6		**1,982**		**1,015**		**1,324**		**1,288**		**1,270**	
Mercury	0.7	0.2	U	0.2	U	0.18	J	0.2	U	0.2	U	0.45		0.2	U	0.2	U	0.2	U
Mercury (Dissolved)	0.7	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Nickel	100	3.74		14.11		10.51		5.46		33.4		6.27		1.93	J	1.96	J	6.09	
Nickel (Dissolved)	100	0.83	J	1.02	J	2.39		2.54		1.84	J	1.19	J	1.72	J	1.76	J	3.16	
Potassium	~	4,110		9,140		17,200		19,800		15,000		7,150		11,700		11,000		12,500	
Potassium (Dissolved)	~	4,360		9,130		16,500		18,500		12,200		6,830		11,600		10,700		12,700	
Selenium	10	5	U	5	U	2.92	J	5	U	4.69	J	5	U	5	U	5	U	5	U
Selenium (Dissolved)	10	5	U	5	U	2.19	J	5	U	5	U	5	U	5	U	5	U	5	U
Silver	50	0.4	U	0.4	U	0.4	U	0.4	U	0.39	J	0.22	J	0.4	U	0.4	U	0.4	U
Silver (Dissolved)	50	0.4	U	0.4	U	0.4	U	0.4	U	0.3	J	0.4	U	0.4	U	0.4	U	0.4	U
Sodium	20,000	**26,900**		**67,000**		**76,600**		**60,000**		**67,600**		**45,500**		**75,100**		**70,400**		**70,700**	
Sodium (Dissolved)	20,000	**28,000**		**69,700**		**76,500**		**57,200**		**73,500**		**44,000**		**70,700**		**66,600**		**73,000**	
Thallium	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.35	J	0.5	U	0.5	U	0.5	U	0.5	U
Vanadium	~	5	U	5.63		4.42	J	4.45	J	41.35		4.64	J	5	U	5	U	4.83	J
Vanadium (Dissolved)	~	5	U	5	U	5	U	2.49	J	5	U	5	U	5	U	5	U	5	U
Zinc	2,000	10	U	21.73		24.06		15.51		139.6		24.28		14.06		15.34		106.9	
Zinc (Dissolved)	2,000	10	U	10	U	11.4		6.09	J	4.39	J	10	U	13.99		11.34		24.95	
Per and Polyfluoroalkyl Substances (ng/L	**USEPA Health Advisory for Emerging Contaminants**																		
N-ethyl perfluorooctane- sulfonamidoacetic acid (NEtFOSAA)	~	NA		NA		NA		NA		NA		NA		1.7	J	1.91	U	1.96	U
Perfluorobutanesulfonic Acid (PFBS)	~	NA		NA		NA		NA		NA		NA		0.773	J	1.12	J	0.969	J
Perfluorobutanoic acid (PFBA)	~	NA		NA		NA		NA		NA		NA		2.42		10.6		4.8	
Perfluoroheptanoic acid (PFHpA)	~	NA		NA		NA		NA		NA		NA		0.982	J	2.62		2.56	
Perfluorohexanesulfonic Acid (PFHxS)	~	NA		NA		NA		NA		NA		NA		1.8	U	1.91	U	1.96	U
Perfluorohexanoic Acid (PFHxA)	~	NA		NA		NA		NA		NA		NA		1.53	J	6.12		10.2	
Perfluorononanoic Acid (PFNA)	~	NA		NA		NA		NA		NA		NA		0.68	J	1.68	J	0.824	J
Perfluorooctanesulfonic acid (PFOS)	70	NA		NA		NA		NA		NA		NA		5.47	J	9.03		3.71	
Perfluorooctanoic Acid (PFOA)	70	NA		NA		NA		NA		NA		NA		3.02		6.44		5.51	
Perfluoropentanoic Acid (PFPeA)	~	NA		NA		NA		NA		NA		NA		2.34		7.74		11.9	

Table 9
Remedial Investigation Report
Soil Vapor Sample Analytical Results Summary

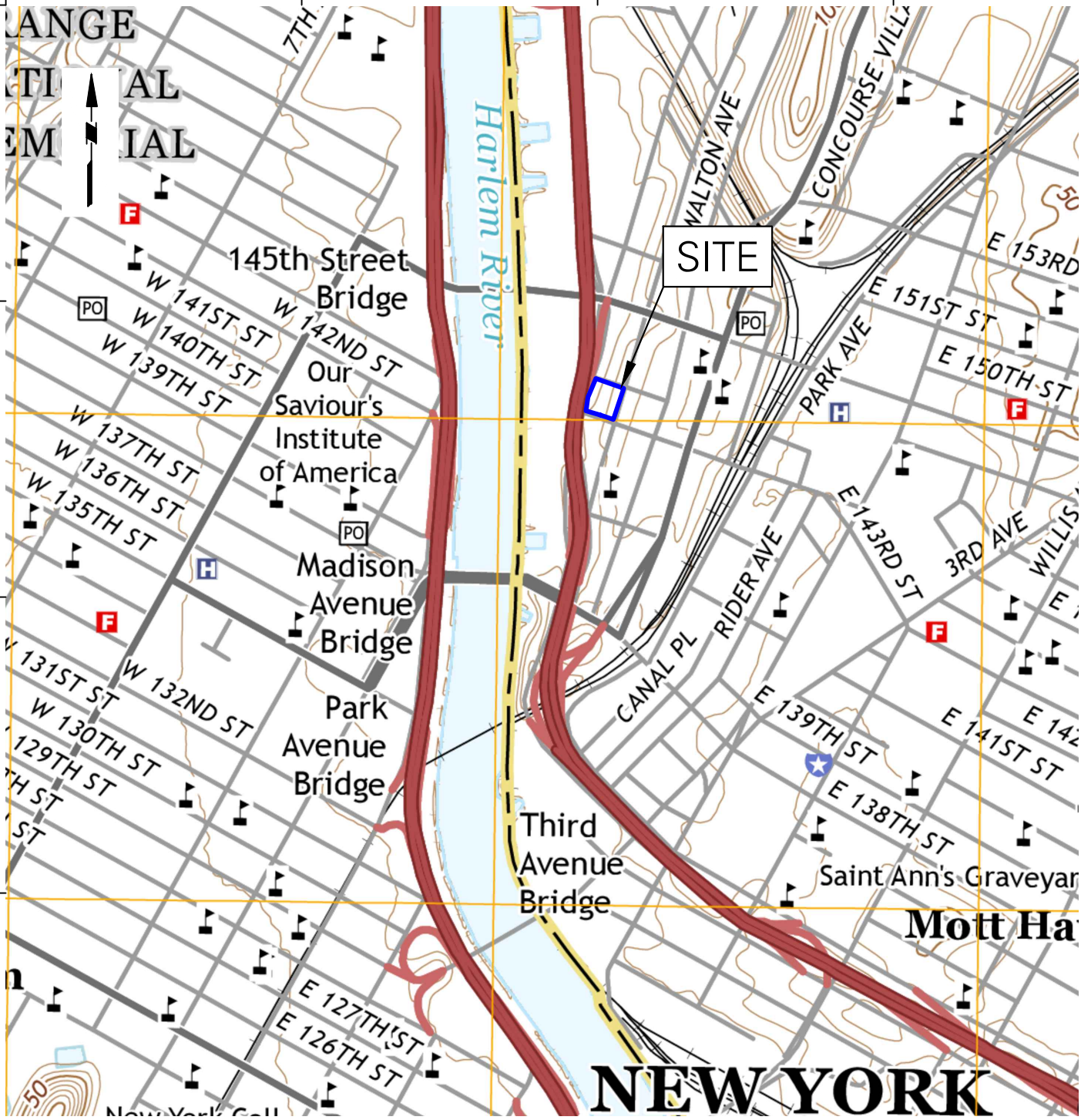
Gerard Avenue and East 146th Street
Bronx, New York
BCP Site No.: C203111
Langan Project No.: 170487001

Location Sample ID Laboratory ID Sample Date Sample Type	NYSDOH Minimum Concentration Decision Matrix	NYSDOH AGVs	RAA01 RAA01_123118 L1900163-01 12/31/2018 AA		RSSV01 RSSV01_123118 L1900163-04 12/31/2018 SSV		RSSV02 RSSV02_123118 L1900163-05 12/31/2018 SSV		RSSV03 RSSV03_123118 L1900163-06 12/31/2018 SSV		RSSV04 RSSV04_123118 L1900163-07 12/31/2018 SSV		RSSV05 RSSV05_010919 L1900997-01 1/9/2019 SSV		RSSV06 RSSV06_010919 L1900997-02 1/9/2019 SSV		RSSV07 RSSV07_123118 L1900163-08 12/31/2018 SSV		RSV01 RSV01_123118 L1900163-02 12/31/2018 SV		RSV02 RSV02_123118 L1900163-03 12/31/2018 SV	
Volatile Organic Compounds (µg/m³)																						
1,2,4-Trimethylbenzene	~	~	0.983	U	3.52		8.6		17.3		20.3		4.39		7.37		4.42		19.9		20.3	
1,2-Dichloroethane	~	~	0.809	U	0.809	U	0.809	U	2.44		4.05	U	0.809	U	4.05	U	0.809	U	2.02	U	0.809	U
1,3,5-Trimethylbenzene (Mesitylene)	~	~	0.983	U	1.02		3.67		4.34		19.7		0.983	U	7.87		1.43		5.26		5.06	
1,3-Butadiene	~	~	0.469		0.442	U	0.442	U	0.442	U	2.21	U	0.442	U	2.21	U	0.442	U	1.11	U	0.442	U
2,2,4-Trimethylpentane	~	~	1.04		0.934	U	0.934	U	1.06		4.67	U	0.934	U	4.67	U	0.934	U	2.34	U	2	
2-Hexanone	~	~	0.82	U	0.82	U	0.82	U	0.82	U	4.1	U	0.82	U	4.1	U	0.82	U	7.42		14.8	
4-Ethyltoluene	~	~	0.983	U	0.983	U	2.56		5.01		6.78		0.983	U	4.92	U	1.11		6.69		6.88	
Acetone	~	~	11.4		4.42		18.7		12.3		86.2		7.27		19.4		6.72		5.94	U	13.2	
Benzene	~	~	2.05		1.02		0.639	U	30.3		5.49		0.757		3.19	U	0.639	U	3.48		2.95	
Carbon Disulfide	~	~	0.623	U	0.623	U	0.623	U	1.33		5.48		0.623	U	3.11	U	0.623	U	3.18		6.6	
Chloroform	~	~	0.977	U	0.977	U	0.977	U	3.08		10.5		0.977	U	4.88	U	0.977	U	2.44	U	3.35	
Chloromethane	~	~	1.17		0.483		0.413	U	0.413	U	2.07	U	0.413	U	2.07	U	0.413	U	1.03	U	0.413	U
Cyclohexane	~	~	0.688	U	0.688	U	1.65		1.4		7.85		0.688	U	3.44	U	0.688	U	1.72	U	1.23	
Dichlorodifluoromethane	~	~	3.45		2.7		2.62		2.69		4.94	U	2.69		4.94	U	2.64		2.52		2.51	
Ethanol	~	~	28.3		9.42	U	9.42	U	9.42	U	47.1	U	9.42	U	47.1	U	9.42	U	23.6	U	9.42	U
Ethylbenzene	~	~	0.869	U	3.76		6.56		9.25		17.7		2.49		11.8		76		18.3		18.1	
Isopropanol	~	~	4.42		1.62		2.33		1.31		6.15	U	1.23	U	6.15	U	1.23	U	3.07	U	1.23	U
M,P-Xylene	~	~	1.94		17.4		21.6		45.2		89		9.3		43.4		267		71.7		71.7	
Methyl Ethyl Ketone (2-Butanone)	~	~	1.47	U	1.47	U	3.42		14.7		18.1		1.47	U	7.37	U	1.47	U	6.25		65.2	
Methylene Chloride	100	60	1.74	U	1.74	U	1.74	U	2.73		8.69	U	1.74	U	8.69	U	1.74	U	4.34	U	1.74	U
n-Heptane	~	~	0.82	U	0.82	U	16		9.18		57		0.82	U	16.7		0.82	U	5.57		6.23	
n-Hexane	~	~	1.6		0.705	U	1.77		10.5		11.2		0.705	U	3.52	U	0.705	U	4.41		6.84	
o-Xylene (1,2-Dimethylbenzene)	~	~	0.869	U	5.73		10.5		16.2		44.7		2.45		26		76		25.4		25.1	
Tetrachloroethene (PCE)	100	30	1.36	U	57.1		1.36	U	56.1		52		2.16		15.1		4.88		29.6		29.4	
Tetrahydrofuran	~	~	1.47	U	1.47	U	1.47	U	1.47	U	7.37	U	1.47	U	7.37	U	1.47	U	3.69	U	2.68	
Toluene	~	~	4.18		2.79		4.94		64.8		39.9		9.12		8.82		1.75		403		89.7	
Trichlorofluoromethane	~	~	2.05		5.16		2.34		2.26		5.62	U	1.6		5.62	U	1.6		2.81	U	1.29	
Total VOCs	~	~	62.069		106.723		107.26		313.48		491.9		42.227		156.46		443.55		612.68		395.12	

Notes:
1. Sub-slab and soil vapor sample analytical results are compared to the minimum soil vapor concentrations recommending mitigation as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017) and to the New York State Department of Health Air Guideline Values (AGVs) as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York and subsequent updates (2013, 2015).
2. Only detected analytes are shown in the table.
3. Analytes detected with concentrations above the minimum soil vapor concentrations recommending mitigation are bolded.
4. Analytes detected with concentrations above the NYSDOH AGVs sample are shaded.
5. Analytical results with reporting limits (RL) above the criteria are italicized.
6. ~ = Regulatory limit for this analyte does not exist
7. µg/m³ = micrograms per cubic meter
8. AA = Ambient Air
9. SV = Soil Vapor
10. SSV = Sub-slab Soil Vapor

Qualifiers:
U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

FIGURES



APPROXIMATE SITE BOUNDARY

NOTE: BASE MAP IS REFERENCED FROM THE UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5 MINUTE SERIES CENTRAL PARK QUADRANGLE MAP, DATED 2016

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Project	GERARD AVENUE AND EAST 146TH STREET BLOCK No. 2351, LOT Nos. 1, 3, 12, & 20 BRONX NEW YORK
Figure Title	SITE LOCATION MAP
Project No.	170487001
Date	02/19/2019
Drawn By	VZ
Checked By	JL
Figure No.	1
Sheet	1 of 11

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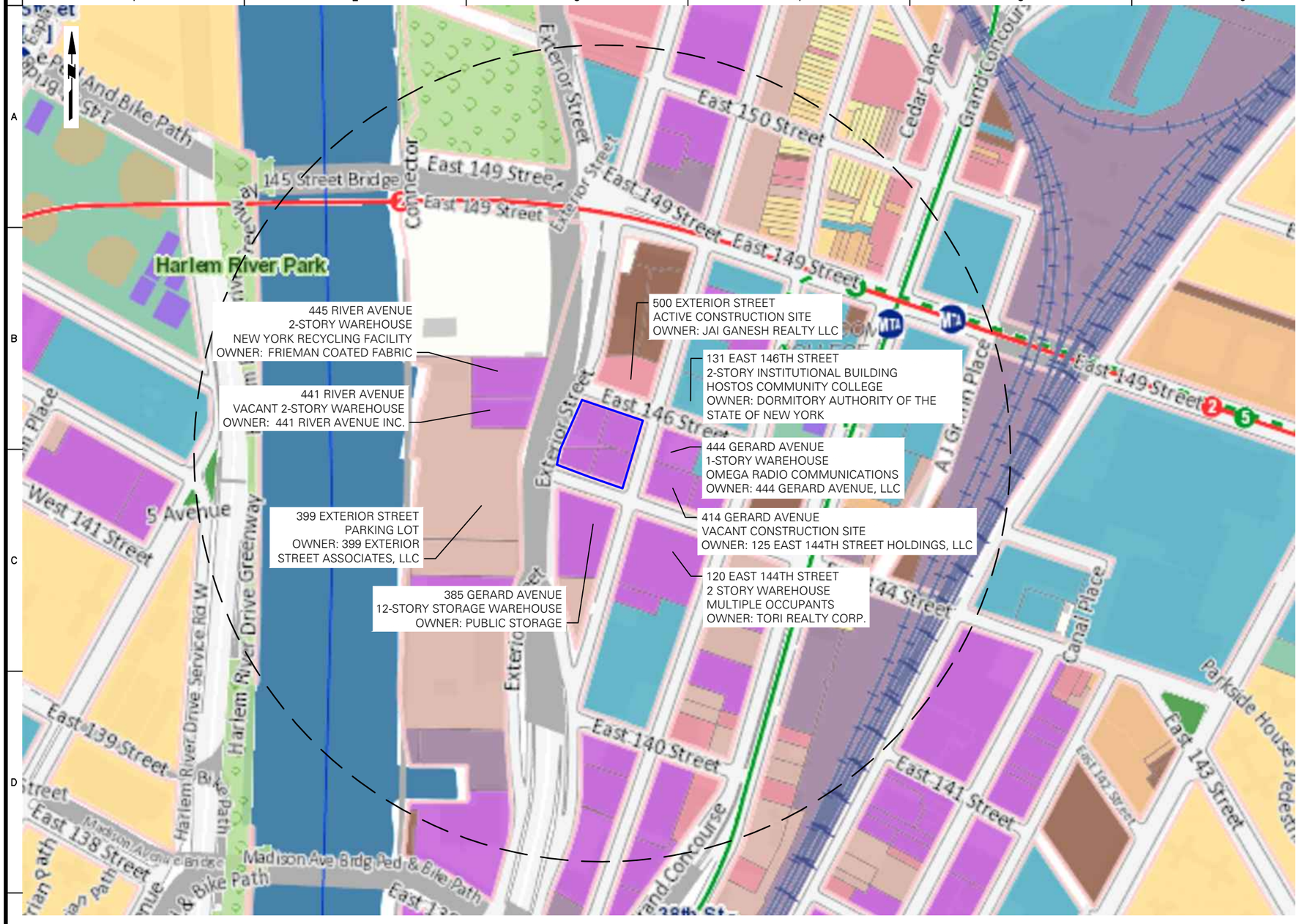
Filename: \\langan.com\data\NYC\data0\170487001\Cadd Data - 170487001\SheetFiles\Environmental\RIR\Figure 1 - Site Location Plan.dwg Date: 11/20/2019 Time: 14:39 User: jgolding Style Table: Langan.stb Layout: ANSIA-BP



LEGEND:

- SITE BOUNDARY
- 1000-FOOT BOUNDARY

LAND USE LEGEND:

- 1 & 2 FAMILY RESIDENTIAL
- MULTI-FAMILY RESIDENTIAL
- MIXED USE
- OPEN SPACE & OUTDOOR RECREATION
- COMMERCIAL
- INSTITUTIONS
- INDUSTRIAL
- PARKING
- TRANSPORTATION/UTILITIES
- VACANT LOTS

NOTES:

1. BASE MAP SOURCE: http://www.oasisnyc.net/map.aspx, ACCESSED ON FEBRUARY 2, 2019.
2. OWNER AND OPERATOR INFORMATION WAS OBTAINED FROM WWW.OASISNYC.NET AND WWW.ACRIS-NYS.GOV, ACCESSED ON FEBRUARY 2, 2019

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SCALE IN FEET

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.

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Project
GERARD AVENUE AND EAST 146TH STREET
BLOCK No. 2351 LOT Nos. 1, 3, 12, & 20
BRONX NEW YORK

Figure Title
SURROUNDING LAND USE MAP

Project No.	170487001
Date	2/4/19
Drawn By	TG
Checked By	JL

Figure No. 2

Sheet 2 of 11

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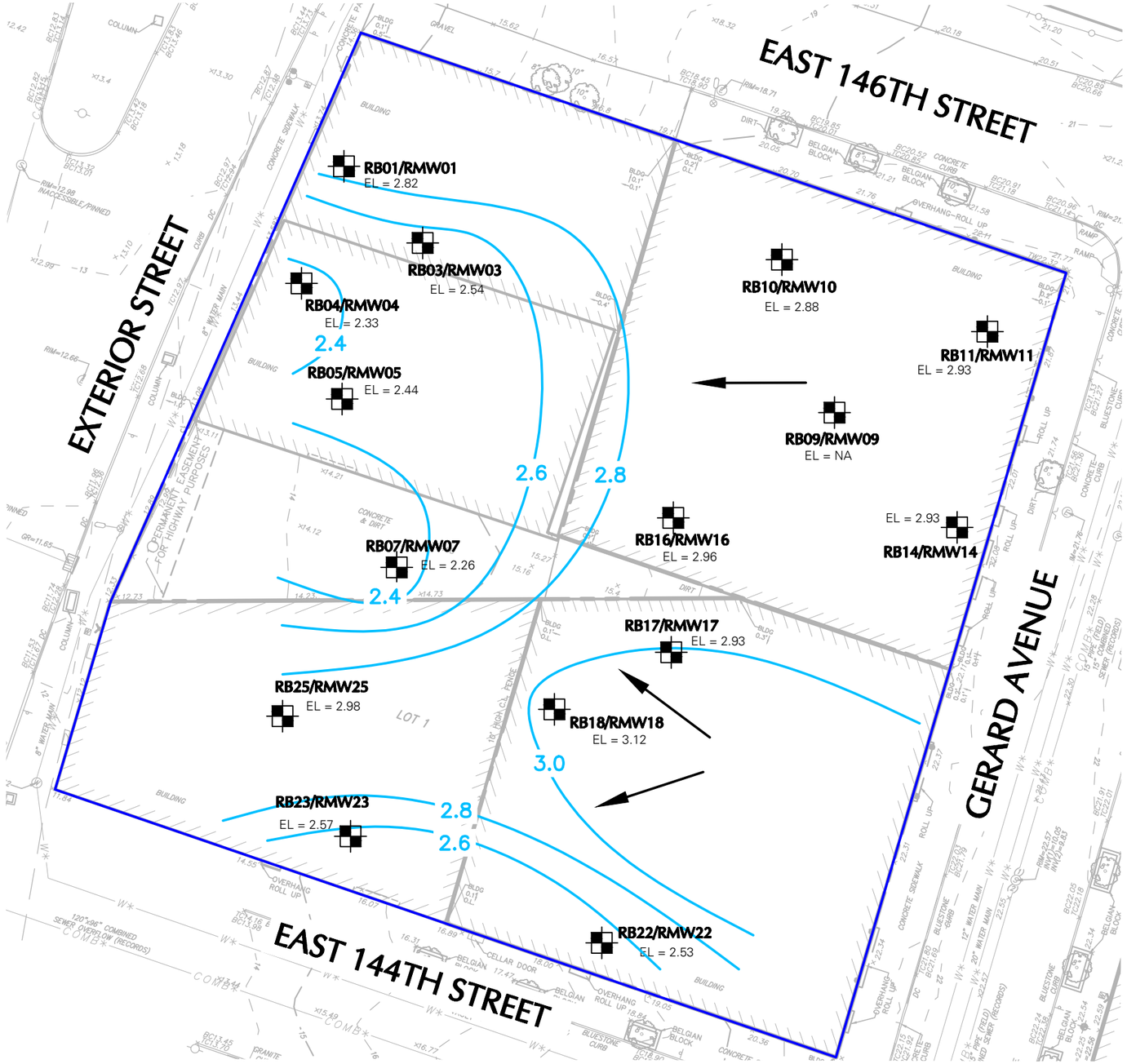
Filename: \\langan.com\data\NYC\data0\170487001\Cadd Data - 170487001\SheetFiles\Environmental\RIR\Figure 2 - Surrounding Land Use Map.dwg Date: 11/20/2019 Time: 14:38 User: jgolding Style Table: Langan.stb Layout: ANSIB-BL



LEGEND:

- SITE BOUNDARY
- RB30/RMW30 — SOIL BORING AND MONITORING WELL LOCATION
- 2.6 — GROUNDWATER CONTOUR
- INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1. THE BASE MAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
2. TOP OF WELL CASING ELEVATIONS WERE SURVEYED BY LANGAN ON JANUARY 24 AND JULY 24, 2019.
3. ELEVATIONS SHOWN ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
4. ELEVATIONS WERE CALCULATED AS THE DIFFERENCE BETWEEN SURVEYED TOP OF WELL CASING ELEVATIONS AND DEPTH-TO-GROUNDWATER MEASUREMENTS.
5. SYNOPTIC WELL GAUGING EVENT WAS PERFORMED BY LANGAN ON JULY 26, 2019.
6. NA = RMW09 WAS NOT ACCESSIBLE AT THE TIME OF THE GAUGING EVENT.

30 0 15 30
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Project
GERARD AVENUE AND EAST 146TH STREET
BLOCK No. 2351 LOT Nos. 1, 3, 12, & 20
BRONX NEW YORK

Figure Title
GROUNDWATER ELEVATION CONTOUR MAP

Project No.	170487001
Date	11/20/2019
Drawn By	JG
Checked By	JL

Figure No. 3

Sheet 3 of 11

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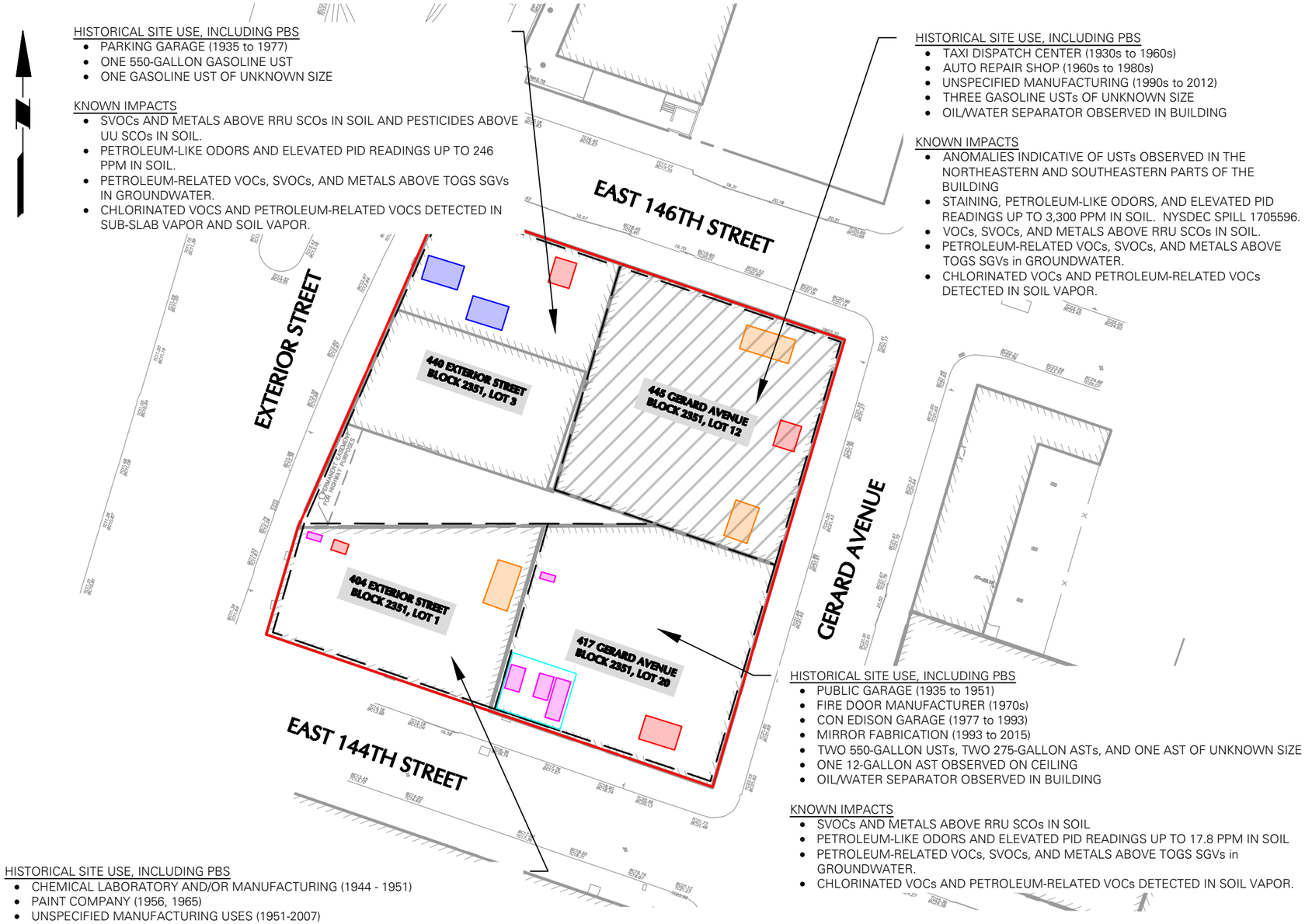
Filename: \\langan.com\data\NYC\data0\170487001\Cadd Data - 170487001\SheetFiles\Environmental\RIR\Figure 3 - Groundwater Contour Map_updated contours.dwg Date: 1/13/2020 Time: 11:33 User: jgolding Style Table: Langan.stb Layout: ANSIB-BL



HISTORICAL SITE USE, INCLUDING PBS
- PARKING GARAGE (1935 to 1977)
- ONE 550-GALLON GASOLINE UST
- ONE GASOLINE UST OF UNKNOWN SIZE

KNOWN IMPACTS
- SVOCs AND METALS ABOVE RRU SCOs IN SOIL AND PESTICIDES ABOVE UU SCOs IN SOIL.
- PETROLEUM-LIKE ODORS AND ELEVATED PID READINGS UP TO 246 PPM IN SOIL.
- PETROLEUM-RELATED VOCs, SVOCs, AND METALS ABOVE TOGS SGVs IN GROUNDWATER.
- CHLORINATED VOCS AND PETROLEUM-RELATED VOCS DETECTED IN SUB-SLAB VAPOR AND SOIL VAPOR.

HISTORICAL SITE USE, INCLUDING PBS
- TAXI DISPATCH CENTER (1930s to 1960s)
- AUTO REPAIR SHOP (1960s to 1980s)
- UNSPECIFIED MANUFACTURING (1990s to 2012)
- THREE GASOLINE USTs OF UNKNOWN SIZE
- OIL/WATER SEPARATOR OBSERVED IN BUILDING

KNOWN IMPACTS
- ANOMALIES INDICATIVE OF USTs OBSERVED IN THE NORTHEASTERN AND SOUTHEASTERN PARTS OF THE BUILDING
- STAINING, PETROLEUM-LIKE ODORS, AND ELEVATED PID READINGS UP TO 3,300 PPM IN SOIL. NYSDEC SPILL 1705596.
- VOCs, SVOCs, AND METALS ABOVE RRU SCOs IN SOIL.
- PETROLEUM-RELATED VOCs, SVOCs, AND METALS ABOVE TOGS SGVs in GROUNDWATER.
- CHLORINATED VOCs AND PETROLEUM-RELATED VOCs DETECTED IN SOIL VAPOR.

HISTORICAL SITE USE, INCLUDING PBS
- CHEMICAL LABORATORY AND/OR MANUFACTURING (1944 - 1951)
- PAINT COMPANY (1956, 1965)
- UNSPECIFIED MANUFACTURING USES (1951-2007)

KNOWN IMPACTS
- SVOCs AND METALS ABOVE RRU SCOs IN SOIL
- ELEVATED PID READINGS UP TO 14.9 PPM IN SOIL
- METALS ABOVE TOGS SGVs in GROUNDWATER.
- CHLORINATED VOCs AND PETROLEUM-RELATED VOCs DETECTED IN SOIL VAPOR.

HISTORICAL SITE USE, INCLUDING PBS
- PUBLIC GARAGE (1935 to 1951)
- FIRE DOOR MANUFACTURER (1970s)
- CON EDISON GARAGE (1977 to 1993)
- MIRROR FABRICATION (1993 to 2015)
- TWO 550-GALLON USTs, TWO 275-GALLON ASTs, AND ONE AST OF UNKNOWN SIZE
- ONE 12-GALLON AST OBSERVED ON CEILING
- OIL/WATER SEPARATOR OBSERVED IN BUILDING

KNOWN IMPACTS
- SVOCs AND METALS ABOVE RRU SCOs IN SOIL
- PETROLEUM-LIKE ODORS AND ELEVATED PID READINGS UP TO 17.8 PPM IN SOIL
- PETROLEUM-RELATED VOCs, SVOCs, AND METALS ABOVE TOGS SGVs in GROUNDWATER.
- CHLORINATED VOCs AND PETROLEUM-RELATED VOCs DETECTED IN SOIL VAPOR.

LEGEND:

- SITE BOUNDARY
- TAX LOT BOUNDARY
- CELLAR EXTENTS
- LOT WITH A LISTED NYSDEC SPILL
- APPROXIMATE LOCATION OF USTs IDENTIFIED DURING THE SEPTEMBER 2017 GEOPHYSICAL SURVEY
- APPROXIMATE LOCATION OF OIL WATER SEPARATOR IDENTIFIED DURING THE SEPTEMBER, 2017 GEOPHYSICAL SURVEY
- APPROXIMATE LOCATION OF GASOLINE TANKS IDENTIFIED IN THE REVIEW OF THE SANBORN FIRE INSURANCE MAPS
- APPROXIMATE LOCATION OF ASTs IDENTIFIED DURING A JANUARY 2018 SITE VISIT COMPLETED BY LANGAN.

NOTES:
1. THE BASEMAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
2. THE SEPTEMBER, 2017 GEOPHYSICAL SURVEY WAS PERFORMED BY NOVA GEOPHYSICAL SERVICES.
3. THE JUNE, 2015 PHASE I SITE ASSESSMENT WAS PREPARED BY AEI CONSULTANTS.
4. PBS = PETROLEUM BULK STORAGE
5. PID = PHOTOIONIZATION DETECTOR
6. PPM = PARTS PER MILLION
7. NYSDEC = NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
8. TOGS = TECHNICAL AND OPERATIONAL GUIDANCE SERIES
9. SGVs = STANDARDS AND GUIDANCE VALUES
10. VOC = VOLATILE ORGANIC COMPOUND
11. SVOC = SEMIVOLATILE ORGANIC COMPOUND
12. UST = UNDERGROUND STORAGE TANK
13. AST = ABOVEGROUND STORAGE TANK
14. UU = UNRESTRICTED USE
15. RRU = RESTRICTED-RESIDENTIAL USE
16. SCOs = SOIL CLEANUP OBJECTIVES

25 0 25
SCALE IN FEET

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.

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Project
GERARD AVENUE AND EAST 146TH STREET
BLOCK No. 2351 LOT Nos. 1, 3, 12, & 20
BRONX NEW YORK

Figure Title
HISTORICAL SITE USE MAP

Project No.	170487001
Date	11/20/2019
Drawn By	JG
Checked By	JL

Figure No. 4

Sheet 4 of 11

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Filename: \\langan.com\data\NYC\data0\170487001\Cadd Data - 170487001\SheetFiles\Environmental\RIR\Figure 4 - Historical Map.dwg Date: 11/25/2019 Time: 09:51 User: jgolding Style Table: Langan.stb Layout: ANSIB-BL

Sample ID Sample Date Depth Range (feet bgs)	RB01_0-2 12/27/2018 0-2	RB01_9-11 12/27/2018 9-11	RB01_14-15 12/27/2018 14-15	RB01_25-27 12/27/2018 25-27
VOCs (mg/kg)				
Acetone	NE	ND	2.2	0.07
Benzene	NE	NE	0.18	ND
Methyl Ethyl Ketone (2-Butanone)	ND	ND	0.35 J	NE
SVOCs (mg/kg)				
Benzo(a)Anthracene	1.8	3.7	10	NE
Benzo(a)Pyrene	1.8	4.7	13	NE
Benzo(b)Fluoranthene	2.6	3.8	11	NE
Benzo(k)Fluoranthene	0.85	1.1	2.2	ND
Chrysene	2.3	3.7	12	NE
Dibenz(a,h)Anthracene	0.39	0.68	1.2	ND
Indeno(1,2,3-c,d)Pyrene	1.6	2.6	4.2	NE
Pesticides (mg/kg)	NE	ND	ND	NE
Herbicides (mg/kg)	ND	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND	ND
Inorganics (mg/kg)				
Arsenic	43.7	NE	NE	NE
Barium	591	NE	NE	NE
Cadmium	3.34	NE	NE	NE
Chromium, Trivalent	52	NE	NE	NE
Copper	275 J	88.4 J	NE	NE
Lead	619 J	134 J	NE	NE
Mercury	0.536	0.262	NE	NE
Zinc	1,080 J	216 J	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	RB03_0-2 12/26/2018 0-2	RB03_2-3 12/26/2018 2-3	RB03_10-12 12/26/2018 10-12	RB03_17-18 12/26/2018 17-18
VOCs (mg/kg)				
Benzene	NE	NE	NE	0.18
SVOCs (mg/kg)				
Benzo(a)Anthracene	NE	NE	8.6	3.5
Benzo(a)Pyrene	1.4	NE	9	4.7
Benzo(b)Fluoranthene	1.7	NE	6.4	4
Benzo(k)Fluoranthene	NE	ND	1.3	1.1
Chrysene	1.1	NE	8	3.2
Dibenz(a,h)Anthracene	NE	ND	0.78 J	NE
Indeno(1,2,3-c,d)Pyrene	1.3 J	NE	3.4	3
Pesticides (mg/kg)	NE	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND	ND
Inorganics (mg/kg)				
Arsenic	17.2	NE	NE	NE
Cadmium	7.4	ND	ND	NE
Copper	270	150	126	NE
Lead	621	108	NE	97.1
Mercury	1.32	1.83	0.226	0.716
Nickel	NE	NE	NE	31
Silver	35.7	9.66	NE	ND
Zinc	3,040	277	430	NE

Sample ID Sample Date Depth Range (feet bgs)	RB02_0-2 12/26/2018 0-2	RB02_7-9 12/26/2018 7-9	RB02_10-12 12/26/2018 10-12	RB02_13-15 12/26/2018 13-15
VOCs (mg/kg)	ND	NE	NE	NE
SVOCs (mg/kg)				
Benzo(a)Anthracene	NE	NE	2.4	1.9
Benzo(a)Pyrene	NE	3.1	2.5	1.9
Benzo(b)Fluoranthene	NE	2.7	2.8	2.3
Benzo(k)Fluoranthene	NE	NE	1 J	NE
Chrysene	NE	NE	2.1	1.6
Dibenz(a,h)Anthracene	NE	0.54	0.34 J	NE
Indeno(1,2,3-c,d)Pyrene	NE	2.6	1.6	1.3
Pesticides (mg/kg)	ND	ND	NE	ND
Herbicides (mg/kg)	ND	ND	ND	ND
PCBs (mg/kg)	ND	ND	NE	ND
Inorganics (mg/kg)				
Lead	80.8	95.4	198	388
Mercury	NE	ND	0.768	0.476

Sample ID Sample Date Depth Range (feet bgs)	RB12_0-2 12/26/2018 0-2	RB12_8-9 12/26/2018 8-9	RB12_9-10 12/26/2018 9-10	RB12_10-12 12/26/2018 10-12
VOCs (mg/kg)				
1,2,4-Trimethylbenzene	NE	11	NE	NE
Total Xylenes	0.82	ND	NE	ND
SVOCs (mg/kg)				
Benzo(a)Anthracene	20	12	2	3.5
Benzo(a)Pyrene	19	12	2.6	3.6
Benzo(b)Fluoranthene	24	13	3.1	4
Benzo(k)Fluoranthene	8.2	4.7	1	1.4
Chrysene	18	11	1.8	3.9
Dibenz(a,h)Anthracene	2.8	2	0.38	0.57
Indeno(1,2,3-c,d)Pyrene	12	10	2	2.1
Pesticides (mg/kg)				
Dieldrin	ND	0.0169 J	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND
PCBs (mg/kg)	ND	NE	ND	ND
Inorganics (mg/kg)				
Copper	56	NE	NE	52.4
Lead	162	NE	280	126
Mercury	0.446	NE	0.22	0.725

Sample ID Sample Date Depth Range (feet bgs)	RB10_0-2 1/8/2019 0-2	RB10_18-20 1/8/2019 18-20	RB10_33-35 1/8/2019 33-35
VOCs (mg/kg)			
Acetone	ND	9.3	ND
Benzene	ND	9.5	ND
Ethylbenzene	ND	2.6	ND
n-Propylbenzene	ND	6.7	ND
Toluene	ND	8.5	ND
Total Xylenes	ND	7.6	ND
SVOCs (mg/kg)			
3 & 4 Methylphenol (m&p Cresol)	ND	0.38 J	ND
Benzo(a)Anthracene	2.5	12	ND
Benzo(a)Pyrene	2	11	ND
Benzo(b)Fluoranthene	2.8	15 J	ND
Benzo(k)Fluoranthene	0.82	4.5	ND
Chrysene	2.2	9.6	ND
Dibenz(a,h)Anthracene	NE	1.7	ND
Indeno(1,2,3-c,d)Pyrene	1.3	8.2	ND
Pesticides (mg/kg)	NE	ND	ND
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND
Inorganics (mg/kg)			
Arsenic	NE	17.2	NE
Copper	NE	63.2	NE
Lead	71.6	96.8	NE
Selenium	NE	12.5	ND
Zinc	NE	130	NE

Sample ID Sample Date Depth Range (feet bgs)	RB16_0-2 1/8/2019 0-2	RB16_13-15 1/8/2019 13-15	RB16_18-20 1/8/2019 18-20
VOCs (mg/kg)	NE	NE	ND
SVOCs (mg/kg)			
Benzo(a)Anthracene	NE	1.3	NE
Benzo(a)Pyrene	NE	1.3	NE
Benzo(b)Fluoranthene	NE	1.6	NE
Chrysene	NE	1.2	NE
Indeno(1,2,3-c,d)Pyrene	NE	0.87	NE
Pesticides (mg/kg)			
4,4'-DDD	ND	0.00669	ND
4,4'-DDT	ND	0.00553 IP	ND
Endrin	ND	0.0252 P	ND
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND
Inorganics (mg/kg)			
Copper	NE	77.7	NE
Lead	288	NE	351
Mercury	0.638	0.46	1.45

Sample ID Sample Date Depth Range (feet bgs)	SB05_6-7 9/6/2017 6-7
VOCs (mg/kg)	NE
SVOCs (mg/kg)	NE
Pesticides (mg/kg)	ND
PCBs (mg/kg)	ND
Inorganics (mg/kg)	
Lead	574
Zinc	280

Sample ID Sample Date Depth Range (feet bgs)	SB04_6-7 9/5/2017 6-7
VOCs (mg/kg)	NE
SVOCs (mg/kg)	NE
Pesticides (mg/kg)	NA
PCBs (mg/kg)	NA
Inorganics (mg/kg)	
Lead	365
Zinc	188

Sample ID Sample Date Depth Range (feet bgs)	RB04_0-2 12/21/2018 0-2	RB04_8-10 12/21/2018 8-10	SODUP01_122118 12/21/2018 8-10	RB04_13-15 12/21/2018 13-15	RB04_18-20 12/21/2018 18-20
VOCs (mg/kg)					
Acetone	ND	ND	ND	NE	0.052
SVOCs (mg/kg)					
Benzo(a)Anthracene	1.6	NE	NE	1.8	2.4
Benzo(a)Pyrene	1.6	ND	ND	1.7	2.3
Benzo(b)Fluoranthene	2.2	NE	NE	2.1	2.7
Benzo(k)Fluoranthene	NE	ND	ND	NE	0.9
Chrysene	1.6	NE	NE	1.5	2
Indeno(1,2,3-c,d)Pyrene	1.1	ND	ND	0.93	1.4
Pesticides (mg/kg)					
4,4'-DDE	0.0446	ND	ND	ND	ND
4,4'-DDT	0.174	ND	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND	ND
PCBs (mg/kg)	NE	ND	ND	ND	ND
Inorganics (mg/kg)					
Lead	294	72 J	NE	NE	NE
Mercury	0.506	0.639 J	0.277 J	0.553	0.242
Zinc	476	129 J	NE	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	SB01_11.5-12 9/7/2017 11.5-12
VOCs (mg/kg)	NE
SVOCs (mg/kg)	
Benzo(a)Anthracene	4.2
Benzo(a)Pyrene	3.9
Benzo(b)Fluoranthene	3.2
Chrysene	4.3
Dibenz(a,h)Anthracene	0.43
Indeno(1,2,3-c,d)Pyrene	1.4
Pesticides (mg/kg)	NA
PCBs (mg/kg)	NA
Inorganics (mg/kg)	
Arsenic	24.5
Lead	87.4

Sample ID Sample Date Depth Range (feet bgs)	RB05_0-2 12/21/2018 0-2	RB05_8-10 12/21/2018 8-10	RB05_13-15 12/21/2018 13-15	RB05_19-21 12/21/2018 19-21
VOCs (mg/kg)	NE	NE	NE	NE
SVOCs (mg/kg)				
Benzo(a)Anthracene	1.4	NE	NE	1.1
Benzo(a)Pyrene	1.7	NE	NE	1.1
Benzo(b)Fluoranthene	2.3	NE	NE	1.2
Chrysene	1.5	NE	NE	NE
Indeno(1,2,3-c,d)Pyrene	1.3	NE	NE	0.65
Pesticides (mg/kg)				
4,4'-DDE	0.0785	ND	ND	ND
4,4'-DDT	0.265	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND
PCBs (mg/kg)	NE	ND	ND	ND
Inorganics (mg/kg)				
Barium	647	NE	NE	NE
Chromium, Trivalent	NE	35	NE	NE
Copper	73.5	188	NE	227
Lead	976	79.4	191	268
Mercury	0.514	0.688	1.11	1.12
Nickel	NE	30.1	NE	NE
Zinc	731	208	NE	130

Sample ID Sample Date Depth Range (feet bgs)	SB02_6-7 9/7/2017 6-7
VOCs (mg/kg)	NE
SVOCs (mg/kg)	NE
Pesticides (mg/kg)	
4,4'-DDT	0.0272
PCBs (mg/kg)	NE
Inorganics (mg/kg)	
Barium	370
Lead	115
Zinc	432

Sample ID Sample Date Depth Range (feet bgs)	RB06_0-2 12/21/2018 0-2	RB06_8-10 12/21/2018 8-10	RB06_10-12 12/21/2018 10-12
VOCs (mg/kg)	NE	NE	NE
SVOCs (mg/kg)			
Benzo(a)Anthracene	2.4	3.3	ND
Benzo(a)Pyrene	2.6	3.5	ND
Benzo(b)Fluoranthene	3.8	5	ND
Benzo(k)Fluoranthene	1.1	1.3	ND
Chrysene	2.4	3.2	ND
Dibenz(a,h)Anthracene	0.4	0.63	ND
Indeno(1,2,3-c,d)Pyrene	2	2.9	ND
Pesticides (mg/kg)			
4,4'-DDE	0.101	0.0341	ND
4,4'-DDT	0.259	0.0978	ND
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	NE	NE	ND
Inorganics (mg/kg)			
Barium	826	NE	NE
Lead	1,120	539	NE
Mercury	0.417	1.12	ND
Zinc	1,190	114	NE

Sample ID Sample Date Depth Range (feet bgs)	SB03_18-19 9/7/2017 18-19
VOCs (mg/kg)	NE
SVOCs (mg/kg)	
Benzo(b)Fluoranthene	1.1
Pesticides (mg/kg)	NA
PCBs (mg/kg)	NA
Inorganics (mg/kg)	
Mercury	0.32

Sample ID Sample Date Depth Range (feet bgs)	RB07_0-2 12/20/2018 0-2	RB07_8-10 12/20/2018 8-10	RB07_10-12 12/20/2018 10-12
VOCs (mg/kg)	ND	NE	NE
SVOCs (mg/kg)			
Benzo(b)Fluoranthene	1.1	NE	NE
Indeno(1,2,3-c,d)Pyrene	0.71	0.53	NE
Pesticides (mg/kg)			
4,4'-DDE	0.0129	0.00667	NE
4,4'-DDT	0.0269	0.0166	0.00426 J
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	NE	NE	ND
Inorganics (mg/kg)			
Barium	468 J	456 J	NE
Chromium, Hexavalent	1.54	ND	ND
Copper	NE	NE	85.3
Lead	164 J	94 J	282 J
Nickel	NE	37	NE
Selenium	NE	ND	10.9
Zinc	221 J	293	321

Sample ID Sample Date Depth Range (feet bgs)	RB27_0-2 7/11/2019 0-2	RB27_9-11 7/11/2019 9-11	RB27_11-13 7/11/2019 11-13
VOCs (mg/kg)	NE	NE	NE
SVOCs (mg/kg)			
Benzo(b)Fluoranthene	1.3	ND	ND
Indeno(1,2,3-c,d)Pyrene	0.78	ND	ND
Pesticides (mg/kg)	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND
Inorganics (mg/kg)			
Copper	134	NE	NE
Lead	516	NE	NE
Mercury	0.313	ND	ND
Zinc	1,220	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	RB26_0-2 7/10/2019 0-2	RB26_10-12 7/10/2019 10-12	RB26_14-16 7/10/2019 14-16
VOCs (mg/kg)			
Acetone	NE	NE	0.15
SVOCs (mg/kg)	NE	NE	ND
Pesticides (mg/kg)	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	ND	ND	NE
Inorganics (mg/kg)			
Copper	NE	71.4	NE
Mercury	NE	0.216	ND
Zinc	123	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	RB28_0-2 7/11/2019 0-2	RB28_6-8 7/11/2019 6-8	SODUP06_071119 7/11/2019 6-8	RB28_14-16 7/11/2019 14-16
VOCs (mg/kg)	NE	NE	NE	NE
SVOCs (mg/kg)	NE	NE	NE	ND
Pesticides (mg/kg)	ND	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND	ND
Inorganics (mg/kg)				
Arsenic	14.3	NE	NE	ND
Copper	139	NE	NE	NE
Lead	496	NE	80.5	NE
Mercury	1.23	NE	NE	NE
Zinc	334	NE	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	RB25_0-2 7/11/2019 0-2	RB25_9-11 7/11/2019 9-11	RB25_11-13 7/11/2019 11-13
VOCs (mg/kg)	NE	NE	NE
SVOCs (mg/kg)			
Benzo(b)Fluoranthene	1.2	NE	ND
Indeno(1,2,3-c,d)Pyrene	0.68	NE	ND
Pesticides (mg/kg)	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND
Inorganics (mg/kg)			
Copper	57.5	NE	NE
Lead	1,650	NE	NE
Mercury	0.431	NE	ND
Zinc	456	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	RB23_0-2 7/10/2019 0-2	RB23_10-12 7/10/2019 10-12	RB23_13-15 7/10/2019 13-15
VOCs (mg/kg)	NE	NE	NE
SVOCs (mg/kg)	NE	ND	ND
Pesticides (mg/kg)	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND
Inorganics (mg/kg)			
Copper	952	NE	NE
Lead	2,080	NE	NE
Zinc	425	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	RB24_0-2 7/10/2019 0-2	RB24_8-10 7/10/2019 8-10	RB24_13-15 7/10/2019 13-15
VOCs (mg/kg)	ND	ND	NE
SVOCs (mg/kg)	NE	NE	ND
Pesticides (mg/kg)	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND
Inorganics (mg/kg)			
Chromium, Trivalent	NE	NE	36
Copper	NE	NE	95.3
Lead	174	NE	108
Mercury	0.367	NE	0.213
Nickel	NE	NE	33.8
Zinc	161	NE	112

Sample ID Sample Date Depth Range (feet bgs)	RB08_0-2 12/27/2018 0-2	RB08_10-12 12/27/2018 10-12	RB08_12-14 12/27/2018 12-14	RB08_14-16 12/27/2018 14-16	SODUP02_122718 12/27/2018 14-16
VOCs (mg/kg)					
Acetone	ND	ND	NE	0.082 J	NE
SVOCs (mg/kg)					
Indeno(1,2,3-c,d)Pyrene	0.58	NE	NE	ND	ND
Pesticides (mg/kg)					
4,4'-DDT	0.0133 J	0.00366	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND	ND
PCBs (mg/kg)	NE	ND	ND	ND	ND
Inorganics (mg/kg)					
Barium	1,460	661	NE	NE	NE
Cadmium	5.19	NE	NE	NE	NE
Lead	753 J	229 J	160 J	NE	71.3 J
Zinc	2,990 J	439 J	NE	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	RB18_0-2 1/4/2019 0-2	RB18_6-8 1/4/2019 6-8	RB18_15-17 1/4/2019 15-17	RB18_18-20 1/4/2019 18-20
VOCs (mg/kg)	NE	NE	NE	NE
SVOCs (mg/kg)				
Benzo(a)Anthracene	NE	2.8	NE	ND
Benzo(a)Pyrene	NE	2.4	ND	ND
Benzo(b)Fluoranthene	1.1	4.8	NE	ND
Benzo(k)Fluoranthene	NE	1.3	ND	ND
Chrysene	NE	3.3	NE	ND
Dibenz(a,h)Anthracene	NE	0.5 J	ND	ND
Indeno(1,2,3-c,d)Pyrene	0.76 J	2.6	ND	ND
Pesticides (mg/kg)	NE	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND	ND
Inorganics (mg/kg)				
Copper	NE	55.9	67.2	69
Lead	152	85.8	NE	NE
Mercury	0.317	0.623	NE	NE
Zinc	127	NE	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	SB07_0-2 9/5/2017 0-2
VOCs (mg/kg)	
Acetone	0.08
SVOCs (mg/kg)	
Benzo(a)Anthracene	1.9
Benzo(a)Pyrene	1.6
Benzo(b)Fluoranthene	2
Chrysene	1.9
Indeno(1,2,3-c,d)Pyrene	0.97
Pesticides (mg/kg)	NE
PCBs (mg/kg)	ND
Inorganics (mg/kg)	
Lead	227

Sample ID Sample Date Depth Range (feet bgs)	RB19_0-2 1/3/2019 0-2	RB19_20-22 1/3/2019 20-22	RB19_24-25 1/3/2019 24-25
VOCs (mg/kg)			
Total Xylenes	ND	0.31 J	ND
SVOCs (mg/kg)			
3 & 4 Methylphenol (m&p Cresol)	ND	0.37 J	NE
Benzo(a)Anthracene	1.2	NE	NE
Benzo(a)Pyrene	1.3	NE	NE
Benzo(b)Fluoranthene	1.7	NE	NE
Chrysene	1.2	NE	NE
Indeno(1,2,3-c,d)Pyrene	1.2	NE	NE
Pesticides (mg/kg)	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	ND	ND	NE
Inorganics (mg/kg)			
Arsenic	NE	17 J	17.8 J
Barium	1,210	NE	NE
Chromium, Trivalent	NE	40	37
Copper	52.1	78.2	96.5
Lead	366	203	252
Mercury	2.32 J	4.38 J	3.75 J
Zinc	1,200	177	226

Sample ID Sample Date Depth Range (feet bgs)	RB22_0-2 1/3/2019 0-2	RB22_3-5 1/3/2019 3-5	RB22_20-22 1/4/2019 20-22
VOCs (mg/kg)	NE	NE	NE
SVOCs (mg/kg)			
Benzo(a)Anthracene	1.1	NE	NE
Benzo(a)Pyrene	1.1	NE	NE
Benzo(b)Fluoranthene	1.4	NE	NE
Chrysene	1.1	NE	NE
Indeno(1,2,3-c,d)Pyrene	0.75	NE	NE
Pesticides (mg/kg)	ND	NE	ND
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND
Inorganics (mg/kg)			
Copper	NE	81.5	NE
Lead	425	77.4	492
Mercury	0.318 J	0.2 J	5.03
Zinc	171	132	NE

Sample ID Sample Date Depth Range (feet bgs)	SB08_23-24 9/5/2017 23-24
VOCs (mg/kg)	
Benzene	0.11 J
SVOCs (mg/kg)	NE
Pesticides (mg/kg)	NA
PCBs (mg/kg)	NA
Inorganics (mg/kg)	
Lead	691
Mercury	1
Zinc	112

Sample ID Sample Date Depth Range (feet bgs)	SB09_0-2 9/5/2017 0-2
VOCs (mg/kg)	NE
SVOCs (mg/kg)	
Benzo(b)Fluoranthene	1.1
Indeno(1,2,3-c,d)Pyrene	0.54
Pesticides (mg/kg)	NA
PCBs (mg/kg)	NA
Inorganics (mg/kg)	
Copper	107
Lead	702
Mercury	0.8
Zinc	312

Sample ID Sample Date Depth Range (feet bgs)	RB20_0-2 1/4/2019 0-2	RB20_7-9 1/4/2019 7-9	RB20_13-15 1/4/2019 13-15	RB20_18-20 1/4/2019 18-20
VOCs (mg/kg)	NE	NE	NE	NE
SVOCs (mg/kg)	NE	NE	NE	NE
Pesticides (mg/kg)	ND	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND	ND
Inorganics (mg/kg)				
Cadmium	NE	3.08	NE	NE
Copper	NE	969	694	NE
Lead	75.7	287	1,070	NE
Nickel	NE	8,770	NE	NE
Zinc	NE	801	474	NE

Sample ID Sample Date Depth Range (feet bgs)	RB21_0-2 1/3/2019 0-2	RB21_2-4 1/3/2019 2-4	RB21_18-20 1/3/2019 18-20
VOCs (mg/kg)	NE	ND	NE
SVOCs (mg/kg)			
Benzo(a)Anthracene	5.9	NE	NE
Benzo(a)Pyrene	5.1	NE	NE
Benzo(b)Fluoranthene	6.3	NE	NE
Benzo(k)Fluoranthene	2.3	NE	NE
Chrysene	6	NE	NE
Dibenz(a,h)Anthracene	0.82	ND	NE
Indeno(1,2,3-c,d)Pyrene	3.5	NE	NE
Pesticides (mg/kg)	NE	ND	NE
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND
Inorganics (mg/kg)			
Copper	NE	191	54
Lead	2,940	304	NE
Mercury	0.881 J	0.52 J	ND
Zinc	874	212	NE

Sample ID Sample Date Depth Range (feet bgs)	RB17_0-2 1/4/2019 0-2	RB17_4-6 1/4/2019 4-6	RB17_8-10 1/4/2019 8-10	RB17_18-20 1/4/2019 18-20
VOCs (mg/kg)	NE	NE	NE	NE
SVOCs (mg/kg)				
Benzo(a)Anthracene	NE	1.3	NE	ND
Benzo(a)Pyrene	NE	1.7	NE	ND
Benzo(b)Fluoranthene	NE	2.6	1.3	ND
Chrysene	NE	1.3	NE	ND
Dibenz(a,h)Anthracene	NE	0.38	NE	ND
Indeno(1,2,3-c,d)Pyrene	NE	1.5	0.79	ND
Pesticides (mg/kg)	ND	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND
PCBs (mg/kg)	NE	NE	ND	ND
Inorganics (mg/kg)				
Cadmium	3.17 J	NE	NE	NE
Copper	271 J	NE	265	NE
Lead	905	444	379	NE
Mercury	0.639	5.62	0.2	ND
Zinc	1,170	395	176	NE

Sample ID Sample Date Depth Range (feet bgs)	RB15_0-2 1/8/2019 0-2	RB15_18-20 1/8/2019 18-20	RB15_23-25 1/8/2019 23-25	SODUP05_010819 1/8/2019 23-25	RB15_28-30 1/8/2019 28-30
VOCs (mg/kg)					
Acetone	ND	0.051	ND	ND	NE
Benzene	0.13	NE	0.61 J	0.28 J	NE
Toluene	1.9	ND	ND	ND	ND
SVOCs (mg/kg)					
Benzo(b)Fluoranthene	1.1	NE	ND	ND	ND
Indeno(1,2,3-c,d)Pyrene	0.59	NE	ND	ND	ND
Pesticides (mg/kg)	NE	ND	ND	NE	ND
Herbicides (mg/kg)	ND	ND	ND	ND	ND
PCBs (mg/kg)					
Inorganics (mg/kg)	ND	ND	ND	ND	ND
Lead	244	69.4	NE	NE	NE
Mercury	NE	0.276	ND	ND	ND

Sample ID Sample Date Depth Range (feet bgs)	RB14_0-2 1/7/2019 0-2	RB14_18-20 1/7/2019 18-20	RB14_23-25 1/7/2019 23-25	SODUP04_010719 1/7/2019 23-25	RB14_33-35 1/7/2019 33-35
VOCs (mg/kg)					
1,3,5-Trimethylbenzene	ND	NE	23 J	NE	ND
Ethylbenzene	ND	NE	2.3 J	NE	NE
n-Butylbenzene	ND	NE	17 J	NE	ND
n-Propylbenzene	ND	7.6	33 J	13 J	ND
Total Xylenes	ND	ND	0.42 J	ND	ND
SVOCs (mg/kg)					
Indeno(1,2,3-c,d)Pyrene	0.54	ND	ND	ND	ND
Pesticides (mg/kg)	ND	ND	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND	ND	ND
Inorganics (mg/kg)					
Lead	169	NE	NE	NE	NE
Mercury	0.186	ND	ND	ND	ND
Zinc	119	NE	NE	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	SB11_19.5-20 9/22/2017 19.5-20
VOCs (mg/kg)	
1,2,4-Trimethylbenzene	8.5
Benzene	0.085
Total Xylenes	2.4
SVOCs (mg/kg)	NA
Pesticides (mg/kg)	NA
PCBs (mg/kg)	NA

Sample ID Sample Date Depth Range (feet bgs)	SB12_18-19 9/22/2017 18-19
VOCs (mg/kg)	
Benzene	0.38
Total Xylenes	0.51 J
SVOCs (mg/kg)	NA
Pesticides (mg/kg)	NA
PCBs (mg/kg)	NA

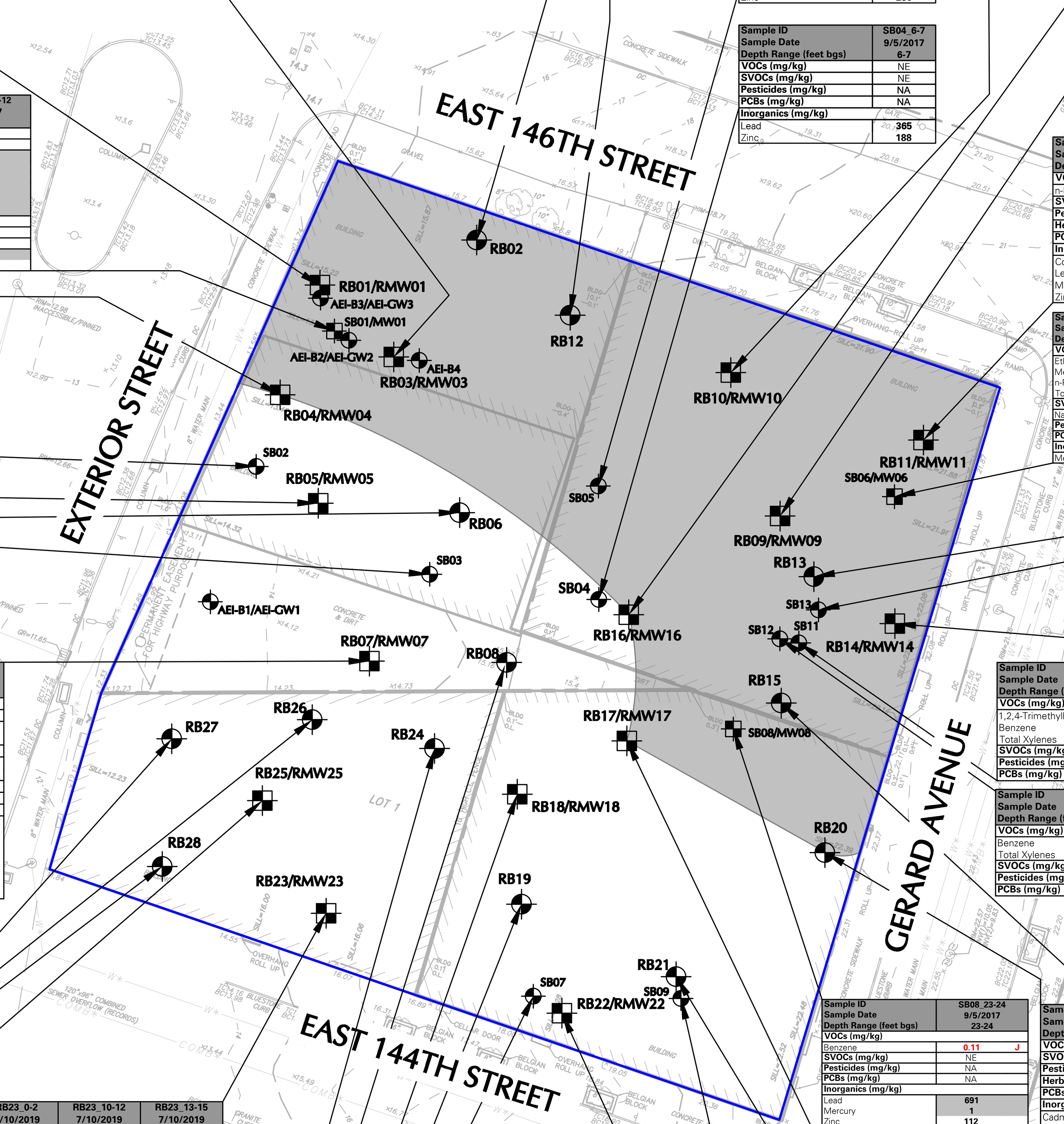
Sample ID Sample Date Depth Range (feet bgs)	SB13_18-19 9/22/2017 18-19
VOCs (mg/kg)	
1,2,4-Trimethylbenzene	63
1,3,5-Trimethylbenzene (Mesitylene)	23
Benzene	3.6
Ethylbenzene	26
n-Propylbenzene	7.7
Toluene	1.4
Total Xylenes	110
SVOCs (mg/kg)	NA
Pesticides (mg/kg)	NA
PCBs (mg/kg)	NA

Sample ID Sample Date Depth Range (feet bgs)	RB11_0-2 1/2/2019 0-2	RB11_19-21 1/2/2019 19-21	RB11_28-30 1/2/2019 28-30
VOCs (mg/kg)			
n-Propylbenzene	NE	9.1	NE
SVOCs (mg/kg)	NE	NE	NE
Pesticides (mg/kg)	NE	ND	ND
Herbicides (mg/kg)	ND	ND	ND
PCBs (mg/kg)	NE	ND	ND
Inorganics (mg/kg)			
Copper	422	NE	NE
Lead	162	NE	NE
Mercury	0.235	ND	ND
Zinc	130	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	SB06_23-23.5 9/6/2017 23-23.5
VOCs (mg/kg)	
Ethylbenzene	3.3
Methylene Chloride	1.1 J
n-Propylbenzene	42
Total Xylenes	0.59 J
SVOCs (mg/kg)	
Naphthalene	14
Pesticides (mg/kg)	NA
PCBs (mg/kg)	NA
Inorganics (mg/kg)	
Mercury	0.31

Sample ID Sample Date Depth Range (feet bgs)	RB09_0-2 1/2/2019 0-2	RB09_19-21 1/2/2019 19-21	SODUP03_010219 1/2/2019 19-21	RB09_28-30 1/2/2019 28-30
VOCs (mg/kg)				
Benzene	ND	1.1 J	2.5 J	NE
Ethylbenzene	ND	NE	1.6	NE
n-Butylbenzene	ND	NE	14 J	NE
n-Propylbenzene	ND	21 J	44 J	NE
Total Xylenes	ND	0.5 J	1.3 J	ND
SVOCs (mg/kg)				
Benzo(a)Anthracene	2.7	NE	NE	ND
Benzo(a)Pyrene	2.4	NE	NE	ND
Benzo(b)Fluoranthene	3	NE	NE	ND
Benzo(k)Fluoranthene	0.99	NE	NE	ND
Chrysene	2.5	NE	NE	ND
Dibenz(a,h)Anthracene	0.38	ND	NE	ND
Indeno(1,2,3-c,d)Pyrene	1.5	NE	NE	ND
Naphthalene	NE	NE	21 J	ND
Pesticides (mg/kg)	ND	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND	ND
Inorganics (mg/kg)				
Copper	68.2	NE	NE	NE
Lead	569	NE	NE	NE
Mercury	0.242	ND	ND	ND
Zinc	206	NE	NE	NE

Sample ID Sample Date Depth Range (feet bgs)	RB13_0-2 1/7/2019 0-2	RB13_18-20 1/7/2019 18-20	RB13_22-24 1/7/2019 22-24	RB13_33-35 1/7/2019 33-35
VOCs (mg/kg)				
1,2,4-Trimethylbenzene	ND	110	NE	ND
1,3,5-Trimethylbenzene	NE	38	NE	NE
Benzene	NE	1.7	1.4	NE
Ethylbenzene	NE	37	9.7	NE
n-Propylbenzene	ND	18	30	NE
Toluene	NE	1.6	NE	ND
Total Xylenes	NE	120	5.2	ND
SVOCs (mg/kg)				
Naphthalene	NE	NE	22	ND
Pesticides (mg/kg)	ND	ND	ND	ND
Herbicides (mg/kg)	ND	ND	ND	ND
PCBs (mg/kg)	ND	ND	ND	ND
Inorganics (mg/kg)				
Lead	76.2	NE	NE	NE
Mercury	0.468	NE	ND	ND
Zinc	120	NE	NE	NE



30 0 15 30
SCALE IN FEET

LEGEND:

- SITE BOUNDARY
- RB32 — SOIL BORING LOCATION
- RB30/RMW30 — SOIL BORING/MONITORING WELL LOCATION
- SB03 — APPROXIMATE SI SOIL BORING LOCATION (LANGAN, SEPTEMBER 2017)
- SB01/MW01 — APPROXIMATE SI SOIL BORING/MONITORING WELL LOCATION (LANGAN, SEPTEMBER 2017)
- AEI-B2/AEI-GW2 — APPROXIMATE PHASE II ESI SOIL BORING/MONITORING WELL LOCATION (AEI, OCTOBER 2015)
- APPROXIMATE EXTENT OF PETROLEUM PLUME

NOTES:

1. THE BASE MAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
2. SOIL SAMPLE ANALYTICAL RESULTS ARE COMPARED TO TITLE 6 OF THE NEW YORK CODES, RULES, AND REGULATIONS (NYCRR) PART 375 UNRESTRICTED USE (UU), RESTRICTED USE RESTRICTED-RESIDENTIAL (RRU), AND PROTECTION OF GROUNDWATER (PGW) SOIL CLEANUP OBJECTIVES (SCOs).
3. RESULTS EXCEEDING UU SCOs ARE BOLDED.
4. RESULTS EXCEEDING RRU SCOs ARE SHADED AND BOLDED.
5. RESULTS EXCEEDING PGW SCOs ARE RED
6. ONLY RESULTS WITH DETECTED CONCENTRATIONS EXCEEDING UU, RRU AND/OR PGW SCOs ARE SHOWN.
7. ONLY VALIDATED ANALYTICAL DATA ARE SHOWN.
8. SI = SUBSURFACE INVESTIGATION
9. ESI = ENVIRONMENTAL SITE INVESTIGATION
10. mg/kg = MILLIGRAMS PER KILOGRAM
11. VOCs= VOLATILE ORGANIC COMPOUND
12. SVOCs = SEMIVOLATILE ORGANIC COMPOUND
13. PCBs = POLYCHLORINATED BIPHENYLS
14. NE = NO EXCEEDANCES
15. ND = NOT DETECTED
16. NA = NOT ANALYZED
17. J = THE ANALYTE WAS DETECTED ABOVE THE METHOD DETECTION LIMIT (MDL), BUT BELOW THE REPORTING LIMIT (RL); THEREFORE, THE RESULT IS AN ESTIMATED CONCENTRATION.
18. P = THE RELATIVE PERCENT DIFFERENCE BETWEEN THE RESULTS FOR THE TWO COLUMNS EXCEEDS THE METHOD-SPECIFIED CRITERIA.
19. I = THE LOWER VALUE FOR THE TWO COLUMNS HAS BEEN REPORTED DUE TO OBVIOUS INTERFERENCE.
20. BGS = BELOW GRADE SURFACE
21. TCLP = TOXICITY CHARACTERISTIC LEACHING PROCEDURE
22. PGW SCOS WERE ONLY APPLIED TO ANALYTES THAT ALSO EXCEEDED GROUNDWATER REGULATORY STANDARDS IN GROUNDWATER SAMPLES COLLECTED FROM THE SITE. THE PGW SCOS ARE APPLICABLE ONLY TO THOSE CONSTITUENTS THAT ARE IN AREAS WHICH COULD BE A SOURCE OF GROUNDWATER CONTAMINATION.

Analyte	NYSDEC Part 375 Unrestricted Use SCOs	NYSDEC Part 375 Restricted Use - Restricted Residential SCOs	NYSDEC Part 375 Protection of Groundwater SCOs
VOCs (mg/kg)			
1,2,4-Trimethylbenzene	3.6	52	3.6
1,3,5-Trimethylbenzene (Mesitylene)	8.4	52	12
Acetone	0.05	100	~
Benzene	0.06	4.8	0.06
Ethylbenzene	1	41	1
Methyl Ethyl Ketone (2-Butanone)	0.12	100	~
n-Butylbenzene	12	100	12
n-Propylbenzene	3.9	100	3.9
Toluene	0.7	100	0.7
Total Xylenes	0.26	100	1.6
SVOCs (mg/kg)			
3 & 4 Methylphenol (m&p Cresol)	0.33	100	~
Benzo(a)Anthracene	1	1	1
Benzo(a)Pyrene	1	1	22
Benzo(b)Fluoranthene	1	1	1.7
Benzo(k)Fluoranthene	0.8	3.9	1.7
Chrysene	1	3.9	1
Dibenz(a,h)Anthracene	0.33	0.33	~
Indeno(1,2,3-c,d)Pyrene	0.5	0.5	8.2
Naphthalene	12	100	12
Pesticides (mg/kg)			
4,4'-DDD	0.0033	13	~
4,4'-DDE	0.0033	8.9	~
4,4'-DDT	0.0033	7.9	~
Dieldrin	0.005	0.2	~
Endrin	0.014	11	~
Inorganics (mg/kg)			
Arsenic	13	16	~
Barium	350	400	~
Cadmium	2.5	4.3	~
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	~
Silver	2	180	~
Zinc	109	10,000	~

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.

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Project
GERARD AVENUE AND EAST 146TH STREET
BLOCK No. 2351, LOT Nos. 1, 3, 12 and 20
BRONX NEW YORK

Figure Title
SOIL SAMPLE ANALYTICAL RESULTS MAP

Project No. 170487001
Date 01/29/2020
Drawn By JG
Checked By JL
Figure No. 5

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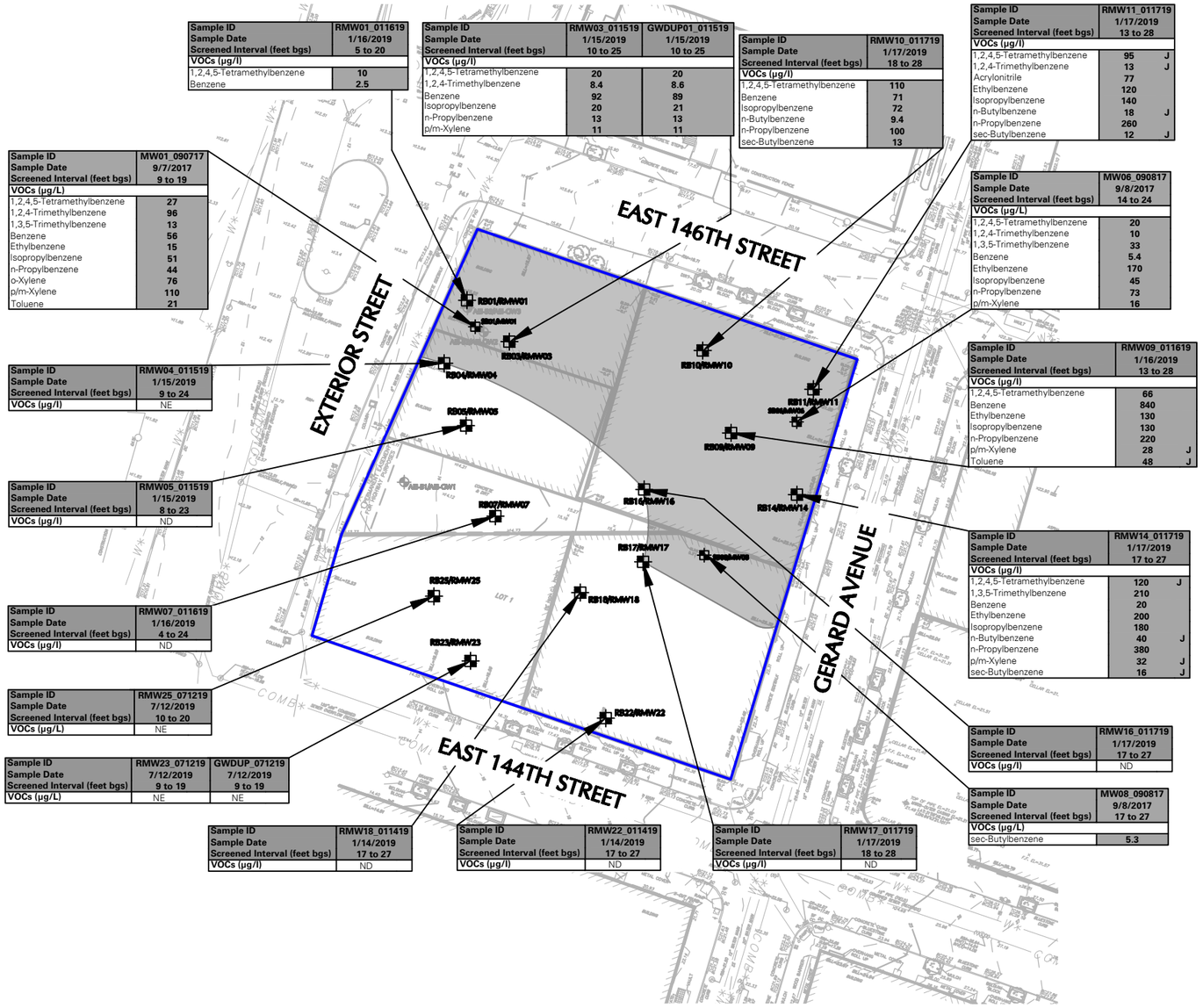
Filename: \\langan.com\data\NYC\data0\170487001\Cadd Data - 170487001\SheetFiles\Environmental\RIR\Figure 5 - Soil Sample Analtyical Results Map (no tags for prev consultant).dwg Date: 1/29/2020 Time: 15:29 User: jgolding Style Table: Langan.stb Layout: ANSID-BL



Sample ID	RMW01_011619
Sample Date	1/16/2019
Screened Interval (feet bgs)	5 to 20
VOCs (µg/l)	
1,2,4,5-Tetramethylbenzene	10
Benzene	2.5

Sample ID	RMW03_011519	GWDUP01_011519
Sample Date	1/15/2019	1/15/2019
Screened Interval (feet bgs)	10 to 25	10 to 25
VOCs (µg/l)		
1,2,4,5-Tetramethylbenzene	20	20
1,2,4-Trimethylbenzene	8.4	8.6
Benzene	92	89
Isopropylbenzene	20	21
n-Propylbenzene	13	13
p/m-Xylene	11	11

Sample ID	RMW10_011719
Sample Date	1/17/2019
Screened Interval (feet bgs)	18 to 28
VOCs (µg/l)	
1,2,4,5-Tetramethylbenzene	110
Benzene	71
Isopropylbenzene	72
n-Butylbenzene	9.4
n-Propylbenzene	100
sec-Butylbenzene	13

Sample ID	RMW11_011719	
Sample Date	1/17/2019	
Screened Interval (feet bgs)	13 to 28	
VOCs (µg/l)		
1,2,4,5-Tetramethylbenzene	95	J
1,2,4-Trimethylbenzene	13	J
Acrylonitrile	77	
Ethylbenzene	120	
Isopropylbenzene	140	
n-Butylbenzene	18	J
n-Propylbenzene	260	
sec-Butylbenzene	12	J

Sample ID	MW01_090717
Sample Date	9/7/2017
Screened Interval (feet bgs)	9 to 19
VOCs (µg/L)	
1,2,4,5-Tetramethylbenzene	27
1,2,4-Trimethylbenzene	96
1,3,5-Trimethylbenzene	13
Benzene	56
Ethylbenzene	15
Isopropylbenzene	51
n-Propylbenzene	44
o-Xylene	76
p/m-Xylene	110
Toluene	21

Sample ID	MW06_090817
Sample Date	9/8/2017
Screened Interval (feet bgs)	14 to 24
VOCs (µg/L)	
1,2,4,5-Tetramethylbenzene	20
1,2,4-Trimethylbenzene	10
1,3,5-Trimethylbenzene	33
Benzene	5.4
Ethylbenzene	170
Isopropylbenzene	45
n-Propylbenzene	73
p/m-Xylene	16

Sample ID	RMW04_011519
Sample Date	1/15/2019
Screened Interval (feet bgs)	9 to 24
VOCs (µg/l)	NE

Sample ID	RMW09_011619
Sample Date	1/16/2019
Screened Interval (feet bgs)	13 to 28
VOCs (µg/l)	
1,2,4,5-Tetramethylbenzene	66
Benzene	840
Ethylbenzene	130
Isopropylbenzene	130
n-Propylbenzene	220
p/m-Xylene	28 J
Toluene	48 J

Sample ID	RMW05_011519
Sample Date	1/15/2019
Screened Interval (feet bgs)	8 to 23
VOCs (µg/l)	ND

Sample ID	RMW14_011719
Sample Date	1/17/2019
Screened Interval (feet bgs)	17 to 27
VOCs (µg/l)	
1,2,4,5-Tetramethylbenzene	120 J
1,3,5-Trimethylbenzene	210
Benzene	20
Ethylbenzene	200
Isopropylbenzene	180
n-Butylbenzene	40 J
n-Propylbenzene	380
p/m-Xylene	32 J
sec-Butylbenzene	16 J

Sample ID	RMW07_011619
Sample Date	1/16/2019
Screened Interval (feet bgs)	4 to 24
VOCs (µg/l)	ND

Sample ID	RMW16_011719
Sample Date	1/17/2019
Screened Interval (feet bgs)	17 to 27
VOCs (µg/l)	ND

Sample ID	RMW25_071219
Sample Date	7/12/2019
Screened Interval (feet bgs)	10 to 20
VOCs (µg/L)	NE

Sample ID	MW08_090817
Sample Date	9/8/2017
Screened Interval (feet bgs)	17 to 27
VOCs (µg/L)	
sec-Butylbenzene	5.3

Sample ID	RMW23_071219	GWDUP_071219
Sample Date	7/12/2019	7/12/2019
Screened Interval (feet bgs)	9 to 19	9 to 19
VOCs (µg/L)	NE	NE

Sample ID	RMW18_011419
Sample Date	1/14/2019
Screened Interval (feet bgs)	17 to 27
VOCs (µg/l)	ND

Sample ID	RMW22_011419
Sample Date	1/14/2019
Screened Interval (feet bgs)	17 to 27
VOCs (µg/l)	ND

Sample ID	RMW17_011719
Sample Date	1/17/2019
Screened Interval (feet bgs)	18 to 28
VOCs (µg/l)	ND

LEGEND:

- SITE BOUNDARY
- RB30/RMW30 — SOIL BORING AND MONITORING WELL LOCATION
- SB01/MW01 — APPROXIMATE SI SOIL BORING/MONITORING WELL LOCATION (LANGAN, SEPTEMBER 2017)
- AEI-B2/AEI-GW2 — APPROXIMATE PHASE II ESI SOIL BORING/MONITORING WELL LOCATION (AEI, OCTOBER 2015)
- APPROXIMATE EXTENT OF PETROLEUM PLUME

NOTES:

1. THE BASE MAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
2. MONITORING WELLS WERE SURVEYED BY LANGAN ON JANUARY 24, 2019.
3. GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS (AWQS) AND GUIDANCE VALUES FOR DRINKING WATER (CLASS GA)(COLLECTIVELY REFERRED TO AS THE STANDARDS AND GUIDANCE VALUES [SGVs]).
4. REGULATORY CRITERIA DO NOT EXIST FOR PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) AND 1,4-DIOXANE IN NEW YORK STATE. PFAS ARE COMPARED TO THE USEPA HEALTH ADVISORY LEVEL.
5. RESULTS EXCEEDING SGVs AND/OR THE USEPA HEALTH ADVISORY LEVEL ARE SHADED AND BOLDED.
6. ONLY RESULTS WITH DETECTED CONCENTRATIONS ABOVE SGVs AND/OR THE USEPA HEALTH ADVISORY LEVEL ARE SHOWN.
7. ONLY VALIDATED ANALYTICAL DATA ARE SHOWN.
8. SI = SUBSURFACE INVESTIGATION
9. ESI = ENVIRONMENTAL SITE INVESTIGATION
10. µg/L = MICROGRAMS PER LITER
11. VOCs = VOLATILE ORGANIC COMPOUNDS
12. NE = NO EXCEEDANCES
13. ND = NOT DETECTED
14. NA = NOT ANALYZED
15. J = THE ANALYTE WAS DETECTED ABOVE THE METHOD DETECTION LIMIT (MDL)
16. USEPA - UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Analyte	SGVs
VOCs (µg/l)	
1,2,4,5-Tetramethylbenzene	5
1,2,4-Trimethylbenzene	5
1,3,5-Trimethylbenzene	5
Acrylonitrile	5
Benzene	1
Ethylbenzene	5
Isopropylbenzene	5
n-Butylbenzene	5
n-Propylbenzene	5
p/m-Xylene	5
sec-Butylbenzene	5
Toluene	5

30 0 15 30

SCALE: 1 INCH = 30 FEET

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Project: GERARD AVENUE AND EAST 146TH STREET
BLOCK No. 2351 LOT Nos. 1, 3, 12, & 20
BRONX NEW YORK

Figure Title: GROUNDWATER SAMPLE ANALYTICAL RESULTS MAP - VOCs

Project No. 170487001
Date 03/15/2019
Drawn By TG
Checked By JL

Figure No. 6A
Sheet 6 of 11

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Filename: \\langan.com\data\NYC\data0\170487001\Cadd Data - 170487001\SheetFiles\Environmental\RIR\Figure 6A - Groundwater Sample Analtyical Results Map (VOCs)(no tags for prev consultant).dwg Date: 1/22/2020 Time: 16:31 User: jgolding Style Table: Langan.stb Layout: VOCs

Sample ID	RMW01_011619
Sample Date	1/16/2019
Screened Interval (feet bgs)	5 to 20
SVOCs (µg/l)	
Acenaphthene	32
Benzo(a)anthracene	0.2
Benzo(a)pyrene	0.14
Benzo(b)fluoranthene	0.14
Benzo(k)fluoranthene	0.06 J
Chrysene	0.31
Indeno(1,2,3-cd)pyrene	0.08 J
Pesticides (µg/l)	ND
Herbicides (µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	1,560
Iron (dissolved)	1,040
Magnesium	62,400
Magnesium (dissolved)	60,400
Manganese	570.4
Manganese (dissolved)	540.4
Sodium	523,000
Sodium (dissolved)	517,000
PFAS (ng/l)	NA

Sample ID	RMW03_011519	GWDUP01_011519
Sample Date	1/15/2019	1/15/2019
Screened Interval (feet bgs)	10 to 25	10 to 25
SVOCs (µg/l)		
Acenaphthene	33	32
Benzo(a)anthracene	0.22	0.14
Benzo(a)pyrene	0.2 J	0.09 J
Benzo(b)fluoranthene	0.16 J	0.08 J
Benzo(k)fluoranthene	0.05 J	0.03 J
Chrysene	0.19	0.12
Indeno(1,2,3-cd)pyrene	0.08 J	0.05 J
Naphthalene	30	28
Pesticides (µg/l)	ND	ND
Herbicides (µg/l)	ND	ND
PCBs (µg/l)	ND	ND
Inorganics (µg/l)		
Iron	984	919
Iron (dissolved)	439	418
Magnesium	59,100	57,100
Magnesium (dissolved)	57,600	58,000
Manganese	950.9	935.4
Manganese (dissolved)	955.1	965.4
Sodium	377,000	369,000
PFAS (ng/l) olved)	370,000	371,000

Sample ID	RMW10_011719
Sample Date	1/17/2019
Screened Interval (feet bgs)	18 to 28
SVOCs (µg/l)	
Benzo(a)anthracene	0.05 J
Benzo(a)pyrene	0.03 J
Benzo(b)fluoranthene	0.04 J
Benzo(k)fluoranthene	0.02 J
Chrysene	0.06 J
Indeno(1,2,3-cd)pyrene	0.02 J
Phenol	1.2 J
Pesticides (µg/l)	ND
Herbicides (µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	8,530
Iron (dissolved)	8,000
Lead	28.11
Sodium	47,100
Sodium (dissolved)	50,100
PFAS (ng/l)	
Perfluorobutanoic Acid	7.08
Perfluoroheptanoic acid	1.76 J
Perfluorohexanoic Acid	2.16
Perfluorooctanesulfonic acid	4.19
Perfluorooctanoic Acid	1.76

Sample ID	RMW16_011719
Sample Date	1/17/2019
Screened Interval (feet bgs)	17 to 27
SVOCs (µg/l)	
Benzo(a)anthracene	0.04 J
Benzo(a)pyrene	0.06 J
Benzo(b)fluoranthene	0.07 J
Benzo(k)fluoranthene	0.03 J
Chrysene	0.06 J
Indeno(1,2,3-cd)pyrene	0.04 J
Pesticides (µg/l)	NE
Herbicides (µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	4,100
Iron (dissolved)	1,150
Lead	54.01
Magnesium	57,200
Magnesium (dissolved)	57,200
Manganese	396.8
Manganese (dissolved)	354
Sodium	76,600
Sodium (dissolved)	76,500
PFAS (ng/l)	NA

Sample ID	RMW11_011719
Sample Date	1/17/2019
Screened Interval (feet bgs)	13 to 28
SVOCs (µg/l)	
Naphthalene	360
Pesticides (µg/l)	ND
Herbicides (µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	3,700
Iron (dissolved)	2,950
Manganese	641.8
Manganese (dissolved)	639.3
Sodium	26,900
PFAS (ng/l) olved)	28,000

Sample ID	MW01_090717
Sample Date	9/7/2017
Screened Interval (feet bgs)	9 to 19
SVOCs (µg/l)	
Acenaphthene	38
Benzo(a)anthracene	1.6
Benzo(a)pyrene	1.5
Benzo(b)fluoranthene	1.4
Benzo(k)fluoranthene	0.43
Chrysene	1.6
Indeno(1,2,3-cd)pyrene	0.82
PCBs (µg/l)	NA
Inorganics (µg/l)	
Arsenic	54.38
Beryllium	3.92
Cadmium	7.3
Chromium	506.6
Iron	102,000
Lead	2,520
Magnesium	59,100
Magnesium (dissolved)	43,400
Manganese	3,211
Mercury	2.4
Nickel	264.5
Selenium	28.7
Sodium	310,000
Sodium (dissolved)	285,000
Thallium	0.56
Zinc	2,126
PFAS (ng/l)	NA

Sample ID	MW06_090817
Sample Date	9/8/2017
Screened Interval (feet bgs)	14 to 24
SVOCs (µg/l)	
Benzo(a)anthracene	0.02 J
Benzo(b)fluoranthene	0.02 J
PCBs (µg/l)	ND
Inorganics (µg/l)	
Chromium	491.7
Iron	49,400
Lead	57.87
Magnesium	79,600
Magnesium (dissolved)	80,400
Manganese	5,174
Manganese (dissolved)	4,422
Nickel	234
Sodium	300,000
Sodium (dissolved)	282,000
PFAS (ng/l)	NA

Sample ID	RMW09_011619
Sample Date	1/16/2019
Screened Interval (feet bgs)	13 to 28
SVOCs (µg/l)	
Benzo(a)anthracene	0.1 J
Benzo(a)pyrene	0.06 J
Benzo(b)fluoranthene	0.1
Benzo(k)fluoranthene	0.04 J
Chrysene	0.1
Indeno(1,2,3-cd)pyrene	0.04 J
Naphthalene	370
Phenol	9.5
Pesticides (µg/l)	ND
Herbicides (µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	32,000
Iron (dissolved)	31,800
Magnesium	43,100
Magnesium (dissolved)	42,800
Manganese	2,410
Manganese (dissolved)	2,390
Sodium	77,900
Sodium (dissolved)	79,800
PFAS (µg/l)	NE

Sample ID	RMW04_011519
Sample Date	1/15/2019
Screened Interval (feet bgs)	9 to 24
SVOCs (µg/l)	
Benzo(a)anthracene	0.18
Benzo(a)pyrene	0.18
Benzo(b)fluoranthene	0.21
Benzo(k)fluoranthene	0.07 J
Chrysene	0.15
Indeno(1,2,3-cd)pyrene	0.11
Pentachlorophenol	9.2
Pesticides (µg/l)	ND
Herbicides (µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	8,990
Iron (dissolved)	5,870
Lead	38
Magnesium	52,700
Magnesium (dissolved)	49,600
Manganese	1,036
Manganese (dissolved)	977.6
Sodium	189,000
Sodium (dissolved)	181,000
PFAS (ng/l)	NA

Sample ID	RMW14_011719
Sample Date	1/17/2019
Screened Interval (feet bgs)	17 to 27
SVOCs (µg/l)	
Benzo(a)anthracene	0.28
Benzo(a)pyrene	0.28
Benzo(b)fluoranthene	0.33
Benzo(k)fluoranthene	0.13
Chrysene	0.28
Indeno(1,2,3-cd)pyrene	0.2
Naphthalene	280
Pesticides (µg/l)	ND
PFAS (ng/l) µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	14,100
Iron (dissolved)	10,900
Manganese	1,003
Manganese (dissolved)	949.9
Sodium	67,000
Sodium (dissolved)	69,700
PFAS (µg/l)	NA

Sample ID	MW08_090817
Sample Date	9/8/2017
Screened Interval (feet bgs)	17 to 27
SVOCs (µg/L)	
Benzo(a)anthracene	0.13
Benzo(a)pyrene	0.11
Benzo(b)fluoranthene	0.18
Benzo(k)fluoranthene	0.07 J
Chrysene	0.12
Indeno(1,2,3-cd)pyrene	0.06 J
PCBs (µg/L)	ND
Inorganics (µg/L)	
Iron	922

Sample ID	RMW05_011519
Sample Date	1/15/2019
Screened Interval (feet bgs)	8 to 23
SVOCs (µg/l)	
Benzo(a)anthracene	0.25
Benzo(a)pyrene	0.26
Benzo(b)fluoranthene	0.28
Benzo(k)fluoranthene	0.09 J
Chrysene	0.2
Indeno(1,2,3-cd)pyrene	0.15
Pesticides (µg/l)	ND
Herbicides (µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	3,200
Iron (dissolved)	313
Lead	55.22
Magnesium	80,600
Magnesium (dissolved)	80,800
Manganese	342.5
Sodium	43,800
Sodium (dissolved)	44,100
PFAS (ng/l)	NA

Sample ID	RMW25_071219
Sample Date	7/12/2019
Screened Interval (feet bgs)	10 to 20
SVOCs (µg/L)	NE
Pesticides (µg/L)	ND
Herbicides (µg/L)	ND
PCBs (µg/L)	ND
Inorganics (µg/L)	
Iron	10,600
Iron (Dissolved)	6,950
Lead	136
Manganese	1,444
Manganese (Dissolved)	1,270
Sodium	70,700
Sodium (Dissolved)	73,000
PFAS (ng/L)	
Perfluorobutanesulfonic Acid	0.969 J
Perfluorobutanoic acid	4.8
Perfluoroheptanoic acid	2.56
Perfluorohexanoic Acid	10.2
Perfluorononanoic Acid	0.824 J
Perfluorooctanesulfonic acid	3.71
Perfluorooctanoic Acid	5.51
Perfluoropentanoic Acid	11.9

Sample ID	RMW23_071219	GWDUP_071219
Sample Date	7/12/2019	7/12/2019
Screened Interval (feet bgs)	9 to 19	9 to 19
SVOCs (µg/L)	NE	NE
Pesticides (µg/L)	ND	ND
Herbicides (µg/L)	ND	ND
PCBs (µg/L)	ND	ND
Inorganics (µg/L)		
Iron	1,200	1,200
Iron (Dissolved)	728 J	656 J
Manganese	1,463	1,348
Manganese (Dissolved)	1,324	1,288
Sodium	75,100	70,400
Sodium (Dissolved)	70,700	66,600
PFAS (ng/L)		
N-ethyl perfluorooctane-sulfonamidoacetic acid	1.7 J	ND
Perfluorobutanesulfonic Acid	0.773 J	1.12 J
Perfluorobutanoic acid	2.42	10.6
Perfluoroheptanoic acid	0.982 J	2.62
Perfluorohexanoic Acid	1.53 J	6.12
Perfluorononanoic Acid	0.66 J	1.68 J
Perfluorooctanesulfonic acid	5.47 J	9.03
Perfluorooctanoic Acid	3.02	6.44
Perfluoropentanoic Acid	2.34	7.74

Sample ID	RMW07_011619
Sample Date	1/16/2019
Screened Interval (feet bgs)	4 to 24
SVOCs (µg/l)	
Benzo(a)anthracene	0.04 J
Benzo(a)pyrene	0.04 J
Benzo(b)fluoranthene	0.06 J
Benzo(k)fluoranthene	0.03 J
Chrysene	0.05 J
Indeno(1,2,3-cd)pyrene	0.04 J
Pesticides (µg/l)	ND
Herbicides (µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	658
Lead	30.03
Magnesium	35,800
Sodium	39,800
Sodium (dissolved)	39,000
PFAS (ng/l)	
Perfluorobutanesulfonic Acid	3.49
Perfluorobutanoic acid	4.73
Perfluoroheptanoic acid	1.42 J
Perfluorohexanesulfonic Acid	0.782 J
Perfluorohexanoic Acid	1.66 J
Perfluorononanoic Acid	0.6 J
Perfluorooctanesulfonic acid	7.55
Perfluorooctanoic Acid	10.6
Perfluoropentanoic Acid	1.73 J

Sample ID	RMW22_011419
Sample Date	1/14/2019
Screened Interval (feet bgs)	17 to 27
SVOCs (µg/l)	
Benzo(a)anthracene	0.08 J
Benzo(a)pyrene	0.19
Benzo(b)fluoranthene	0.27
Benzo(k)fluoranthene	0.11
Chrysene	0.06 J
Indeno(1,2,3-cd)pyrene	0.31
Pesticides (µg/l)	ND
Herbicides (µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	4770
Iron (dissolved)	1750
Lead	239.4
Manganese	1111
Manganese (dissolved)	1015
Sodium	45500
Sodium (dissolved)	44000
PFAS (µg/l)	NE

Sample ID	RMW18_011419
Sample Date	1/14/2019
Screened Interval (feet bgs)	17 to 27
SVOCs (µg/l)	
Benzo(a)anthracene	0.05 J
Benzo(a)pyrene	0.02 J
Benzo(b)fluoranthene	0.03 J
Benzo(k)fluoranthene	0.01 J
Chrysene	0.03 J
Indeno(1,2,3-cd)pyrene	0.02 J
Pesticides (µg/l)	ND
Herbicides (µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	36,400
Iron (dissolved)	5,450
Lead	226.8
Magnesium	43,200
Magnesium (dissolved)	36,900
Manganese	2,553
Manganese (dissolved)	1,982
Sodium	67,600
Sodium (dissolved)	73,500
PFAS (µg/l)	NA

Sample ID	RMW17_011719
Sample Date	1/17/2019
Screened Interval (feet bgs)	18 to 28
SVOCs (µg/l)	
Benzo(a)anthracene	0.17
Benzo(a)pyrene	0.14
Benzo(b)fluoranthene	0.14
Benzo(k)fluoranthene	0.05 J
Chrysene	0.18
Indeno(1,2,3-cd)pyrene	0.08 J
Phenol	1.8 J
Pesticides (µg/l)	NE
Herbicides (µg/l)	ND
PCBs (µg/l)	ND
Inorganics (µg/l)	
Iron	1,920
Iron (dissolved)	558
Magnesium	62,200
Magnesium (dissolved)	60,900
Sodium	60,000
Sodium (dissolved)	57,200
PFAS (ng/l)	NA

Analyte	SGVs
SVOCs (µg/l)	
Acenaphthene	20
Benzo(a)anthracene	0.002
Benzo(a)pyrene	0
Benzo(b)fluoranthene	0.002
Benzo(k)fluoranthene	0.002
Chrysene	0.002
Indeno(1,2,3-cd)pyrene	0.002
Naphthalene	10
Pentachlorophenol	1
Phenol	1
Inorganics (µg/l)	
Arsenic	25
Beryllium	3
Cadmium	5
Chromium	50
Iron	300
Lead	25
Magnesium	35000
Manganese	300
Mercury	0.7
Nickel	100
Selenium	10
Sodium	20000
Thallium	0.5
Zinc	2000
PFAS (µg/l)	
PFOS + PFOA	0.07

LEGEND:

- SITE BOUNDARY
- RB30/RMW30 — RI SOIL BORING AND MONITORING WELL LOCATION
- SB01/MW01 — APPROXIMATE SI SOIL BORING/MONITORING WELL LOCATION (LANGAN, SEPTEMBER 2017)
- AEI-B2/AEI-GW2 — APPROXIMATE PHASE II ESI SOIL BORING/MONITORING WELL LOCATION (AEI, OCTOBER 2015)
- APPROXIMATE EXTENT OF PETROLEUM PLUME

NOTES:

1. THE BASE MAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
2. MONITORING WELLS WERE SURVEYED BY LANGAN ON JANUARY 24, 2019.
3. GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS (AWQS) AND GUIDANCE VALUES FOR DRINKING WATER (CLASS GA)(COLLECTIVELY REFERRED TO AS THE STANDARDS AND GUIDANCE VALUES [SGVs]).
4. REGULATORY CRITERIA DO NOT EXIST FOR PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) AND 1,4-DIOXANE IN NEW YORK STATE. PFAS ARE COMPARED TO THE USEPA HEALTH ADVISORY LEVEL.
5. RESULTS EXCEEDING SGVs AND/OR THE USEPA HEALTH ADVISORY LEVEL ARE SHADED AND BOLDED.
6. ONLY VALIDATED ANALYTICAL DATA ARE SHOWN.
7. SI = SUBSURFACE INVESTIGATION
8. ESI = ENVIRONMENTAL SITE INVESTIGATION
9. µg/L = MICROGRAMS PER LITER
10. VOCs = VOLATILE ORGANIC COMPOUNDS
11. NE = NO EXCEEDANCES
12. ND = NOT DETECTED
13. NA = NOT ANALYZED
14. J = THE ANALYTE WAS DETECTED ABOVE THE METHOD DETECTION LIMIT (MDL)
15. USEPA - UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

30 0 15 30
SCALE IN FEET

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.

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Project: GERARD AVENUE AND EAST 146TH STREET
BLOCK No. 2351, LOT Nos. 1, 3, 12 and 20
BRONX NEW YORK

Figure Title: GROUNDWATER SAMPLE ANALYTICAL RESULTS MAP - SVOCs, PCBs, PESTICIDES, HERBICIDES, INORGANICS, & PFAS

Project No. 170487001
Date 03/15/2019
Drawn By VZ
Checked By JL
Figure No. 6B
Sheet 7 of 11

PROJECT NO. 170487001

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Filename: \\langan.com\data\NYC\data0\170487001\Cadd Data - 170487001\SheetFiles\Environmental\RIR\Figure 6B - Groundwater Sample Analytical Results Map (other compounds)\no tags for prev consultant)_recover.dwg Date: 1/22/2020 Time: 16:41 User: jgolding Style Table: Langan.stb Layout: ANSID-BL

Sample ID Sample Date Depth (feet bgs)	RSSV01 12/31/2018 0.5
VOCs (µg/m3)	
1,2,4-Trimethylbenzene	3.52
1,3,5-Trimethylbenzene	1.02
Acetone	4.42
Benzene	1.02
Chloromethane	0.483
Dichlorodifluoromethane	2.7
Ethylbenzene	3.76
Isopropanol	1.62
o-Xylene	5.73
p/m-Xylene	17.4
Tetrachloroethene	57.1
Toluene	2.79
Trichlorofluoromethane	5.16
Total VOCs	106.7
Total BTEX	30.7

Sample ID Sample Date Depth (feet bgs)	AA01_090717 9/7/2017 NA
VOCs (µg/m³)	
2,2,4-Trimethylpentane	1.45
2-Butanone	1.86
Acetone	13.1
Benzene	1.02
Chloromethane	1.41
Dichlorodifluoromethane	1.42
Ethanol	16.3
Heptane	0.893
Isopropanol	1.68
Methylene chloride	1.94
n-Hexane	1.45
Tetrachloroethene	3.72
Toluene	4.52
Trichlorofluoromethane	1.36
Total VOCs	52.1
Total BTEX	5.5

Sample ID Sample Date Sample Depth (feet bgs)	SV01_090717 9/7/2017 9
VOCs (µg/m³)	
1,3-Butadiene	25.4
2-Butanone	83.5
Benzene	141
Carbon disulfide	240
Cyclohexane	29.9
Heptane	3500
n-Hexane	6340
Tetrachloroethene	62.4
Toluene	50.1
Total VOCs	10472.3
Total BTEX	191.1

Sample ID Sample Date Depth (feet bgs)	RSV01 12/31/2019 8
VOCs (µg/m3)	
1,2,4-Trimethylbenzene	19.9
1,3,5-Trimethylbenzene	5.26
2-Butanone	6.25
2-Hexanone	7.42
4-Ethyltoluene	6.69
Benzene	3.48
Carbon disulfide	3.18
Dichlorodifluoromethane	2.52
Ethylbenzene	18.3
Heptane	5.57
n-Hexane	4.41
o-Xylene	25.4
p/m-Xylene	71.7
Tetrachloroethene	29.6
Toluene	403
Total VOCs	612.7
Total BTEX	521.9

Sample ID Sample Date Depth (feet bgs)	RSSV02 12/31/2018 1.17
VOCs (µg/m3)	
1,2,4-Trimethylbenzene	8.6
1,3,5-Trimethylbenzene	3.67
2-Butanone	3.42
4-Ethyltoluene	2.56
Acetone	18.7
Cyclohexane	1.65
Dichlorodifluoromethane	2.62
Ethylbenzene	6.56
Heptane	16
Isopropanol	2.33
n-Hexane	1.77
o-Xylene	10.5
p/m-Xylene	21.6
Toluene	4.94
Trichlorofluoromethane	2.34
Total VOCs	107.3
Total BTEX	43.6

Sample ID Sample Date Sample Depth (feet bgs)	SV06_090617 9/6/2017 14
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	32.4
1,3,5-Trimethylbenzene	8.95
1,3-Butadiene	2.39
2-Butanone	83.2
4-Ethyltoluene	6.05
Acetone	111
Benzene	18.9
Carbon disulfide	62.9
Chloroform	8.01
Cyclohexane	516
Ethylbenzene	12.7
Heptane	525
Isopropanol	4.87
n-Hexane	930
o-Xylene	22.3
p/m-Xylene	42.7
Styrene	5.15
Tertiary butyl Alcohol	90.6
Tetrachloroethene	11.4
Toluene	46.4
Total VOCs	2540.9
Total BTEX	143.0

Sample ID Sample Date Depth (feet bgs)	RAA01 12/31/2018 NA
VOCs (µg/m3)	
1,3-Butadiene	0.469
2,2,4-Trimethylpentane	1.04
Acetone	11.4
Benzene	2.05
Chloromethane	1.17
Dichlorodifluoromethane	3.45
Ethanol	28.3
Isopropanol	4.42
n-Hexane	1.6
p/m-Xylene	1.94
Toluene	4.18
Trichlorofluoromethane	2.05
Total VOCs	62.07
Total BTEX	8.17

Sample ID Sample Date Depth (feet bgs)	RSSV03 12/31/2018 1.17
VOCs (µg/m3)	
1,2,4-Trimethylbenzene	17.3
1,2-Dichloroethane	2.44
1,3,5-Trimethylbenzene	4.34
2,2,4-Trimethylpentane	1.06
2-Butanone	14.7
4-Ethyltoluene	5.01
Acetone	12.3
Benzene	30.3
Carbon disulfide	1.33
Chloroform	3.08
Cyclohexane	1.4
Dichlorodifluoromethane	2.69
Ethylbenzene	9.25
Heptane	9.18
Isopropanol	1.31
Methylene chloride	2.73
n-Hexane	10.5
o-Xylene	16.2
p/m-Xylene	45.2
Tetrachloroethene	56.1
Toluene	64.8
Trichlorofluoromethane	2.26
Total VOCs	313.5
Total BTEX	165.8

Sample ID Sample Date Depth (feet bgs)	RAA02_071519 7/15/2019 NA
VOCs (µg/m³)	
2,2,4-Trimethylpentane	1.26
Acetone	8.36
Benzene	0.856
Chloromethane	1.28
Dichlorodifluoromethane	2.36
Ethanol	17
Isopropanol	2
n-Hexane	0.952
Toluene	2.25
Trichlorofluoromethane	1.34
Total BTEX	3.11
Total VOCs	37.7

Sample ID Sample Date Depth (feet bgs)	SV08_090617 9/6/2017 17
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	23.5
1,3,5-Trimethylbenzene	6.98
2,2,4-Trimethylpentane	41.2
2-Butanone	67.2
2-Hexanone	45.9
4-Ethyltoluene	5.06
Acetone	102
Benzene	4.06
Chloroform	4.11
Cyclohexane	10.4
Ethylbenzene	10.2
Heptane	19.7
n-Hexane	19
o-Xylene	18.2
p/m-Xylene	34.4
Styrene	3.73
Tertiary butyl Alcohol	66.1
Tetrachloroethene	9.9
Tetrahydrofuran	4.25
Toluene	34.3
Total VOCs	530.2
Total BTEX	101.2

Sample ID Sample Date Depth (feet bgs)	RSSV04 12/31/2018 1.17
VOCs (µg/m3)	
1,2,4-Trimethylbenzene	20.3
1,3,5-Trimethylbenzene	19.7
2-Butanone	18.1
4-Ethyltoluene	6.78
Acetone	86.2
Benzene	5.49
Carbon disulfide	5.48
Chloroform	10.5
Cyclohexane	7.85
Ethylbenzene	17.7
Heptane	57
n-Hexane	11.2
o-Xylene	44.7
p/m-Xylene	89
Tetrachloroethene	52
Toluene	39.9
Total VOCs	491.9
Total BTEX	196.8

Sample ID Sample Date Depth (feet bgs)	RSV02 12/31/2019 9
VOCs (µg/m3)	
1,2,4-Trimethylbenzene	20.3
1,3,5-Trimethylbenzene	5.06
2,2,4-Trimethylpentane	2
2-Butanone	65.2
2-Hexanone	14.8
4-Ethyltoluene	6.88
Acetone	13.2
Benzene	2.95
Carbon disulfide	6.6
Chloroform	3.35
Cyclohexane	1.23
Dichlorodifluoromethane	2.51
Ethylbenzene	18.1
Heptane	6.23
n-Hexane	6.84
o-Xylene	25.1
p/m-Xylene	71.7
Tetrachloroethene	29.4
Tetrahydrofuran	2.68
Toluene	89.7
Trichlorofluoromethane	1.29
Total VOCs	395.1
Total BTEX	207.6

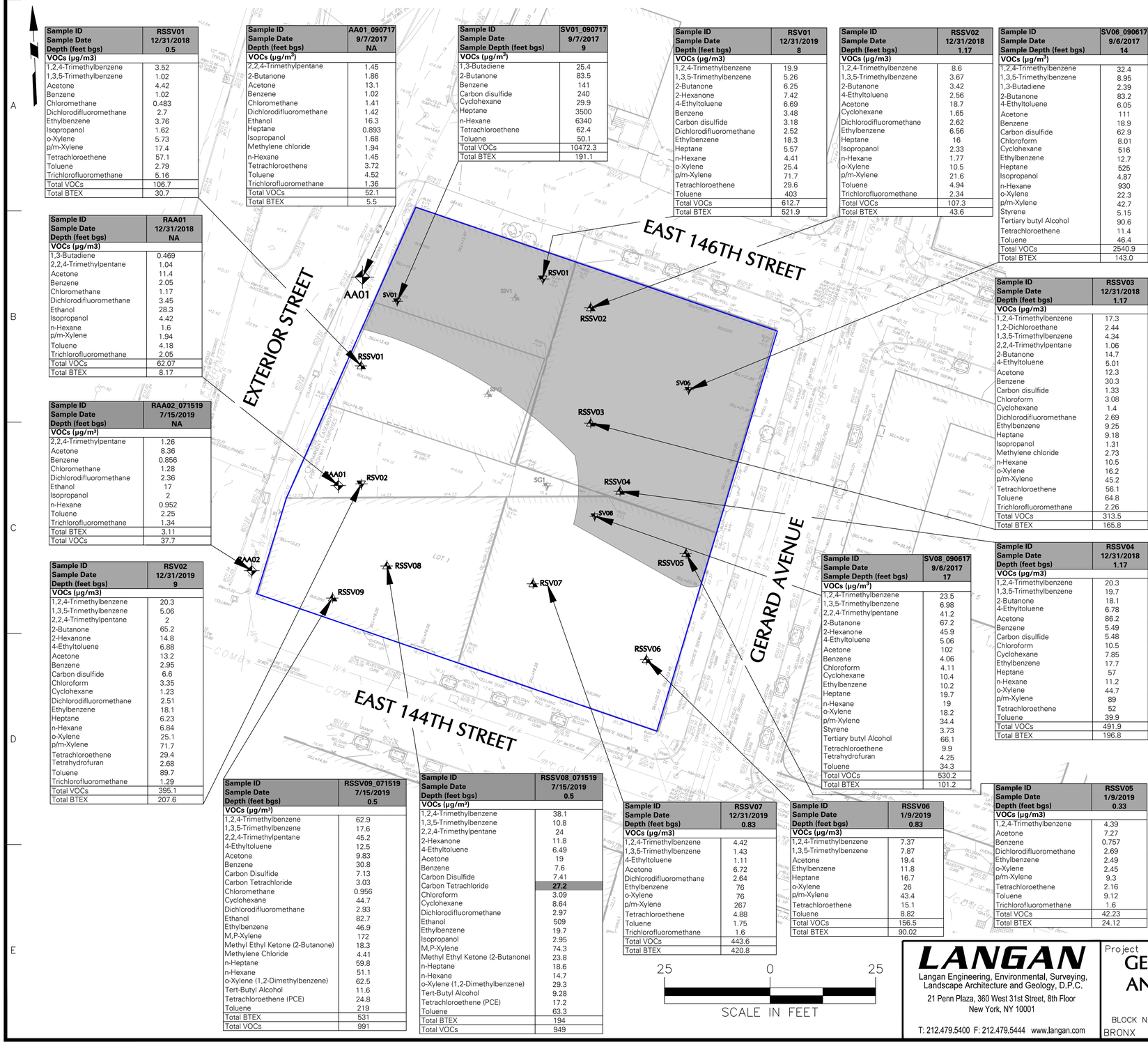
Sample ID Sample Date Depth (feet bgs)	RSSV09_071519 7/15/2019 0.5
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	62.9
1,3,5-Trimethylbenzene	17.6
2,2,4-Trimethylpentane	45.2
4-Ethyltoluene	12.5
Acetone	9.83
Benzene	30.8
Carbon Disulfide	7.13
Carbon Tetrachloride	3.03
Chloromethane	0.956
Cyclohexane	44.7
Dichlorodifluoromethane	2.93
Ethanol	82.7
Ethylbenzene	46.9
M,P-Xylene	172
Methyl Ethyl Ketone (2-Butanone)	18.3
Methylene Chloride	4.41
n-Heptane	59.8
n-Hexane	51.1
o-Xylene (1,2-Dimethylbenzene)	62.5
Tert-Butyl Alcohol	11.6
Tetrachloroethene (PCE)	24.8
Toluene	219
Total BTEX	531
Total VOCs	991

Sample ID Sample Date Depth (feet bgs)	RSSV08_071519 7/15/2019 0.5
VOCs (µg/m³)	
1,2,4-Trimethylbenzene	38.1
1,3,5-Trimethylbenzene	10.8
2,2,4-Trimethylpentane	24
2-Hexanone	11.8
4-Ethyltoluene	6.49
Acetone	19
Benzene	7.6
Carbon Disulfide	7.41
Carbon Tetrachloride	27.2
Chloroform	3.09
Cyclohexane	8.64
Dichlorodifluoromethane	2.97
Ethanol	509
Ethylbenzene	19.7
Isopropanol	2.95
M,P-Xylene	74.3
Methyl Ethyl Ketone (2-Butanone)	23.8
n-Heptane	18.6
n-Hexane	14.7
o-Xylene (1,2-Dimethylbenzene)	29.3
Tert-Butyl Alcohol	9.28
Tetrachloroethene (PCE)	17.2
Toluene	63.3
Total BTEX	194
Total VOCs	949

Sample ID Sample Date Depth (feet bgs)	RSSV07 12/31/2019 0.83
VOCs (µg/m3)	
1,2,4-Trimethylbenzene	4.42
1,3,5-Trimethylbenzene	1.43
4-Ethyltoluene	1.11
Acetone	6.72
Dichlorodifluoromethane	2.64
Ethylbenzene	76
o-Xylene	76
p/m-Xylene	267
Tetrachloroethene	4.88
Toluene	1.75
Trichlorofluoromethane	1.6
Total VOCs	443.6
Total BTEX	420.8

Sample ID Sample Date Depth (feet bgs)	RSSV06 1/9/2019 0.83
VOCs (µg/m3)	
1,2,4-Trimethylbenzene	7.37
1,3,5-Trimethylbenzene	7.87
Acetone	19.4
Ethylbenzene	11.8
Heptane	16.7
o-Xylene	26
p/m-Xylene	43.4
Tetrachloroethene	15.1
Toluene	8.82
Total VOCs	156.5
Total BTEX	90.02

Sample ID Sample Date Depth (feet bgs)	RSSV05 1/9/2019 0.33
VOCs (µg/m3)	
1,2,4-Trimethylbenzene	4.39
Acetone	7.27
Benzene	0.757
Dichlorodifluoromethane	2.69
Ethylbenzene	2.49
o-Xylene	2.45
p/m-Xylene	9.3
Tetrachloroethene	2.16
Toluene	9.12
Trichlorofluoromethane	1.6
Total VOCs	42.23
Total BTEX	24.12



LEGEND:

- SITE BOUNDARY
- RSV01 — SOIL VAPOR SAMPLE LOCATION
- RSSV07 — SUBSLAB SOIL VAPOR SAMPLE LOCATION
- RAA01 — AMBIENT AIR SAMPLE LOCATION
- AA01 — APPROXIMATE SI AMBIENT AIR SAMPLE LOCATION (LANGAN, SEPTEMBER 2017)
- SV06 — APPROXIMATE SI SOIL VAPOR SAMPLE LOCATION (LANGAN, SEPTEMBER 2017)
- SSV2 — APPROXIMATE PHASE II ESI SUB-SLAB SOIL VAPOR SAMPLE LOCATION (AEI, OCTOBER 2015)
- SG1 — APPROXIMATE PHASE II ESI SOIL VAPOR SAMPLE LOCATION (AEI, OCTOBER 2015)
- EXTENT OF PETROLEUM PLUME

NOTES:

1. THE BASE MAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
2. AMBIENT AIR AND SOIL VAPOR SAMPLE ANALYTICAL RESULTS ARE COMPARED TO NEW YORK STATE DEPARTMENT OF HEALTH (NYSDOH) AIR GUIDELINE VALUES (AGVs).
3. RESULTS EXCEEDING THE NYSDOH AGVs ARE SHADED AND BOLD.
4. ONLY RESULTS WITH DETECTED CONCENTRATIONS ARE SHOWN.
5. ONLY VALIDATED ANALYTICAL DATA ARE SHOWN.
6. SI = SUBSURFACE INVESTIGATION
7. ESI = ENVIRONMENTAL SITE INVESTIGATION
8. NA = NOT APPLICABLE
9. µg/m^3 = MICROGRAMS PER CUBIC METER
10. BGS = BELOW GRADE SURFACE
11. VOCs = VOLATILE ORGANIC COMPOUNDS
12. BTEX = BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES.
13. SUB-SLAB SOIL VAPOR SAMPLES WERE COLLECTED FROM 2" BENEATH THE BOTTOM OF THE BUILDING SLABS.
14. THE AMBIENT AIR SAMPLE WAS COLLECTED APPROXIMATELY 5 FEET ABOVE THE GROUND.

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Project
GERARD AVENUE AND EAST 146TH STREET
BLOCK No. 2351 LOT Nos. 1, 3, 12, & 20
BRONX NEW YORK

Figure Title
SOIL VAPOR SAMPLE ANALYTICAL RESULTS MAP

Project No.	Figure No.
170487001	7
Date: 03/15/2019	
Drawn By: TG	
Checked By: JL	Sheet 8 of 11

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Filename: \\langan.com\data\NYC\data0\170487001\Cadd Data - 170487001\SheetFiles\Environmental\RIR\Figure 7 - Soil Vapor Sample Analtyical Results Map (no tags for prev consultant).dwg Date: 11/25/2019 Time: 10:04 User: jgolding Style Table: Langan.stb
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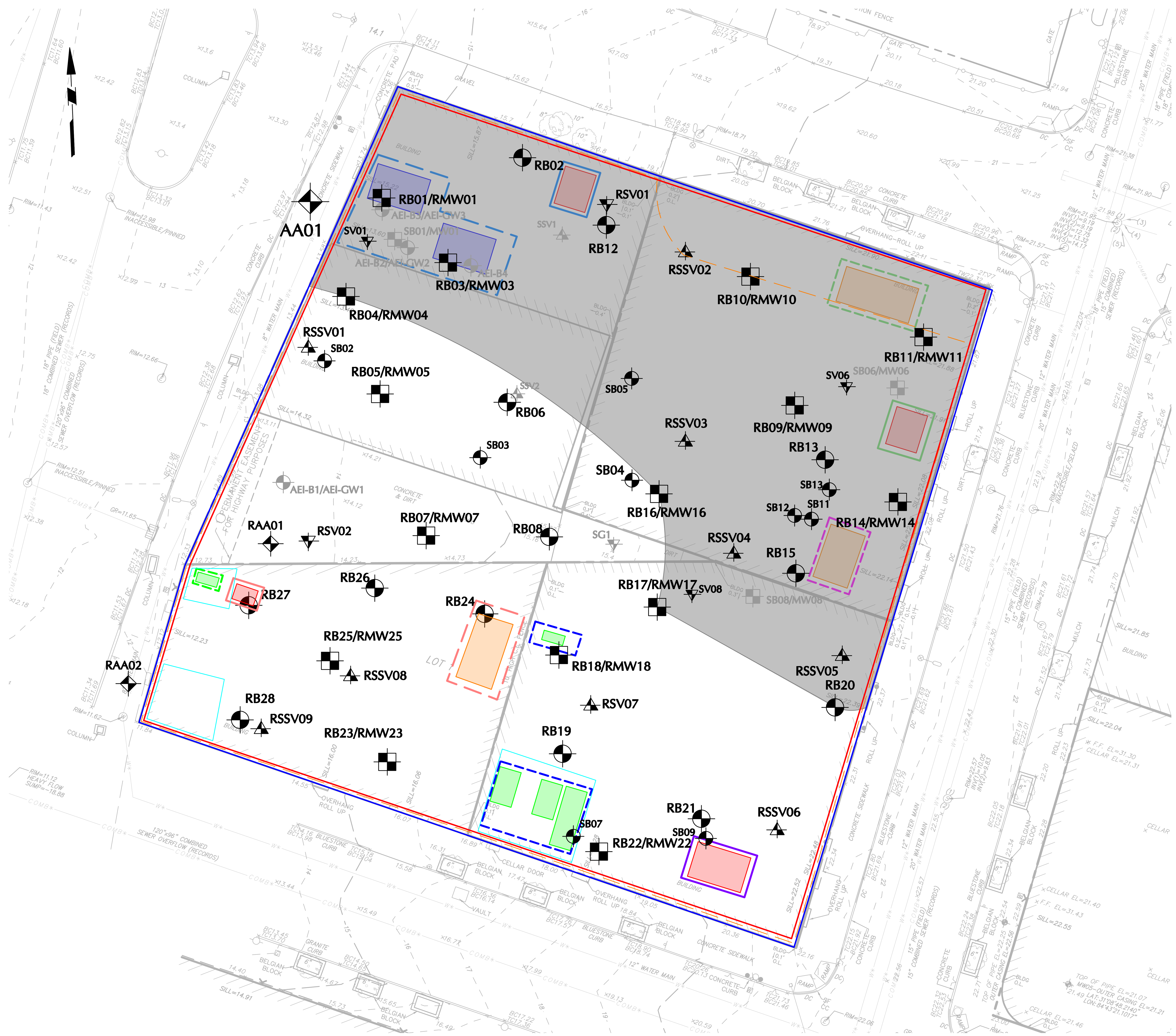

LEGEND:

	SITE BOUNDARY
	APPROXIMATE CELLAR EXTENTS
SB03	APPROXIMATE SI SOIL BORING LOCATION (LANGAN, SEPTEMBER 2017)
SB01/MW01	APPROXIMATE SI SOIL BORING/MONITORING WELL LOCATION (LANGAN, SEPTEMBER 2017)
AEI-B2/AEI-GW2	APPROXIMATE PHASE II ESI SOIL BORING/MONITORING WELL LOCATION (AEI, OCTOBER 2015)
AA01	APPROXIMATE SI AMBIENT AIR SAMPLE LOCATION (LANGAN, SEPTEMBER 2017)
SV06	APPROXIMATE SI SOIL VAPOR SAMPLE LOCATION (LANGAN, SEPTEMBER 2017)
SSV2	APPROXIMATE PHASE II ESI SUB-SLAB SOIL VAPOR SAMPLE LOCATION (AEI, OCTOBER 2015)
SG1	APPROXIMATE PHASE II ESI SOIL VAPOR SAMPLE LOCATION (AEI, OCTOBER 2015)
RB32	APPROXIMATE RI SOIL BORING LOCATION
RB30/RMW30	APPROXIMATE RI SOIL BORING/MONITORING WELL LOCATION
RSV01	APPROXIMATE RI SOIL VAPOR SAMPLE LOCATION
RSSV07	APPROXIMATE RI SUB-SLAB VAPOR SAMPLE LOCATION
RAA01	APPROXIMATE RI AMBIENT AIR SAMPLE LOCATION
	APPROXIMATE EXTENT OF PETROLEUM PLUME
	APPROXIMATE LOCATION OF USTs IDENTIFIED DURING THE SEPTEMBER 2017 OR JULY 2019 GEOPHYSICAL SURVEYS
	APPROXIMATE LOCATION OF OIL WATER SEPARATOR IDENTIFIED DURING THE SEPTEMBER 2017 OR JULY 2019 GEOPHYSICAL SURVEYS
	APPROXIMATE LOCATION OF GASOLINE TANKS IDENTIFIED IN THE REVIEW OF THE SANBORN FIRE INSURANCE MAPS
	APPROXIMATE LOCATION OF ASTs

AREAS OF CONCERN (AOCs):

- AOC 1: LOT 1 UST
- AOC 2: LOT 1 OIL-WATER SEPARATOR
- AOC 3: LOT 1 AST
- AOC 4: LOT 3 GASOLINE TANKS
- AOC 5: LOT 3 OIL-WATER SEPARATOR
- AOC 6: LOT 12 GASOLINE TANKS IN NORTHEAST CORNER
- AOC 7: LOT 12 OIL-WATER SEPARATOR
- AOC 8: LOT 12 GASOLINE TANK AND ASSOCIATED SPILL IN SOUTHEAST CORNER
- AOC 9: LOT 20 OIL-WATER SEPARATOR
- AOC 10: LOT 20 ASTs
- AOC 11: HISTORIC FILL
- AOC 12: CARBON TETRACHLORIDE AND PCE IMPACTS TO SOIL VAPOR FROM AN OFF-SITE SOURCE

NOTES:

1. THE BASE MAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
2. LANGAN CONDUCTED THE LIMITED SUBSURFACE INVESTIGATION IN SEPTEMBER 2017 AND THE RI BETWEEN DECEMBER 20, 2018 AND JANUARY 17, AND JULY 10 THROUGH JULY 15, 2019.
3. LANGAN LSI BORINGS AND SAMPLE LOCATIONS ARE BASED ON FIELD MEASUREMENTS.
4. AEI PHASE II ESI BORINGS AND SAMPLE LOCATIONS ARE REFERENCED FROM THE OCTOBER 2015 SUBSURFACE INVESTIGATION REPORT.
5. RI SAMPLE LOCATIONS ARE BASED ON FIELD MEASUREMENTS.
6. INFERRED PETROLEUM PLUME IS BASED ON SOIL AND GROUNDWATER ANALYTICAL DATA AND FIELD OBSERVATIONS.
7. ESI = ENVIRONMENTAL SITE INVESTIGATION
8. SI = SUBSURFACE INVESTIGATION
9. RI = REMEDIAL INVESTIGATION
10. AST = ABOVEGROUND STORAGE TANK
11. UST = UNDERGROUND STORAGE TANK
12. PCE = TETRACHLOROETHENE

20 0 10 20
SCALE IN FEET

WARNING:
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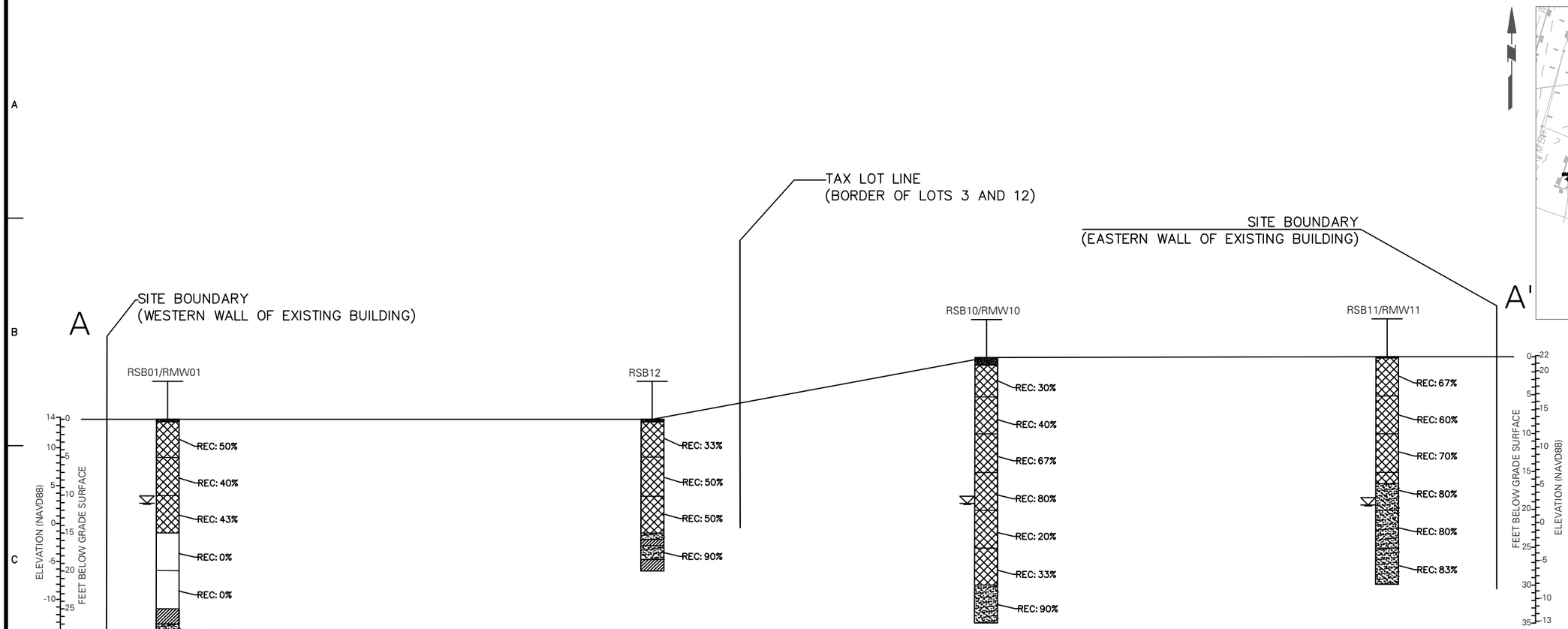
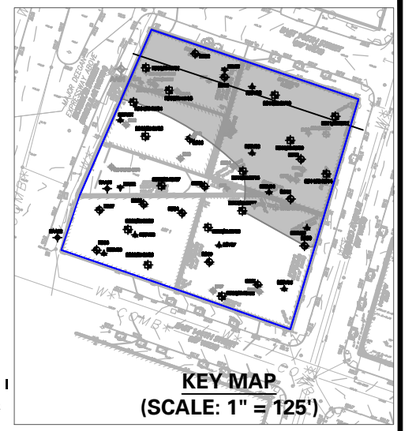
Project	Figure Title	Project No.	Figure No.
GERARD AVENUE AND EAST 146TH STREET BLOCK No. 2351, LOT Nos. 1, 3, 12 and 20 BRONX NEW YORK	AREAS OF CONCERN AND SAMPLE LOCATION PLAN	170487001 Date 02/19/2019 Drawn By VZ Checked By JL	8

PROJECT NO. 170487001

LANGAN





LEGEND:

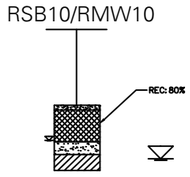
- APPROXIMATE SITE BOUNDARY
- RB08 — SOIL BORING LOCATION
- RB11/RMW11 — SOIL BORING/MONITORING WELL LOCATION
- CONCRETE
- HISTORIC FILL MATERIAL
- SAND
- SILT
- CLAY
- NO RECOVERY

SUBSURFACE PROFILE A–A' (SCALE: 1"=15')

15 0 7.5 15

SCALE IN FEET

BORING KEY DIAGRAM AND NOTES



- BORING/MONITORING WELL NUMBER
- LENGTH OF SOIL RECOVERY/LENGTH OF MACROCORE SLEEVE
- GROUNDWATER INTERFACE

NOTES

1. THE BASE MAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
2. THIS PROFILE REPRESENTS A GENERALIZED SOIL CROSS SECTION INTERPRETED FROM WIDELY SPACED BORINGS. SOIL AND GROUNDWATER MAY VARY IN TYPE, LOCATION, ELEVATION, AND ENVIRONMENTAL AND ENGINEERING PROPERTIES BETWEEN POINTS OF EXPLORATION. VARIATIONS IN SUBSURFACE CONDITIONS SHOULD BE EXPECTED BETWEEN BORINGS.
3. SUBSURFACE STRATIGRAPHY INTERPRETED FROM RECOVERED SOIL SAMPLES. REFER TO BORING LOGS (APPENDIX D) FOR ADDITIONAL INFORMATION.
4. MACROCORE SLEEVES WERE 5 FEET LONG
5. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

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Project	GERARD AVENUE AND EAST 146TH STREET BLOCK No. 2351 LOT Nos. 1, 3, 12, & 20 BRONX NEW YORK
Figure Title	SUBSURFACE PROFILE A-A'
Project No.	170487001
Date	2/15/2019
Drawn By	TG
Checked By	JL
Figure No.	9A
Sheet	10 of 11

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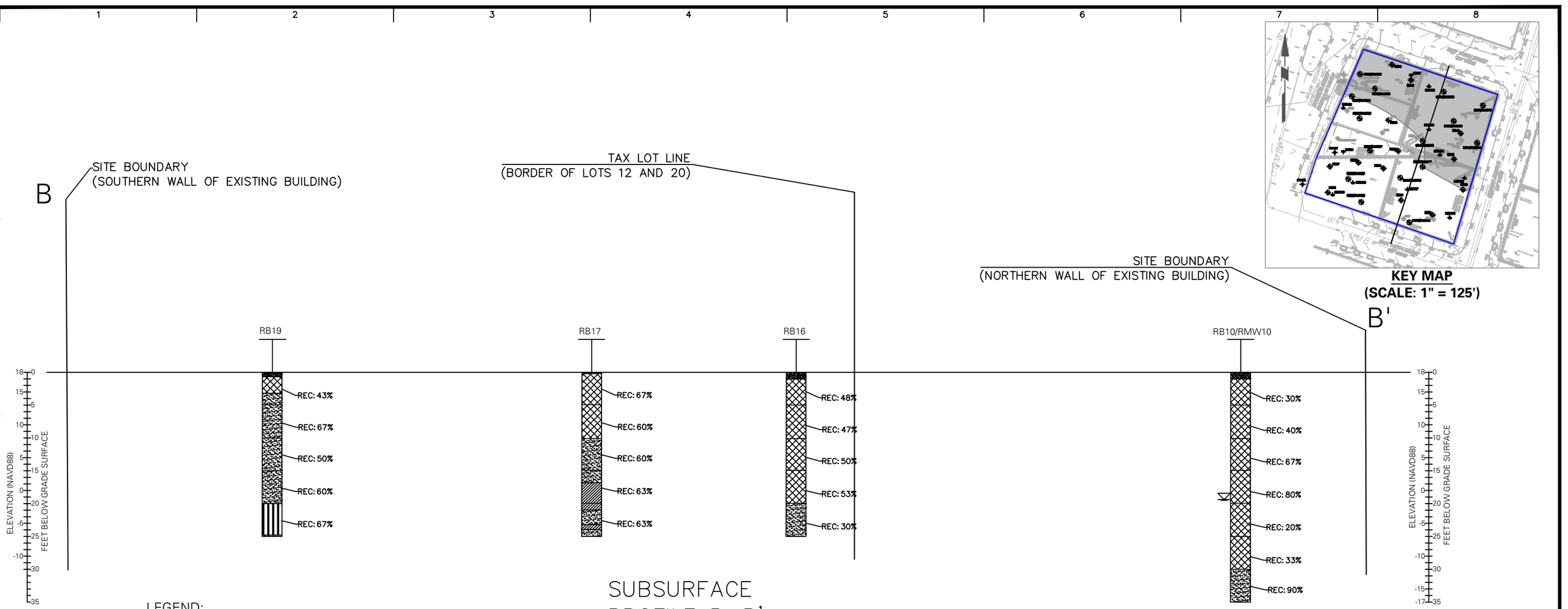


KEY MAP
(SCALE: 1" = 125')

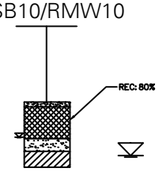
SUBSURFACE PROFILE B–B'
(SCALE: 1"=15')

15 0 7.5 15
SCALE IN FEET

LEGEND:

- APPROXIMATE SITE BOUNDARY
- RB08 — SOIL BORING LOCATION
- RB11/RMW11 — SOIL BORING/MONITORING WELL LOCATION
- CONCRETE
- HISTORIC FILL MATERIAL
- SAND
- SILT
- CLAY

BORING KEY DIAGRAM AND NOTES



- RSB10/RMW10 — BORING/MONITORING WELL NUMBER
- REC: 80% — LENGTH OF SOIL RECOVERY/LENGTH OF MACROCORE SLEEVE
- GROUNDWATER INTERFACE

NOTES

1. THE BASE MAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
2. THIS PROFILE REPRESENTS A GENERALIZED SOIL CROSS SECTION INTERPRETED FROM WIDELY SPACED BORINGS. SOIL AND GROUNDWATER MAY VARY IN TYPE, LOCATION, ELEVATION, AND ENVIRONMENTAL AND ENGINEERING PROPERTIES BETWEEN POINTS OF EXPLORATION. VARIATIONS IN SUBSURFACE CONDITIONS SHOULD BE EXPECTED BETWEEN BORINGS.
3. SUBSURFACE STRATIGRAPHY INTERPRETED FROM RECOVERED SOIL SAMPLES. REFER TO BORING LOGS (APPENDIX D) FOR ADDITIONAL INFORMATION.
4. MACROCORE SLEEVES WERE 5 FEET LONG
5. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

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Project	GERARD AVENUE AND EAST 146TH STREET BLOCK No. 2351 LOT Nos. 1, 3, 12, & 20 BRONX NEW YORK
Figure Title	SUBSURFACE PROFILE B-B'
Project No.	170487001
Date	2/15/2019
Drawn By	TG
Checked By	JL
Figure No.	9B
Sheet	11 of 11

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APPENDIX A

PREVIOUS ENVIRONMENTAL REPORTS

March 7, 2012

PHASE II SUBSURFACE INVESTIGATION

Property Identification:
445 Gerard Avenue
Bronx, New York 14051

AEI Project No. 304181

Prepared for:
JP Morgan Chase Bank, N.A.
1111 Polaris Parkway, Mail Code OH1-1092
Columbus, Ohio 43240

Independent Development Services Corporation
8280 College Parkway, Suite 204
Fort Myers, Florida 33919

Business Initiative Corporation of New York and/or US Small Business Administration c/o the Bronx County Building
851 Grand Concourse, Suite 123
Bronx, New York 10451

Prepared by:
AEI Consultants
30 Montgomery Street, Suite 220
Jersey City, New Jersey 07302
(201) 332-1844

Wednesday, March 7, 2012

JP Morgan Chase Bank, N.A.
1111 Polaris Parkway, Mail Code OH1-1092
Columbus, Ohio 43240

Subject: **Phase II Subsurface Investigation**
445 Gerard Avenue
Bronx, New York 14051
AEI Project No. 304181

Dear Sir/Madam:

AEI Consultants (AEI) is pleased to provide you with this report which describes the activities and results of the Phase II Subsurface Investigation (Phase II) performed at the above referenced property (subject property) (Figure 1: Site Location Map). This investigation was completed in general accordance with the authorized scope of services outlined in our signed proposal number 3844 dated January 10, 2012.

The purpose of the Phase II at the subject property was to evaluate conditions related to the reported presence of heating oil underground storage tanks (USTs) and the suspected historical auto repair operations that may have been conducted at the subject property as reported in a Phase I Environmental Site Assessment (Phase I) by AB Property Evaluations, Inc. (AB) in October 2010.

1.0 SITE DESCRIPTION

The subject property is a rectangular shaped parcel of land, approximately 0.25 acre in size, located at the southwest corner of Gerard Avenue and 146th Street, just east of the Major Deegan Expressway (I-87) in the Bronx, New York. The subject property is bordered by various commercial properties to the east, south, north and west. Development of the site, as it currently exists, was reported to be in the early 1930's. The subject property contains a single story commercial building structure with a partial basement area.

2.0 BACKGROUND

Phase I Environmental Site Assessment, prepared by AB (October 2010):

The Phase I for the subject property completed by AB made the following recommendations:

- The floor drainage system which includes an oil separator unit should be cleaned and properly maintained.

- Documentation should be obtained from the existing owner regarding the reported USTs abandonment which was reportedly performed at the subject property when the building was utilized by a taxi cab dispatch facility.
- The fill port located at grade along the building's north elevation requires further investigation to determine if this fuel fill connection port and associated piping can be removed.
- It is recommended that all exposed/abandoned fuel tank vent and instrumentation piping which is no longer in service is removed throughout the building.

Based on AEI's review of the prior Phase I, the following items that would require additional investigation were identified:

- **Former USTs:** The subject property was formerly equipped with at least one or more USTs utilized in connection to a former taxi cab dispatch facility operating on the subject property from the 1930s until the 1970s. According to the current owner of the site, the USTs were reportedly abandoned (no abandonment or removal information provided) on the property. No information concerning the quantity, location or contents of the USTs was available. However, a fill port was identified along the northern boundary of the property (in the subject property sidewalk), and vent pipes were identified in the interior of the subject property building along the building's east wall. Based on the lack of information regarding any UST removals and the unknown age of these systems, it is possible that releases from these USTs have resulted in an impact to the subsurface of the subject property. Based on this information, the former presence of USTs on the subject property represents a recognized environmental condition.

- **Former Auto Repair Operations:** In addition to taxi cab dispatch operations, building permits included in AB's appendices indicate that the subject property may have been utilized for auto repair operations in the 1980s. Auto repair facilities typically store and utilize solvents and petroleum products on-site. Although no violations or major releases were noted by AB, the subject property building is equipped with a drainage system which leads to an oil/water separator on-site (location of separator not identified in AB report). Due to the subsurface nature of oil/water separators, the potential exists that they may act as a conduit to the subsurface of the subject property for any contaminants discharged to the drainage system. Based on the lack of information concerning detailed operations on the subject property, the unknown length of time auto repair operations occurred, the unknown hazardous waste handling procedures employed and the unknown age of the oil/water separator, the former use of the subject property as an auto repair facility with an oil/water separator drainage system represents a recognized environmental condition.

In order to address the items identified by AEI based on a review of the previous Phase I, AEI proposed to conduct the following activities in general accordance with the authorized scope of services as outlined in the proposal referenced above:

Former USTs:

- Conduct a geophysical survey utilizing GPR to determine the exact location of the USTs identified in the Phase I.
- Obtain a sidewalk opening permit through the New York City Department of Transportation (NYCDOT) for the proposed sidewalk drilling locations.

- Advance two (2) borings each in the area of the GPR identified USTs for a total of four (4) borings to approximately 16 feet below ground surface (bgs) or to refusal, whichever is encountered first. If no USTs are identified then the borings will be advanced in areas where the USTs were most likely located.
- Collect and analyze a total of four (4) soil samples for volatile organic compounds (VOCs) utilizing the New York State Department of Environmental Conservation (NYSDEC) Spill Technology and Remediation Series (STARS) Petroleum List via EPA Method 8260 and for semi-volatile organic compounds (SVOCs) utilizing the NYSDEC STARS Petroleum List via EPA Method 8270 at the UST locations. If groundwater is encountered then groundwater samples will be collected and analyzed in place of soil.

Former Auto Repair Operations:

- Advance four (4) borings in a grid-like pattern within the subject property building to approximately 16 feet bgs or to refusal, whichever is encountered first. One of the four borings will be located in the vicinity of the oil/water separator to address the potential for contamination from this source.
- Collect and analyze a total of four (4) soil samples for VOCs via EPA Method 8260, SVOCs via EPA Method 8270 and polychlorinated biphenyls (PCBs) via EPA Method 8082. If groundwater is encountered then groundwater samples will be collected and analyzed in place of soil.

3.0 INVESTIGATIVE EFFORTS

PRE-DRILLING ACTIVITIES

Tri-State Drilling Technologies, Inc. (Tri-State) was contracted to notify dig alert and to identify public utilities in the work area at least 72 hours prior to field activities. In addition, Tri-State obtained a sidewalk opening permit from the NYCDOT. A Site Specific Health and Safety Plan (HASP) was prepared and reviewed on site prior to field activities.

GEOPHYSICAL SURVEY

On February 1, 2012, Tri-State conducted the GPR survey where the UST was identified in the aforementioned Phase I. The GPR technician utilized a Radiodetection RD 1000 cart-mounted GPR unit and a Fisher TW-6 metallic locator to survey the area of concern.

The GPR survey identified no anomalies beneath the sidewalk that may have been indicative of a UST; however, during the Phase II activities, a fill port was identified inside the northeast portion of the subject property building approximately 15 feet from the sidewalk along Gerard Avenue. Site personnel informed AEI that that portion of the building was previously an outdoor turning area when the subject property was used as a taxi cab dispatch location. The area was subsequently enclosed, and the UST was reported to be abandoned and presently located within the building.

DRILLING AND SOIL SAMPLE COLLECTION

On February 1, 2012, eight (8) soil borings, AEI-B1 through AEI-B8, were advanced at the subject property (Figure 2: Soil Boring Locations) by Tri-State using a limited access direct-push drilling rig. The target depth of the borings was 16 feet bgs. Due to the bedrock geology of the area, only four of the borings were successful. These borings were advanced at the following locations:

- Borings AEI-B1 and AEI-B2 were advanced exterior of the north wall of the subject property building. Boring AEI-B1 was advanced approximately 15 feet to the north of the location of the UST that was identified within the subject property building. Boring AEI-B2 was advanced further west toward the rear of the building. Borings AEI-B1 and AEI-B2 reached a maximum depth of 14.5 feet bgs each where refusal was met.
- Borings AEI-B3 and AEI-B4 were advanced exterior of the east wall of the subject property building. Boring AEI-B3 was advanced approximately 15 feet to the east of the location of the UST that was identified within the subject property building and northeast from where the oil/water separator is located. Boring AEI-B4 was advanced further south along Gerard Avenue southeast from where the oil/water separator is located. Borings AEI-B3 and AEI-B4 reached maximum depth of 14 feet bgs and 5.5 feet bgs, respectively where refusal was met.
- Borings AEI-B5 through AEI-B8 were to be advanced in a grid pattern in the interior of the subject property building. Competent bedrock was encountered at each boring location area within the building including the area adjacent to the UST. Several attempts were made at each location, and the Geoprobe steel corer could not advance beyond the bedrock located immediately below the concrete slab of the subject property building. As such soil samples could not be collected from locations immediately adjacent to the UST or the oil/water separator.

Soil cores were collected with a 2" outer diameter stainless steel corer fitted with acetate liners. The borings were advanced in five-foot increments. After each advance, the corer was withdrawn and the acrylic liner containing the soil core was removed. Each soil core was measured and examined for odors or stains, and screened with a photoionization detector (PID). This information including the lithology of each core was recorded using the Unified Soil Classification System. A soil sample would be collected from the portion of the soil column that exhibited the highest PID reading or exhibited significant odors or staining.

The soil in each of the borings exhibited no odors or visual staining. There were no PID readings throughout each soil column. As such, soil samples were collected from the terminal depth at each boring location.

Appendix B: Boring Logs, provides details on the soils observed in each boring as well as soil screening details.

GROUNDWATER SAMPLE COLLECTION

Groundwater was not encountered at any of the soil boring locations.

BORING DESTRUCTION

Following completion of sample collection and removal of tooling, the borings were backfilled with drilling cuttings and hydrated bentonite chips and completed at the surface with asphalt cold patch or concrete to match the surrounding conditions.

LABORATORY ANALYSIS

The soil samples were labeled and placed into a cooler with ice and transferred under appropriate chain-of-custody documentation to Aqua Pro Tech Laboratories of Fairfield, New Jersey.

Laboratory analysis of the four (4) soil samples that were able to be collected (AEI-B1 through AEI-B4) consisted of the following:

- VOCs via EPA Method 8260.
- SVOCs via EPA Method 8270.
- PCBs via EPA Method 8082

4.0 FINDINGS

The New York State Department of Environmental Conservation (NYSDEC) has the responsibility for overseeing soil and groundwater cleanups which are managed under a variety of different regulatory programs. The results of this investigation were reviewed along with the applicable NYSDEC Recommended Soil Cleanup Objectives (RSCOs).

GEOLOGY AND HYDROGEOLOGY

Based on borings advanced during this investigation, the strata immediately below the surface beneath the sidewalks at the subject property is urban fill with fine silty sands. Deeper layers are comprised of clayey silt. The geology beneath the subject property building consists of competent bedrock. As described above the borings reached a maximum depth of 14.5 feet bgs along the sidewalk exterior of the north wall of the subject property building before meeting with refusal, and the borings advanced in the sidewalk exterior of the east wall of the building reached maximum depths of 14 feet bgs and 5.5 feet bgs, respectively, before meeting with refusal. The borings within the building met refusal immediately beneath the concrete slab at several locations within the building.

Boring Logs are presented in Appendix B.

SOIL SAMPLE ANALYTICAL RESULTS

The following information is a summary of the soil sample analytical test results. This information has also been included in Table 1. The laboratory analytical documentation is provided in Appendix C.

VOCs

- No VOCs were detected in the samples collected from borings AEI-B1 through AEI-B4. As discussed above, samples could not be collected at boring locations AEI-B5 through AEI-B8.

SVOCs

- Sample AEI-B2 contained low concentrations of the following SVOCs: acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, biphenyl, bis(2-ethylhexyl)phthalate, carbazole, chrysene, dibenzo(a,h)anthracene, dibenzofuran, dimethylphthalate, di-n-octylphthalate, fluoranthene, fluorene, indeno(1,2,3-c,d)pyrene, 2-methyl naphthalene, naphthalene, phenanthrene and pyrene. All of the identified SVOCs were below their respective NYSDEC RSCOs for industrial properties with the exception of benzo(a)pyrene. Samples AEI-B1, AEI-B3 and AEI-B4 also contained low concentrations of SVOCs; however the number of SVOC compounds were fewer than those found in AEI-B2 and their respective concentrations were lower.

PCBs

- No PCBs were detected in the samples collected from borings AEI-B1 through AEI-B4. As discussed above, samples could not be collected at boring locations AEI-B5 through AEI-B8.

GROUNDWATER SAMPLE ANALYTICAL RESULTS

Groundwater was not encountered at any of the soil boring locations.

5.0 SUMMARY AND CONCLUSIONS

AEI completed a Phase II at the subject property to evaluate conditions related to the reported presence of heating oil USTs and the suspected historical auto repair operations that may have been conducted at the subject property as reported in a Phase I Environmental Site Assessment by AB in October 2010.

A total of eight (8) borings were advanced at the subject property for the collection of soil samples. As discussed above, refusal was met immediately beneath the subject property concrete slab floor at several attempted locations at each of the four (4) proposed interior sampling areas. Of the samples that were collected, the results were compared to the appropriate NYSDEC RSCOs.

Although the presence of SVOCs was detected in the soil samples that were collected, it appears they are not associated with a possible release from compounds associated with the UST as the two borings located in the vicinity of the UST (AEI-B1 and AEI-B3) contained low concentrations of SVOCs not typically associated with fuel oil or gasoline compounds. The SVOC compounds detected in borings AEI-B2, AEI-B3 and AEI-B4 were more consistent with components of asphalt or fly ash, both of which are commonly found in fill material in old urban areas such as New York City as well as the Bronx which is located adjacent to the East River, where fill material was historically utilized.

As previously discussed, the Geoprobe borings met refusal at each of the soil boring locations before reaching the target depth of 16 feet bgs. The maximum depth achieved was 14.5 feet bgs at two locations, and 14 feet bgs and 5.5 feet bgs at two other locations, respectively. The Geoprobe met refusal at at least 10 separate locations in the four proposed sampling areas within the subject property building including two locations adjacent to the UST that was identified and in the vicinity of the oil/water separator. Such findings are consistent with the granitic gneiss and schist geology that is common throughout the New York City area. Although uncommon, USTs have been found to be present in such material. To accommodate the UST, a "pocket" is chipped out of the rock formation. The UST is then installed and is contained in a natural vault.

Due to the geology of the area, AEI was unable to collect all of the samples that were proposed. Based on the geology, observations made in the field during the Phase II activities and the sampling results that were obtained, it does not appear that there has been any significant release to the subject property subsurface. The type of geology that is present would hinder migration of any releases that may have occurred and were not detected. Additionally, the potential for horizontal transport appears low in the shallow unconfined groundwater table, since perched groundwater was not present above the bedrock layer. Although groundwater may exist in fractured bedrock in the subject property area, the sampling efforts completed during this investigation could not assess for the presence of fractured bedrock and the potential for groundwater contamination. It should also be noted that the subject property has not been identified as a historical release site in previous Phase I investigations. Specifically, no releases cases (LUST or SPILLS) were initiated during the prior UST closure assessments.

Based on the above discussion and the results of this investigation, AEI does not recommend any further action for the subject property at this time. Although the concentrations of SVOCs that were detected are within NYSDEC RSCOs for industrial locations with the exception of benzo(a)pyrene, several exceed RSCOs for residential and commercial locations. If urban renewal projects where residential or commercial use is planned where the subject property is located, additional investigation should be conducted. In addition, if renovation or demolition of the building at the subject property is conducted in the future, AEI recommends that the UST and oil/water separator be removed from the ground in accordance with all applicable NYSDEC regulations and guidelines including the collection and analysis of post closure samples.

6.0 REPORT LIMITATION AND RELIANCE

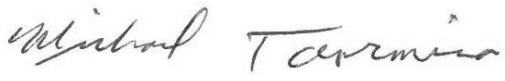
This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the requested information, subject to limitations inherent in this type of work, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document. These services were performed in

accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work.

This investigation was prepared for the sole use and benefit of JP Morgan Chase Bank, N.A., the Business Initiative Corporation of New York and/or US Small Business Administration and the Independent Development Services Corporation. Neither this report, nor any of the information contained herein shall be used or relied upon for any purpose by any person or entity other than JP Morgan Chase Bank, N.A., the Business Initiative Corporation of New York and/or US Small Business Administration and the Independent Development Services Corporation.

If there are any questions regarding our investigation, please do not hesitate to contact AEI at 2011-332-1844.

Sincerely,
AEI Consultants



Michael Taormina
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And

Paul Hinkston
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Figures
- Figure 1: Site Location Map
- Figure 2: Boring Location Map

Tables
- Table 1: Soil Sample Data Summary

Appendices
- Appendix A: Boring Logs
- Appendix B: Laboratory Analyses

April 16, 2012

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Property Identification:
Jesse Shapiro & James Glass Corp.
445 Gerard Avenue
Bronx, Bronx County, New York 10451

AEI Project No. 306199

Prepared for:
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New York
Phoenix
Portland
San Jose

PROJECT SUMMARY

Jesse Shapiro & James Glass Corp.
445 Gerard Avenue, Bronx, Bronx County, New York

Report Section		No Further Action	REC	HREC	BER	Recommended Action
2.1	Current use of subject property	**X**				
2.2	Adjoining property information	**X**				
3.1	Historical Summary	**X**		**X**		
4.0	Regulatory Agency Records Review	**X**				
5.0	Regulatory Database Records Review	**X**		**X**		
6.3	Previous Reports	**X**		**X**		
7.0	Site Inspection and Reconnaissance	**X**				
7.2.1	Asbestos-Containing Materials				**X**	
7.2.2	Lead-Based Paint				**X**	
7.2.3	Radon	**X**				
7.2.4	Lead in Drinking Water	**X**				
7.2.5	Mold	**X**				

EXECUTIVE SUMMARY

AEI Consultants (AEI) was retained by Business Initiative Corp. of New York to conduct a Phase I Environmental Site Assessment (ESA), in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at 445 Gerard Avenue in the Bronx, Bronx County, New York. Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report.

PROPERTY DESCRIPTION

The subject property, which consists of a warehouse building, is located at the southwest corner of Gerard Avenue and 146th Street, just east of the Major Deegan Expressway (I-87) in an industrial area of the Bronx, New York. The property totals approximately 0.25 acres and is improved with a one-story building totaling approximately 10,000 square feet. The subject property formerly contained a partial basement area, which has since been filled with concrete. The building now resides on a concrete slab. The subject property is currently occupied by Jesse Shapiro & James Glass Corporation and Glass Town. On-site operations include the storage and distribution of glass. In addition to the subject property building, the property is improved with concrete sidewalks on the north and east sides.

The property was developed with the current improvements in 1931 for use as a garage. Prior to the construction of the building, the property was utilized as a storage yard for lumber since 1908. Prior to 1908, the subject property was undeveloped land. The subject property was utilized as a garage in 1931. Two 550-gallon buried gasoline tanks were noted on the south side of the property from 1931 until 1946. The property was briefly utilized as a warehouse for liquor cases in the early 1940s. By 1946, the subject property was utilized as a garage and auto repair facility until the 1980s. In 1947, the two southern gasoline USTs were no longer depicted on Sanborn maps, but another gasoline tank was depicted in the location of the current abandoned tank in the northeast area until 1980. In 1980, the subject property was utilized occupied by the current tenant, Jesse Shapiro & James Glass Corporation for the storage and distribution of glass.

The subject property was identified in the regulatory database as a Resource Conservation and Recovery Act (RCRA) Non-Generator (NonGen) site, a Facility Index System (FINDS) site, a Manifest site, and an Environmental (E) Designation site, and is further discussed in Section 5.1.

The immediately surrounding properties consist of the following:

Direction from Site	Address-Tenant/Use
North	East 146th Street followed by a vacant lot.
South	Glass Town warehouse building (417 Gerard Avenue)
East	Gerard Avenue followed by a warehouse building occupied by Mega Radio Communications (444 Gerard Avenue)
West	Warehouse building occupied by Clear Channel Outdoor (440 Exterior Street)

The adjoining sites to the south and east, 417 and 444 Gerard Avenue, were identified in the regulatory database as an E Designation site.

The adjacent intersection to the northeast, the intersection of Gerard Avenue and 146th Street, was identified in the regulatory database as a New York Spills (SPILLS) site. Please refer to Section 5.1 for further discussion of these listings.

Based upon topographic map interpretation, the direction of groundwater flow beneath the subject property is inferred to be to the west. Based on the United States Geological Survey (SGS) Active Groundwater Level Network, groundwater is presumed to be present at an estimated depth of 8 to 10 feet below ground surface (bgs).

FINDINGS

Recognized Environmental Conditions (RECs) are defined by the ASTM Standard Practice E1527-05 as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. AEI's assessment has revealed the following RECs associated with the subject property or nearby properties:

- No on-site RECs were identified during the course of this assessment.

Historical Recognized Environmental Conditions (HRECs) are defined by the ASTM Standard Practice E1527-05 as an environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently. AEI's assessment has revealed the following HRECs associated with the subject property or nearby properties:

- The subject property was formerly equipped with several USTs utilized in connection to a former taxi cab dispatch facility operating on the subject property from the 1930s until the 1970s. According to the prior Phase I prepared by AB, the subject property building is equipped with a drainage system which leads to an oil/water separator on-site. According to the current owner of the site, the USTs were reportedly abandoned (no abandonment or removal information provided) on the property. No information concerning the capacity, location or contents of the USTs was available. However, a fill port was identified along the northern boundary of the property (in the subject property sidewalk), and vent pipes were identified in the interior of the subject property building along the building's east wall by a prior consultant, AB Property Evaluations, Inc. In order to address the reported abandoned UST, oil/water separator, and long history of automotive repair operations, AEI conducted a Phase II Subsurface Investigation, further discussed in Section 6.3.

  Although the presence of SVOCs was detected in the soil samples that were collected, it appears they are not associated with a possible release from compounds associated with the UST as the two borings located in the vicinity of the UST (AEI-B1 and AEI-B3) contained low concentrations of SVOCs not typically associated with fuel oil or gasoline compounds. The SVOC compounds detected in borings AEI-B2, AEI-B3 and AEI-B4 were more consistent with components of asphalt or fly ash, both of which are commonly found in fill material in old urban areas such as New York City as well as the Bronx which is located adjacent to the East River, where fill material was historically utilized. Based on the above discussion and the results of this investigation, AEI did not recommend any further action for the subject property at this time. Although the concentrations of SVOCs that were detected are within NYSDEC RSCOs for industrial locations with the exception of benzo(a)pyrene, several

exceed RSCOs for residential and commercial locations. If urban renewal projects where residential or commercial use are planned for where the subject property is located, additional investigation should be conducted. In addition, if renovation or demolition of the building at the subject property is conducted in the future, AEI recommends that the USTs and oil/water separator be removed from the ground in accordance with all applicable NYSDEC regulations and guidelines including the collection and analysis of post closure samples. Therefore, the abandoned USTs and oil/water separator represent a historic recognized environmental concerns.

De Minimis Environmental Conditions include environmental concerns identified by AEI that warrant discussion but do not qualify as RECs, as defined by the ASTM Standard Practice E1527-05. AEI's assessment has revealed the following de minimis environmental conditions associated with the subject property or nearby properties:

- No on-site de minimis environmental conditions were identified during the course of this assessment.

Business Environmental Risks (BERs) include risks which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of the subject property, not necessarily limited to those environmental issues required to be investigated in the standard ASTM scope. BERs may affect the liabilities and financial obligations of the client, the health & safety of site occupants, and the value and marketability of the subject property. AEI's assessment has revealed the following BERs associated with the subject property or nearby properties:

- Due to the age of the subject property building, there is a potential that asbestos-containing materials (ACMs) are present. All suspect ACMs were observed in good condition and are not expected to pose a health and safety concern to the occupants of the subject property at this time. In the event that building renovation or demolition activities are planned, an asbestos survey adhering to AHERA sampling protocol should be performed prior to demolition or renovation activities that may disturb suspect ACMs.

- Due to the age of the subject property building, there is a potential that lead-based paint (LBP) is present. All observed painted surfaces were in good condition and are not expected to pose a health and safety concern to the occupants of the subject property at this time. Local regulations may apply to lead-based paint in association with building demolition/renovations and worker/occupant protection. Actual material samples would need to be collected or an XRF survey performed in order to determine if LBP is present. It should be noted that construction activities that disturb materials or paints containing *any amount* of lead may be subject to certain requirements of the OSHA lead standard contained in 29 CFR 1910.1025 and 1926.62.

CONCLUSIONS, OPINIONS AND RECOMMENDATIONS

We have performed a Phase I Environmental Site Assessment for the property located at 445 Gerard Avenue in the Bronx, Bronx County, New York, in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312). Any exceptions to, or deletions from, this practice are described in Section 1.3 of this report.

This assessment has revealed no evidence of RECs in connection with the property. AEI recommends no further investigations for the subject property at this time.

If urban renewal projects where residential or commercial use are planned for where the subject property is located, additional investigation should be conducted. In addition, if renovation or demolition of the building at the subject property is conducted in the future, AEI recommends that the USTs and oil/water separator be removed from the ground in accordance with all applicable NYSDEC regulations and guidelines including the collection and analysis of post closure samples.

TABLE OF CONTENTS

1.0 INTRODUCTION

This report documents the methods and findings of the Phase I Environmental Site Assessment (ESA) performed in general conformance with the scope and limitations of ASTM Standard Practice E1527-05 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) for the property located at 445 Gerard Avenue in the Bronx, Bronx County, New York (Figure 1: Site Location Map, Figure 2: Site Map, and Appendix A: Property Photographs).

1.1 SCOPE OF WORK

The purpose of the Phase I Environmental Site Assessment is to assist the client in identifying potential environmental liabilities associated with the presence of any hazardous substances or petroleum products, their use, storage, and disposal at and in the vicinity of the subject property, as well as regulatory non-compliance that may have occurred at the subject property. Property assessment activities focused on: 1) a review of federal, state, tribal and local databases that identify and describe underground fuel tank sites, leaking underground fuel tank sites, hazardous waste generation sites, and hazardous waste storage and disposal facility sites within the ASTM approximate minimum search distance; 2) a property and surrounding site reconnaissance, and interviews with the past and present owners and current occupants and operators to identify potential environmental contamination; and 3) a review of historical sources to help ascertain previous land use at the site and in the surrounding area.

The goal of AEI Consultants in conducting the Phase I Environmental Site Assessment was to identify the presence or likely presence of any hazardous substances or petroleum products on the property that may indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum product into the soil, groundwater, or surface water of the property.

1.2 SIGNIFICANT ASSUMPTIONS

The following assumptions are made by AEI Consultants in this report. AEI Consultants relied on information derived from secondary sources including governmental agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, and personal interviews. AEI Consultants has reviewed and evaluated the thoroughness and reliability of the information derived from secondary sources including government agencies, the client, designated representatives of the client, property contact, property owner, property owner representatives, computer databases, or personal interviews. It appears that all information obtained from outside sources and reviewed for this assessment is thorough and reliable. However, AEI cannot guarantee the thoroughness or reliability of this information.

Groundwater flow and depth to groundwater, unless otherwise specified by on-site well data, or well data from adjacent sites are assumed based on contours depicted on the United States Geological Survey topographic maps. AEI Consultants assumes the property has been correctly and accurately identified by the client, designated representative of the client, property contact, property owner, and property owner's representatives.

1.3 LIMITATIONS

Property conditions, as well as local, state, tribal and federal regulations can change significantly over time. Therefore, the recommendations and conclusions presented as a result of this study apply strictly to the environmental regulations and property conditions existing at the time the study was performed. Available information has been analyzed using currently accepted assessment techniques and it is believed that the inferences made are reasonably representative of the property. AEI Consultants makes no warranty, expressed or implied, except that the services have been performed in accordance with generally accepted environmental property assessment practices applicable at the time and location of the study.

Considerations identified by ASTM as beyond the scope of a Phase I ESA that may affect business environmental risk at a given property include the following: asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, mold, vapor intrusion, and high voltage lines. These environmental issues or conditions may warrant assessment based on the type of the property transaction; however, they are considered non-scope issues under ASTM Standard Practice E1527-05.

If requested by the client, these non-scope issues are discussed in Section 7.2. Otherwise, the purpose of this assessment is solely to satisfy one of the requirements for qualification of the innocent landowner defense, contiguous property owner or bona fide prospective purchaser under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). ASTM Standard Practice E1527-05 and the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) constitute the "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined in:

1) 42 U.S.C § 9601(35)(B), referenced in the ASTM Standard Practice E1527-05.

2) Sections 101(35)(B) (ii) and (iii) of CERCLA and referenced in the EPA Standards and Practices for All Appropriate Inquiries (40 CFR Part 312).

3) 42 U.S.C. 9601(40) and 42 U.S.C. 9607(q).

The Phase I Environmental Site Assessment is not, and should not be construed as, a warranty or guarantee about the presence or absence of environmental contaminants that may affect the property. Neither is the assessment intended to assure clear title to the property in question. The sole purpose of assessment into property title records is to ascertain a historical basis of prior land use. All findings, conclusions, and recommendations stated in this report are based upon facts, circumstances, and industry-accepted procedures for such services as they existed at the time this report was prepared (i.e., federal, state, and local laws, rules, regulations, market conditions, economic conditions, political climate, and other applicable matters). All findings, conclusions, and recommendations stated in this report are based on the data and information provided, and observations and conditions that existed on the date and time of the property visit.

Responses received from local, state, or federal agencies or other secondary sources of information after the issuance of this report may change certain facts, findings, conclusions, or circumstances to the report.

A change in any fact, circumstance, or industry-accepted procedure upon which this report was based may adversely affect the findings, conclusions, and recommendations expressed in this report.

1.4 LIMITING CONDITIONS

The performance of this Phase I Environmental Site Assessment was limited by the following conditions:

- The User did not complete the ASTM User questionnaire or provide the User information to AEI. AEI assumes that qualification for the LLPs is being established by the User in documentation outside of this investigation.

- On March 20, 2012, The New York State Department of Health (NYSDOH) was contacted for information on the subject property in order to identify historical tenants, property use and/or hazardous materials handling. However, records were not available for inclusion in this report. Based on the quality of information obtained from other sources (historical resources, alternate agency records and Phase II data), this limitation is not expected to alter the findings of this assessment.

1.5 DATA GAPS AND DATA FAILURE

According to ASTM E1527-05, data gaps occur when the Environmental Professional is unable to obtain information required, despite good faith efforts to gather such information.

Data failure is one type of data gap. According to ASTM E1527-05 "data failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met". Pursuant to ASTM Standards, historical sources are required to document property use back to the property's first developed use or back to 1940, whichever is earlier.

No data gaps were identified during the course of this assessment.

1.6 RELIANCE

All reports, both verbal and written, are for the benefit of Business Initiative Corp. of New York and the United States SBA. This report has no other purpose and may not be relied upon by any other person or entity without the written consent of AEI. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with AEI granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against AEI, its officers, employees, vendors, successors or assigns. Reliance is provided in accordance with AEI's Proposal and Standard Terms & Conditions executed by Business Initiative Corp. of New York on March 16, 2012. The limitation of liability defined in the Terms and Conditions is the aggregate limit of AEI's liability to the client and all relying parties.

2.0 SITE AND VICINITY DESCRIPTION

2.1 SITE LOCATION AND DESCRIPTION

The subject property, which consists of a warehouse building, is located at the southwest corner of Gerard Avenue and 146th Street, just east of the Major Deegan Expressway (I-87) in an industrial area of the Bronx, New York. The property totals approximately 0.25 acres and is improved with a one-story building totaling approximately 10,000 square feet. The subject property formerly contained a partial basement area, which has since been filled with concrete. The building now resides on a concrete slab. The subject property is currently occupied by Jesse Shapiro & James Glass Corporation and Glass Town. On-site operations include the storage and distribution of glass. In addition to the subject property building, the property is improved with concrete sidewalks on the north and east sides.

The subject property was identified in the regulatory database as a Resource Conservation and Recovery Act (RCRA) Non-Generator (NonGen) site, a Facility Index System (FINDS) site, a Manifest site, and an Environmental (E) Designation site, and is further discussed in Section 5.1.

The Assessor's Parcel Number (APN) for the subject property is Block 2351, Lot 12. According to Mr. Terry Rothman, Manager, heating and cooling systems on the subject property are fueled by natural gas and electricity provided by Consolidated Edison, and potable water and sewage disposal are provided by the City of New York.

Refer to Figure 1: Site Location Map, Figure 2: Site Map, and Appendix A: Property Photographs for site location.

2.2 SITE AND VICINITY CHARACTERISTICS

The subject property is located in an industrial area of the Bronx, New York. The immediately surrounding properties consist of the following:

Direction from Site	Address-Tenant/Use
North	East 146th Street followed by a vacant lot.
South	Glass Town warehouse building (417 Gerard Avenue)
East	Gerard Avenue followed by a warehouse building occupied by Mega Radio Communications (444 Gerard Avenue)
West	Warehouse building occupied by Clear Channel Outdoor (440 Exterior Street)

The adjoining sites to the south and east, 417 and 444 Gerard Avenue, were identified in the regulatory database as an E Designation site. The adjacent intersection to the northeast, the intersection of Gerard Avenue and 146th Street, was identified in the regulatory database as a New York Spills (SPILLS) site. Please refer to Section 5.1 for further discussion of these listings.

2.3 PHYSICAL SETTING

Geology:
According to information obtained from the US Geological Survey (USGS), the area surrounding the subject property is underlain by glacial deposits of the Middle Ordovician.

Based on a review of the US Department of Agriculture (USDA) Soil Survey for the area of the subject property, the soils in the vicinity of the subject property are classified as the Urban Land Series. Soils from this series are characterized as pavement, concrete, buildings, and other structures underlain by disturbed and natural soil materials. Because of the variability of the soil material, onsite investigation would be required to determine the specific soil composition at the subject property. See Appendix E for discussion of the results of the Phase II investigation conducted onsite in March 2012.

USGS Topographic Map:	Central Park, NY Quadrangle
Nearest surface water to subject property:	Harlem River / 550 feet west
Gradient Direction / Source:	West / Topographic map interpretation
Estimated Depth to Groundwater / Source:	8 to 10 feet bgs / USGS

3.0 HISTORICAL REVIEW OF SITE AND VICINITY

3.1 HISTORICAL SUMMARY

Reasonably ascertainable standard historical sources as outlined in ASTM Standard E1527-05 were used to determine previous uses and occupancies of the subject property that are likely to have led to RECs in connection with the subject property. A chronological summary of historical data found, including but not limited to aerial photographs, historic city directories, Sanborn fire insurance maps and agency records is as follows:

Date Range	Subject Property Description/Use	Source(s)
1891 – 1903	Undeveloped land	Sanborns
1908	Unimproved land utilized for lumber storage	Sanborns
1931 – 1935	Developed with the current subject building, labeled as a garage, with two 550-gallon buried gasoline USTs on the south side of the property	Sanborns, City Directories
1944	The current subject building is now utilized as a warehouse for the storage of liquor cases. The USTs remain onsite.	Sanborns
1946	The current subject building is now utilized as a taxi garage and repair facility. The USTs remain onsite.	Sanborns, City Directories
1947 – 1978	The current subject building is now utilized as a garage and repair facility. The two USTs on the south side of the property are no longer depicted. A gas tank is now located in the northeast corner of the building.	Sanborns, Aerials, City Directories
1980 – 1986	The current building remains utilized for garage and repair services. The UST in the northeast corner of the building is no longer depicted. The current tenant is now listed at the subject property.	Sanborns, Aerials, City Directories
1989 – 2007	The current subject building is listed as a manufacturing facility	Sanborns, Aerials, City Directories

According to historical sources, the current subject property building was constructed in 1931 for use as a garage. Prior to the construction of the building, the property was utilized as a storage yard for lumber since 1908. Prior to 1908, the subject property was undeveloped land. The subject property was utilized as a garage in 1931. Two 550-gallon buried gasoline tanks were noted on the south side of the property from 1931 until 1946. The property was briefly utilized as a warehouse for liquor cases in the early 1940s. By 1946, the subject property was utilized as a garage and auto repair facility until the 1980s. In 1947, the two southern gasoline USTs were no longer depicted on Sanborn maps, but another gasoline tank was depicted in the location of the current abandoned tank until 1980. In 1980, the subject property was utilized occupied by the current tenant, Jesse Shapiro & James Glass Corporation for the storage and distribution of glass.

Based on a review of historical sources, the following historical addresses were associated with the subject property: 459 Gerard Avenue, 112 East 146th Street, and 108 East 146th Street. These addresses were also researched as part of this assessment.

The long term historic use of the subject property as an auto repair facility with floor drains and gasoline tanks represents an environmental concern; however, as favorably addressed in the Phase II Subsurface Investigation, no further action is necessary at this time.

If available, copies of historical sources are provided in the report appendices.

3.2 AERIAL PHOTOGRAPH REVIEW

AEI Consultants reviewed aerial photographs of the subject property and surrounding area. Aerial photographs were reviewed for the following years: 1954, 1966, 1974, 1980, 1995, 2004, 2006, 2009, and 2011.

Date(s)	Scale	Subject Property Description	Surrounding Area Descriptions
1954	1:91	Appears developed with current subject building; vehicular access is available from the north and east.	**North:** 146th Street followed by a lot utilized for car storage with a small commercial building **South:** Current commercial building **East:** Gerard Avenue followed by an apparent commercial building **West:** Current commercial building
1966	1:91	No significant changes	**North:** No significant changes **South:** No significant changes **East:** Gerard Avenue followed by the current commercial building **West:** No significant changes
1974	1:91	No significant changes	**North:** 146th Street followed by an unimproved lot utilized for car storage **South:** No significant changes **East:** No significant changes **West:** No significant changes
1980	1:91	No significant changes	**North:** No significant changes **South:** No significant changes **East:** No significant changes **West:** No significant changes
1995	1:91	No significant changes	**North:** 146th Street followed by a small commercial building **South:** No significant changes **East:** No significant changes **West:** No significant changes
2004, 2006	1:91	No significant changes	**North:** No significant changes **South:** No significant changes **East:** No significant changes **West:** No significant changes
2009	1:91	No significant changes	**North:** 146th Street followed by an undeveloped lot **South:** No significant changes **East:** No significant changes **West:** No significant changes
2011	1:91	No significant changes	**North:** No significant changes **South:** No significant changes **East:** No significant changes **West:** No significant changes

3.3 SANBORN FIRE INSURANCE MAPS

Sanborn Fire Insurance maps were developed in the late 1800s and early 1900s for use as an assessment tool for fire insurance rates in urbanized areas. A search was made by Environmental Data Resources (EDR) of Sanborn Fire Insurance maps. Sanborn maps were available and reviewed for the years 1891, 1903, 1908, 1935, 1944, 1946, 1947, 1951, 1977, 1978, 1980, 1981, 1984, 1986, 1989, 1991, 1992, 1993, 1994, 1995, 1996, 1998, 2001, 2002, 2003, 2004, 2005, 2006, and 2007.

Date(s)	Subject Property Description	Surrounding Area Descriptions
1891	Undeveloped land, with access from Gerard Avenue	**North:** Undeveloped land **South:** Undeveloped land **East:** Gerard Avenue, followed by undeveloped land an a small two- and three-story building **West:** Undeveloped land
1903	No significant changes, except access now available from East 146th Street	**North:** East 146th Street, followed by undeveloped land **South:** No significant changes **East:** Gerard Avenue, followed by undeveloped land **West:** No significant changes
1908	Unimproved land labeled as a portion of Church E. Gates & Co. Storage of Lumber	**North:** East 146th Street followed by unimproved land labeled as Church E. Gates & Co. Lumber Yard **South:** Unimproved portion of Church E. Gates & Co. Storage of Lumber **East:** Gerard Avenue followed by a two- and three-story residence **West:** Unimproved portion of Church E. Gates & Co. Storage of Lumber
1935	Developed with the current commercial building labeled as a garage with a 67 car capacity. Two 550-gallon buried gas tanks are noted on the south side of the subject property.	**North:** East 146th Street followed by several one-story buildings labeled for use by York Sign Frame Co. and Auto Junk Yard. A 550-gallon buried gasoline tank is noted in the northeast corner. **South:** The current commercial building labeled as a garage with two 550-gallon buried gasoline tanks. **East:** No significant changes **West:** A two-story office and residence with attached one-story garage. A 550-gallon buried gasoline tank is noted within the garage.
1944	No significant changes, except the current building is now labeled for use as a warehouse of liquor in cases.	**North:** Several one-story buildings labeled as an Auto Junk Yard. The buried gas tank is no longer depicted. **South:** No significant changes, except now labeled for Garage and Repair **East:** No significant changes, except there is now a small one-story garage behind the residence **West:** No significant changes
1946	No significant changes, except the current building is now labeled for use as a Taxi Garage and Repair	**North:** No significant changes **South:** No significant changes **East:** No significant changes **West:** No significant changes

1947	No significant changes, except the current building is now labeled as Private Garage and Repair. Only one gasoline tank is depicted, in the location of the current abandoned UST.	**North:** No significant changes **South:** Current building is labeled as Private Garage with two (2) gasoline tanks **East:** No significant changes **West:** No significant changes
1951	No significant changes	**North:** No significant changes **South:** No significant changes **East:** No significant changes **West:** One-story Private Garage with one gas tank depicted
1977	No significant changes	**North:** No significant changes, except only remaining buildings along east side of property **South:** Current warehouse labeled as Con Edison Garage. The gas tanks are no longer depicted. **East:** Gerard Avenue followed by the current commercial building labeled Con Edison offices and garage **West:** Current commercial building labeled as a warehouse, with the southern portion constructed in 1974. The gas tanks are no longer depicted.
1978	No significant changes	**North:** No significant changes **South:** No significant changes **East:** No significant changes **West:** No significant changes
1980	Current one-story subject building labeled as Auto Repair. The gasoline tank is no longer depicted.	**North:** No significant changes **South:** No significant changes **East:** No significant changes **West:** No significant changes
1981, 1984, 1986	No significant changes	**North:** No significant changes **South:** No significant changes **East:** No significant changes **West:** No significant changes
1989	Current subject building labeled for manufacturing	**North:** No significant changes **South:** No significant changes **East:** Gerard Avenue followed by the current commercial building labeled for offices and manufacturing **West:** No significant changes
1991, 1992, 1993, 1994	No significant changes	**North:** No significant changes **South:** No significant changes **East:** No significant changes **West:** No significant changes
1995	No significant changes	**North:** No significant changes **South:** Current commercial building **East:** No significant changes **West:** No significant changes
1996, 1998, 2001, 2002, 2003, 2004, 2005, 2006, 2007	No significant changes	**North:** No significant changes **South:** No significant changes **East:** No significant changes **West:** No significant changes

3.4 CITY DIRECTORIES

A search of historic city directories was conducted for the subject property by EDR. Directories were available and reviewed for the years 1927, 1931, 1940, 1949, 1956, 1961, 1965, 1971, 1976, 1983, 1993, 2000, and 2005. The following table summarizes the results of the city directory search.

City Directory Search Results

Date(s)	Occupant Listed
1927	Gehn Harry Auto Co.
1931	Not listed
1940	Gehn Harry auto parts Harrigan Auto Parts Co Inc Philco Sales & Service Corp radios
1949	Delmart Service Corp Garage
1956 – 1961	Super Operating Corp
1965	Super Adjustment Co Super Operating Corp
1971	Lenox Maintenance Corp
1976	Kustom Auto Collision
1983	A Stone Services Jesse Shapiro & James Inc Stone Services Inc
1993	A Stone Services AAA Glass & Mirror Supplies All Hands Disposable Inc Jesse Shapiro & James Glass Corp Shapiro & James Jesse Glass Corp Stone Services Inc
2000	AAA Glass & Mirror Supplies Jesse Shapiro & James Shapiro & James Crp
2005	AAA Glass & Mirror Supplies Jesse Shapiro & James Glass

The subject property was utilized by auto repair facilities from at least 1927 until circa 1970s. The long history of auto repair operations at the subject property represents a significant environmental concern; however, soil sampling performed in a prior Phase II report did not find any evidence of impacts from the historical operations at the subject property.

3.5 HISTORICAL TOPOGRAPHIC MAPS

In accordance with our approved scope of services, historical topographic maps were not reviewed as a part of this assessment.

3.6 CHAIN OF TITLE

In accordance with our approved scope of services, a Chain of Title search was not performed as part of this assessment.

4.0 REGULATORY AGENCY RECORDS REVIEW

4.1 REGULATORY AGENCIES

Local and state agencies, such as environmental health departments, fire prevention bureaus, and building and planning departments are contacted to identify any current or previous reports of hazardous materials use, storage, and/or unauthorized releases that may have impacted the subject property. In addition, information pertaining to Activity and Use Limitations (AULs), defined as legal or physical restrictions, or limitations on the use of, or access to, a site or facility, is requested.

4.1.1 HEALTH DEPARTMENT

On March 20, 2012, AEI contacted the New York State Department of Health (NYSDOH) for information on the subject property and nearby sites of concern. Files at this agency may contain information regarding hazardous materials storage, as well as information regarding unauthorized releases of petroleum hydrocarbons or other contaminants that may affect the soil or groundwater in the area.

As of this writing, no response has been received from the NYSDOH. Upon receipt of pertinent documents, AEI will update this report if issues of environmental concern are noted.

4.1.2 FIRE DEPARTMENT

On March 20, 2012, AEI contacted the Fire Department of New York (FDNY) for information on the subject property to identify any evidence of previous or current hazardous material usage.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property with the FDNY.

4.1.3 BUILDING DEPARTMENT

On March 20, 2012, AEI contacted the New York City Department of Buildings (NYCDOB) for information on the subject property in order to identify historical tenants and property use.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property with the NYCDOB.

4.1.4 PLANNING DEPARTMENT

On March 20, 2012, AEI contacted the New York City Planning Department (NYCPD) for information on the subject property in order to identify AULs associated with the subject property.

No information indicating the existence of AULs was on file for the subject property with the NYCPD.

4.1.5 ASSESSOR OFFICE

On March 20, 2012, AEI accessed the New York City assessor's database for information on the subject property in order to determine the earliest recorded date of development and use.

According to the New York City assessor's database, the earliest recorded date of development on subject property was 1931, and the subject property was utilized for industrial/manufacturing purposes.

4.1.6 DEPARTMENT OF OIL AND GAS

Department of Oil and Gas (DOG) maps concerning the subject property and nearby properties were reviewed. DOG maps contain information regarding oil and gas development.

According to the DOG map, there are no oil or gas wells within 500 feet of the subject property. No environmental concerns were noted during the DOG map review.

4.1.7 OTHER AGENCIES SEARCHED

On March 20, 2012, AEI contacted the New York State Department of Environmental Concern (NYSDEC) for information regarding ASTs, USTs, storage of hazardous chemicals, chemical and solid waste storage, spills or releases, groundwater or soil contamination, groundwater monitoring data or sampling records, site remediation, fill materials, and/or environmental violations.

No information indicating current or prior use or storage of hazardous materials, or the existence of AULs was on file for the subject property with the NYSDEC. In addition, the subject property was not identified on the NYSDEC's online Spills database.

5.0 REGULATORY DATABASE RECORDS REVIEW

AEI contracted Environmental Data Resources (EDR) to conduct a search of federal, state, tribal, and local databases containing known and suspected sites of environmental contamination. The number of listed sites identified within the approximate minimum search distance (AMSD) from the Federal and State environmental records database listings specified in ASTM Standard E 1527-05 are summarized in the following table. A copy of the regulatory database report is included in Appendix B of this report.

The subject property was identified in the databases reviewed and is further discussed below.

In determining if a site is a potential environmental concern to the subject property in the records summary table below, AEI has applied the following criteria to classify the site(s) as low concern: 1) the site(s) only hold an operating permit (which does not imply a release), 2) the site(s) have been granted "No Further Action" by the appropriate regulatory agency, and/or 3) based upon AEI's review, the distance and/or topographic position relative to the subject property reduce the level of risk associated with the site(s).

5.1 RECORDS SUMMARY

Database	Search Distance (Miles)	Subject Property Listed	Total Number of Listings	Potential Environmental Concern to the Subject Property (Yes/No)
NPL	1	No	0	
DELISTED NPL	0.5	No	0	
CERCLIS	0.5	No	0	
CERCLIS NFRAP	0.5	No	0	
RCRA CORRACTS	1	No	0	
RCRA-TSD	0.5	No	0	
RCRA LG-GEN, SM-GEN, CESQGs, VGN, NLR	TP/ADJ	No	0	
US ENG CONTROLS	TP	No	0	
US INST CONTROLS	TP	No	0	
ERNS	TP	No	0	
STATE/TRIBAL HWS	1	No	1	No, based on the relative distance from the subject property and inferred direction of groundwater flow.
STATE/TRIBAL SWLF	0.5	No	2	No, based on relative distance from the subject property and/or inferred direction of groundwater flow.

Database	Search Distance (Miles)	Subject Property Listed	Total Number of Listings	Potential Environmental Concern to the Subject Property (Yes/No)
STATE/TRIBAL REGISTERED STORAGE TANKS	TP/ADJ	No	0	
STATE/TRIBAL LUST/LTANKS	0.5	No	49	No, based on closed regulatory status, relative distance from the subject property, and/or inferred direction of groundwater flow.
STATE/TRIBAL ENG-INST CONTROLS	TP	No	0	
STATE/TRIBAL VCP	0.5	No	0	
STATE/TRIBAL BROWNFIELD	0.5	No	1	No, based on relative distance from the subject property and inferred direction of groundwater flow.
ORPHAN	N/A	No	20	None of the identified orphan sites are located in the immediate vicinity (500-feet) of the subject property, and therefore, these sites are not expected to represent a significant environmental concern.
NON-ASTM DATABASES	TP/ADJ	Yes	6	The subject property and adjacent sites are discussed below.

Site Name: Stone Services Inc.
Database(s): RCRA-NonGen, FINDS, MANIFEST
Address: 445 Gerard Avenue
Distance: Subject Property
Direction: Subject Property

Comments:
RCRA Program identifies and tracks hazardous waste from the point of generation to the point of disposal. Non-GEN, or non-generators, are facilities that do not presently generate hazardous waste.

- According to the regulatory database, this site has been a non-generator since January 1, 2007. This site was formerly listed as a Non-Generator on January 1, 2006, a Small Quantity Generator on July 14, 1999, and a Large Quantity Generator on April 28, 1989. No violations were reported in association with these listings. Based on the lack of violations reported, this listing is not expected to represent a significant environmental concern.

FINDS is typically a pointer to other databases, and is used as a tracking tool by the US EPA and State agencies. It is a compilation of the following lists: Permit Compliance System (PCS), Aerometric Information Retrieval System (AIRS), the enforcement document used to manage and track information on civil judicial enforcement cases (Docket), Federal Underground Injection Control (FURS), the criminal docket system used to track criminal enforcement actions for all environmental statutes (C-Docket), Federal Facilities Information System (FFIS), state environmental laws and

statutes (State), and the PCB activity data system (PADS).

- This property is listed as a FINDS site in association with the above listing. No further information was provided under this listing. Based on the nature of this listing, it is not expected to represent a significant environmental concern.

Manifest lists and tracks hazardous waste from the generator through transporters to a TSD facility.

- According to the regulatory database, various hazardous wastes were transported from this property 50 times in New York between 1989 and 1995. No violations were listed in association with these manifests. Documentation of proper storage, transfer, and disposal of hazardous materials is not considered to represent a significant environmental concern.

Site Name: Lot 12, Tax block 2351
Database(s): E DESIGNATION
Address: 445 Gerard Avenue
Distance: Subject Property
Direction: Subject Property

Comments:
Environmental (E) Designation listings ensure that sampling and remediation take place on the subject properties and would avoid any significant impacts related to hazardous materials at these locations. The E designations would require that the fee owner of the sites conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the NYCDEP before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). The E designations also include a mandatory construction-related health and safety plan which must be approved by the NYCDEP.

- According to the regulatory database, this site is listed under E Number E-227, which became effective June 30, 2009 and is due to air quality for #2 or #4 fuel oil or natural gas for HVAC systems, exhaust stack location limitations, hazardous materials Phase I and Phase II Testing Protocol, and window wall attenuation and alternate ventilation. Based on the results of soil sampling activities conducted by AEI during the Phase II investigation, the presence of low concentrations of semivolatile organic compounds (SVOCs) are not typically associated with fuel oil or gasoline compounds and are more consistent with components of asphalt or fly ash, commonly found in fill material in old urban areas such as New York City. Therefore, this listing does not represent a significant environmental concern. However, if urban renewal projects where residential or commercial use are planned for where the subject property is located, additional investigation should be conducted.

Site Name: Manhole 4505
Database(s): NY SPILLS
Address: West Gerard Ave / 146th Street
Distance: Adjacent
Direction: Northeast

Comments:
Spills is a listing of sites at which chemical and petroleum spill incidents that may have impacted waters of the state occurred and were reported to the NYSDEC.

- According to the regulatory database, a release was reported at this site on October 7, 2006 due to a equipment failure, which resulted in a release of dielectric fluid. Corrective action was conducted and the release was granted case closure on August 20, 2007. Based on the closed regulatory status, this release is not expected to represent a significant environmental concern.

Site Name: Lot 20, Tax block 2351
Database(s): E DESIGNATION
Address: 417 Gerard Avenue
Distance: Adjoining
Direction: South

Comments:
Environmental (E) Designation listings ensure that sampling and remediation take place on the subject properties and would avoid any significant impacts related to hazardous materials at these locations. The E designations would require that the fee owner of the sites conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the NYCDEP before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). The E designations also include a mandatory construction-related health and safety plan which must be approved by the NYCDEP.

- According to the regulatory database, this site is listed under E Number E-227, which became effective June 30, 2009 and is due to air quality for #2 or #4 fuel oil or natural gas for HVAC systems, exhaust stack location limitations, hazardous materials Phase I and Phase II Testing Protocol, and window wall attenuation and alternate ventilation. Based on the results of soil sampling activities conducted by AEI on the subject property (discussed above), this listing does not represent a significant environmental concern to the subject property.

Site Name: Lot 5, Tax block 2350
Database(s): E DESIGNATION
Address: 444 Gerard Avenue
Distance: Adjacent
Direction: East

Comments:
Environmental (E) Designation listings ensure that sampling and remediation take place on the subject properties and would avoid any significant impacts related to hazardous materials at these locations. The E designations would require that the fee owner of the sites conduct a testing and sampling protocol, and remediation where appropriate, to the satisfaction of the NYCDEP before the issuance of a building permit by the Department of Buildings pursuant to the provisions of Section 11-15 of the Zoning Resolution (Environmental Requirements). The E designations also include a mandatory construction-related health and safety plan which must be approved by the NYCDEP.

- According to the regulatory database, this site is listed under E Number E-227, which became effective June 30, 2009 and is due to air quality for #2 or #4 fuel oil or natural gas for HVAC systems, exhaust stack location limitations, and hazardous materials Phase I and Phase II Testing Protocol. Based on the results of soil sampling activities conducted by AEI on the subject property (discussed above), this listing does not represent a significant environmental concern to the subject property.

6.0 INTERVIEWS AND USER PROVIDED INFORMATION

6.1 INTERVIEWS

Pursuant to ASTM E1527-05, the following interviews were performed during this investigation in order to obtain information indicating RECs in connection with the subject property.

6.1.1 INTERVIEW WITH OWNER

The subject property owner, Mr. James Maloney, was contacted on April 3, 2012. Mr. Maloney has been associated with the subject property since approximately 1989. Mr. Maloney was asked if he was aware of any of the following:

Any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property.		Yes	**X**	No
Any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property.		Yes	**X**	No
Any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.		Yes	**X**	No
Any incidents of flooding, leaks, or other water intrusion, and/or complaints related to indoor air quality.		Yes	**X**	No

6.1.2 INTERVIEW WITH KEY SITE MANAGER

The key site manager, Mr. Terry Rothman, was contacted during the site inspection on April 3, 2012. Mr. Rothman has been associated with the subject property since approximately 1989. Mr. Rothman provided general information regarding historic and current operations at the subject property. Mr. Rothman was asked if he was aware of any of the following:

Any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property.		Yes	**X**	No
Any pending, threatened or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property.		Yes	**X**	No
Any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.		Yes	**X**	No
Any incidents of flooding, leaks, or other water intrusion, and/or complaints related to indoor air quality.		Yes	**X**	No

6.1.3 PAST OWNERS, OPERATORS AND OCCUPANTS

Interviews with past owners and occupants regarding historical onsite operations were not reasonably ascertainable. However, based on information obtained from other sources including historical resources, it is likely that the information provided by past owners and operators would have been duplicative.

6.1.4 INTERVIEW WITH OTHERS

Information obtained during interviews with local government officials is incorporated into the appropriate segments of this section.

6.2 USER PROVIDED INFORMATION

User provided information is intended to help identify the possibility of RECs in connection with the subject property. According to ASTM E1527-05 and EPA's AAI Rule, certain items should be researched by the prospective landowner or grantee, and the results of such inquiries may be provided to the environmental professional. The responsibility for qualifying for Landowner Liability Protections (LLPs) by conducting the inquiries ultimately rests with the User, and providing the information to the environmental professional would be prudent if such information is available.

The User did not complete the ASTM User questionnaire or provide the User information to AEI. AEI assumes that qualification for the LLPs is being established by the User in documentation outside of this assessment.

6.3 PREVIOUS REPORTS AND OTHER PROVIDED DOCUMENTATION

Documentation was provided to AEI by the Client during this assessment. A summary of this information follows:

Environmental Assessment, prepared by AB Property Evaluations, Inc. (October 2011)

At the time of AB Property Evaluations, Inc.'s (AB) site inspection, the subject property was developed with the current subject building and for similar use as observed by AEI. AB determined that the subject property was developed in the 1930s and utilized as a taxi cab dispatch facility until the 1970s. Since then, it has been utilized as a mirror and glass fabrication facility. AB observed a fill port at grade along the north elevation, vent stacks along the inside exterior wall (east elevation), and control valve apparatus within the building on the east wall. No fuel storage tanks are registered for the subject property with the NYSDEC Petroleum Bulk Storage Listing. AB identified the subject property (Stone Services Inc.) in the regulatory database for reportedly generating spent halogenated and non-halogenated solvents in 1989, 1990, and 1998. The subject property was also identified on the E designation database. AB made the following recommendations:

- The floor drainage system which includes an oil separator unit should be cleaned and properly maintained.
- Documentation should be obtained from the existing owner regarding the reported USTs abandonment which was reportedly performed at the subject property when the building was utilized by a taxi cab dispatch facility.
- The fill port located at grade along the building's north elevation requires further investigation to determine if this fuel fill connection port and associated piping can be removed.
- It is recommended that all exposed/abandoned fuel tank vent and instrumentation piping which is no longer in service is removed throughout the building.

Phase II Subsurface Investigation, prepared by AEI Consultants (March 7, 2012)

AEI Consultants (AEI) completed a Phase II Subsurface Investigation to address the concerns identified in AB's Environmental Assessment.

In order to address the items identified by AEI based on a review of AB's Phase I, AEI proposed to conduct the following activities in general accordance with the authorized scope of services as outlined in the proposal referenced above:

Former USTs:

- Conduct a geophysical survey utilizing GPR to determine the exact location of the USTs identified in the Phase I.
- Obtain a sidewalk opening permit through the New York City Department of Transportation (NYCDOT) for the proposed sidewalk drilling locations.
- Advance two (2) borings each in the area of the GPR identified USTs for a total of four (4) borings to approximately 16 feet below ground surface (bgs) or to refusal, whichever is encountered first. If no USTs are identified then the borings will be advanced in areas where the USTs were most likely located.
- Collect and analyze a total of four (4) soil samples for volatile organic compounds (VOCs) utilizing the New York State Department of Environmental Conservation (NYSDEC) Spill Technology and Remediation Series (STARS) Petroleum List via EPA Method 8260 and for semi-volatile organic compounds (SVOCs) utilizing the NYSDEC STARS Petroleum List via EPA Method 8270 at the UST locations. If groundwater is encountered then groundwater samples will be collected and analyzed in place of soil.

Former Auto Repair Operations:

- Advance four (4) borings in a grid-like pattern within the subject property building to approximately 16 feet bgs or to refusal, whichever is encountered first. One of the four borings will be located in the vicinity of the oil/water separator to address the potential for contamination from this source.
- Collect and analyze a total of four (4) soil samples for VOCs via EPA Method 8260, SVOCs via EPA Method 8270 and polychlorinated biphenyls (PCBs) via EPA Method 8082. If groundwater is encountered then groundwater samples will be collected and analyzed in place of soil.

A total of eight (8) borings were advanced at the subject property for the collection of soil samples. As discussed above, refusal was met immediately beneath the subject property concrete slab floor at several attempted locations at each of the four (4) proposed interior sampling areas. Of the samples that were collected, the results were compared to the appropriate NYSDEC RSCOs.

Although the presence of SVOCs was detected in the soil samples that were collected, it appears they are not associated with a possible release from compounds associated with the UST as the two borings located in the vicinity of the UST (AEI-B1 and AEI-B3) contained low concentrations of SVOCs not typically associated with fuel oil or gasoline compounds. The SVOC compounds detected in borings AEI-B2, AEI-B3 and AEI-B4 were more consistent with components of asphalt or fly ash, both of which are commonly found in fill material in old urban areas such as New York City as well as the Bronx which is located adjacent to the East River, where fill material was historically utilized.

The Geoprobe borings met refusal at each of the soil boring locations before reaching the target depth of 16 feet bgs. The maximum depth achieved was 14.5 feet bgs at two locations, and 14 feet bgs and 5.5 feet bgs at two other locations, respectively. The Geoprobe met refusal at

least 10 separate locations in the four proposed sampling areas within the subject property building including two locations adjacent to the UST that was identified and in the vicinity of the oil/water separator. Such findings are consistent with the granitic gneiss and schist geology that is common throughout the New York City area. Although uncommon, USTs have been found to be present in such material. To accommodate the UST, a "pocket" is chipped out of the rock formation. The UST is then installed and is contained in a natural vault.

Due to the geology of the area, AEI was unable to collect all of the samples that were proposed. Based on the geology, observations made in the field during the Phase II activities and the sampling results that were obtained, it does not appear that there has been any significant release to the subject property subsurface. The type of geology that is present would hinder migration of any releases that may have occurred and were not detected. Additionally, the potential for horizontal transport appears low in the shallow unconfined groundwater table, since perched groundwater was not present above the bedrock layer. Although groundwater may exist in fractured bedrock in the subject property area, the sampling efforts completed during this investigation could not assess for the presence of fractured bedrock and the potential for groundwater contamination. It should also be noted that the subject property has not been identified as a historical release site in previous Phase I investigations. Specifically, no releases cases (LUST or SPILLS) were initiated during the prior UST closure assessments.

Based on the above discussion and the results of this investigation, AEI did not recommend any further action for the subject property. Although the concentrations of SVOCs that were detected are within NYSDEC RSCOs for industrial locations, with the exception of benzo(a)pyrene, several exceed RSCOs for residential and commercial locations. If urban renewal projects where residential or commercial use are planned where the subject property is located, additional investigation should be conducted. In addition, if renovation or demolition of the building at the subject property is conducted in the future, AEI recommended that the UST and oil/water separator be removed from the ground in accordance with all applicable NYSDEC regulations and guidelines including the collection and analysis of post closure samples.

Copies of these reports are appended.

7.0 SITE INSPECTION AND RECONNAISSANCE

On April 3, 2012, a site reconnaissance of the subject property and adjacent properties was conducted by Ms. Lindsay Glassman of AEI in order to obtain information indicating the likelihood of RECs at the subject property and adjacent properties as specified in ASTM Standard Practice E1527-05 §8.4.2, 8.4.3 and 8.4.4. During the onsite reconnaissance, AEI was accompanied by Mr. Terry Rothman, Site Manager. AEI inspected all areas of the subject property building.

7.1 SUBJECT PROPERTY RECONNAISSANCE FINDINGS

Yes	No	Observation
	X	Hazardous Substances and/or Petroleum Products in Connection with Property Use
X		Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs / USTs)
	X	Hazardous Substance and Petroleum Product Containers and Unidentified Containers not in Connection with Property Use
	X	Unidentified Substance Containers
	X	Electrical or Mechanical Equipment Likely to Contain Fluids
	X	Interior Stains or Corrosion
	X	Strong, Pungent or Noxious Odors
	X	Pools of Liquid
X		Drains, Sumps and Clarifiers
	X	Pits, Ponds and Lagoons
	X	Stained Soil or Pavement
	X	Stressed Vegetation
	X	Solid Waste Disposal or Evidence of Fill Materials
	X	Waste Water Discharges
	X	Wells
	X	Septic Systems
	X	Other

The subject property is currently occupied by Jesse Shapiro & James Glass Corporation. On-site operations consist of storage and distribution of glass. The above identified observed items are further discussed below.

ABOVEGROUND & UNDERGROUND HAZARDOUS SUBSTANCE OR PETROLEUM PRODUCT STORAGE TANKS (ASTS / USTS)

The subject property was formerly equipped with at least one or more USTs utilized in connection to a former taxi cab dispatch facility operating on the subject property from the 1930s until the 1970s. According to the current owner of the site, the USTs were reportedly abandoned (no abandonment or removal information provided) on the property. No information concerning the quantity, location or contents of the USTs was available. However, a fill port was identified along the northern boundary of the property (in the subject property sidewalk), and vent pipes were identified in the interior of the subject property building along the building's east wall by a prior consultant, AB Property Evaluations, Inc.

In order to address the reported abandoned UST, AEI conducted a Phase II Subsurface Investigation which did not identify any contamination relating to the tanks, as described above in Section 6.3.

If renovation or demolition of the building at the subject property is conducted in the future, AEI recommends that the USTs and oil/water separator be removed from the ground in accordance with all applicable NYSDEC regulations and guidelines including the collection and analysis of post closure samples. Therefore, the abandoned USTs do not represent a significant environmental concern.

DRAINS, SUMPS AND CLARIFIERS

According to the prior Phase I prepared by AB, the subject property building is equipped with a drainage system which leads to an oil/water separator on-site (location of separator not identified in AB report). Due to the subsurface nature of oil/water separators, the potential exists that they may act as a conduit to the subsurface of the subject property for any contaminants discharged to the drainage system. In order to address the reported oil/water separator, AEI conducted a Phase II Subsurface Investigation, as described above in Section 6.3. As discussed above, AEI did not recommend any further action for the subject property based on the results of the subsurface investigation; therefore, the presence of the oil/water separator does not indicate a significant environmental concern at this time.

7.2 NON-ASTM SERVICES

7.2.1 ASBESTOS-CONTAINING BUILDING MATERIALS

OSHA

For buildings constructed prior to 1981, the Code of Federal Regulations (29 CFR 1926.1101 and 29 CFR 1910.1001) define presumed asbestos-containing material (PACM) as 1. Thermal System Insulation (TSI), e.g., boiler insulation, pipe lagging, fireproofing; and 2. Surfacing Materials, e.g., acoustical ceilings. Building owners/employers are responsible for locating the presence and quantity of PACM. Building Owners/employers can rebut installed material as PACM by either having an inspection in accordance with Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763, Subpart E) or hiring an accredited inspector to take bulk samples of the suspect material.

Typical materials not covered by the presumptive rule include but are not limited to: floor tiles and adhesives, wallboard systems, siding and roofing. Building materials such as wallboard systems may contain asbestos but unless a building owner/employer has specific knowledge or should have known through the exercise of due diligence that these other materials contain asbestos, the standard does not compel the building owner to sample these materials.

NESHAP

The applicability of the EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Chapter 61, Subpart M) apply to the owner or operator of a facility where an inspection for the presence of asbestos-containing materials (ACM), including Category I (asbestos containing packings, gaskets, resilient floor coverings and asphalt roofing products), and Category II (all remaining types of non-friable asbestos containing material not included in

Category I that when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure), non-friable ACM must occur prior to the commencement of demolition or renovation activities. NESHAP defines ACM as any material or product that contains *greater than* 1% asbestos. It should be noted that the NESHAP regulation applies to all facilities regardless of construction date, including: 1. Any institutional, commercial, public, industrial, or residential structure, installation, or building; 2. Any ship; and 3. Any active or inactive waste disposal site. This requirement is typically enforced by the EPA or by local air pollution control/air quality management districts.

The information below is for general informational purposes only and does not constitute an asbestos survey. In addition, the information is not intended to comply with federal, state or local regulations in regards to ACM.

Due to the age of the subject property building, there is a potential that ACMs are present. The condition and friability of the identified suspect ACMs is noted in the following table:

Suspect Asbestos Containing Materials (ACMs)

Material	Location	Friable	Condition
Ceiling tiles	Interior of building	Yes	Good
Roofing Systems	Roof	Not Inspected	Not Inspected

All observed suspect ACMs were in good condition and are not expected to pose a health and safety concern to the occupants of the subject property at this time. In the event that building renovation or demolition activities are planned, an asbestos survey adhering to AHERA sampling protocol should be performed prior to demolition or renovation activities that may disturb suspect ACMs.

7.2.2 LEAD-BASED PAINT

Lead-based paint (LBP) is defined as any paint, varnish, stain, or other applied coating that has ≥1 mg/cm^2 (5,000 µg/g or 5,000 ppm) or more of lead by federal guidelines; state and local definitions may differ from the federal definitions in amounts ranging from 0.5 mg/cm^2 to 2.0 mg/cm^2. Section 1017 of the Housing and Urban Development (HUD) Guidelines, Residential Lead-Based Paint Hazard Reduction Act of 1992, otherwise known as "Title X", defines a LBP hazard is "any condition that causes exposure to lead that would result in adverse human health effects" resulting from lead-contaminated dust, bare, lead-contaminated soil, and/or lead-contaminated paint that is deteriorated or present on accessible, friction, or impact surfaces. Therefore, under Title X, intact lead-based paint on most walls and ceilings would not be considered a "hazard", although the paint should be maintained and its condition and monitored to ensure that it does not deteriorate and become a hazard. Additionally, Section 1018 of this law directed HUD and EPA to require the disclosure of known information on lead-based paint and lead-based paint hazards before the sale or lease of most housing built before 1978. Most private housing, public housing, federally owned or subsidized housing are affected by this rule.

Lead-containing paint (LCP) is defined as any paint with any detectable amount of lead present in it. It is important to note that LCP may create a lead hazard when being removed. The condition of these materials must be monitored when they are being disturbed. In the event LCP is subject to abrading, sanding, torching and/or cutting during demolition or renovation activities, there may be regulatory issues that must be addressed.

The information below is for general informational purposes only and does not constitute a lead hazard evaluation. In addition, the information is not intended to comply with federal, state or local regulations in regards to lead-containing paints.

In buildings constructed after 1978, it is unlikely that LBP is present. Structures built prior to 1978 and especially prior to the 1960's should be expected to contain LBP.

Due to the age of the subject property building, there is a potential that lead-based paint (LBP) is present. All observed painted surfaces were in good condition and are not expected to pose a health and safety concern to the occupants of the subject property at this time. Local regulations may apply to lead-based paint in association with building demolition/renovations and worker/occupant protection. Actual material samples would need to be collected or an XRF survey performed in order to determine if LBP is present. It should be noted that construction activities that disturb materials or paints containing *any amount* of lead may be subject to certain requirements of the OSHA lead standard contained in 29 CFR 1910.1025 and 1926.62.

7.2.3 RADON

Radon is a naturally-occurring, odorless, invisible gas. Natural radon levels vary and are closely related to geologic formations. Radon may enter buildings through basement sumps or other openings.

The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, Zone 1 being those areas with the average predicted indoor radon concentration in residential dwellings exceeding the EPA Action limit of 4.0 picoCuries per Liter (pCi/L). It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the EPA recommends site specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Radon sampling was not requested as part of this assessment. According to the US EPA, the radon zone level for the area is Zone 3, which has a predicted average indoor screening level of less than 2 pCi/L, below the action level of 4.0 pCi/L set forth by the EPA.

7.2.4 DRINKING WATER SOURCES AND LEAD IN DRINKING WATER

The New York City Department of Environmental Protection (NYSDEP) supplies potable water to the subject property. The most recent water quality report states that lead levels in the areas water supply were within standards established by the USEPA.

7.2.5 MOLD / INDOOR AIR QUALITY ISSUES

Molds are simple, microscopic organisms, which can often be seen in the form of discoloration, frequently green, gray, white, brown or black. When excessive moisture or water accumulates indoors, mold growth will often occur, particularly if the moisture problem remains undiscovered or is not addressed. As such, interior areas of buildings characterized by poor ventilation and high humidity are the most common locations of mold growth. Building materials including drywall, wallpaper, baseboards, wood framing, insulation, and carpeting often play host to such growth.

Mold spores primarily cause health problems through the inhalation of mold spores or the toxins they emit when they are present in large numbers. This can occur primarily when there is active mold growth within places where people live or work.

Mold, if present, may or may not visually manifest itself. Neither the individual completing this inspection, nor AEI has any liability for the identification of mold-related concerns except as defined in applicable industry standards. In short, this Phase I ESA should not be construed as a mold survey or inspection.

AEI Consultants observed interior areas of the building in order to identify the significant presence of mold. AEI did not note obvious visual or olfactory indications of the presence of mold, nor did AEI observe obvious indications of significant water damage. As such, no bulk sampling of suspect surfaces was conducted as part of this assessment and no additional action with respect to mold appears to be warranted at this time.

This activity was not designed to discover all areas which may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication if significant (based on observed areas) mold growth is present at the subject property. Additional areas of mold not observed as part of this limited assessment, possibly in pipe chases, HVAC systems and behind enclosed walls and ceilings, may be present on the subject property.

7.3 ADJACENT PROPERTY RECONNAISSANCE FINDINGS

Yes	No	Observation
	X	Hazardous Substances and/or Petroleum Products in Connection with Property Use
	X	Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs / USTs)
	X	Hazardous Substance and Petroleum Product Containers and Unidentified Containers not in Connection with Property Use
	X	Unidentified Substance Containers
	X	Electrical or Mechanical Equipment Likely to Contain Fluids
	X	Strong, Pungent or Noxious Odors
	X	Pools of Liquid
	X	Drains, Sumps and Clarifiers
	X	Pits, Ponds and Lagoons
	X	Stained Soil or Pavement
	X	Stressed Vegetation
	X	Solid Waste Disposal or Evidence of Fill Materials
	X	Waste Water Discharges
	X	Wells
	X	Septic Systems
	X	Other

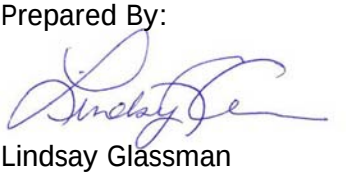
None of the above listed items were observed during the site inspection. Please refer to Section 5.1 for a discussion of potential regulatory concerns identified at adjacent sites.

8.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONALS

By signing this report, the senior author declares that, to the best of his or her professional knowledge and belief, he or she meets the definition of *Environmental Professional* as defined in §312.10 of 40 CFR Part 312.

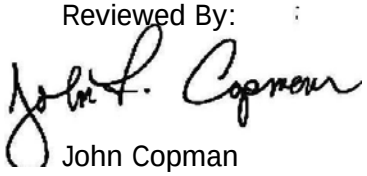
The senior author has the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property. The senior author has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40CFR Part 312.

Prepared By:



Lindsay Glassman
Project Manager

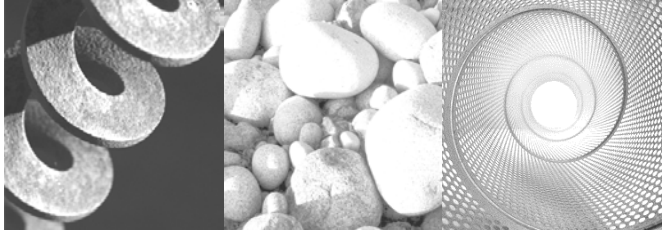
Reviewed By:



John Copman
Senior Author

9.0 REFERENCES

Item	Date(s)	Source
Topographic Map	1995	United States Geological Survey
Regulatory Database	March 19, 2012	Environmental Data Resources
Aerials	1954, 1966, 1974, 1980, 2004, 2006	www.historicaerials.com
Aerials	1995, 2004, 2009, 2011	Google Earth
Sanborn maps	1891, 1903, 1908, 1935, 1944, 1946, 1947, 1951, 1977, 1978, 1980, 1981, 1984, 1986, 1989, 1991, 1992, 1993, 1994, 1995, 1996, 1998, 2001, 2002, 2003, 2004, 2005, 2006, 2007	Environmental Data Resources
City Directories	1927, 1931, 1940, 1949, 1956, 1961, 1965, 1971, 1976, 1983, 1993, 2000, 2005	Environmental Data Resources
Radon Information	1993	United States Environmental Protection Agency Map of Radon Zones http://www.epa.gov/radon/zonemap.html
Soil Information	Current	United States Department of Agriculture Web Soil Survey http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm
Groundwater Information	Current	USGS Active Groundwater Level Network http://groundwaterwatch.usgs.gov/default.asp
Environmental Assessment	May 3, 2011	AB Property Evaluations, Inc.
Phase II Subsurface Investigation	March 7, 2012	AEI Consultants



GEI Consultants

Consulting
Engineers and
Scientists

Phase I Environmental

Site Assessment

417 Gerard Avenue, Bronx, New York

Submitted to:
Galaxy General Contracting and 417 Gerard LLC
3152 Albany Crescent
Bronx, New York 10463

Submitted by:
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June 2015
Project 1508320

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Executive Summary

The findings of this Phase I Environmental Site Assessment (ESA) are based on the following: visual inspection of the project site, visual survey of adjacent/contiguous and nearby properties, and review of available historical property and environmental regulatory agency records of the project site (417 Gerard Avenue) located on the northwest corner at the intersection of Gerard Avenue and East 144th Street, in the Borough of the Bronx, New York City, New York (**Figure 1**).

The lot area of the project site is approximately 9,200 square feet. The project site is occupied by a single story industrial building that covers the entire lot. This building has a small basement area in the southwest corner of the building. The building was occupied by Glasstown, Inc., a wholesaler glass, window, glass door, and mirror company. Operations included the design, cutting, etching, frosting, etc., of various sized glass panels.

No visible indications of on-site waste disposal of toxic and/or hazardous materials were observed at the time of inspection. No operations involving the use of toxic or hazardous materials were present on the project site at the time of the site assessment.

GEI Consultants, Inc. P. C.'s analysis of historical information shows that the building on the project site was constructed in the early 1900s for use as a public garage and then as a garage building for Con Edison. Subsequent uses included fire door manufacturing and glass and mirror fabrication since at least the 1970s.

Floor drains were observed within the building. Additionally, underneath a metal plate in the southeastern corner of the building appeared to be an old oil-water separator.

Two (2) 550-gallon underground gasoline storage tanks were identified to be located on the project site. The vent lines for these tanks were observed protruding from the roof-top of the building. Additionally, these two tanks are depicted on historical atlases. It is likely that these tanks remain buried underneath the subject building. Additionally, two 275-gallon aboveground tanks, as well as a larger aboveground tank (estimated to be 1,000-gallons to 1,500-gallons) that was encased within a concrete vault, were located in the basement of the building.

GEI's review of historical Sanborn atlases indicated that adjoining and neighboring properties surrounding the project site have historically consisted of parking garages, automotive repair garages, a bakery building, industrial buildings, and warehouses.

Presently, the project site is adjoined by single story industrial warehouse buildings occupied by a box company and a wholesaler of glass and mirrors. No gasoline filling stations, auto

repair facilities, or heavy manufacturing/industrial operations were identified adjacent/contiguous to the project site.

The project site is not included in the following United States Environmental Protection Agency databases: Superfund or Comprehensive Environmental Response, Compensation, and Liability Act Information System, Emergency Response Notification System, Resource Conservation and Recovery Act Hazardous Waste Treatment/Storage/Disposal Facilities, and RCRA Hazardous Waste Handlers. There are no listings for the project site in the following NYSDEC databases: Chemical Bulk Storage, Brownfields, Inactive Hazardous Waste Disposal Site Registry, Solid Waste Facilities, Petroleum Bulk Storage and Major Oil Storage Facilities. However, the project site is listed on the New York City Environmental Quality Review "E" Site database.

Based on the evaluation of readily available information obtained during this Phase I ESA, according to the scope and limitations as defined in the Phase I ESA, and GEI's professional judgment, no apparent evidence of Historical Recognized Environmental Conditions or Controlled Recognized Environmental Conditions were identified in connection with the project site. However, the following Recognized Environmental Conditions were identified that would require further investigation:

Aboveground and Underground Storage Tanks

Two (2) 550-gallon underground gasoline storage tanks were identified to be located on the project site. The vent lines for these tanks were observed protruding from the roof-top of the building. Additionally, these two tanks are depicted on historical atlases. It is likely that these tanks remain buried underneath the subject building. Additionally, two 275-gallon aboveground tanks, as well as a larger aboveground tank that was encased within a concrete vault, were located in the basement of the building.

Interior Floor Drains and an Oil Water Separator

Floor drains were observed within the building, as well as an oil water separator.

Soil Vapor

Based upon the potential for soil contamination from the underground gasoline storage tanks, aboveground storage tank resting on soil, floor drains and the oil water separator, there is the potential for soil vapor impacts.

New York City E-Designation

An E-designation is recorded against the project site for Hazardous Materials Phase I and Phase II Testing Protocols, Air and Noise. It should be noted that an E-designation does not interfere with the present use of the site; however, E-designations do prevent the release of

building permits subject to a detailed environmental review and release by the NYC Office of Environmental Remediation. Such release may require a full subsurface investigation, remedial and health and safety planning, implementation of a remedial program and documentation that the remedial program was completed during redevelopment of the property.

1. Introduction

GEI Consultants, Inc., P. C. has undertaken a Phase I Environmental Site Assessment (ESA) of the project site described as 417 Gerard Avenue located in the Borough of Bronx, New York City, New York (Block 2351, Lot 20). This Phase I ESA has been performed in compliance with the scope and limitations of ASTM International (ASTM) Standard Practice E 1527-13. The purpose for this Phase I ESA report is to provide Galaxy General Contracting Corporation and 417 Gerard LLC as the Client/User of this report under the ASTM Practice, with Phase I ESA findings, conclusions, and professional opinions to characterize relative environmental risks.

This Phase I ESA report was completed by GEI's Senior Environmental Professional, Mr. Richard Fasciani. The findings of this Phase I ESA are based on the following: visual inspection of the project site, visual survey of adjacent/contiguous and nearby properties, and review of available historical property and environmental regulatory agency records.

The Executive Summary is presented on Page iv of this report. A detailed description of the Phase I ESA findings is presented in Section 2. GEI's professional opinions, based on the findings of this Phase I ESA, are presented in Section 3. GEI's conclusions, based on the findings of this Phase I ESA, are presented in Section 4. GEI's Scope of Work is outlined in Section 5. Disclaimer Statements are presented in Section 6. Any exceptions to, or deletions from, this practice are described in Section 5 of this report.

Photographs are attached as **Appendix A**. The User Questionnaire is attached as **Appendix B**. Historical Atlases are attached as **Appendix C**. Regulatory Agency Database Information from Toxics Targeting Inc. is attached as **Appendix D**.

2. Report of Findings

The project site was inspected on May 21, 2015 by GEI environmental professional, Mr. Richard Fasciani.

The findings of GEI's Phase I ESA, including our regulatory agency checks, are presented in the following sections. It should be noted that throughout the report the subject property located at 417 Gerard Avenue will sometimes be referred to as the "project site." Photographs taken during GEI's site visit are attached as **Appendix A**.

2.1 Property Descriptions

2.1.1 Location and Legal Description

The project site is located on the northwest corner at the intersection of Gerard Avenue and East 144th Street, in the Borough of the Bronx, New York City, New York (**Figure 1**). The New York City Tax Map identification numbers associated with the project site are Block 2351, Lot 20. The address associated with the project site is 415-417 Gerard Avenue and 111 East 144th Street, Bronx, New York.

2.1.2 Site Description and Current Use

The project site is primarily rectangular in shape and is currently occupied by a single story industrial building. The project site is located in special purpose mix use zoned district (MX-13). The New York City Department of Finance Building Classification is F4-Factory/ Industrial.

The lot area of the project site is approximately 9,200 square feet. The project site is occupied by a single story industrial building that occupies the entire lot. This building has a small basement area in the southwest corner of the building.

The building was occupied by Glasstown, Inc., (Glasstown) a wholesaler glass, window, glass door, and mirror company. Operations included the design, cutting, etching, frosting, etc., of various sized glass panels.

The heating system which consisted of ceiling mounted oil-fired blower that was not operational at the time of GEI's site visit. They also had a wood fired stove within the office area.

A black and white photograph from the 1970's shows the building at that time to be occupied by Glasstown.

No visible indications of on-site waste disposal of toxic and/or hazardous materials were observed at the time of inspection. No operations involving the use of toxic or hazardous materials were present on the project site at the time of the site assessment.

2.2 User Provided Information

ASTM E 1527-13 defines the "User" as: "the party seeking to use practice E 1527-13 to complete an environmental site assessment of the property." The performance standards required for all appropriate inquiries (AAI) include inquiries by an Environmental Professional, and additional inquiries by persons (User) seeking to establish one of the Comprehensive Environmental and Liability Act of 1980 (CERCLA) liability protections. Under § 312.22, additional inquiries by persons seeking to establish one of the CERCLA liability protections, if not otherwise provided to the Environmental Professional, includes in substance: an evaluation of environmental cleanup liens against the project site; consideration of specialized knowledge or experience of the person seeking to claim liability protection; evaluation of the relationship of the purchase price to fair market value of the project site, if the property was not contaminated; or other commonly known or reasonably ascertainable information about the property.

Based upon the above, a User Questionnaire was completed by Mr. Richard Sica, a Member of 417 Gerard LLC, for characterizing relative environmental risks for commercial purposes, as part of a client's regulatory requirement for conducting AAI to support any one of the three legal defenses against CERCLA liability, or other stated purposes (**Appendix B**). The following pertinent information is documented within this Questionnaire:

- Mr. Sica stated that the purpose of this Phase I ESA is to satisfy the potential lenders requirements for financing the purchase of the project site and that the purchase price reflects fair market value.

- Mr. Sica stated that to the best of his knowledge, he is unaware of any environmental cleanup liens against the project site that is filed or recorded under federal, tribal, state, or local law. In addition, Mr. Sica is unaware of any Activities and Use Limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the project site and/or have been filed or recorded in a registry under federal, tribal, state, or local law. Mr. Sica indicated that title report has been ordered and that to the best of his knowledge, there are no environmental liens recorded against the project site.

- Mr. Sica stated he does not have any specialized knowledge or experience with regard to any chemicals and/or processes used by current occupants of the project site or adjoining properties. Mr. Sica stated he has no knowledge with regard to the following items on the project site: specific chemicals that are present or once were present, onsite spills or other chemical releases, or environmental cleanups that have

taken place. Additionally, Mr. Sica stated that based on his knowledge and experience related to the project site, there are no obvious indicators that point to the presence or likely presence of contamination at the project site.

2.3 Previous Environmental Reports

No previous environmental reports have been supplied to GEI during the course of this Phase I ESA.

2.4 Site History

Primary sources for the history of New York City sites include historical fire insurance/real estate atlases, as well as the available records of the New York City Department of Buildings (NYCDOB) concerning permits for new buildings, certificates of occupancy, alterations, demolitions, and other changes at the project site.

2.4.1 Historical Atlases

Historical Sanborn fire insurance/real estate atlases were reviewed (**Appendix C**). These atlases are another source for the history of structures on the project site, and may indicate property use and the presence of buried gasoline tanks. Supplemental information regarding historical building occupants and property use were provided through review of available NYCDOB database records for the project site.

Year of Historical Sanborn Maps	Property Use
1891	This atlas indicates that the project site was an undeveloped lot. Most of the development in the surrounding area consisted of residential dwellings. It should be noted that 29th Street was first named Taylor Street as depicted on the 1915 atlas. Two small auto garages were depicted in the rear of the property.
1908	This atlas shows that the entire block the project site is located on was at that time used for lumber storage. Most of the surrounding blocks west, south and north are also associated with lumber storage/lumber yards. To the east are residential dwellings and a public school.
1935	This atlas depicts the present building on the project site. The building is shown to be utilized as a garage. This atlas indicates that two 550-gallon gasoline tanks are buried on the site. The rest of the block is also developed with garages and warehouses. The nearby uses consisted of warehouses, bakery, and other garages, repair shops, etc.
1944, 1946, 1947 and 1951	The building is depicted primarily as it is on the 1935 atlas. The adjacent and nearby buildings and uses are also primarily the same as on the 1935 atlases.
1977	The building is shown to be utilized as a garage for Con Edison. The two gasoline tanks that were depicted on the earlier atlases are no longer depicted.

Year of Historical Sanborn Maps	Property Use
1978, 1980, 1981, 1984, 1986, 1989, 1991, 1993 and 1994	These atlases are similar to the previous 1977 atlas.
1996, 1998, 2001, 2002, 2003, 2004, 2005, 2006, and 2007	These atlases depict the same building; however, the only exception is that Con Edison is no longer depicted as a tenant. Surrounding uses appear as garages, warehouses, and various single story commercial buildings.

2.4.2 Building Department Information

GEI reviewed readily available information relating to the project site supplied by the NYCDOB, Building Information System website. Information regarding the project site is found under Building Identification No. 20010962. The Department of Finance Building Classification for the project site is E4-Warehouse.

A Certificate of Occupancy (CO) associated with the project site is described as follows:

- CO Number 49851, dated April 14, 1975 – The CO indicates that it supersedes a previous CO (#49634-74); however, the previous CO is undecipherable. The CO dated April 14, 1975 indicates that the building is single story and was at that time used as a factory for the assembly of steel products.

Furthermore, the earliest recorded action depicted on the website was in 1968 for an alteration (Permit Number: ALT 45-68). This permit was issued in 1968. Additionally, according to the New York City Department of Finance, Office of the City Register, in the 1970s, one of the names depicted as a property owner included the words "Altype Fire Door Corporation."

No other pertinent records or information was depicted within the NYCDOB Building Information System website indicating an environmental concern or condition.

Furthermore, the website information includes a notation that the project site is part of an E-Designated area of New York City, designated for environmental conditions requiring special activities coordinated through the New York City Office of Environmental Remediation. The Environmental Restrictions noted pertain to Hazardous Materials, Noise and Air.

2.4.3 Interviews

No formal interviews were performed as part of this Phase I ESA; however, general discussions with some of the employees within the building at the time of the site inspection revealed that at one time Con Edison occupied the building and that the current business had existed at this location for more than 20 years.

2.4.4 Aerial Photographs

Based upon a review of historical aerial photographs obtained from Google Earth, the project site was developed with the current building from 1995 until 2014.

2.4.5 Summary of Site History

GEI's analysis of historical information shows that the building on the project site was constructed in the early 1900s for use as a public garage and then as a garage building for Con Edison. Later uses included fire door manufacturing and glass and mirror fabrication since at least the 1970s.

The surrounding area has primarily consisted of garages, commercial and industrial buildings and warehouse buildings. The adjacent buildings to the north and west consist of a garage building and a manufacturing/industrial building (respectively).

2.5 Site Characteristics

2.5.1 Site Topography

From observations made during GEI's site assessment, as well as information obtained from the topographic map, the topography of the area surrounding the project site is generally level along Gerard Avenue and a westerly slope along West 144th Street. According to Google Earth, the elevation of the project site, at street level, is estimated to be approximately 15-20 feet above Mean Sea Level.

2.5.2 Site Hydrogeology

The Bronx is underlain by three principal bedrock formations: Inwood Marble, Fordham Gneiss, and Manhattan Schist. The strata of these rock types have been folded by forces produced by movements in the earth's crust, and the resulting pattern has produced a series of ridges and valleys. The rock of Inwood Marble is soluble in even slightly acidic water, and has been eroded through time to form lowlands and valleys, including the channel of the Harlem River. Further erosion of the marble, as well as the schist and gneiss occurred later in time, as the surface of rock in New York City was covered by massive glaciers. Besides the erosion that they produce, the glaciers transported broken-up rock fragments from areas to the north and deposited them in many areas of the Bronx. Meltwater streams produced by the glaciers occupied the valleys of Inwood Marble, and they in turn produced outwash sand deposits. These permeable deposits, in combination with solutional fractures present in the limestone, account for the ability of the areas underlain by Inwood Marble to yield significant quantities of groundwater.

Recharge of groundwater in the Bronx is chiefly from precipitation. Possible secondary sources include lateral underground flow from Westchester County, as well as leakage from water mains and sewer lines. Areas of the Bronx, in which clay deposits from former glacial lake beds formed marshes, may contain minor quantities of groundwater, which do not readily percolate downward due to the impermeability of these materials. The schist and gneiss are also relatively impermeable, and have historically yielded relatively minor quantities of water to wells. Uses of groundwater in the Bronx, other than for domestic purposes, have included water withdrawals of cooling, air conditioning, washing and flushing, and laundering. Today, public water supply for the Bronx comes from the upstate reservoirs which supply the City of New York.

Based upon the topography of this area of the Bronx, it is inferred that groundwater in the area of the project site follows the topographic gradient and flows in a southwesterly direction. Groundwater, although accessible in some areas, is considered not suitable for public use due to low well production yields and poor quality, and is not utilized as a potable source.

Site specific hydrogeology can only be determined through a program of drilling to confirm groundwater depth, direction, and composition of the soil/rock matrix. No such drilling program was undertaken as part of this Phase I ESA.

2.5.3 Site Drainage

Floor drains were observed within the building. Additionally, underneath a metal plate in the southeastern corner of the building appeared to be an old oil-water separator. The employees within the building stated that this structure was never utilized by them and they did not know of its existence.

2.5.4 Flood Plain Information

The project site lies in Zone X, an area of minimal flooding, on the Federal Emergency Management Act (FEMA) Flood Insurance Rate Map (No., 3604970083F). The project site is not in a flood plain.

2.5.5 Sensitive Receptors

Sensitive receptors (i.e., wetlands, surface waters, drinking water well fields, and groundwater recharge basins) are identified for the immediate vicinity of the project site. In the event of an incident involving the spill of a hazardous substance or petroleum product at the project site, more costly remedial actions may be required when sensitive receptors are present.

No surface waters, wetlands, recharge basins, or drinking water well fields were observed on the project site.

2.5.6 Water Supply

Water is supplied to the project site through municipal sources available in this area of the Bronx, New York City, New York. No on-site water supply wells were observed on the project site at the time of GEI's site visit.

2.5.7 Monitoring/Observation Wells

No monitoring/observation wells were observed on the project site at the time of GEI's site inspection.

2.6 Hazardous Substances and Petroleum Products

No visual evidence for hazardous substances or petroleum products (other than fuel oil) was observed within the project site during GEI's site inspection.

2.7 Storage Tanks

The building heat was observed to be supplied by an oil-fired ceiling mounted hot air blower. A 275-gallon aboveground fuel oil tank was observed to be connected to this system and was located in the basement. A second tank, encased with concrete was also located in the basement area. The exact size of this tank could not be ascertained; however, based upon its size, the tank's capacity would range from 1,000 to 1,500-gallons.

2.8 PCB Containing Electrical Equipment

Prior to 1979, Polychlorinated Biphenyls (PCBs) were widely used in electrical equipment such as transformers, capacitors, switches, and voltage regulators for their cooling properties. The manufacture, processing, commercial distribution, and use (except in a "totally enclosed manner") of PCBs was banned in 1979, under the Toxic Substances Control Act (40 CFR Part 761). PCB spills are subject to strict reporting, cleanup, and disposal requirements, due to the toxicity of the substance, and their threat to human health and the environment.

No electrical transformers or other electrical equipment containing PCBs were observed on the project site during GEI's site visit.

2.9 Non-Scope Discussion

2.9.1 Suspected Asbestos-Containing Materials

Based upon our observations, evidence of any asbestos-containing insulation materials was observed on the dilapidated boiler and piping noted within the basement area.

2.9.2 Lead-Based Paint

Consumer sale of lead-based paint (containing over .06 percent metallic lead) was banned by the United States Consumer Products Safety Commission in 1977. Given the age of the building, it is possible that underlying painted surfaces on interior building components that have not been renovated or replaced since the construction of the building may contain lead.

2.9.3 Mold

No visual evidence of extreme, large and/or significant areas of mold spore growth was noted at the time of GEI's site visit.

2.9.4 Radon

Radon, a naturally occurring radioactive gas, is the product of the decay of radium. It is found most frequently in relatively high concentrations in rock formations containing uranium, granite, shale, phosphate, and pitchblende. Radon may also be found in soils contaminated with industrial waste from uranium and phosphate mining. Radon as a gas can move through the soil and water, and into the atmosphere, and is a potential health concern if confined in sufficiently high concentrations in indoor environments. The United State Environmental Protection Agency (USEPA) has set an "action level" of 4.0 picocuries per liter for continuous long term exposure to radon gas. If radon gas is measured above this level, USEPA suggests follow-up testing and remediation measures.

According to data compiled by the Bureau of Radiation Protection, New York State Department of Health (NYSDOH), New York City has one of the lowest average levels of basement radon measurements in New York State. The latest statistics indicate an average of 1.4 picocuries/liter for New York City (an average of the five counties), compared to a statewide average of 5.6. Based on these low average levels for New York City, it is unlikely that radon gas levels on the project site exceed the USEPA action level of 4.0 picocuries per liter, and therefore radon testing is typically not recommended.

2.10 Adjacent/Contiguous and Nearby Properties

2.10.1 Historical Atlas Review

GEI's review of historical Sanborn atlases indicated that adjoining and neighboring properties surrounding the project site have historically consisted of parking garages, automotive repair garages, a bakery building, industrial buildings, and warehouses.

2.10.2 Current Observations of Adjacent/Contiguous and Nearby Properties

GEI's site inspection included a visual reconnaissance of properties located adjacent/ contiguous to, and in the immediate vicinity of the project site. These noted properties were viewed from public right-of-ways. Although there were no significant barriers preventing GEI from determining the general uses of these properties, GEI did not enter any of these properties for a detailed inspection of site conditions for legal reasons (i.e., trespassing). The table below summarizes GEI's visual observations.

Direction	Property Use
North	Single story structure utilized as a glass and mirror supply and installation company.
South	A nine story structure currently utilized as a public storage facility.
East (across Gerard Avenue)	Single story structure currently utilized as a box warehouse.
West	Single story structure currently utilized as a box warehouse.

Land uses in the area primarily consist of residential dwellings and a public school.

Properties identified within available regulatory agency database search radii are listed in the next subsections of this report (refer to Sections 2.11 and 2.12).

2.11 Federal and State Regulatory Records and Databases

GEI obtained and evaluated the readily available and most recent environmental regulatory agency database records provided by Toxics Targeting, Inc. of Ithaca, New York (A**ppendix D**). This report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Environmental Site Assessments (E 1527-13).

GEI's review of available and most recent federal and state agency database records for the project site, adjacent/contiguous properties, and surrounding neighborhood was completed according to the requirements set forth in ASTM E 1527-13, Section 8. The search distances reviewed for this assessment generally meet or exceed the minimum search distances according to the requirements set forth in ASTM E 1527-13, Section 8.2.1. Any deviations from the minimum search distances are addressed in the individual database discussions presented below.

Federal Regulatory Database Search

NPL Sites

The USEPA National Priorities List (NPL) identifies confirmed hazardous waste sites that are ranked for clean-up under the federal Superfund program. This program was authorized by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA" or "Superfund"), as amended by Superfund Amendments and Reauthorization Act of 1986 ("SARA") and Small Business Liability Relief and Brownfields Revitalization Act of 2002 ("Brownfields Amendments").

The project site was not identified within this database. No USEPA NPL sites were identified within an approximate 1-mile radius of the project site.

CERCLIS

The USEPA CERCLA Information System (CERCLIS), which is a comprehensive database and management system that inventories and tracks sites addressed or needing to be addressed by the Superfund program. Sites that USEPA decides do not warrant further evaluation are given a "No Further Remedial Action Planned (NFRAP)" designation by USEPA, which means that no further action under CERCLA is presently anticipated for that site. A "NFRAP" designation does not necessarily indicate that there is no hazard associated with the site only that, based on available information, USEPA does not plan further investigation at this time.

The project site was not identified within this database. There were no USEPA CERCLIS sites identified within an approximate 1/2-mile radius of the project site.

RCRA Corrective Action Activity

The Resource Conservation and Recovery Act (RCRA) Corrective Action Activity (CORRACTS) database lists hazardous waste facilities with RCRA corrective action activity reported by the USEPA.

The project site was not identified within this database. There were no RCRA Corrective Action sites identified within an approximate 1-mile radius of the project site.

RCRA Treatment/Storage/Disposal Facilities

The RCRA Treatment/Storage/Disposal Facilities (TSDF) database includes facilities that treat, store, and/or dispose of hazardous wastes, or have engaged in these activities in the past. TSDF operators, as with hazardous waste transporters and generators, are regulated under the RCRA.

The project site was not identified within this database. One RCRA TSDF site was identified within an approximate 1/2-mile radius of the project site. This site (Power Chemical Company, Inc., USEPA Facility ID NYD001549633) is located over 1,400-feet east southeast from the project site and at this distance is not likely to have the potential to impact the environmental integrity of the project site. Additionally, there are no spills associated with the project site.

RCRA Hazardous Waste Generators and Transporters

RCRA Hazardous Waste Generators and Transporters are regulated by the federal government under the RCRA. RCRA facilities are permitted by the USEPA, RCRA Division, to generate hazardous waste as part of business operations and dispose of the waste legally. These facilities generally abide by USEPA regulations for storage, handling and disposal of hazardous materials. RCRA Hazardous Waste Generator and Transporter sites are not permitted to store any hazardous wastes at any time for more than 90 days, reducing the potential risk of a spill. A review of the Hazardous Waste Generator and Transporter listings is useful to assess the kinds of hazardous materials/wastes that are handled, stored, and/or transported in the vicinity of the project site, as well as on the project site. With the exception of those identified on, or adjacent/contiguous to the project site, the presence of hazardous waste generators or transporters in the immediate vicinity does not necessarily imply risk of contamination to the project site.

The project site is not listed on this database. The adjacent property to the north is registered as follows:

- Stone Service – 445 Gerard Avenue, Bronx, New York; USEPA Facility ID NYD012261244. According to information in the database, this site is depicted as having generated over 10,070-pounds of spent halogenated and non-halogenated wastes in total for the years 1989, 1990, and 1998. No other information was depicted for this property. There are no NYSDEC spills associated with this property.

Civil and Administrative Enforcement Docket

USEPA's Civil and Administrative Enforcement Docket is a database that tracks civil judiciary cases filed on behalf of USEPA by the U.S. Department of Justice.

The project site and adjacent properties were not identified within this database. There was one Civil and Administrative Enforcement Docket site listed within 1/8-mile of the project site as follows:

- Bronx Industrial Scrap – 459 Exterior Street, Bronx, New York; USEPA Facility Id: NYD099511974. No other information is depicted in the database. This site is

also listed on the NYSDEC Solid Waste, Wastewater Discharge, Spills and Air Discharge databases.

Given the distance and down gradient direction from the project site, it is deemed unlikely that this Civil and Administrative Enforcement Docket site would have the potential to impact the integrity of the project site.

Emergency Response Notification System

USEPA's Emergency Response Notification System (ERNS) database contains information from federal agencies on CERCLA hazardous substance releases or spills in quantities greater than the reportable quantity.

The project site was not identified within this database.

New York State Regulatory Database Search

Inactive Hazardous Waste Disposal Sites

New York State Department of Environmental Conservation (NYSDEC) Inactive Hazardous Waste Disposal Site Registry contains information concerning potentially hazardous waste sites in New York State. The list of NYSDEC Inactive Hazardous Waste Disposal (IHWD) Sites contains summary information pertaining to those facilities that are deemed hazardous and requiring response actions regulated by the NYSDEC under the State's Superfund Program.

The project site was not identified within this database. There are eight Inactive Hazardous Waste Disposal sites listed within an approximate 1-mile radius of the project site. All eight are located over an approximate 1/4-mile radius from the project site. The closest of these sites is located in the Borough of Manhattan. Due to the distance from the project site, these IHWD sites are deemed unlikely to have impacted the environmental integrity of the project site.

Hazardous Substance Waste Disposal Sites

NYSDEC maintains a database of waste disposal sites that may pose threats to public health or the environment, but cannot be remediated using monies from the Hazards Waste Remediation Fund.

The project site is not listed in this database. No NYSDEC Hazardous Substance Waste Disposal sites were identified within an approximate 1/2-mile radius of the project site.

Brownfields Sites

The New York State Brownfields database is a listing of sites that are abandoned, idled or under-used industrial and commercial sites in New York State, where expansion or redevelopment is complicated by real or perceived environmental contamination.

The project site is not listed on this database. Eight New York State Brownfields sites were listed within an approximate 1/2-mile radius of the project site. The nearest site is depicted as follows:

- 500 Exterior Street, Lot B, Bronx, New York (NYSDEC Facility Id C 203071), located 268 feet north of the project site. This site was described as a vacant lot. A Phase II Investigation was performed. Groundwater was encountered between 12 and 19 feet and groundwater flow is toward the west. No significant groundwater contamination was encountered. Contaminants of concern in soils are PCBs and metals. Given the anticipated cross-gradient groundwater flow direction, this nearby Brownfield site is not anticipated to be an environmental concern.

The remaining sites are located over 1,300-feet from the project site and at this distance are not deemed likely to have impacted the environmental integrity of the project site.

Solid Waste Facilities

A review of the NYSDEC database of solid waste facilities (including, but not limited to, landfills, incinerators, transfer stations, recycling centers) determined that the project site was not identified within this database. Ten solid waste facilities are listed in this database. These sites are all located over 600 feet from the project site and at this distance are unlikely to have impacted the environmental integrity of the project site.

NYSDEC Spill Log Database

The NYSDEC maintains a database of spills of hazardous materials, including petroleum products, reported to the agency according to its regulatory requirements. Parties found responsible for these spills are required to respond by notifying the NYSDEC's Spill Hotline, obtain a Spill Number, and eliminate the source of the spill and perform the necessary cleanup of contamination in surface and subsurface soils and groundwater. The responsible party is required to report its response actions to an assigned NYSDEC case manager, and meet the applicable NYSDEC cleanup criteria for the media impacted by the spill before the NYSDEC will render a determination of "no further action" and at such time, the NYSDEC will "close" the spill number. Spill numbers listed as "active" indicate that the spill incident is either still undergoing remediation, or awaiting completion of paperwork for closure. The NYSDEC Spills database records spills of unknown substances, regulated chemicals, petroleum spills, and spills due to tank failures and tank tightness test failures.

The project site and adjoining properties were not identified in the NYSDEC Spills database. However, there were 194 NYSDEC spill incidents identified within an approximate 1/2-mile radius of the project site, of which 180 have been closed. Of the remaining 14 spill incidents that were listed as "active" within the NYSDEC Spills database, all are located over 1,000 feet from the project site.

Upon review, due to such factors as the intervening development (e.g., roadways, gas and electrical conduits, underground sewer systems, basements of adjoining and nearby buildings, etc.) between the project site and these "active" spill incidents, the spill incident statuses, the distances between the spill sources and the project site, the quantities of materials spilled, and the resources affected, these "active" spill incidents were deemed unlikely to have impacted the environmental integrity of the project site.

Major Oil Storage Facilities

A check was made of the NYSDEC Major Oil Storage Facilities (MOSF) database, which lists all facilities (onshore facilities or vessels) with petroleum storage capacities of 400,000 gallons or greater.

The project site was not identified within this database. No NYSDEC MOSF sites were identified within an approximate 1/8-mile radius of the project site.

Petroleum Bulk Storage Facilities

NYSDEC maintains registration records for facilities that have petroleum storage capacities in excess of 1,100 gallons and less than 400,000 gallons. These facilities are documented within the NYSDEC Petroleum Bulk Storage (PBS) and Fire Department of the City of New York (FDNY) databases.

The project site is not listed on this database. However, the following nearby/adjacent properties are listed on the PBS database, as follows:

- 385 Gerard Avenue, Bronx, New York (Facility ID: 2−400319). The database describes a 10,000-gallon aboveground storage tank at this property.

- 414 Gerard Avenue, Bronx, New York (Facility ID: 2-207209). The database depicts that this site has a 3,000-gallon aboveground tank.

It should be noted that there were no NYSDEC spill incidents associated with any of these PBS facilities.

Chemical Bulk Storage Facilities

A check was made of the NYSDEC Chemical Bulk Storage (CBS) database. CBS facilities store regulated hazardous substances in aboveground tanks with capacities of 185 gallons or greater, and/or in underground tanks of any size.

The project site is not listed in this database. No CBS sites were identified within an approximate 1/8-mile radius of the project site.

2.12 New York City Regulatory Database Records

2.12.1 New York City Historic Utility Facilities

A check was made of the New York City Historic Utility Facilities database which is an inventory of selected power generation stations, manufactured gas plants, gas storage facilities, maintenance yards, and other gas and electric utility sites identified within various historic documents, maps, and annual reports of New York utility companies. A majority of these sites operated between the 1890s and 1940s.

The project site was not identified within this database. There were no Historic Utility Facility sites depicted within an approximate 1/8-mile radius of the project site.

2.12.2 New York City "E" Designated Sites

A check was made of the New York City Environmental Quality Review (CEQR) - E Designation Site database, which lists parcels assigned a special environmental ("E") designation under the CEQR process. An "E" designation requires specific protocols that must be followed during redevelopment.

The project site is identified as an "E" designated site under "E" Number E-227. It should be noted that an E-designation does not interfere with the present use of the site; however, E-designations do prevent the release of building permits subject to a detailed environmental review and release by the NYC Office of Environmental Remediation. Such release may require a full subsurface investigation, remedial and health and safety planning, implementation of a remedial program and documentation that the remedial program was completed during redevelopment of the property.

The Window Wall Attenuation E requires that any new building constructed on the property include a window wall system which will achieve a noise attenuation of 35 decibels to maintain a maximum interior noise level of 45 decibels. An alternate means of ventilation such as through the wall or central air conditioning will also be required to maintain a closed window condition. Satisfaction of the Noise E requires the submission of a Noise Remedial Action Plan and an Installation Report certified by a Professional Engineer or Registered Architect.

The Air requires any new residential and/or commercial development must ensure that the heating, ventilating, and air conditioning stack(s) have certain limitations regarding where they can be placed on a building. The development must also ensure that the type of fuel used for the HVAC system is natural gas with low NOx only.

Additional information regarding "E" sites can be found on the New York City Office of Environmental Remediation website: http://www.nyc.gov/html/oer/html/e-designation/e-designation.shtml

2.13 Vapor Encroachment Screening

We have performed a Tier 1 Vapor Encroachment Screening for the property in accordance with the requirements of ASTM Standard E2600-10.

Toxic, volatile substances that are spilled on the ground or released into the subsurface may migrate in the subsurface environment and eventually enter buildings as a gas or vapor by seeping through cracks in basements, foundations, sewer lines and other openings. Vapor flow toward and into a building can be influenced by a number of factors, including atmospheric pressure changes and building depressurization due to operation of exhaust fans or heating units within the building. The flow rate of vapors into a building often is difficult to predict but generally will depend on factors such as subsurface conditions (e.g., soil properties and contaminant characteristics), building design and condition (e.g., cracks and conduits), and differentials in air pressure across the building foundation. Upon entry into a structure, vapors normally mix with the existing air through the natural or mechanical ventilation of the building. Concentrations of indoor vapors may accumulate to a point where the health of occupants (e.g., residents, workers) in those buildings could be at risk.

Vapor intrusion (also referred to as VI) is the general term given to migration of vapors from a contaminant source in the subsurface into indoor air. Vapor intrusion can occur in a wide variety of building configurations (e.g., buildings with basement, crawlspace, or slab-on-grade foundations). Volatile organic compounds (VOCs) are the category of chemicals of greatest potential concern for this pathway, which among other things includes constituents of gasoline (e.g., benzene) and other petroleum fuels, as well as dry cleaning fluids (e.g., tetrachloroethylene [PCE]) and industrial degreasers and solvents (e.g., trichloroethylene [TCE]). Other vapor-forming chemicals of potential interest include certain semi-volatile organic compounds (SVOCs), certain pesticides, and mercury.

The vapor intrusion pathway has become widely recognized as a potentially significant cause of exposure to toxic substances in indoor spaces. Numerous studies have indicated that the air in buildings overlying soil or groundwater contaminated with toxic vapor forming substances may contain potentially harmful concentrations of these contaminants due to vapor intrusion.

Based on our evaluation of current and past property uses as well as our review of available property records during this Phase I ESA, we concluded that a vapor intrusion concern (VIC), defined as the presence or likely presence of contaminated vapors in the subsurface caused by the release of vapors from the gasoline tanks, oil tank that rests on soil, oil water separator and floor drains could possibly exist.

The Toxics Targeting, Inc. database indicated suspect sources of petroleum contamination within 1/10- mile of the property and suspect sources of non-petroleum contamination within 1/3-mile of the property, which are the "approximate minimum search distances" required in a Tier 1 Vapor Encroachment Screening. However, given the regulatory status, the characteristic of the off-site suspect sources and that there are no documented plumes associated with these suspect sources, it is unlikely that the project site has been impacted from a vapor migration/intrusion viewpoint.

The vapor migration/intrusion pathway is very complex and can vary considerably within a site. It should be noted that this "screening" is not an absolute and definitive methodology for confirming vapor migration/intrusion impacts. Site specific impacts from vapor migration/intrusion can only be determined through a specific testing program. No such testing program was undertaken as part of this Phase I ESA.

2.14 Data Gaps

As part of this report, GEI did encounter any significant data-gaps that would impact the conclusions of this report.

3. Opinions, Conclusions and Recommendations

We have performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13 of the project site located at 417 Gerard Avenue, Bronx, New York. Any exceptions to, or deletions from, this practice are described in Section 4 of this report. This assessment has revealed no evidence of Historical Recognized Environmental Conditions or Controlled Recognized Environmental Conditions; however, the follow Recognized Environmental Conditions were identified in connection with the project site:

Aboveground and Underground Storage Tanks

Two (2) 550-gallon underground gasoline storage tanks were identified to be located on the project site. The vent lines for these tanks were observed protruding from the roof-top of the building. Additionally, these two tanks are depicted on historical atlases. It is likely that these tanks remain buried underneath the subject building. Additionally, two 275-gallon aboveground tanks, as well as a larger aboveground tank that was encased within a concrete vault, were located in the basement of the building.

Interior Floor Drains and an Oil Water Separator

Floor drains were observed within the building as well as an oil water separator.

Soil Vapor

Based upon the potential for soil contamination from the underground gasoline storage tanks, aboveground storage tank resting on soil, floor drains and the oil water separator, there is the potential for soil vapor impacts.

New York City E-Designation

It should be noted that an E-designation does not interfere with the present use of the site; however, E-designations do prevent the release of building permits subject to a detailed environmental review and release by the NYC Office of Environmental Remediation. Such release may require a full subsurface investigation, remedial and health and safety planning, implementation of a remedial program and documentation that the remedial program was completed during redevelopment of the property.

It is GEI's opinion that a Phase II investigation be performed to determine if the underlying soils at this site have been impacted by the above recognized environmental conditions.

ENVIRONMENTAL PROFESSIONAL STATEMENT AND SIGNATURES

We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312 of 40 CFR 312. We have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the project site. We have developed and performed the AAIs in conformance with the standards and practices set forth in 40 CFR Part 312.

SENIOR ENVIRONMENTAL PROFESSIONAL:

Environmental Practice Leader

Reviewed by:

Senior Project Manager

4. Scope of Work

The Scope of Work for this Phase I ESA is based on the Standard Practice for Environmental Site Assessments: Phase I ESA Process (E 1527-13) developed by the (ASTM, and generally accepted industry protocols, with the following exceptions: no aerial photos were obtained for inclusion within the report. This Phase I ESA involved, and was limited to: research into the history of uses of the project site, checks with appropriate government and regulatory agencies, a visual inspection of the project site, and an informal survey of adjacent/contiguous and nearby properties to determine the presence of RECs, Historical Recognized Environmental Conditions and Control Recognized Environmental Conditions. These are defined under ASTM E 1527-13, as follows:

Recognized Environmental Conditions (RECs)

"the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

Historical Recognized Environmental Conditions (HRECs)

"a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted uses criteria established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restrictions, AULs, institutional controls, or engineering controls)."

Controlled Recognized Environmental Conditions (CRECs)

"a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with *hazardous substances* or *petroleum products* allowed to remain in place subject to the implementation of required controls (for example, *property* use restrictions, *activity and use limitations, institutional controls,* or *engineering controls).*

Since the Phase I ESA scope of work does not typically include testing of building materials (e.g., for asbestos, lead-based paints, PCBs, etc.), or of subsurface soils or groundwater, no definitive assessment of the presence of environmental contamination (from on-site or off-site sources) is made. It should also be noted that other issues that may relate to property

value impairments (e.g., ambient air quality, asbestos in building concerns, lead-paint concerns, pollution conditions requiring response costs, noise pollution, perceived risk from electromagnetic fields, etc.) are outside the scope of this Phase I ESA, and are addressed in this study only in a limited manner.

If further determination of any potential contamination or analysis of specific materials is needed, then testing and/or further investigations (e.g., Phase II investigations) may be necessary.

4.1 Conformance with ASTM Standard

GEI has performed this Phase I ESA of the project site in compliance with the scope and limitations of ASTM Practice E 1527-13, and its client's scope of services for Phase I ESAs, as required by the client, as the User. The purpose for this Phase I ESA is to provide GEI's client with Phase I ESA findings, conclusions and professional opinions to support the User's business practices and to meet one of the requirements for innocent landowner and bona fide prospective purchaser limitations on CERCLA liability. If requested by the client, as the User, the scope of work may exceed the recommended ASTM scope (e.g., additional database searches, evaluations for asbestos, radon, lead-based paint issues, wetlands, etc.). If additional evaluations are requested for the purposes of determining business environmental risks, such evaluations will be based upon considerations including, but not necessarily limited to, the nature of the property and the reasons for performing the assessment, and will be agreed upon between the User and GEI as additional services beyond the scope of the ASTM Phase I ESA practice in a signed writing prior to the initiation of the additional tasks.

In accordance with ASTM standards, a Phase I ESA is not intended by GEI to be used by the User as an environmental compliance report. This Phase I ESA report does not address the specific compliance requirements under federal, state and local laws for storage, use, transport, discharge, or disposal of hazardous or toxic materials associated with the project site. Specific compliance issues and questions about a particular site must be addressed directly through the regulatory agency having jurisdiction over the project site. In addition, no judgment is made with respect to the facility's compliance with worker exposure standards established by the federal Occupational Safety and Health Administration (OSHA), or any other state or local regulatory body.

4.2 Sources of Information and Research Methods

As previously mentioned, this Phase I ESA involved, and was limited to: research into the history of uses of the project site, checks with appropriate government and regulatory agencies, a visual inspection of the project site, and an informal survey of adjacent/ contiguous and nearby properties to determine the presence of RECs.

Historical site research is important in the assessment of the likelihood of past releases of hazardous substances and/or petroleum products. Sources of historical information for the project site may include one or more of the following:

- Historical Sanborn atlases, aerial photos, etc.
- USGS topographic maps, land use and zoning maps, flood plain maps
- Interviews with site contacts or current site operators
- NYCDOB for building history including construction and alteration permits, and FDNY for information relating to petroleum storage tanks, and storage and use of hazardous substances or petroleum products.

The site inspection involves a review of current operations and walk-through of the project site for visible indications of any significant contamination by hazardous substances and/or petroleum products. The site inspection includes the following objectives:

- to identify sources of potential on-site contamination, such as underground storage tanks, septic systems, dry wells, interior floor drains, electrical equipment potentially containing PCBs, SACMs, and suspected lead-based paints, etc.
- to examine the property for signs of potential contamination: stained soils, unusual odors, stressed or dead vegetation, improperly stored drums, oil slicks, on-site waste disposal/dumping, etc.
- to identify the quantity and type of hazardous substances or petroleum products used in the on-site operations.
- to identify potential off-site sources of contamination. Adjacent uses are noted, along with topography and surface water drainage patterns.
- to identify on-site or adjacent off-site sensitive receptors, such as wetlands, surface waters, drinking water wells.

GEI's review of available federal agency records for listings which may include the project site, adjacent/contiguous properties, and surrounding neighborhood was completed according to the requirements set forth in ASTM E1527-13, Section 8. The search distances reviewed for this assessment generally meet or exceed the minimum search distances according to the requirements set forth in ASTM E1527-13, Section 8.2.1. Any deviations from the minimum search distances are addressed in the discussions for significant individual database findings.

GEI's review of available federal agency records for listings which may include the project site, adjacent/contiguous properties, and surrounding neighborhood included the following federal databases: NPL and Delisted NPL site listings; CERCLIS and CERCLIS NFRAP

site listings; RCRA CORRACTS and RCRA non-CORRACTS TSD facility listings; RCRA Generator listings; Federal institutional control/engineering control registries; and the Federal ERNS list.

GEI's review of readily available NYSDEC records for listings which may include the project site, adjacent/contiguous properties, and the surrounding neighborhood included the following state databases: Inactive Hazardous Waste Disposal Sites; Brownfields Sites and Voluntary Cleanup Program (VCP) Sites listings; Solid Waste Facilities and Historical Solid Waste Sites listings; Petroleum Bulk Storage Facilities, Major Oil Storage Facilities and Chemical Bulk Storage Facilities site listings; and Leaking Underground Storage Tank (LUST) and Spill Site facility listings.

Not all of the objectives described above are applied to every site; investigations are tailored to the particular nature of the site. It should be noted that information requested from regulatory agencies may be incomplete or unavailable within a reasonable time period.

4.3 User Supplied Information

In order for a prospective purchaser to claim CERCLA landowner liability protections, under Section 101 (35)(B) of CERCLA, as amended by the Small Business Liability Relief and Brownfields Revitalization Act, such persons and businesses are required to conduct AAIs prior to or on the date of obtaining ownership of the property. The USEPA, in its Final Rule, Standards and Practices for All Appropriate Inquiries, established federal standards and practices for conducting AAIs, found in 40 CFR Part 312. Under § 312.11 (a), ASTM E 1527-13 is identified as an industry standard which may be used to comply with AAIs.

The performance standards required for AAIs include inquiries by an Environmental Professional, and additional inquiries by persons seeking to establish one of the CERCLA liability protections. Under § 312.22, additional inquiries by persons seeking to establish one of the CERCLA liability protections, if not otherwise provided to the Environmental Professional, includes in substance: an evaluation of environmental cleanup liens against the project site; consideration of specialized knowledge or experience of the person seeking to claim liability protection; evaluation of the relationship of the purchase price to fair market value of the project site, if the property was not contaminated; or other commonly known or reasonably ascertainable information about the project site. If such information is not provided to the Environmental Professional, the AAI report prepared by the Environmental Professional must include a determination as to whether the lack of this information affects his or her ability to identify conditions of releases or threatened releases under the Final Rule, and discuss this condition as a significant Data Gap (Section 2.13.).

5. Disclaimer

This Phase I ESA has been prepared for Galaxy General Contracting and 417 Gerard LLC and is only to be used as a Phase I ESA of the project site in compliance with the scope and limitations of ASTM Practice E 1527-13 at the time of GEI's site visit. This Phase I ESA is based on the review of relevant historic and agency records relating to past uses and occupants, which may be incomplete, and upon a visual inspection of the project site.

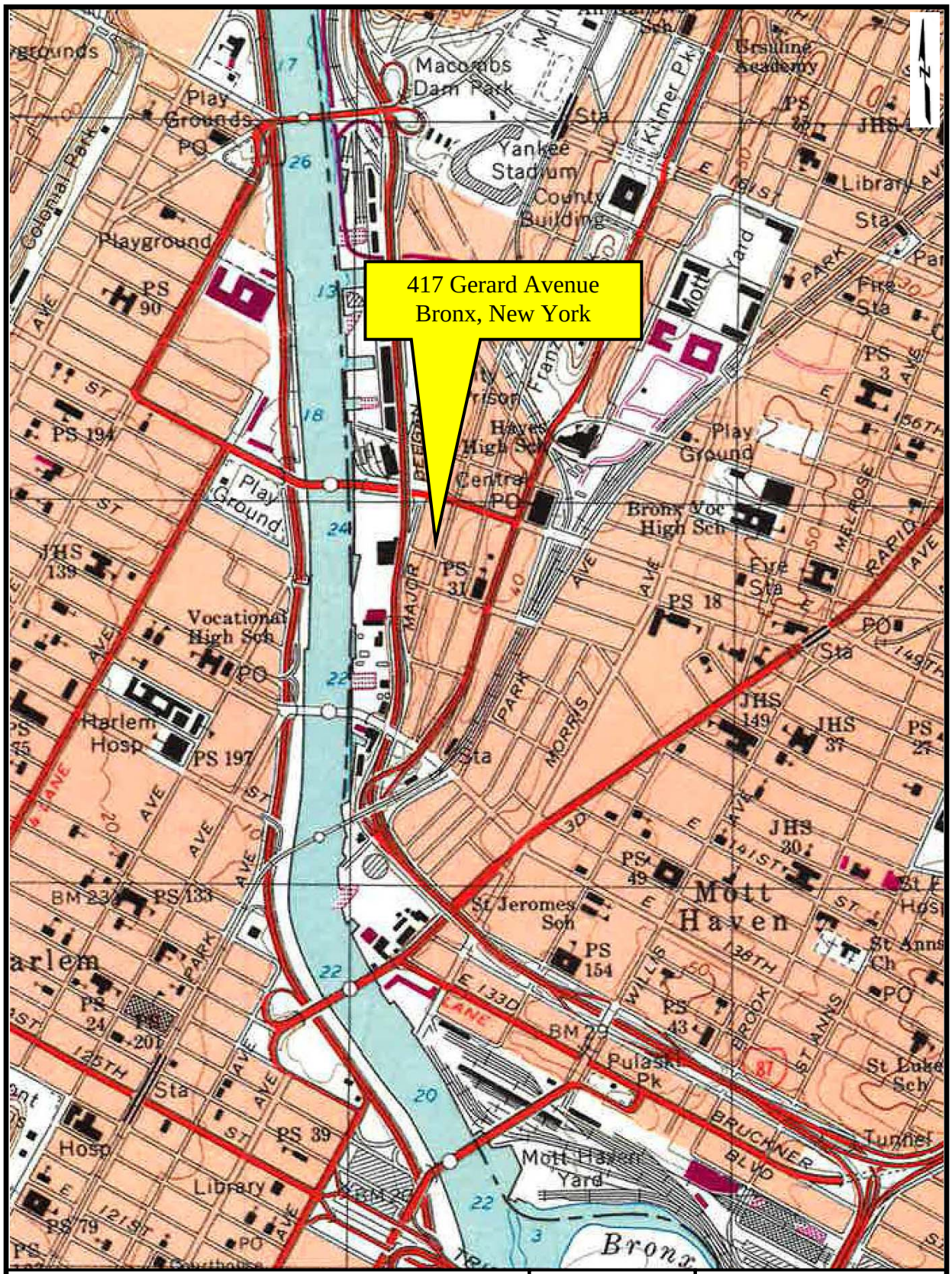
Any third party reliance on the findings and conclusions contained in this report is expressly prohibited, unless the third party obtains the written consent of GEI beforehand. GEI assumes no liability for any unauthorized use of this report by any person or entity other than the User for whom it has been prepared. This Phase I ESA was undertaken in accordance with generally accepted currently customary practices, specifically the ASTM Standard Practice for Phase I ESAs. This Phase I ESA makes no representations or conclusions with respect to portions of the project site and its structures which were not inspected portions of the project site which were hidden from view, or portions of the project site not accessed by GEI for any reason.

As discussed in ASTM E 1527-13, Section 4.5.1, a Phase I ESA cannot wholly eliminate uncertainty regarding the potential for RECs in connection with a property. The completion of this Phase I ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with the property, within reasonable limits of time and cost. This Phase I ESA is a visual, non-intrusive assessment where the investigation included a review of readily available applicable records, interviews with site owners and personnel, and an inspection of readily accessible and visible areas.

This Phase I ESA does not involve any sampling, testing, or laboratory analysis of soils, surface water, groundwater, products, building materials, or other substances on-site, but constitutes only the professional opinion of GEI based on established ASTM Phase I ESA and User procedures and protocols. This Phase I ESA is not, and should not be construed as, a guaranty, warranty, or certification of the presence or absence of toxic or hazardous substances, which can be made only through direct or indirect testing, and contains no formal plans or recommendations to rectify or remediate the presence of any toxic or hazardous substances, which may be subject to regulatory oversight and approval.

Any and all liability on the part of GEI shall be limited to the extent of applicable coverage of GEI's professional liability insurance between GEI and the User of this Phase I ESA. GEI shall have no liability for any other damages, whether consequential, compensatory, punitive, or special, arising out of, incidental to, or as a result of, this Phase I ESA. GEI assumes no liability for the use of this Phase I ESA by any person or entity other than the institution and/or entities or persons for whom it has been prepared.

Figures



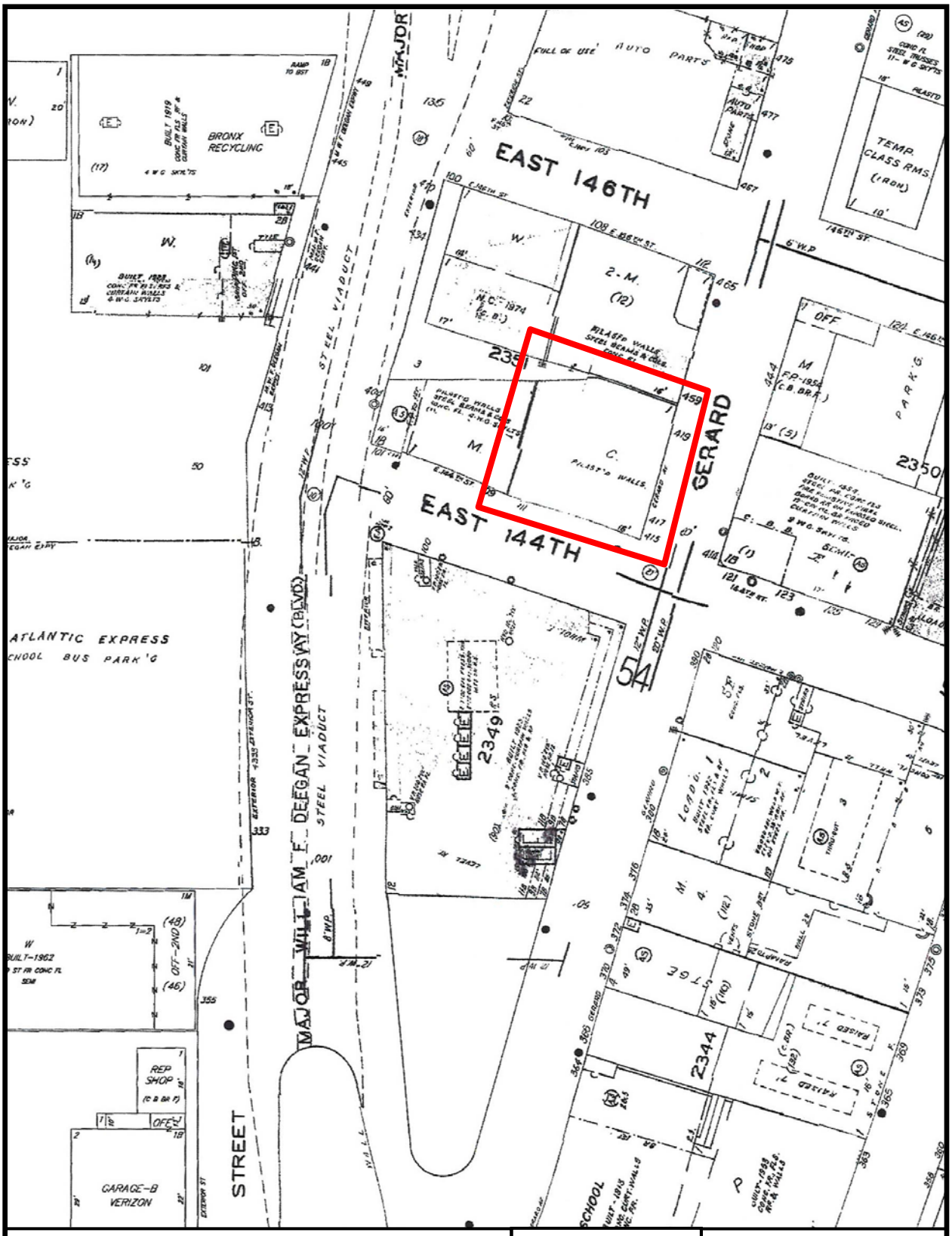
417GERARD AVENUE, BRONX, NEW YORK
CENTRAL PARK QUAD

VALLEY NATIONAL BANK
NEW YORK, NEW YORK

GEI Consultants

SITE LOCATION MAP

Project 1508320 | June 2015 | Fig 1



417 GERARD AVENUE, BRONX, NEW YORK	GEI Consultants	**2007 SANBORN ATLAS**
VALLEY NATIONAL BANK NEW YORK, NEW YORK	Project 1508320	June 2015 Fig 2

Appendix A – Photographs

PHOTO 1: Looking toward the project site at 417 Gerard Avenue that is occupied by a glass and mirror company.

PHOTO 2: Another view of the building.

PHOTO 3: Interior view of the building.

PHOTO 4: Another interior view of the building.

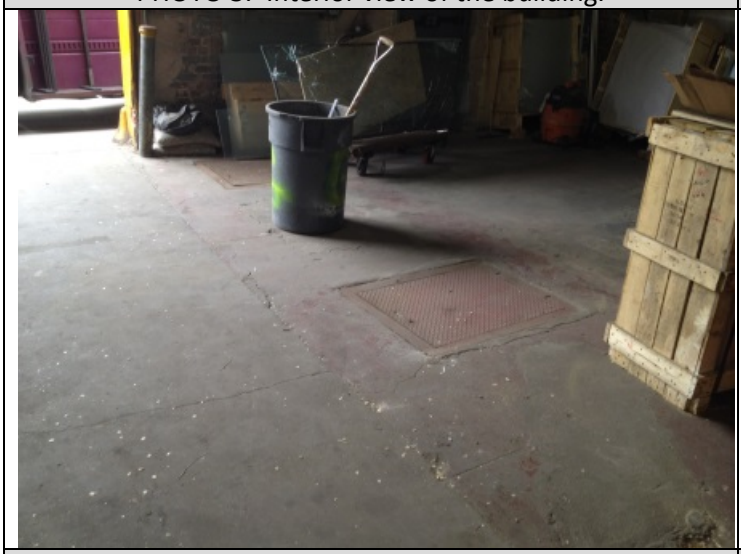


PHOTO 5: Looking at the cover of the oil-water separator within the building.

PHOTO 6: View of the oil-water separator.

PHOTO 7: Looking at the oil-fired hot air blower heating system.

PHOTO 8: Looking at the oil tank associated with the oil fired hot air blower heating system.

PHOTO 9: Looking at the dilapidated boiler within the building.

PHOTO 10: Looking at a second 275-gallon AST and behind that is another AST encased within concrete.

PHOTO 11: Looking at two gas tank vent lines that run up along the front wall of the building.

PHOTO 12: Looking at the building located to the east of the project site (across Gerard Ave.) which is occupied by a box company.

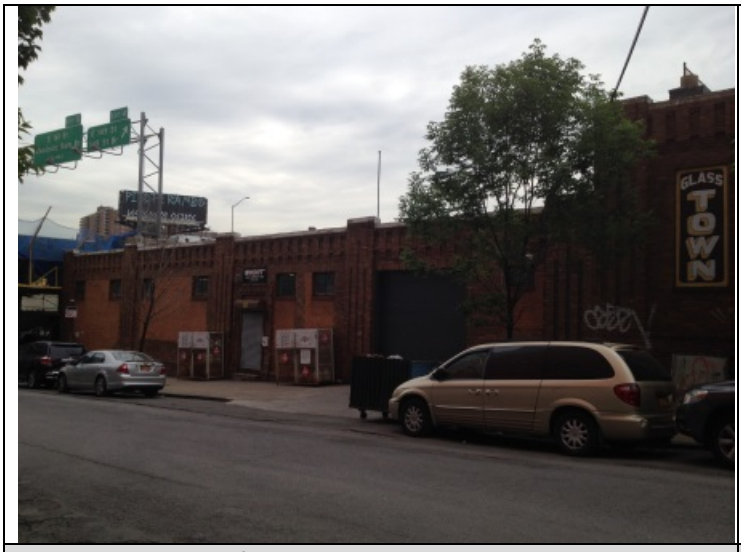


PHOTO 13: View of the adjacent building to the west is occupied by a box company.	Photo 14: The whitish building to the right of the photo is the adjacent building to the north that is occupied by a glass and mirror wholesaler and the building with the orange façade is used for public storage.

Appendix B – User Questionnaire

ESA Phase I User Questionnaire

(Reference ASTM E 1527)

PROJECT SITE ADDRESS: 417 Gerard Avenue, Bronx, NY

GEI PROJECT NO: 1508320

This User Questionnaire is required to be completed in order to comply with the All Appropriate Inquiry (AAI) as required by ASTM E1527. In order to qualify for one of the Landowner Liability Protections *(LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001, the user must provide the following information (if available) to the environmental professional. Failure to provide this information could result in a determination that an appropriate inquiry is not complete.

1. In order to assist us in determining the history of and past use(s) of the property, GEI Consultants, Inc. (GEI) would like to discuss this information with the past and present owners of the subject property. If known, please supply us with their contact information so that we contact them during the course of this Phase I ESA investigation.

Unknown

2. As the user of this Phase I ESA Report, a title report should be obtained. This would indicate any lien records for environmental liens currently recorded against or relating to the property. Therefore, do you have a Title Report? If yes, does the Title Report depict any environmental liens? If no, then please answer question 3.

No, but a report has been ordered.

3. If a Title Report is not in your possession, to the best of you knowledge, are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law? If yes, please explain in detail:

No

4. Are you aware of any Activities and Use Limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law? If yes, please explain in detail:

Yes. Property has an E-Designation.

5. As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have

specialized knowledge of the chemicals and processes used by this type of business. If yes, please explain in detail:
No

6. Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? If yes, please explain in detail:
Purchase price reflects fair market value.

7. Are you aware of commonly known or reasonably ascertainable information of about the property that would help the environmental professional to identify conditions? If yes, please explain in detail:

(a) Do you know past use of the property?
Commercial Business/Glass Distributor

(b) Do you know of specific chemicals that are present or once were present at the property?
No

(c) Do you know of spills or other chemical releases that have taken place at the property?
No

(d) Do you know of any environmental cleanups that have taken place at the property?
No

8. As the user of this Phase I ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?
No

9. Please provide following information:

(a) The reason why the Phase I ESA is required.
Purchaser wants report for records and to show to potential lenders.

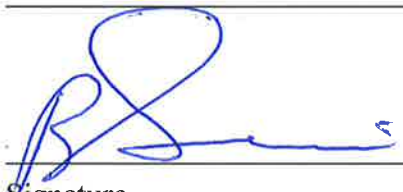
(b) The type of property and type of transaction? For example, sale, purchase, exchange, refinance, etc.
Purchase

(c) The complete and correct address for the property (a map, site survey or other documentation showing property location and boundaries is helpful).

417 Gerard Avenue, Bronx, NY 10451

(d) Please indicate how the person(s) signing below is associated with the project site (e.g., owner, owner's representative, purchaser, etc.).

Owner's Representative



Signature

Richard Sica

Print Name

Owner's Representative,417 Gerard LLC

Title, Company

6/25/15

Date

Appendix C – Historical Atlases

417 Gerard Avenue
417 Gerard Avenue
Bronx, NY 10451

Inquiry Number: 4328788.1
June 17, 2015

Certified Sanborn® Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

6/17/15

Site Name:
417 Gerard Avenue
417 Gerard Avenue
Bronx, NY 10451

Client Name:
GEI Consultants
110 Walt Whitman Road
Huntington Station, NY 11746

EDR Inquiry # 4328788.1

Contact: Richard Fasciani

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by GEI Consultants were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name: 417 Gerard Avenue
Address: 417 Gerard Avenue
City, State, Zip: Bronx, NY 10451
Cross Street:
P.O. # 1508320
Project: 1508320
Certification # A36C-4A86-9FAF

Maps Provided:

2007	2001	1992	1980	1944
2006	1998	1991	1978	1935
2005	1996	1989	1977	1928
2004	1995	1986	1951	1922
2003	1994	1984	1947	1908
2002	1993	1981	1946	1903

1891

Sanborn® Library search results
Certification # A36C-4A86-9FAF

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✓ Library of Congress
- ✓ University Publications of America
- ✓ EDR Private Collection

The Sanborn Library LLC Since 1866™

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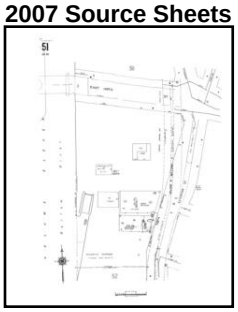
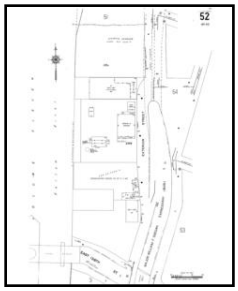
Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

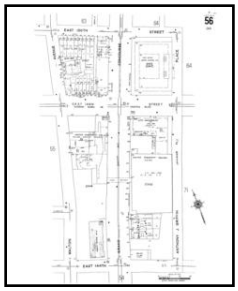
2007 Source Sheets


Volume 9N, Sheet 51


Volume 9N, Sheet 52


Volume 9N, Sheet 54


Volume 9N, Sheet 55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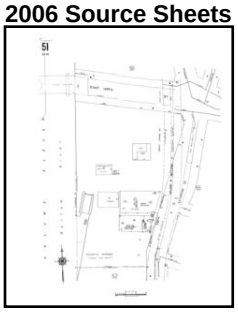
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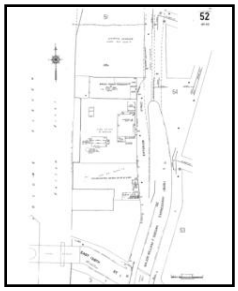
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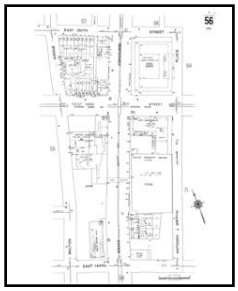
Volume 9N, Sheet 54


Volume 9N, Sheet 55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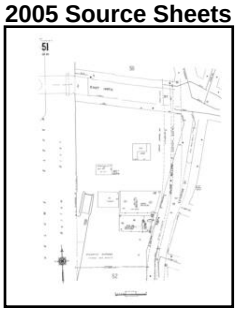
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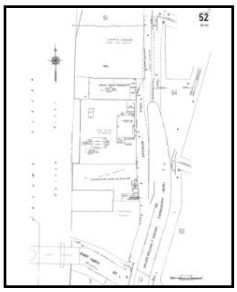
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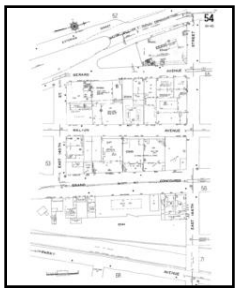
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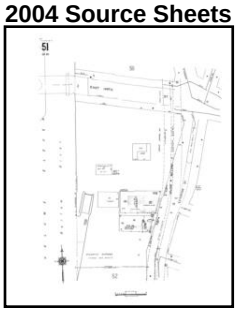
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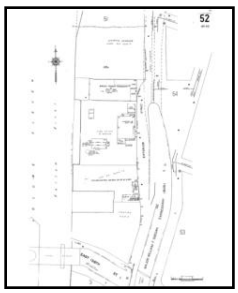
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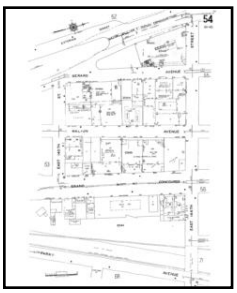
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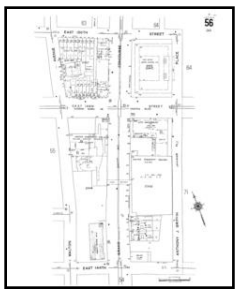
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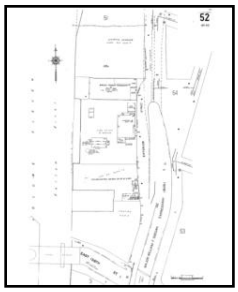

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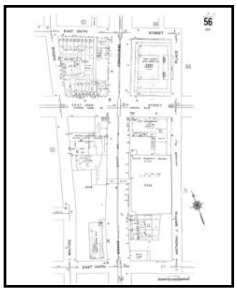

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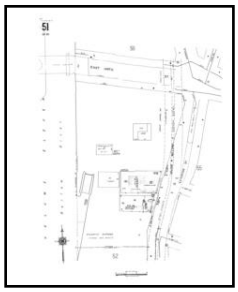

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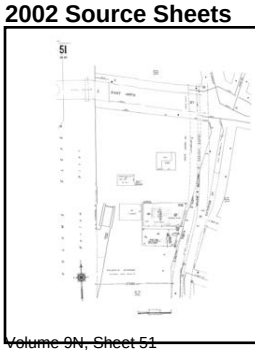
2002 Source Sheets



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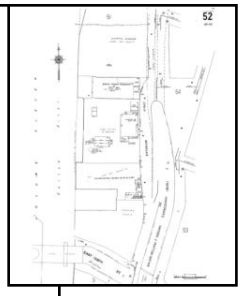

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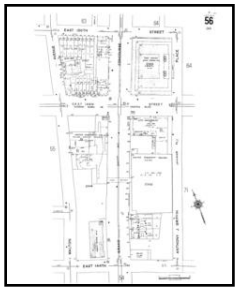

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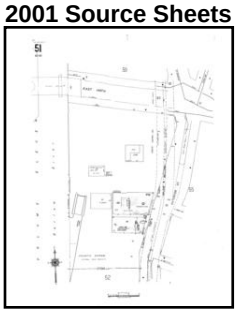
2001 Source Sheets



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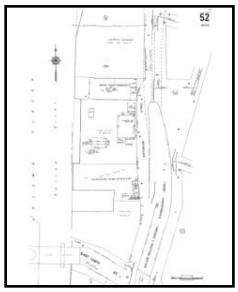

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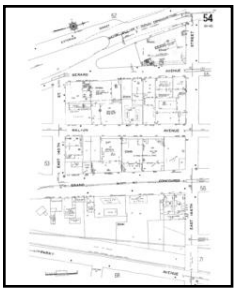

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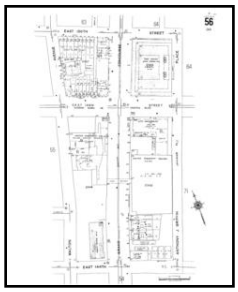

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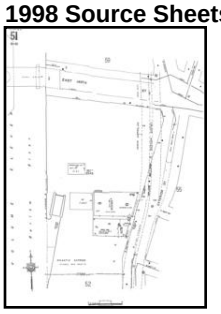

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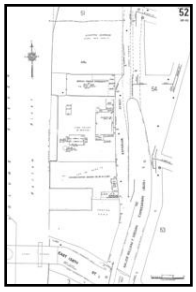

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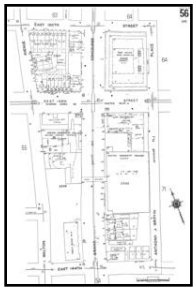

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1996 Source Sheets

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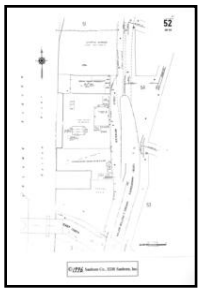

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1995 Source Sheets

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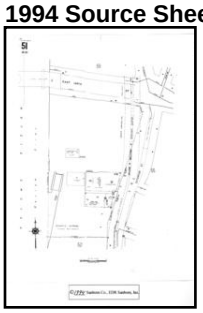
1994 Source Sheets



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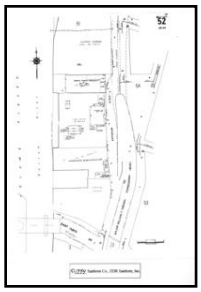

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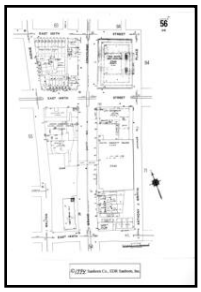

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1993 Source Sheets

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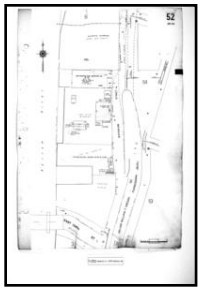

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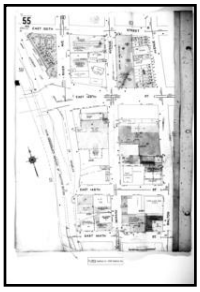

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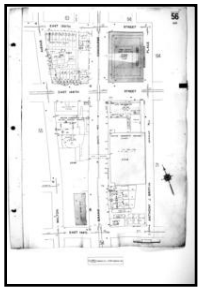

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1992 Source Sheets

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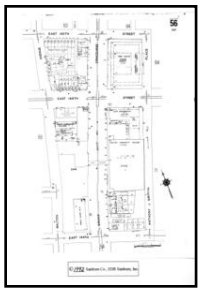

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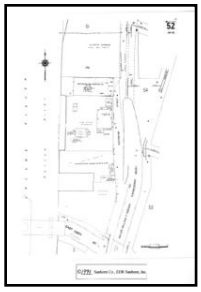

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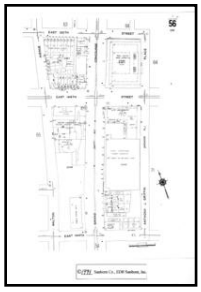

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1989 Source Sheets

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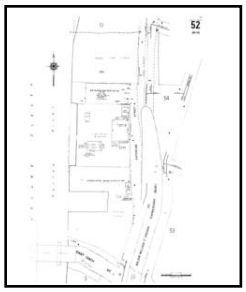

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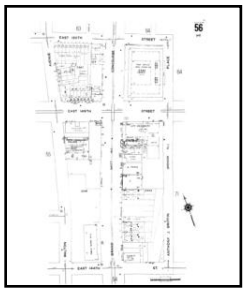

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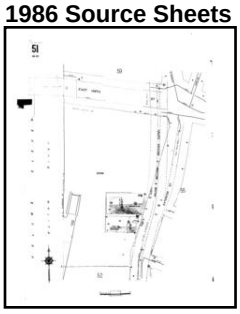

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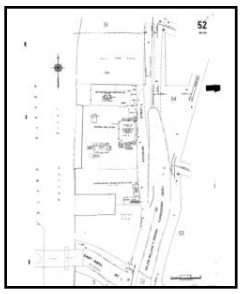

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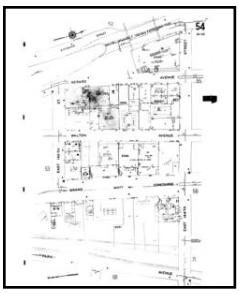

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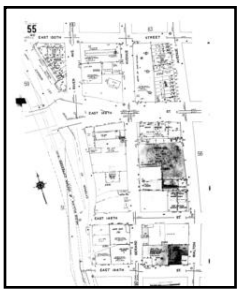

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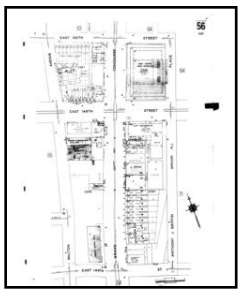

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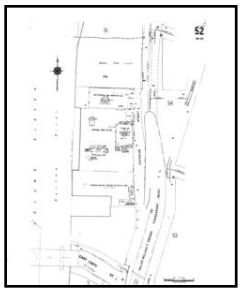

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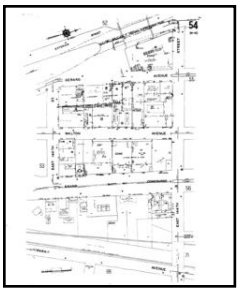

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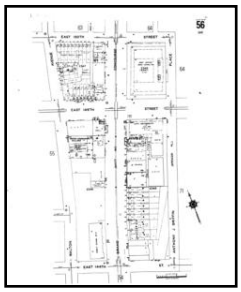

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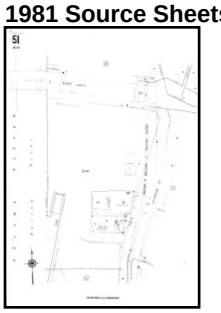

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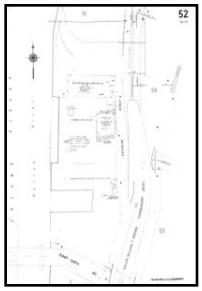

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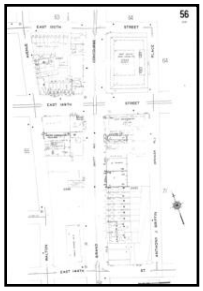

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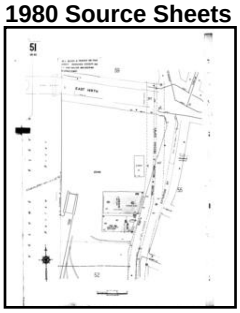

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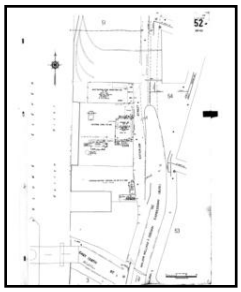

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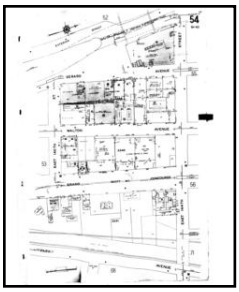

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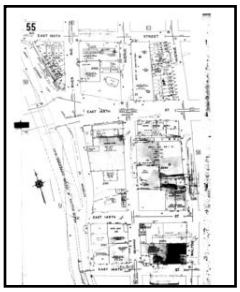

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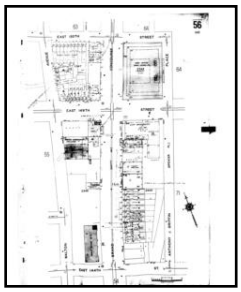

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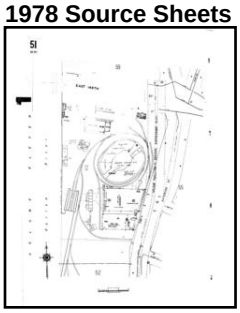

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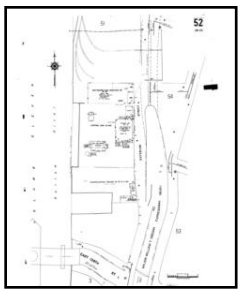

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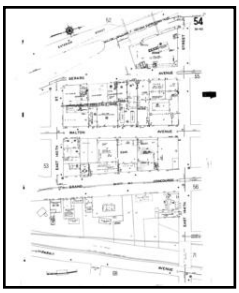

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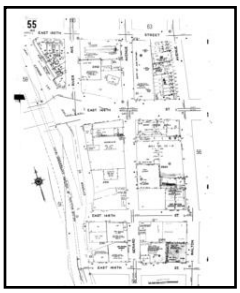

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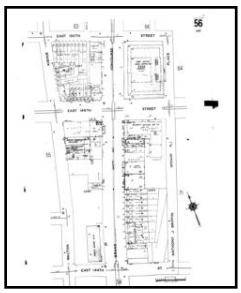

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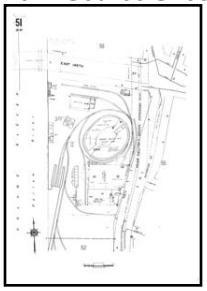

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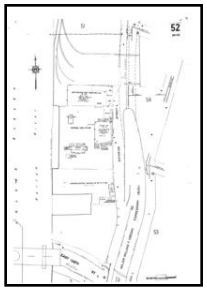

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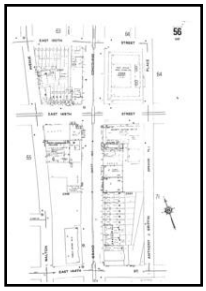

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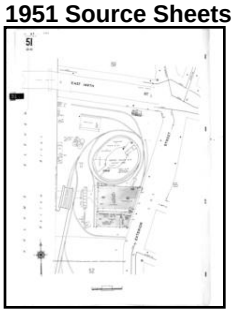

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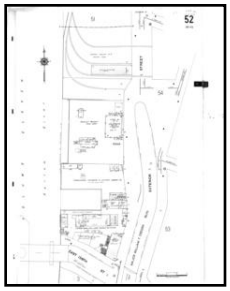

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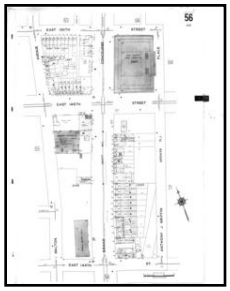

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1947 Source Sheets

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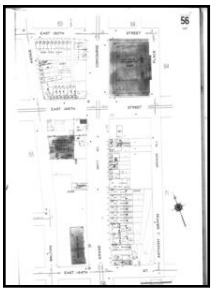

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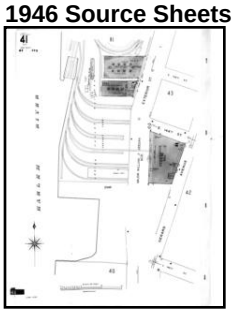
1946 Source Sheets



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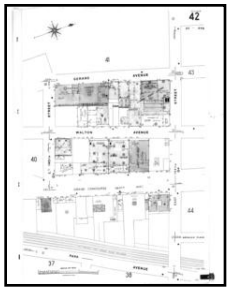

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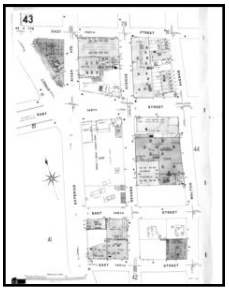

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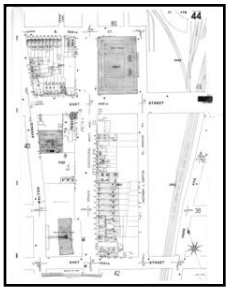

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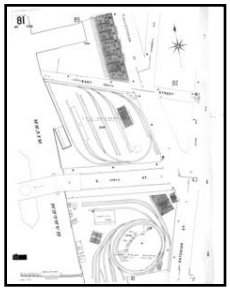

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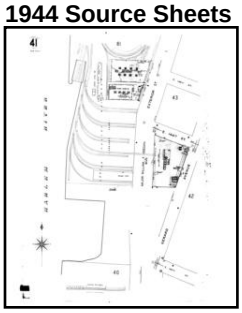

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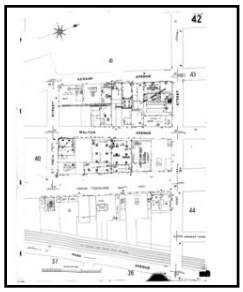

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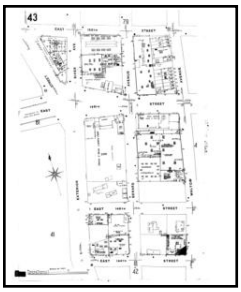

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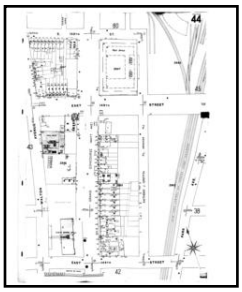

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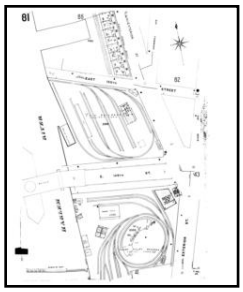

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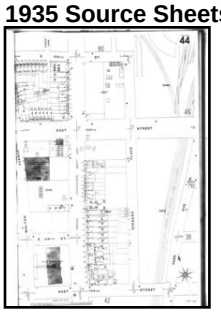
1935 Source Sheets



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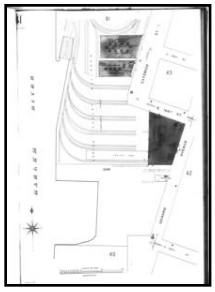

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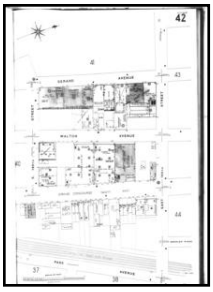

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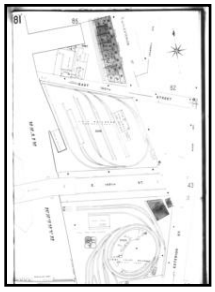
Volume 9, Sheet 43



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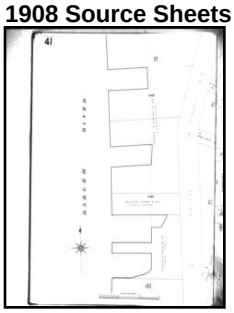
1928 Source Sheets

Volume Pier Maps, Sheet 23

1922 Source Sheets

Volume Pier Maps, Sheet 23

1908 Source Sheets



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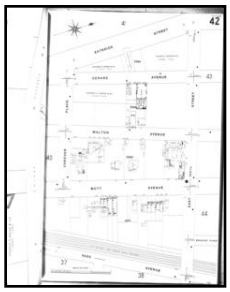

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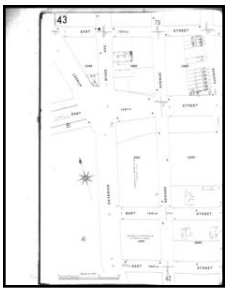

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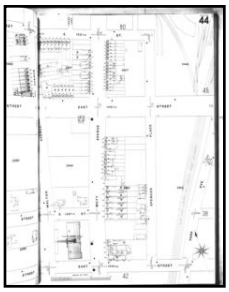

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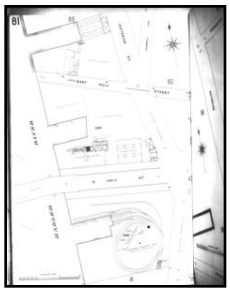

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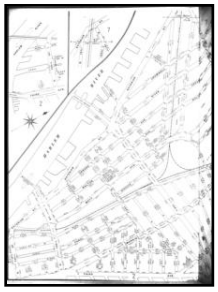

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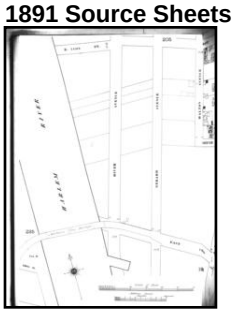

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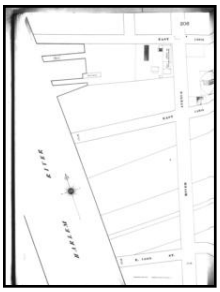
Volume 9, Sheet 194



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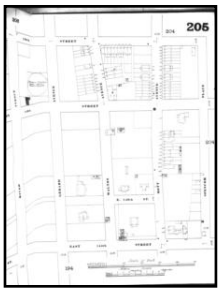

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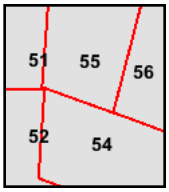

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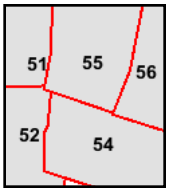

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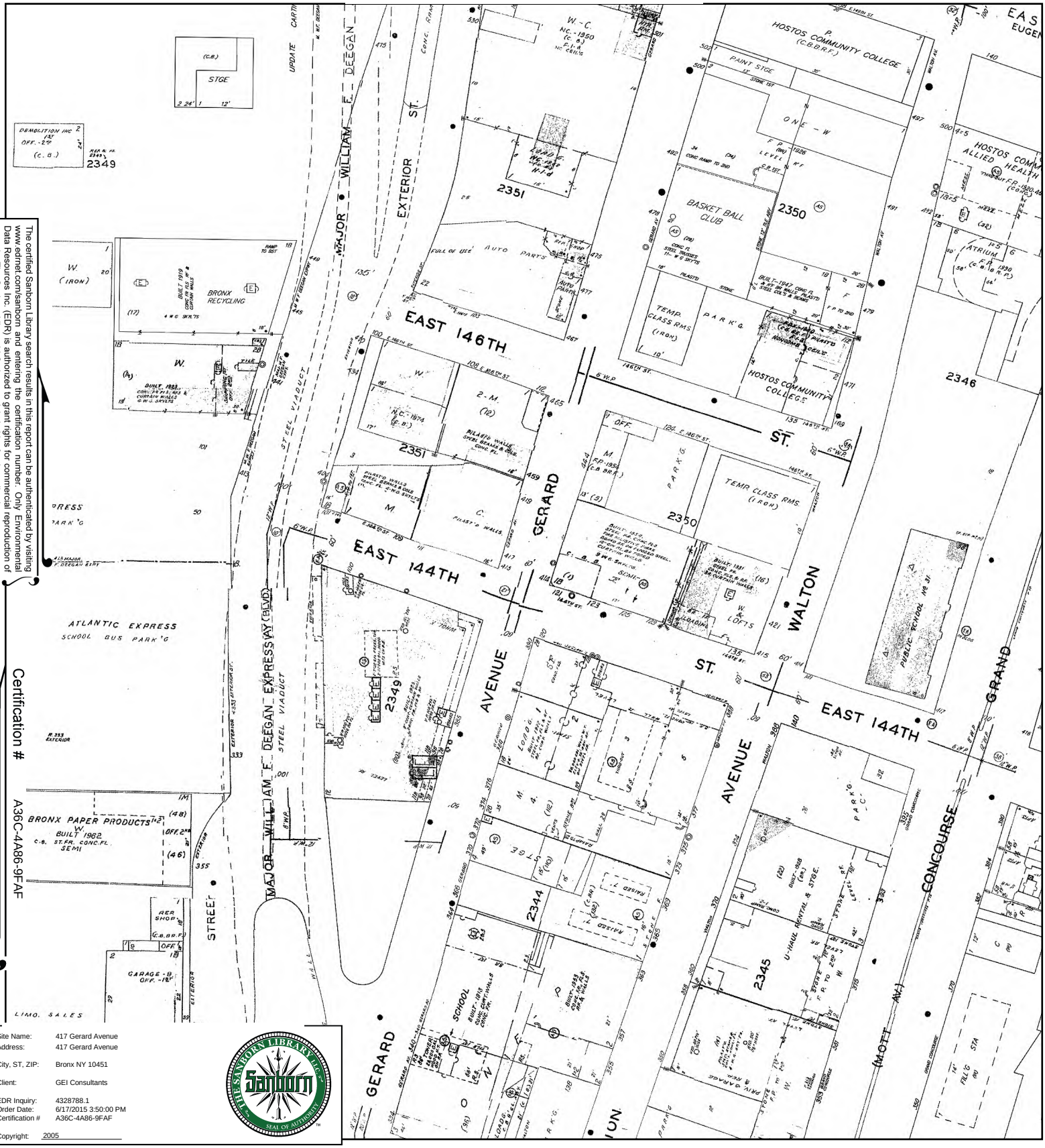
2005 Certified Sanborn Map



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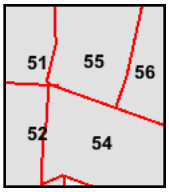

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0 Feet 150 300 600

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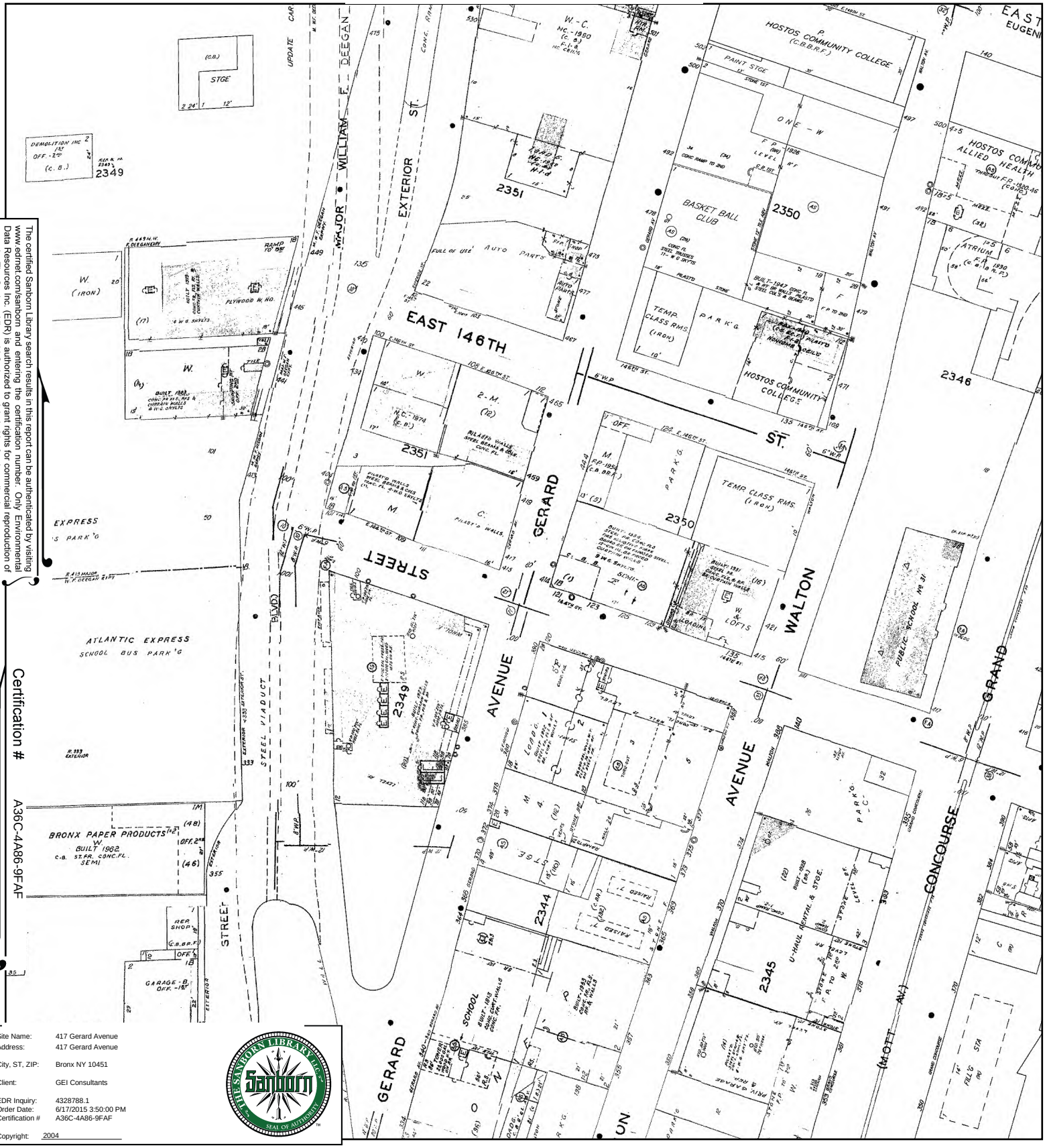
2004 Certified Sanborn Map



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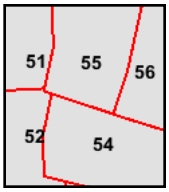

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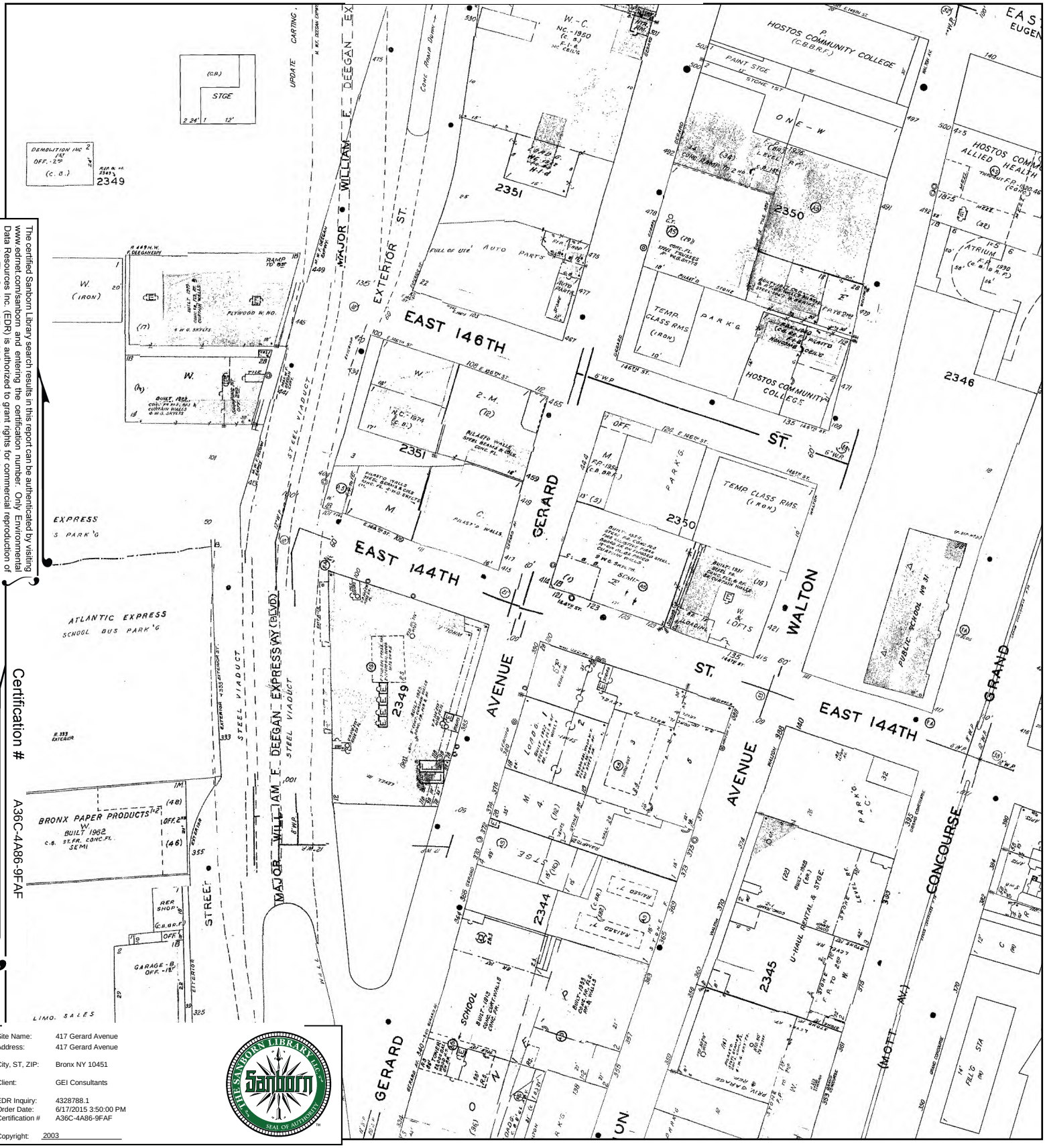
2003 Certified Sanborn Map



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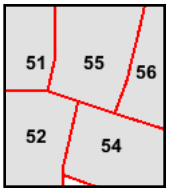

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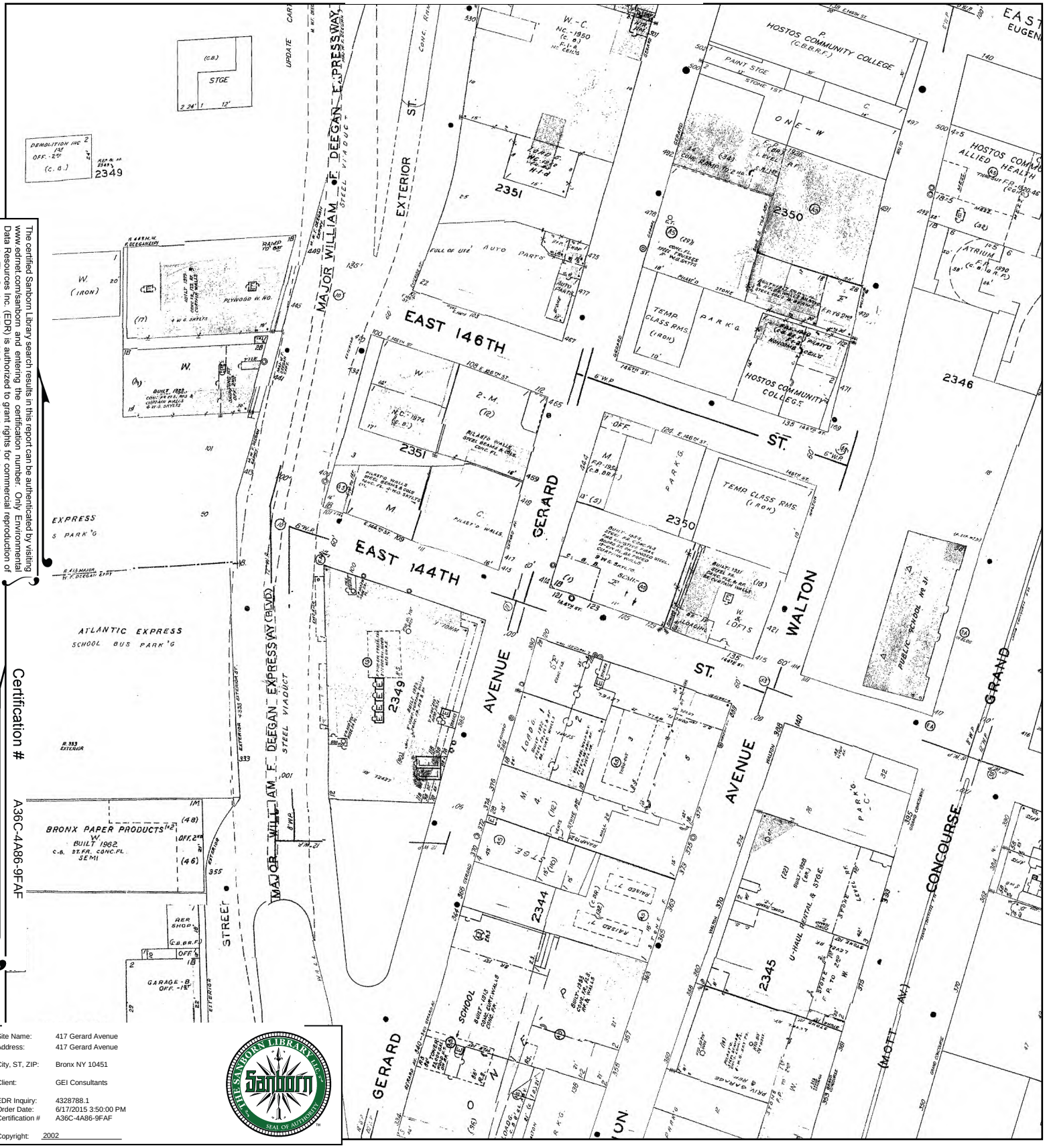
2002 Certified Sanborn Map



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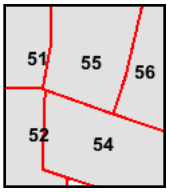

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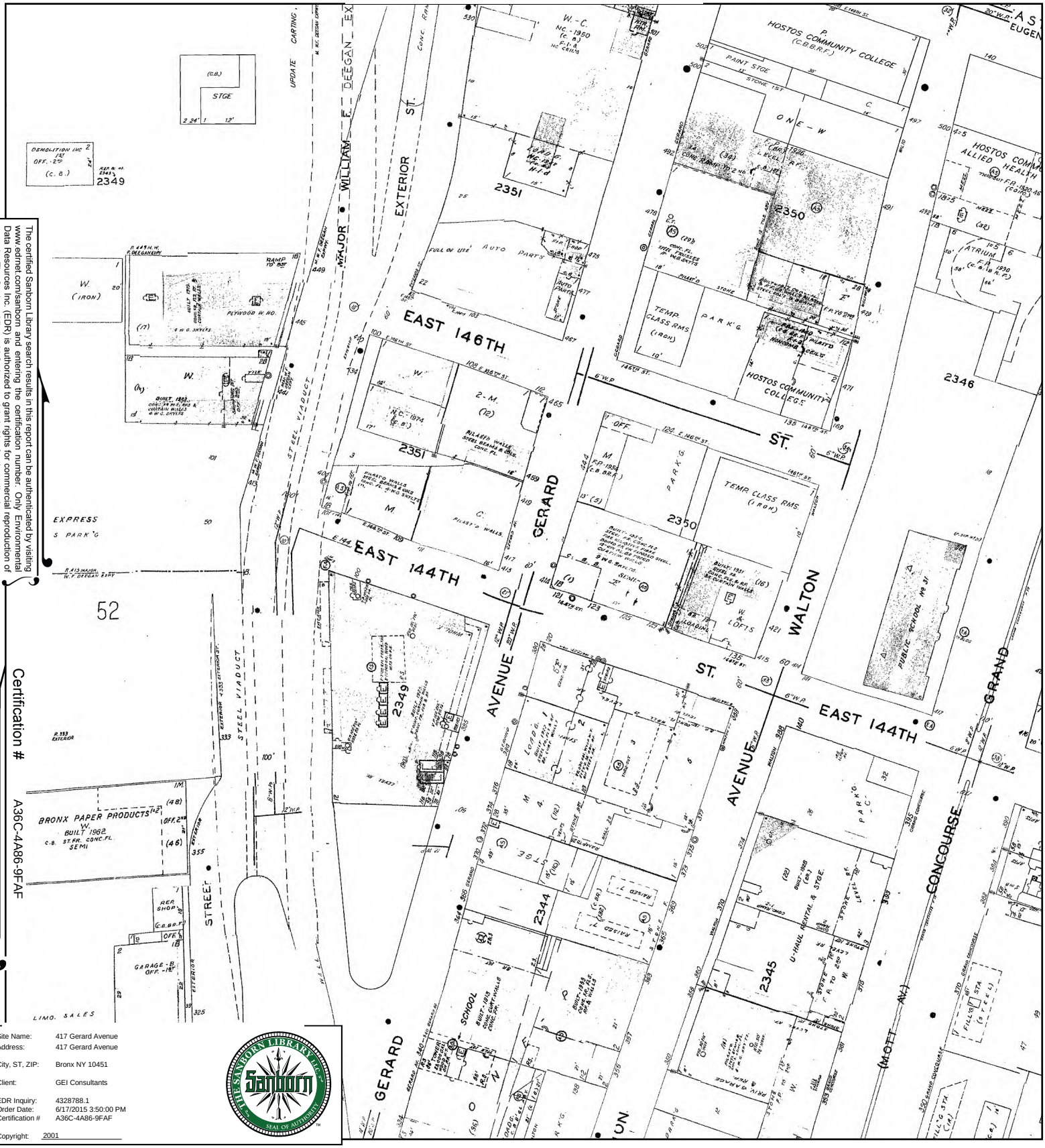

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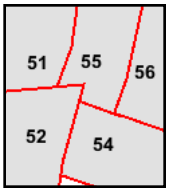

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0 Feet 150 300 600

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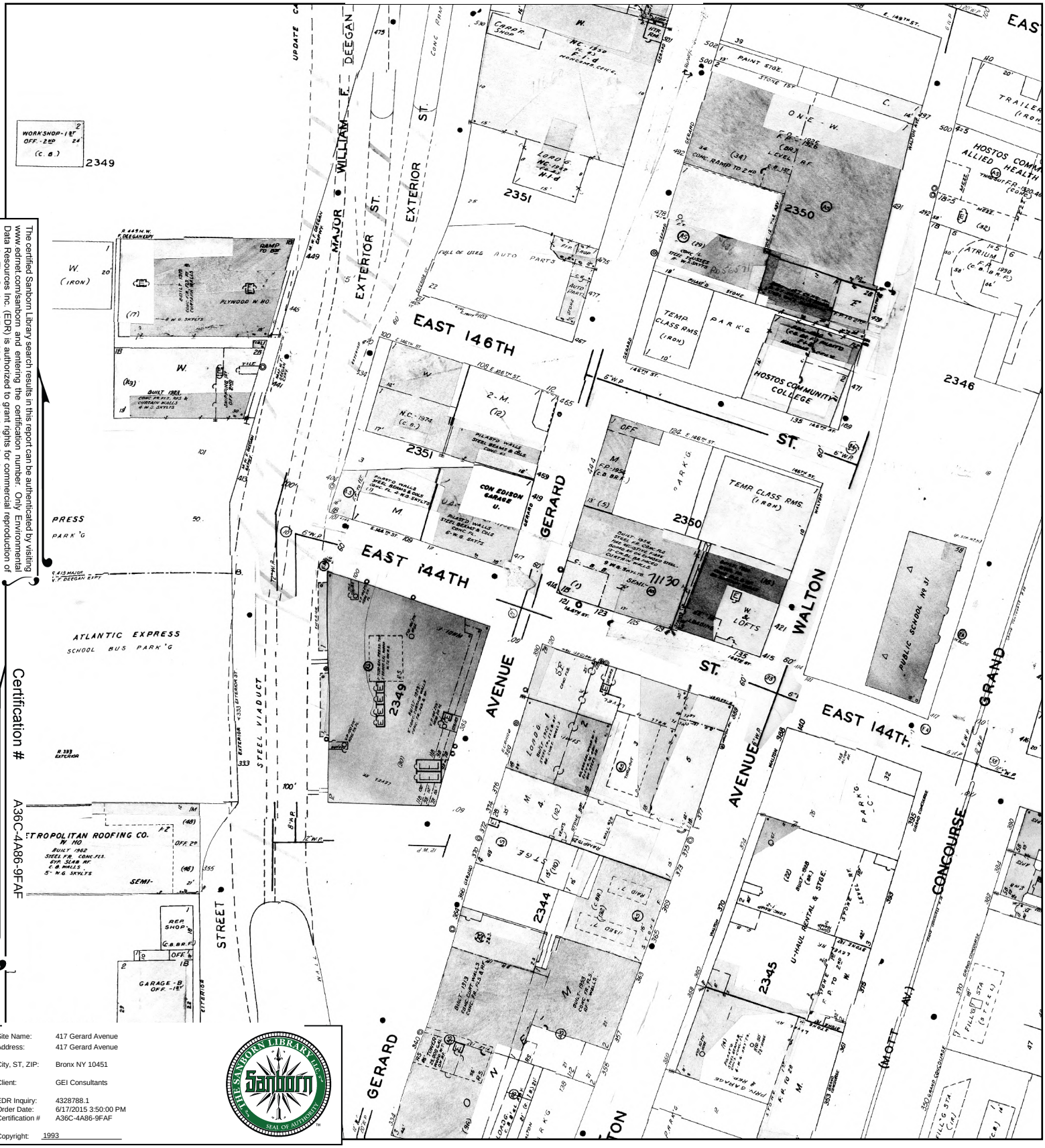
1993 Certified Sanborn Map



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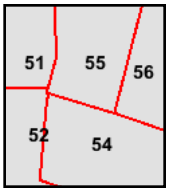

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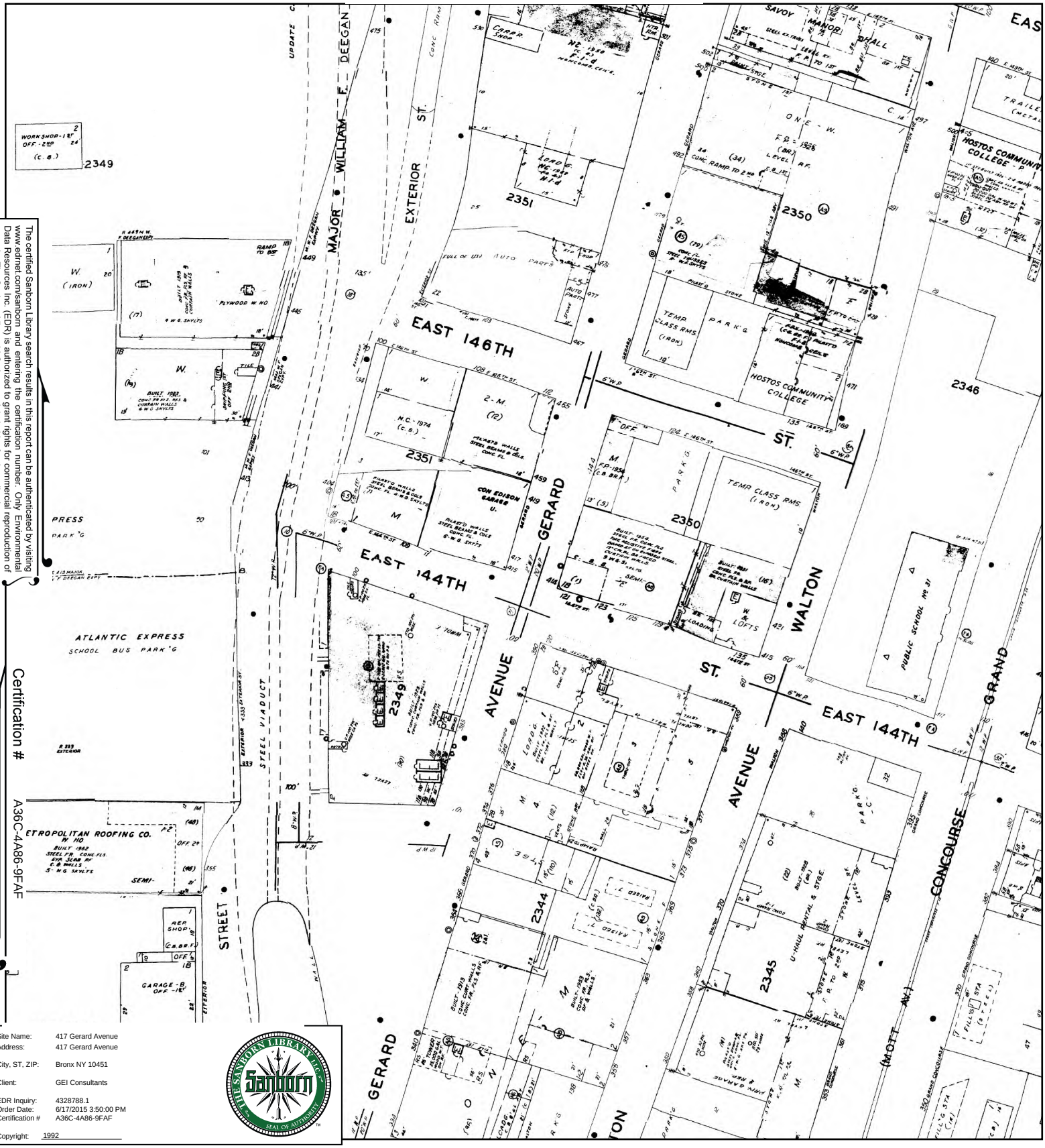
1992 Certified Sanborn Map



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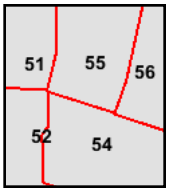

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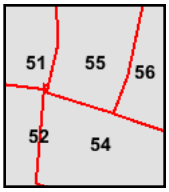

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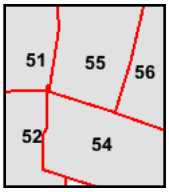

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