Former Chatsworth Coal and Supply Site
2101 Palmer Avenue
Westchester COUNTY
Larchmont, NEW YORK

FINAL SITE MANAGEMENT PLAN

NYSDEC Site Number: C360132

Prepared for:
WB Pinebrook Associates, LLC
570 Taxter Road
Elmsford, NY 10523

Prepared by:
Galli Engineering, P.C.
35 Pinelawn Road, Suite 209E
Melville, NY 11747
(631)271-9292

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

FINAL: JANUARY 18, 2016
DRAFT: NOVEMBER 23, 2015

CERTIFICATION STATEMENT

I, RICHARD D. GALLI, certify that I am currently a NYS registered professional engineer as in defined in 6 NYCRR Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

_____ P.E.

_____DATE

Former Chatsworth Coal and Supply Site
Westchester COUNTY
Larchmont, NEW YORK

SITE MANAGEMENT PLAN

TABLE OF CONTENTS (Continued)

Section Description

List of Figures

List of Appendices

List of Acronyms

AS	Air Sparging
ASP	Analytical Services Protocol
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CAMP	Community Air Monitoring Plan
C/D	Construction and Demolition
CFR	Code of Federal Regulation
CLP	Contract Laboratory Program
COC	Certificate of Completion
CO2	Carbon Dioxide
CP	Commissioner Policy
DER	Division of Environmental Remediation
EC	Engineering Control
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
ERP	Environmental Restoration Program
GHG	Green House Gas
GWE&T	Groundwater Extraction and Treatment
HASP	Health and Safety Plan
IC	Institutional Control
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYCRR	New York Codes, Rules and Regulations
O&M	Operations and Maintenance
OM&M	Operation, Maintenance and Monitoring
OSHA	Occupational Safety and Health Administration
OU	Operable Unit
PID	Photoionization Detector
PRP	Potentially Responsible Party
PRR	Periodic Review Report
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan

RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RP	Remedial Party
RSO	Remedial System Optimization
SAC	State Assistance Contract
SCG	Standards, Criteria and Guidelines
SCO	Soil Cleanup Objective
SMP	Soil Management Plan
SOP	Standard Operating Procedures
SOW	Statement of Work
SPDES	State Pollutant Discharge Elimination System
SSD	Sub-slab Depressurization
SVE	Soil Vapor Extraction
SVI	Soil Vapor Intrusion
SVMS	Soil Vapor Mitigation System
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VCA	Voluntary Cleanup Agreement
VCP	Voluntary Cleanup Program

ES EXECUTIVE SUMMARY

The Former Chatsworth Coal and Supply Site, NYSDEC BCP Site No. C360132, located in Larchmont, New York, has been remediated to achieve a Track 2 – Restricted Residential remedy. Since some soil contaminants remain on-Site in excess of the Track 1 Unrestricted and Restricted Residential Soil Cleanup Objectives, this Site Management Plan has been prepared to protect the public from exposure to this residual soil contamination through the required maintenance of a Site cover system including a vapor barrier and a Soil Management Plan address the remaining contamination, should intrusive activities be performed on the Site through the Site cover system cap.

The Site has been developed as "Pinebrook Condominium," an affordable housing development funded at the federal and state level. Pinebrook Condominium is subject to a regulatory agreement, thereby limiting future construction activities.

Any future plans to perform intrusive activities on the Site must be approved by the NYSDEC prior to their commencement. Intrusive activities must be performed in accordance with this Site Management Plan and the Site cover system must be repaired accordingly after disturbance.

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the Former Chatsworth Coal and Supply Site located in Larchmont, New York (hereinafter referred to as the "Site"). See Figure 1. The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP) Site No. C360132 which is administered by New York State Department of Environmental Conservation (NYSDEC).

WB Pinebrook Associates, LLC entered into a Brownfield Cleanup Agreement (BCA), with the NYSDEC in October 21, 2013 to remediate a 1.519 acre site located in the Village of Larchmont, in Westchester, New York. In October of 2014, the Volunteer requested to add the adjacent parcel, a 0.46-acre property, to the existing BCA. The Department granted this request in December of 2014. A figure showing the metes and bounds of the combined 1.98 acre BCP Site is provided in Figure 3.

After completion of the remedial work, some contamination was left at this Site, which is hereafter referred to as "remaining contamination." The remaining contamination will be identified in subsequent sections of this SMP.

This SMP was prepared to manage remaining contamination at the Site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the NYSDEC. This SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

- This SMP details the Site-specific implementation procedures that are required by the BCA. Failure to properly implement the SMP is a violation of the Agreement, which is grounds for revocation of the Certificate of Completion (COC);

- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the BCA for the site, and thereby subject to applicable penalties.

All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State. A list of contacts for persons involved with the site is provided in Appendix B of this SMP.

This SMP was prepared by Galli Engineering, P.C., on behalf of WB Pinebrook Associates, LLC , in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 3, 2010, and the guidelines provided by the NYSDEC. This SMP is required to manage the remaining contamination at depth and address the future intrusive activities at the Site through the Site cover system.

1.2 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. Revisions will be necessary upon, but not limited to, the following occurring: a change in media monitoring requirements, upgrades to or shut-down of a remedial system, post-remedial removal of contaminated sediment or soil, or other significant change to the site conditions. In accordance with the Environmental Easement for the Site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.3 Notifications

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER - 10 for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the BCA, 6NYCRR Part 375 and/or Environmental Conservation Law.

- 7-day advance notice of any field activity associated with the remedial program.

- 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan.

- Notice within 48-hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.

- Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the Brownfield Cleanup Agreement (BCA), and all approved work plans and reports, including this SMP.

- Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1 on the following page includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B.

Table 1: Notifications*

Name	Contact Information
R. Scott Deyette NYSDEC Project Manager	(518)-402-9662 scott.deyette@dec.ny.gov
Edward Moore [NYSDEC Regional HW Engineer]	(845)-256-3137 Edward.moore@dec.ny.gov
Kelly Lewanduski Section Chief NYSDEC Site Control	(518)-402-9553

* Note: Notifications are subject to change and will be updated as necessary.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The site is located in Larchmont, Westchester County, New York and is identified as Tax Map Numbers 6-601-486.1, 6-602-494.2, and 6-602-453 on the Westchester County Tax Map (see Figures 1 and 2). The site is an approximately 1.98-acre area and is bounded by the New York/New Haven Metro North Railroad Line and the New England Thruway (Interstate 95) to the northwest, retail stores and a gasoline station to the south, on Palmer Avenue, and commercial businesses on Palmer Avenue to the east.

The owner of the site parcels at the time of issuance of this SMP is:
WB Pinebrook Associates, LLC
570 Taxter Road
Elmsford, NY 10523

2.2 Physical Setting

2.2.1 Land Use

The Site consists of two new 100% affordable housing condominium apartment buildings, parking, and an access road. The Site has received Site plan approval for the project and is currently under construction (see Figure 2).

The properties adjoining the Site and in the neighborhood surrounding the Site are primarily commercial, with properties directly adjacent to the Site all being commercial. The property directly to the west of the Site is owned by the Metro North Railroad and serves as a passenger rail line.

2.2.2 Geology

The Geologic Map of New York State (Fisher, 1970) indicates bedrock at the Site originates from the Ordovician Hartland Formation and is composed of basal amphibolite overlain by pelitic schist.

The Site is underlain by granitic gneiss, which is part of the Harrison Gneiss formation as mapped by the New York State Geologic survey. Bedrock outcrops near the southeastern portion of the parcel. The elevation of the Site ranges between 37 and 44 feet above sea level.

Soils identified at the Site consist mainly of glacial till which is a mixture of sand, silt, gravel, clay and boulders. The site is classified as predominantly Urban Land (~86%) and Urban Land-Charlton-Chatfield (ULC) complex, rolling, very rocky (remaining ~14%), according to the USDA Web Soil Survey.

2.2.3 Hydrogeology

Groundwater generally flows toward the west-southwest. Historically, groundwater was encountered at the Site at depths ranging from 5 feet below land surface (bls) and 6 feet bls. Following remedial excavation, the groundwater table has been lowered.

2.3 Investigation and Remedial History

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site. Full titles for each of the reports referenced below are provided in Section 8.0 - References.

2.3.1 Limited Environmental Site Inspection Report (Tectonic Engineering & Surveying Consultants P.C., October 14, 2010)

The Volunteer contracted Tectonic Engineering & Surveying Consultants P.C. to perform a subsurface geotechnical investigation at the Site on September 20, 2010. A subsequent Phase II investigation was performed, which was summarized in an October 14, 2010 report, and was recommended as a result of two prior Phase I investigations and the results of the geotechnical investigation performed. The purpose of the investigation was to delineate an area of petroleum impacted soils encountered during the geotechnical subsurface investigation. This limited Phase II ESA was performed in order to provide a preliminary delineation of the area affected by the identified petroleum contamination

and to evaluate the probable source. The investigation included eight test pits, and seven geotechnical borings near the northeastern property boundary where the petroleum was identified. Hydrocarbon odors were noted at one of the borings and one of the test pits. Hydrocarbons seeped from the walls of one test pit. The highest concentrations of petroleum hydrocarbons existed in the samples just above the groundwater table. One sample exceeded the RSCOs for benzo(a)pyrene and benzo(b)fluoranthene. The report recommended further investigation in order to better locate the source of the contamination. The report further recommended that contaminated soil be disposed of and that any proposed structure built should be evaluated for the potential for vapor intrusion. The NYSDEC assigned the Spill Number 10-06787 to the northeastern portion of the Site.

2.3.2 Subsurface Investigation Report (HydroEnvironmental Solutions, April, 2011)

HydroEnvironmental Solutions (HES) was retained by the property owner to conduct a subsurface investigation at the Site, following the findings of the 2010 Tectonic Limited Environmental Site Investigation. HES excavated nine test pits across the site and installed seven groundwater monitoring wells. Samples were collected from the nine test pits and submitted for laboratory analysis. Lead was present in four samples, with one in excess of Unrestricted Use Soil Cleanup Objectives (SCOs). No VOCs or SVOCs were in excess of SCOs. Samples were collected from the seven monitoring wells and submitted for laboratory analysis. Dissolved concentrations of n-butylbenzene were detected above the NYSDEC Groundwater Quality Standards (GWQS) in one monitoring well. HES concluded that it was likely that the contaminants were migrating on to the property and recommended soil excavation and dewatering.

2.3.3 Remedial Action Work Plan (HydroEnvironmental Solutions, June, 2011)

HydroEnvrionmental Solutions (HES) was retained by the property owner to implement a plan to remediate the soil and groundwater contamination confirmed during the HES Subsurface Investigation Report of April, 2011. HES recommended that a series of dewatering wells be installed around the perimeter of the contamination plume and connected to a pump system to lower the water table such that impacted soils could be excavated. The impacted soils were to be excavated off-site for disposal, and the groundwater

2.3.4 Environmental Investigation Report (Conklin Services & Construction Inc., November 17, 2011) [Adjacent Property Investigative Report]

A site investigation was performed on November 1, 2011 by Conklin Services & Construction Inc. and summarized in a report dated November 17, 2011 to Anthony Carpenito. This investigation occurred at 2103 Palmer Avenue/20 North Avenue, located adjacent to the BCP Site, in response to the NYSDEC open Spill Number 11-05310. The investigation included the installation and sampling of two monitoring wells along the construction fence of the BCP Site.

TAGM #4046 was only exceeded in samples collected during the installation of Monitoring well #2, [location shown in report]. Results are reported in Tables 1 and 2 of the report.

2.3.5 Spill Remediation Report (HydroEnvironmental Solutions, December 2011)

Remediation activities were conducted at the property located at 2101 and 2103 Palmer Avenue from June through November of 2011 by HydroEnvironmental Solutions, as contracted by the property seller. The activities are summarized in the December 2011 report. Remedial "activities included the installation of an on-site dewatering and filtration system, excavation of petroleum impacted soil for off-site disposal, the drilling of seven (7) monitoring wells across the subject site and an adjacent up-gradient parcel and the installation of a post-remedial impermeable barrier along the excavation border."

During remediation, HydroEnvironmental Solutions determined that groundwater flows predominantly from east to west with an average hydraulic gradient of 0.03 ft/ft, based on sampling events and maps. The material beneath the site is 4 to 6 feet of historic fill including medium to coarse silt and sand, as well as construction and demolition debris. Free-phase product was not encountered at any of the monitoring well locations. A total of 116,420 gallons of groundwater was processed and discharged to the sanitary sewer in accordance with the permit issued by the Westchester County Department of Environmental Facilities (WCDEF) dated July 20, 2011.

During soil excavation, PID screening was used to determine the extent the extent of petroleum contamination. PID results are summarized in Table 2 of the report. Twelve end-point samples were taken and eleven of the twelve met soil cleanup levels. Results

are summarized in Table 3 of the report. Upon completion of excavation, backfilling began. Excavated over burden material was used for the backfilling. Composite samples were taken on October 14, 2011 from the overburden material. These samples were analyzed for VOCs (EPA method 8260), SVOCs (EPA Method 8270), Total RCRA Metals (EPA Method 200.7), PCBs (EPA Method 8082), Herbicides (EPA Method 8081) and Pesticides (EPA Method 8151). Results from these tests are summarized in Table 4 of the report. Prior to backfilling, free-phase product was observed entering the excavation from the two upgradient properties adjacent to the Site. To protect the backfill from future migration of petroleum hydrocarbons, an 80mm thick polyethylene barrier was installed along the southern and western sidewalls.

Post-remedial groundwater sampling was performed on November 8 and 9 of 2011 and results showed minor concentrations of VOCs that were below NYSDEC Groundwater Quality Standards. No SVOCs were detected. Results from these tests are summarized in Table 1of the report. Following these results, HES recommended that the spill be formally closed by NYSDEC.

2.3.6 Post-Remediation QA Confirmatory Environmental Site Investigation Report (SIR) (Tectonic Engineering & Surveying Consultants P.C., May 22, 2012)

Tectonic Engineering & Surveying Consultants P.C. was contracted by the Volunteer to perform a post-remediation quality assurance investigation to determine the effectiveness of the remediation performed by HydroEnvironmental Solution. Four soil borings were advanced during this investigation. Three of the four locations were within the area remediated by HydroEnvironmental Solutions. The fourth location was north of the remediated area and was advanced to refusal (8’4” bgs). Each boring was screened with a PID and a total of five samples were taken from the four borings. Two groundwater monitoring wells were installed during this investigation and sampled the following day. One half inch of free petroleum product was detected by the water/oil interface meter in HydroEnvironmental Solutions MW-1. Approximately 6 inches of free product was detected by the water/oil interface meter in HydroEnvironmental Solutions DN4. Well locations MW-1 and DN4 are shown in Figure 1 of the report.

The five soil samples and two groundwater samples were analyzed for VOCs (EPA Method 8260B) and SVOCs (EPA Method 8270C). Results are summarized in the report in Tables 4 and 5 respectively. Results for soil samples B-1 and B-4 are summarized in Table 2, below. These samples had the highest reported values for

SVOCs. Analytical results showed SVOCs in excess of CP-51 soil cleanup levels. Groundwater sample M-2 (B-2) was in excess of T.O.G.S 1.1.1 Guidance Values for VOCs. Groundwater sample M-1 (B-1) was in excess of T.O.G.S 1.1.1 Guidance Values for SVOCs. It was determined based on analytical results and field observations that the backfill material used during the remediation did not meet CP-51 cleanup standards and that petroleum contamination still existed on site. Residual petroleum contamination was suspect in the sidewalls of the excavation. Tectonic concluded free petroleum product and contaminated groundwater have migrated onto the property from an off-site source, and there is still residual contamination in the sidewalls and floors of the remedial excavation. Tectonic recommended further investigation into the possible off-site sources of contamination including the adjacent Metro North property.

Table 2 Summary Of Available Soil Analytical Results, Post Remediation
QA Confirmatory Environmental Site Investigation Report
Tectonic Environmental – Sampled April 19, 2012
All results are in ppm – parts per million (mg/kg)

Date Sample Collected		**April 19, 2012**	
Compound	**CP-51 Soil Clean Up Levels (ppm)**	**B-1 (3.5')**	**B-4 (3.5')**
Benz(a)anthracene	1	**1.5**	0.98
Benzo(b)pyrene	1	**1.4**	**1**
Benzo(b)fluoranthene	1	**2.1**	**1.6**
Chrysene	1	**1.4**	**1.2**

2.3.7 Subsurface Investigation (HydroEnvironmental Solutions, Inc., June 28, 2012)

On June 11, 2012, HydroEnvironmental Solutions Inc was contracted by the property seller to install twenty two (22) test borings and six (6) temporary monitoring wells on the property formerly owned by the MTA, (referred to as the Metro North Railroad, or "MNR" property by HES) located north of 2101 and 2103 Palmer Avenue and south of the Metro North Railroad tracks in Larchmont. The purpose of this investigation was to "determine the subsurface condition of the subject property as it relates to two upgradient parcels (20 North Avenue and the Carpenito Parcel) that were recently documented as ongoing sources of petroleum hydrocarbons (PHCs) in the subsurface."

Samples were taken from nine of the twenty two borings and submitted for analysis for VOCs (EPA Method 8260, modified to include methyl-tertiary-butyl-ether MTBE), and SVOCs (EPA Method 8270 STARS). Soil sample results are reported in Tables 3 and 4 of the report. No samples were in excess of NYSDEC soil cleanup levels for VOCs or SVOCs. Free phase petroleum hydrocarbons were observed in two monitoring wells located downgradient of 20 North Avenue and the Carpenito property. It was suspected that the petroleum hydrocarbons had migrated from the upgradient source.

In this report, dated June 28, 2012, HydroEnvironmental Solutions proposed a cleanup of the MNR property. This cleanup would consist of excavating and dewatering the area, as shown in Figure 4 of the report. For more on the proposed cleanup, see the full report.

2.3.8 Subsurface Investigation and Remedial Action Work Plan (HydroEnvironmental Solutions, April 4, 2013)

On April 4, 2013, HydroEnvironmental Solutions (HES), contracted by the property seller, submitted a Remedial Action Work Plan to address NYSDEC registered Spill Number 10-06787, as it relates to 2101 and 2103 Palmer Avenue; and Spill Number 12-02766, as it relates to the property formerly owned by the MTA, (referred to as the Metro North Railroad, or "MNR" property by HES), north of 2101 and 2103 Palmer Avenue. The report summarizes subsurface investigations which included the installation and sampling of soil borings and temporary monitoring wells. Subsurface investigations were performed to "determine the impact of petroleum hydrocarbons (PHCs) from two upgradient parcels (20 North Avenue and the Carpenito Parcel) on the subsurface conditions of the MNR and 2101 and 2103 Palmer Avenue properties." See the HES report dated June 28, 2012 for more information on the subsurface investigation.

HES proposed the removal of soil from an area of 40 feet by 25 feet by 8 feet deep, which was determined from delineation activities. The actual limits of excavation were to be determined in the field, with the use of a calibrated PID. It was proposed that any accessible soil that reported a value greater than 20 ppm on the PID would be removed. Table 3, below, summarizes some of the PID Field Screenings that were used to delineate the amount of material that would be excavated. On the easement parcel, HES proposed soil removal and dewatering in the area where free phase PHCs were

encountered. After the removal of all contaminated material, HES proposed the installation of a protective impermeable barrier along the "northern excavation boundary between the 2101 and 2103 Palmer Avenue parcel and the MNR property to prevent migration of free-phase PHCs back onto the remediated area from the two adjacent upgradient properties." The excavated area would then be backfilled with clean fill material. The installation of two 2-inch dewatering wells was proposed to monitor for free-product after cleanup. These were to be installed along the easement where free-phase PHCs were encountered. For more details on the proposed remedial actions, see the full report.

Table 3: Summary Of The Available Soil PID Field Screening Results, Site Investigation and Remedial Action Work Plan
HydroEnvironmental Solutions – Measured June 11, 2012
All PID readings are in ppm – parts per million (mg/kg)

Date Sample Collected		June 11, 2012
Boring Number	Depth (feet)	PID Reading
GB-17	0-4	113
	4-7	158
GB-18	0-4	155
	4-8	226
	8-12	58
GB-19	0-4	35
	4-8	158
GB-22	0-4	-
	4-8	182

2.3.9 Supplemental Phase II Environmental Site Assessment (Galli Engineering, P.C., October 7, 2013)

On October 7, 2013, Galli Engineering, P.C. was contracted by the Volunteer to prepare a Supplemental Phase II Site Assessment for the two parcels located at 2101 Palmer Avenue/North Avenue (main 1.5 acre development portion of the Site). The assessment was performed at the request of the NYSDEC for additional sampling and analysis on this portion of the Site, as required for the determination of acceptance of the

Site into the NYSDEC Brownfield Cleanup Program (BCP). The assessment focused on "the westernmost section of the site that lies within the footprint of one of the two proposed buildings" to be developed and the "east-central portion of the site [that] will be utilized mainly for parking."

The Phase II Site assessment was performed on September 24 and 25 of 2013. A total of ten soil borings were advanced using a track mounted Geoprobe until refusal was met. One sample was collected from each borehole from the interval showing the greatest potential for contamination. The potential for contamination was determined based on field observations including staining and/or petroleum odors. Temporary monitoring wells were installed in four of the soil boring locations. The temporary wells were 1-inch Schedule 40 PVC piping with 0.020 mil well screens, and packed with #2 Morie gravel. Wells were sampled on the day following their installation, after a minimum of 24 hours such that the wells could properly set. One sample was collected from each temporary well.

Analytical data generated during the sampling events revealed a significant presence of metals in the soil and groundwater, in excess of NYS guidance values. SVOCs were detected above Track 2 Residential Use SCOs in four of the ten borings. VOCs were detected above Track 1 Unrestricted Use SCOs in two borings. Pesticide 4,4'-DDT was detected above the Track 1 Unrestricted Use SCO in one boring. Chlordane was detected in one soil boring and in two groundwater samples. Chlordane was in excess of groundwater standards. Two SVOCs were detected in excess of groundwater standards in one groundwater sample. For details on the investigation, see the full report. The tables below summarize the hits reported during the laboratory analysis.

Table 4: Summary of the Available Analytical Soil Data, Supplemental Phase II ESA
Galli Engineering, P.C. – Sampled September, 2013

ppb – parts per billion (ug/kg) ppm – parts per million (mg/kg)

VOLATILES – METHOD SW8260

Compound	Restricted Use SCOs (ppb)	Unrestricted Use SCOs (ppb)	B-1 2-4 ft	B-2 6-8 ft	B-3 2-4 ft	B-4 1-3 ft	B-5 5-7 ft	B-6 1-3 ft	B-7 1-3 ft	B-8 3-5 ft	B-9 3-5 ft	B-10 3-5 ft
Trimethylbenzene	52,000	3,600	ND	ND	ND	ND	**5,200**	ND	ND	ND	ND	ND
Ethylbenzene	41,000	1,000	ND	ND	ND	ND	**4,500**	ND	ND	ND	ND	ND
Tetrachloroethene	19,000	1,300	ND	ND	ND	**2,400**	ND	ND	ND	ND	ND	ND

SEMIVOLATILES – METHOD SW8270

Compound	Restricted Use SCOs (ppb)	Unrestricted Use SCOs (ppb)	B-1 2-4 ft	B-2 6-8 ft	B-3 2-4 ft	B-4 1-3 ft	B-5 5-7 ft	B-6 1-3 ft	B-7 1-3 ft	B-8 3-5 ft	B-9 3-5 ft	B-10 3-5 ft
Benz(a)anthracene	1,000	1,000	**39,000**	ND	ND	**2,300**	ND	570	**2,700**	ND	ND	ND
Benz(a)pyrene	1,000	1,000	**33,000**	ND	ND	**2,800**	ND	590	**2,500**	ND	ND	ND
Benzo(b)fluoranthene	1,000	1,000	**42,000**	ND	ND	**4,600**	270	**1,100**	**4,800**	ND	ND	ND
Benzo(k)fluoranthene	3,900	800	**21,000**	ND	ND	**1,700**	ND	ND	**1,600**	ND	ND	ND
Chrysene	1,000	1,000	**35,000**	ND	ND	**2,400**	ND	830	**2,600**	ND	ND	ND
Dibenzo(a,h)anthracene	330	330	**5,500**	ND	ND	**520**	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	500	**17,000**	ND	ND	**1,500**	ND	ND	ND	ND	ND	ND

METALS, Total

Compound	Restricted Use SCOs (ppm)	Unrestricted Use SCOs (ppm)	B-1 2-4 ft	B-2 6-8 ft	B-3 2-4 ft	B-4 1-3 ft	B-5 5-7 ft	B-6 1-3 ft	B-7 1-3 ft	B-8 3-5 ft	B-9 3-5 ft	B-10 3-5 ft
Arsenic	16	13	**17**	1.7	4.4	**17.6**	1.3	10.5	**40.1**	2	BRL	1.1
Cadmium	4.3	2.5	**3.19**	1.06	0.79	1.49	1.12	1.26	2.31	1.26	1.52	1.12
Copper	270	50	**147**	8.24	34.6	**66.4**	34.2	**68.4**	**161**	31.6	**90.9**	38.4
Lead	400	63	**477**	7.66	22.1	**95.5**	9.46	**116**	**229**	7	7.26	5.79
Nickel	310	30	21.7	17.9	23.7	18.1	27.2	17.6	20.8	24	**35.8**	24.8
Zinc	10,000	109	**391**	40.6	41.6	**139**	58.5	97.9	**222**	59.5	74.4	50.2

PESTICIDES – METHOD SW8081

Compound	Restricted Use SCOs (ppm)	Unrestricted Use SCOs (ppm)	B-1 2-4 ft	B-2 6-8 ft	B-3 2-4 ft	B-4 1-3 ft	B-5 5-7 ft	B-6 1-3 ft	B-7 1-3 ft	B-8 3-5 ft	B-9 3-5 ft	B-10 3-5 ft
4.4'-DDT	7,900	3.3	ND	ND	ND	**9.6**	ND	ND	ND	ND	ND	ND

Table 5: Summary of the Available Analytical Groundwater Data, Supplemental Phase II ESA
Galli Engineering, P.C. – Sampled September, 2013

ppb – parts per billion (ug/kg) ppm – parts per million (mg/kg)

VOLATILES – METHOD SW8260 (µg/Kg)

Compound	TOGS-WWQ/GA	TWB-6	TWB-8	TWB-10
1,2,4-Trimethylbenzene	5	**9.2**	ND	ND
1,3,5-Trimethylbenzene	5	**5.8**	ND	ND
Ethylbenzene	5	**5.8**	ND	ND
Napthalene	10	**29**	ND	ND
n-Propylbenzene	5	**6.5**	ND	ND
Tetrachloroethene	5	ND	ND	**23**

SEMIVOLATILES METHOD SW8270 SIM (µg/Kg)

Compound	TOGS-WWQ/GA	TWB-6	TWB-8	TWB-10
Benz(a)anthracene	0.002	**0.07**	ND	ND
Chrysene	0.002	**0.06**	ND	ND

METALS, TOTAL (mg/L)

Compound	TOGS-WWQ/GA	TWB-6	TWB-8	TWB-10
Aluminum	0.01	**166**	**14.3**	**149**
Aluminum (dissolved)	0.01	**2.09**	**0.71**	**0.31**
Barium	1.0	**2.9**	0.22	**1.4**
Beryllium	0.003	**0.009**	BRL	**0.005**
Cadmium	0.005	**0.013**	BRL	**0.011**
Chromium	0.05	0.471	**0.054**	0.401
Copper	0.2	**0.912**	0.043	**0.74**
Iron	0.3	**428**	**23**	**385**
Iron (dissolved)	0.3	**3.2**	**0.945**	**0.332**
Lead	0.025	**0.09**	0.006	**0.114**
Magnesium	35	**115**	19.6	**67.8**
Manganese	0.3	**32.7**	**2.14**	**10.9**
Manganese (dissolved)	0.3	**0.435**	**2.21**	**3.56**
Nickel	0.1	**0.586**	0.039	**0.325**
Sodium	20	**154**	**73.7**	**110**
Sodium (dissolved)	20	**191**	**65.9**	0.35

PESTICIDES SW8081 (µg/L)

Compound	TOGS-WWQ/GA	TWB-6	TWB-8	TWB-10

Chlordane	0.05	**0.29**	ND	**0.65**

The Supplemental Phase II analytical data confirmed that the Site has been impacted by contaminants that are consistent with the past on- and off-Site historic uses involving gasoline storage and contaminants from former coal storage. Results from this investigation indicate that SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluroanthene benzo(k)fluoranthene, and chrysene were present in the surface soil, soil borings, and groundwater. The VOCs tetrachloroethene and trichloroethene were present in one of the groundwater samples and in the soil vapor samples. Results reported for trichloroethene did not exceed NYS Guidance Values. Soil vapor samples also had indicator compounds for gasoline and middle-distillate fuels. The Department deemed the main development portion of the Site eligible for the BCP subsequent to a review of these investigation results.

2.3.10 Overburden Soil Sampling from Rock Outcrop (Galli Engineering, P.C., October 10, 2013

On September 26, 2013 Galli Engineering, P.C. collected three Overburden Soil Samples along the top of the rock outcrop located in the south-central portion of 2101 Palmer Avenue at the Volunteer's request. Galli Engineering prepared a letter addressed to the Volunteer dated October 10, 2013, summarizing the sampling event and laboratory results. Results revealed two SVOCs in excess of Track 2 Residential SCOs, metals in excess of Track 1 Unrestricted and Track 2 Residential SCOs, one PCB in excess of Track 1 Unrestricted SCOs, and pesticides in excess of Track 1 Unrestricted SCOs. For more details on this sampling event, see the full report.

2.3.11 MTA Parcel - Surface Soil Sampling (Galli Engineering, P.C., October 11, 2013)

NYSDEC requested additional sampling on the portion of the site formerly owned by the MTA. The surface soil sampling was described in a letter addressed to the Volunteer dated October 11, 2013, for the sampling performed on September 26, 2013 by Galli Engineering, P.C. at the Volunteer's request.

Three surface soil samples were taken along the north side of the MTA parcel. Each sample was a composite sample over an area of one foot in diameter and two inches in depth. Samples were submitted to Phoenix Environmental Laboratories, a NYS

certified ELAP Laboratory, for the analysis of VOCs, SVOCs, TAL metals, PCBs, Pesticides, and Herbicides.

No VOCs, PCBs, or herbicides were detected above the laboratory reporting limit.

SVOCs were detected above Track 2 Restricted Residential Use in Sample SC-3. SVOCs detected above Track 2 are: benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)flouranthene, and chrysene. No other SVOCs were detected above SCOs in the other two samples.

Metals were detected above Track 1 Unrestricted Use SCOs in all three samples. Metals detected above Track 1 are: chromium, and copper and lead, in sample SC-1. Copper and lead were detected above Track 2 SCOs in samples SC-2 and SC-3.

Pesticides were detected above Track 1 Unrestricted Use SCOs in all three soil samples. Pesticide dieldrin was detected above Track 2 in Sample SC-2.

Results from this investigation were submitted to the Department to assist in the determination of the Site's eligibility to enter the BCP.

2.3.12 Change-of-Use Remedial Report (Galli Engineering, P.C. May 12, 2014)

A Change-Of-Use Remedial Report was prepared and submitted by Galli Engineering, P.C. on March 24, 2014 on behalf of the Volunteer. The revised report was submitted on May 12, 2014 and approved by the Department on June 23, 2014. The purpose of this report was to document the removal of a bedrock outcrop that existed in the south central portion of the property and the contaminated material that had naturally deposited atop the rock over time. This action required a change-of-use submission for site preparation. Contaminated soils were hauled to Hazleton Creek Properties, LLC. Tree stumps were hauled to CCJ Green Recycling LLC. Rock was removed with pneumatic rock splitters and mechanical hammers. A CAMP report was prepared with this submission. For more details on the material removed, see the full report.

2.3.13 Remedial Investigation Report (Galli Engineering, P.C. June 16, 2014)

After a review of the data obtained during the September 2013 Supplemental Phase II Site Investigation, the NYSDEC approved the eligibility of the site into the BCP, but requested additional sampling and analysis be performed to complete the delineation of the nature and extent of the soil and groundwater contamination identified at the Site

through a final Remedial Investigation (RI). Galli Engineering submitted a Remedial Investigation Work Plan (RIWP) to NYSDEC on December 16, 2013 on behalf of the Volunteer. The RIWP was subsequently approved by the Department on January 31, 2014 with modifications and Galli Engineering performed fieldwork for the Remedial Investigation on February 18 and 25 of 2014.

As proposed in the RIWP, Galli Engineering installed six soil borings and took six samples from these borings on February 18, 2014. Only two of three anticipated monitoring wells could be installed at the subject property on February 18, 2014 since refusal was encountered at the third well location. In addition, eight soil vapor probes were installed but only four were successfully sampled. These deviations from the RIWP were confirmed with the NYSDEC.

Surface soil sampling analyses revealed that metal concentrations exceeded Track 1 Unrestricted Use SCOs in four of the five samples taken. Metals present in excess of Track 1 are chromium, copper, lead, nickel, and zinc. Pesticides 4,4'-DDT and 4,4'-DDE were detected in excess of Track 1 Unrestricted Use SCOs in two samples. SVOCs were detected in excess of Track 1 Unrestricted Use SCOs in one sample. SVOCs in excess of the SCOs are benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene. These results are summarized in the following table.

Table 6: Summary of Surface Soil Sample Results, Remedial Investigation Report Galli Engineering, P.C. - February 25, 2014							
Compound	**Restricted (Residential) Soil Cleanup Objectives**	**Unrestricted Residential Soil Cleanup Objectives**	**SS-11**	**SS-12**	**SS-14**	**SS-15**	**SS-16**
Sample Collection Depth C= Composite or G = Grab			**0-2' G**	**0-2' G**	**0-2' G**	**0-2' G**	**0-2' G**
SVOCs	**Restricted (Residential) ppb**	**Unrestricted Residential ppb**	**µg/kg**	**µg/kg**	**µg/kg**	**µg/kg**	**µg/kg**
Benz(a)anthracene	1,000	1,000	J	J	**5,900**	J	J
Benzo(a)pyrene	1,000	1,000	J	J	**5,900**	J	J
Benzo(b)fluoranthene	1,000	1,000	J	J	**7,700**	J	J
Benzo(k)fluoranthene	1,000	800	J	J	**2,600**	J	J
Chrysene	1,000	1,000	J	J	**5,600**	J	J
Dibenz(a,h)anthracene	330	330	J	J	**740**	J	J
Indeno(1,2,3-cd)pyrene	500	500	J	J	**2,600**	J	J
Metals	**Restricted (Residential) ppm**	**Unrestricted Residential ppm**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Chromium	36	30	2.72	5.86	**32.5**	14.4	**33.1**
Copper	270	50	**55**	45.4	**89.1**	**105**	**55.9**
Lead	400	63	1.85	49.5	**146**	42.8	30.3
Nickel	140	30	10.6	10.1	**34**	12.6	24.8
Zinc	2,200	109	24.9	65.9	**308**	**178**	82.4
Pesticides	**Restricted (Residential) ppb**	**Unrestricted Residential ppb**	**µg/kg**	**µg/kg**	**µg/kg**	**µg/kg**	**µg/kg**
4,4'-DDE	1,800	3.3	J	**6.3**	J	J	J
4,4'-DDT	1,700	3.3	J	**7.4**	**10**	J	J

Sub-surface soil sampling analyses revealed that chromium was in excess of the Track 2 Restricted Residential Use SCOs in all but one sample. Copper, zinc, and nickel exceeded Track 1 Unrestricted Use SCOs. Pesticides 4,4'-DDT and dieldrin exceeded Track 1 Unrestricted SCOs in two samples. SVOCs exceeded Track 1 Unrestricted SCOs primarily in one sample. SVOCs in exceedance were benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene. These results are summarized in the following table.

Table 7: Summary of Soil Sample Results, Remedial Investigation Report
Galli Engineering, P.C. - February 18, 2014

Compound	Restricted Residential Soil Cleanup Objectives	Unrestricted Residential Soil Cleanup Objectives	P-16	P-15	P-14	P-13	P-12	P-11
Sample Collection Depth C= Composite or G = Grab			5-15' C	0-10' C	0-6' C	10-15' G	5-15' C	10-15' G
SVOCs	**Restricted Residential Soil Cleanup Objectives ppb**	**Unrestricted Residential Soil Cleanup Objectives ppb**	**µg/kg**	**µg/kg**	**µg/kg**	**µg/kg**	**µg/kg**	**µg/kg**
Benz(a)anthracene	1,000	1,000	**4,700**	J	760	J	J	J
Benzo(a)pyrene	1,000	1,000	**4,000**	J	650	J	J	J
Benzo(b)fluoranthene	1,000	1,000	**5,000**	J	950	J	J	J
Benzo(k)fluoranthene	1,000	800	**1,700**	J	310	J	J	J
Chrysene	1,000	1,000	**4,200**	J	270	J	J	J
Dibenz(a,h)anthracene	330	330	**360**	J	**870**	J	J	J
Fluoranthene	100,000	100,000	4,700	J	1,400	J	J	J
Indeno(1,2,3-cd)pyrene	500	500	**1,000**	J	300	J	J	J
Metals	**Restricted Residential Soil Cleanup Objectives ppm**	**Unrestricted Residential Soil Cleanup Objectives ppm**	**P-16 mg/kg**	**P-15 mg/kg**	**P-14 mg/kg**	**P-13 mg/kg**	**P-12 mg/kg**	**P-11 mg/kg**
Aluminum	-	-	17,200	16,800	20,900	22,400	16,800	11,700
Barium	350	350	114	131	196	210	145	67.8

Beryllium	14	7.2	0.45	0.53	0.59	0.52	0.48	0.38
Calcium	-	-	1,830	1,700	5,290	2,030	1,930	1,020
Chromium	30	30	**32.9**	**35.3**	**44**	**43.8**	**34.7**	23.**7**
Cobalt	-	-	10.3	9.24	10.4	13.3	9.49	4.23
Copper	270	50	42.9	38.8	**70.3**	**58**	32.9	33.4
Iron	-	-	29,500	28,000	34,500	35,400	28,400	16,800
Lead	400	63	23.9	4.39	33.8	3.88	3.2	2.07
Magnesium	-	-	7,300	6,850	8,480	9,690	6,890	3,190
Manganese	2,000	1,600	456	588	613	567	617	147
Nickel	140	30	19.1	24.8	27.9	**37.3**	29.7	12.1
Potassium	-	-	5,870	5,960	8,460	9,210	5,500	2,990
Vanadium	-	-	50.1	43.5	62.7	60.6	42.7	30.7
Zinc	2,200	109	87.5	54.9	**123**	66.5	49.6	27.8
PCBs	**Restricted Residential Soil Cleanup Objectives ppb**	**Unrestricted Residential Soil Cleanup Objectives ppb**	**P-16 µg/kg**	**P-15 µg/kg**	**P-14 µg/kg**	**P-13 µg/kg**	**P-12 µg/kg**	**P-11 µg/kg**
4,4'-DDT	1,700	3.3	**4.7**	J	**5.1**	J	J	J
Dieldrin	39	5	**7.3**	J	J	J	J	J

Groundwater sampling analyses revealed that twelve metals were detected above the NYSDEC Part 703 limits for both samples. Metals detected above the limits are aluminum, barium, beryllium, cadmium, chromium, copper, iron, lead, magnesium, manganese, nickel, and sodium. VOCs were detected above the TOGS 1.1.1 limits in one of the two samples. These VOCs are cis-1,2-dichloroethene, tetrachloroethene, and trichloroethene. SVOC benzo(a)anthracene was detected above the NYSDEC Part 703 limits for both samples. SVOCs benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene were detected above the NYSDEC Part 703 limits for one of the two samples. The RIR concluded that VOCs may have migrated from off-site sources, such as the adjacent autobody shop and dry cleaner, as they are not solvents that specifically relate to the historical uses of the site. These results are summarized in the following table.

Table 8: Summary of Groundwater Laboratory Data, Remedial Investigation Report

Sampled: Galli Engineering, P.C. - February 25, 2014

Compound	NYSDEC Groundwater Limits 6 NYCRR Part 703	NYSDEC TOGS 1.1.1 Standards and Guidance Values	M-1	M-2
VOCs	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Cis-1,2-Dichloroethene	-	5	J	**5.3**
Tetrachloroethene	5	5	J	**80**
Trichloroethene	5	5	J	**6**
SVOCs	**ug/L**	**ug/L**	**ug/L**	**ug/L**
Benzo(a)anthracene	0.002	0.002	**0.08**	0.03
Benzo(a)pyrene	0.002	-	**0.04**	J
Benzo(b)fluoranthene	0.002	0.002	**0.07**	J
Benzo(k)fluoranthene	0.002	0.002	**0.03**	J
Chrysene	0.002	0.002	**0.07**	J
METALS	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Aluminum	0.1	0.1	**918**	**148**
Aluminum (Dissolved)	0.1	0.1	**0.38**	**0.22**
Barium	1	1	**7.3**	**1.7**
Beryllium	0.011	0.003	**0.026**	**0.005**
Cadmium	0.005	0.005	**0.043**	**0.007**
Chromium	0.05	0.05	**2.93**	**0.371**
Copper	0.2	0.2	**3.4**	**0.38**
Iron	0.3	0.3	**2110**	**294**
Iron (Dissolved)	0.3	0.3	**0.431**	0.189
Lead	0.025	0.025	**0.722**	**0.126**
Magnesium	35	35	**474**	**61**
Manganese	0.3	0.3	**31.8**	**10.8**
Manganese (Dissolved)	0.3	0.3	**3.54**	**2.24**
Nickel	0.1	0.1	**1.51**	**0.264**
Sodium	20	20	20	**35**
Sodium (Dissolved)	20	20	**24.8**	**35**

Eight vapor probes were installed, but only four soil vapor samples were collected. The remaining canisters showed no change in pressure during the two hour period. Two ambient air samples were also collected. Air guidance values are only provided for three of the chemicals reported: methylene chloride, tetrachloroethene, and trichloroethene. No samples exceeded these values. Tetrachlorethene and trichlorethene were observed in all four soil vapor samples, and are heavy industry solvents commonly used by drycleaners. Benzene, cyclohexane, xylenes and toluene were observed in all four soil vapor samples, and are indicative of gasoline contamination. Ethylbenzene and xylenes were observed in all four soil vapor samples. These are indicative of middle-distallate contamination (#2 Fuel Oil, diesel, kerosene, etc.). The RIR concluded these contaminants may have originated off-site, as neighboring properties include a dry cleaner, an autobody shop, and a gasoline station. Soil vapor results are summarized in the following table.

Table 9: Summary of Soil Vapor Results, Remedial Investigation Report Galli Engineering, P.C. - February 18, 2014

Chemical	Air Guideline Value (mcg/m^3)	SV1	SV2	SV4	SV5	A-1	A-2
Benzene	-	9.58	7.73	14.8	23.4	1.02	J
Cyclohexane	-	16	8.29	35.8	23.9	J	J
Ethylbenzene	-	10.1	5.6	9.85	10.3	J	J
m,p-Xylene	-	30.6	17.7	30.4	31.4	J	J
Methylene chloride	60	J	4.13	3.05	2.32	J	J
o-Xylene	-	10.6	5.99	10.2	11.1	J	J
Tetrachloroethene (PERC)	30	10.8	3.05	1.63	3.25	13.3	8.81
Toluene	-	49.3	32.2	55.7	52.7	1.17	J
Trichloroethene (TCE)	5	0.806	0.483	1.77	1.18	J	0.376

For more information on the Remedial Investigation, see the full report.

2.3.14 Remedial Action Work Plan (Galli Engineering, P.C., June 24, 2014)

The Remedial Action Work Plan prepared by Galli Engineering, P.C. and submitted on June 24, 2014 on behalf of the Volunteer, summarizes the Remedial Investigation Report and selects a remedy for the main development parcel. The report evaluates Track 1, Track 2 and Track 4 SCOs as options for remedial action under the Brownfield Cleanup Program. The chosen remedy was a Track 2 Restricted Residential Use.

Galli Engineering proposed that a Track 2 cleanup would be the most ideal remedy for the property located at 2101 and 2103 Palmer Avenue. The proposed depth of excavation was four to eight feet below grade in certain areas of the site, with the remainder of the site excavated one to two feet below grade. The north end of the main site where petroleum contaminants were observed was to be excavated to four feet below grade, with "hot spot" areas down to six feet. The south end of the main site was to be excavated to eight feet below grade. The average excavation depth of the remainder of the Site was up to two feet below grade and would be capped with concrete for the future use as a parking lot. Areas of the site to be developed as landscaping were to be backfilled with a minimum of two feet of clean soil and topped with six inches of clean topsoil, capable of sustaining vegetation. The RAWP indicated that the extent of all excavation in these areas would be subject to change due to field observations and the screening of soils with a photo-ionization detector (PID) for VOCs.

As part of the proposed remedy, a waterproof vapor barrier was proposed to be installed beneath the basement foundation along stairwells, elevators shafts, and any enclosed spaces that may exist at grade within the building as a result of the VOCs identified in the soil vapor during the Remedial Investigation. An impermeable barrier was to be installed along the northern property line to prevent the migration of petroleum-contaminated groundwater from entering the Site from the adjacent off-site NYSDEC Spill No. 11-05310. Post-excavation end-point sampling would confirm that Track 2 Restricted Residential SCOs had been achieved. For more information, see the full report.

2.3.15 BCP Application Supplemental Investigation (Galli Engineering, P.C., July 3, 2014)

An application to the Brownfield Cleanup Program submitted for this 0.46 acre property as Site Number C360139 was denied on April 11, 2014. Galli Engineering, P.C. performed a subsurface sampling event on June 9, 2014 at the request of the Volunteer to better assess the nature and extent of contamination present on the proposed access road

(Section 6, Block 602, Lot 453, the portion of the Site formerly owned by the MTA and purchased by the Volunteer on June 3, 2014).

Five soil borings were advanced and one well was installed. Borings were advanced to 15 feet below land surface (bls) or until they hit refusal. Borings WC-1 through WC-3 were successfully advanced to 15 feet bls. WC-4 was advanced to 8 feet bls and WC-5 to 10 feet bls. Composite samples were taken across the borings. Chromium, copper, and nickel were detected in WC-2 though WC-5. Samples WC-3 through WC-5 exceeded the Track 1 Unrestricted Use SCOs. Acetone was detected in two samples, WC-2 and WC-4 at concentrations above Track 1 Unrestricted Use SCOs. Full TCLP and RIC analysis was performed and no hazardous waste levels were detected. The soil sampling results are summarized in the following table.

Table 10: Summary of Soil Sampling Results, BCP Supplemental Investigation Galli Engineering – Sampled June 9, 2014

Contaminant	Unrestricted SCOs	WC-2	WC-3	WC-4	WC-5
Chromium	30	18.3	**40.0**	**84.2**	**57.2**
Copper	50	21.2	39.8	**51.3**	43.1
Nickel	30	16.2	24.1	**45.5**	27.1
Acetone	0.050	**0.110**	-	**0.140**	-

One groundwater sample was analyzed. Volatiles and metals were detected at concentrations above the TOGS 1.1.1 guidance values. The results are summarized in the following table.

Table 11: Summary of Groundwater Sampling Results, BCP Supplemental Investigation Galli Engineering – Sampled June 10, 2014		
Metals	**TOGS (mg/L)**	**MW-1 (mg/L)**
Aluminum	0.1	**26.5**
Aluminum (dissolved)	0.1	**0.22**
Chromium	0.05	**0.058**
Iron	0.3	**56.2**
Iron (Dissolved)	0.3	**0.589**
Lead	0.025	**0.036**
Manganese	0.3	**1.06**
Manganese (Dissolved)	0.3	**0.678**
SVOCs	**TOGS (µg/L)**	**MW-1 (µg/L)**
Benz(a)anthracene	0.002	**0.09**
Benzo(a)pyrene	0.002	**0.05**
Benzo(b)fluoranthene	0.002	**0.11**
Benzo(k)fluoranthene	0.002	**0.03**
Chrysene	0.002	**0.07**
Indeno(1,2,3-cd)pyrene	0.002	**0.04**

2.3.16 Addendum to the Remedial Action Work Plan (Galli Engineering, P.C., September 22, 2014)

The Addendum to the Remedial Action Work Plan was prepared by Galli Engineering and submitted on September 22, 2014. The purpose of the addendum was to address the remedial actions necessary for the cleanup of the easement parcel, pursuant to the modified Brownfield Cleanup Agreement in which the Department acknowledged the portion of the Site formerly owned by the MTA, and purchased by the Volunteer on June 3, 2014, as an addition to the main development parcel BCP Site. The Addendum summarized the following environmental investigations: Subsurface Investigation and Remedial Action Work Plan dated April 4, 2013; Surface Soil Sampling Letter dated October 11, 2013; and the BCP Application Supplemental Investigation.

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the Decision Document dated August 21, 2014 and amended December 8, 2014 are as follows:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer, to the extent practicable, to pre-disposal/pre-release conditions to the extent practicable.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure to from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site.

2.5 Remaining Contamination

2.5.1 Soil

The Volunteer has achieved the proposed Track 2 Restricted Residential remedy to the BCP Site property boundaries with the exception of the areas described below.

Sidewall samples identified as Z2S2 and Z3S2 taken near the southwestern property line along the railroad did not meet the proposed remedy of Track 2 SCOs (see Table 12). Sidewall samples were taken as composite samples over the entire depth of excavation, as remnants from railroad development (railroad ties and fill material) were visibly seen throughout the excavation of this area. A one-to-one slope was maintained from the property line to the bottom of excavation (8 feet below grade). No additional excavation was required in this area, as further excavation would de-stabilize the Metro North Railroad. Remediation outside of the boundaries of the BCP Site is not required of a BCP Volunteer. This sloped area has been developed as a concrete capping system (sidewalk) which will eliminate a pathway for potential exposure to contaminants.

Table 12: Exceedances of Restricted Residential SCOs in contaminated soil left on-site after Remedial Action (Adjacent to the Metro North Railroad)			
Contaminants	Track 2 Restricted Residential SCOs (ppm)	Sample ID	
		Z2S2 SCOs (ppm)	Z3S2 SCOs (ppm)
Arsenic	16	**92.3**	3.3
Benzo(a)anthracene	1	0.173	**2.630**
Benzo(a)pyrene	1	0.222	**2.200**
Benzo(b)fluoranthene	1	0.348	**2.950**
Indeno(1,2,3-cd)pyrene	0.5	0.280	**1.580**

Contaminants exceeding Track 2 SCOs are arsenic, in Z2S2, and various polycyclic aromatic hydrocarbons (PAHs), in Z3S2.

Samples identified as Z2S1p, Z3S1, and Z6B1, taken near the south central portion of the Site did not meet the proposed remedy of Track 2 SCOs (see Table 13). Sample ID Z2S1 was originally taken along the sidewall of the Building 1 excavation. This sample did not meet the proposed remedy and additional material was removed from the sample location. The re-sample for that location was identified as Z2S1p, and also failed to meet the Track 2 SCOs. Additional excavation and consequent sampling could not be performed due to the sample's proximity to areas that had already been excavated, backfilled, and developed for various utilities. Sample Z3S1 was taken along the sidewall of the Building 1 excavation. This sample reported benzo(b)fluoranthene in excess of the Track 2 SCOs by 50 ppb and indeno(1,2,3-cd)pyrene in excess of the Track 2 SCOs by 100 ppb. Sample Z6B1 was taken at the bottom of excavation (sampled 2-3' bgs) of the area just east of the Building 1 excavation. This area is to be developed as a parking lot. This sample reported indeno(1,2,3-cd)pyrene in excess of Track 2SCOs by 15 ppb. Additional excavation and consequent sampling was not performed due to the sample's location within the Building 1 stormwater treatment (Cultec chamber) area. During the excavation for the Cultec installation, bedrock was encountered.

The Department considered the locations of the Sample IDs Z3S1 and Z7B1 and minor exceedances of the Track 2 SCOs and stated in an email dated 10/16/14 that no further work would be required in those areas. All three sample locations are detailed in a letter to the Department dated January 23, 2015, and approved March 26, 2015, *Deviation from the End-Point Sampling Plan*. The table below summarizes the contaminants found in these three locations.

Table 13: Exceedances of Restricted Residential SCOs in contaminated soil left on-site after Remedial Action (Beneath Building 1)

Contaminants	Restricted Residential SCOs	Sample ID		
		Z1S2p	Z3S1	Z6B1
Benzo(a)pyrene	1	**1.03**	0.805	0.632
Benzo(b)fluoranthene	1	**1.54**	**1.05**	0.852
Indeno(1,2,3-cd)pyrene	0.5	**0.804**	**0.6**	**0.515**

One sample, Sample ID PM1B6, located along the access road reported concentrations of copper in excess of the Restricted Residential SCOs. This sample was taken 6' bgs. The table below summarizes the contaminants found in this location.

Table 14: Exceedances of Restricted Residential SCOs in contaminated soil left on-site after Remedial Action (Access Road)

Contaminants	Restricted Residential SCOs	Sample ID
		PM1B6
Copper	270	**806**

A total of eight end-point samples taken from the property boundaries of the Site did not meet the Track 2 Restricted Residential remedy. These samples are identified as: Z8S1, Z8S2, and Z8S5, taken in the excavation area of Building 2; and MS10, MS11, MS12, PM1S8, and PM1S9, taken in the excavation area of the former MTA-owned property.

Sample IDs Z8S1, Z8S2, and Z8S5 were taken along the eastern property line of the Building 2 excavation area and consisted of historic fill. Additional material was not removed as the samples were taken at the property line, and it is out of the scope of this agreement to chase contamination. The Department stated in an email dated 11/21/14 that no additional work was necessary in these areas. Results that exceeded the Track 2 Restricted Residential SCOs are shown in the following table, Table 14, for Sample IDs Z8S1, Z8S2, and Z8S5.

Table 15: Summary of Soil Sampling Results for Sample IDs Z8S1, Z8S2, and Z8S5 that failed to meet Track 2 Restricted Residential SCOs.

Contaminant	Track 2 Restricted Residential SCOs (ppm)	Sample ID		
		Z8S1 (ppm)	Z8S2 (ppm)	Z8S5 (ppm)
Benzo(a)anthracene	1	**3.38**	**3.62**	**7.43**
Benzo(a)pyrene	1	**4.34**	**4.46**	**6.97**
Benzo(b)fluoranthene	1	**5.21**	**5.39**	**8.09**
Chrysene	3.9	**4.15**	**4**	1.45
Dibenzo(a,h)anthracene	0.33	**0.633**	**0.673**	**1.03**
Indeno(1,2,3-cd)pyrene	0.5	**2.83**	**3.13**	**4.33**

Sample IDs PM1S8, PM1S9, MS10, MS11, and MS12 were taken along the property line of the easement parcel. All of these samples failed to meet the Track 2 Restricted Residential SCOs, and no additional material was removed as the samples were taken at the property line. Results that exceeded the Track 2 Restricted Residential SCOs for Samples PM1S8, PM1S9, MS10, MS11, and MS12 are presented in Table 15.

Table 16: Summary of Soil Sampling Results for Sample IDs along the easement property line that failed to meet Track 2 Restricted Residential SCOs.						
Contaminant	**Track 2 Restricted Residential SCOs (ppm)**	**Sample ID**				
		PM1S8 (ppm)	**PM1S9 (ppm)**	**MS10 (ppm)**	**MS11 (ppm)**	**MS12 (ppm)**
Benzo(a)anthracene	1	**1.47**	0.579	**1.49**	0.850	**11.5**
Benzo(a)pyrene	1	**1.51**	0.781	**1.73**	0.979	**15.6**
Benzo(b)fluoranthene	1	**1.86**	0.964	**1.94**	**1.08**	**16.6**
Chrysene	3.9	1.42	0.069.6	1.64	0.996	**12.5**
Dibenzo(a,h)anthracene	0.33	0.254	-	**0.377**	0.225	**2.59**
Indeno(1,2,3-cd)pyrene	0.5	**1.02**	0.0676	**1.21**	**0.747**	**9.99**
Arsenic	16	3.9	**17.9**	9.7	12.4	**23.5**

Figure 4 summarizes the results of all soil samples collected that exceed the Track 2 Restricted Residential Use SCOs at the Site after completion of remedial action.

2.5.5 Soil Vapor

The potential for soil vapor intrusion has been mitigated by the Site cover system as buildings have been developed with at-grade open-air garages and have been lined with a sub-slab vapor barrier to ensure there exists no potential for soil vapor intrusion. No monitoring of soil vapor will be required at the Site, however, long term maintenance of the cover system and vapor barrier will be required pursuant to the requirements in this SMP to repair cracks in the cover system and implement the Excavation Work Plan when intrusive activities occur, which will subsequently require repairs to the cover system and vapor barrier if impacted.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

Since remaining contamination exists at the site, Institutional Controls (ICs) and Engineering Controls (ECs) are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the site. The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC.

This plan provides:

- A description of all IC/ECs on the site;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of the Excavation Work Plan (EWP) (as provided in Appendix A) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site, and which will subsequently require repairs to the cover system and vapor barrier if impacted.

3.2 Institutional Controls

Institutional Controls are required to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the site to restricted residential, commercial, or

industrial uses only. Adherence to these ICs on the site is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The boundaries of the IC match the boundaries of the site. These are shown on Figure [3], Metes and Bounds. These ICs are:

- The Site may be used for : restricted residential; commercial, or industrial use;
- All ECs must be maintained as specified in this SMP;
- All ECs must be inspected at a frequency determined by the Department
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Westchester County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
- Data and information pertinent to site management must be reported at the frequency determined by the Department;
- All future activities that will disturb remaining contaminated material and Site cover system must be conducted in accordance with this SMP and Excavation Work Plan;
- Maintenance, monitoring, inspection, and reporting of any physical component of the remedy shall be performed as defined in this SMP;
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement; and
- Vegetable gardens and farming on the site are prohibited;

3.3 Engineering Controls

The HASP and CAMP will be implemented at this Site in the event the Cover System must be disturbed.

3.3.1 Cover (or Cap)

Exposure to remaining contamination at the Site is prevented by a cover system placed over the Site. The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this SMP in perpetuity. This cover system is comprised of a minimum of 24 inches of clean soil, asphalt pavement, concrete-covered sidewalks, and concrete building slabs, constructed across the entire site. Figures detailing the cover system can be found in Appendix G, As-Built Drawings

The Excavation Work Plan (EWP) provided in Appendix [A] outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection of this cover are provided in the Monitoring Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) prepared for the site and provided in Appendix [C].

Monitoring of the cover will be performed by during inspection walk-throughs at the frequency determined by the Department.

4.0 MONITORING PLAN

4.1 General

This Monitoring Plan describes the measures for evaluating the overall performance and effectiveness of the implemented ECs required by the remedy. ECs include the cover/cap system and sub-slab vapor barrier. This Monitoring Plan may only be revised with the approval of the NYSDEC.

This Monitoring Plan describes the methods to be used for:

- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment.

To adequately address this issue, this Monitoring Plan provides information on:

- Information on all designed monitoring systems; and
- inspection and periodic certification.

Reporting requirements are provided in Section 7.0 of this SMP.

4.2 Site-wide Inspection

Site-wide inspections will be performed at a frequency determined by the Department. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. During these inspections, an inspection form will be completed as provided in Appendix [F] – Site Management Forms. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;

- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and

- Confirm that site records are up to date.

Reporting requirements are outlined in Section 7.0 of this plan.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the site, verbal notice to the NYSDEC must be given by noon of the following day. In addition, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the site by a qualified environmental professional, as determined by the NYSDEC. Written confirmation must be provided to the NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

7.0. REPORTING REQUIREMENTS

7.1 Site Management Reports

All site management inspection, maintenance and monitoring events will be recorded on the appropriate site management forms provided in Appendix [F]. These forms are subject to NYSDEC revision.

All applicable inspection forms generated for the site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of Table 17 and summarized in the Periodic Review Report.

Table 17: Schedule of Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Inspection Report – Cover System	As determined by the Department
Periodic Review Report	As determined by the Department

* The frequency of events will be conducted as specified until otherwise approved by the NYSDEC.

All monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and Any observations, conclusions, or recommendations.

Routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting maintenance activities;
- Description of maintenance activities performed;
- Any modifications to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Description of non-routine activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

Data will be reported in digital format as determined by the NYSDEC. Currently, data is to be supplied electronically and submitted to the NYSDEC EQuIS^{TM} database in accordance with the requirements found at this link http://www.dec.ny.gov/chemical/62440.html.

7.2 Periodic Review Report

A Periodic Review Report (PRR) will be submitted to the Department beginning eighteen (18) months after the **CERTIFICATE OF COMPLETION** is issued. After submittal of the initial Periodic Review Report, the next PRR shall be submitted to the Department at a frequency determined by the Department. In the event that the site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the site described in Appendix [E] -Environmental Easement. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site.
- Results of the required annual site inspections and severe condition inspections, if applicable.
- All applicable site management forms and other records generated for the site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- Any new conclusions or observations regarding site contamination based on inspections Recommendations regarding any necessary changes to the ECs or remedy; and
- The overall performance and effectiveness of the remedy.

7.2.1 Certification of Institutional and Engineering Controls

Certification of Institutional and Engineering Controls will be included in the Periodic Review Report. If the remedy includes any engineering controls, include the following:

Following the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State will prepare, and include in the Periodic Review Report, the following certification as per the requirements of NYSDEC DER-10:

For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- Use of the site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and
- The information presented in this report is accurate and complete.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner/Remedial Party or Owner's/Remedial Party's Designated Site Representative] (and if the site consists of multiple properties): [I have been authorized and designated by all site owners/remedial parties to sign this certification] for the site."

For BCP projects, every five years the following certification will be added:

The assumptions made in the qualitative exposure assessment remain valid.

The signed certification will be included in the Periodic Review Report.
The Periodic Review Report will be submitted, in electronic format, to the NYSDEC Central Office, Regional Office in which the site is located and the NYSDOH Bureau of Environmental Exposure Investigation. The Periodic Review Report may need to be submitted in hard-copy format, as requested by the NYSDEC project manager.

7.3 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a Corrective Measures Work Plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC.

8.0 REFERENCES

6NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

NYSDEC DER-10 – "Technical Guidance for Site Investigation and Remediation", May 3, 2010

NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).

Previous Environmental Investigations:

- Limited Environmental Site Inspection Report (Tectonic Engineering & Surveying Consultants P.C., October 14, 2010)
- Subsurface Investigation Report (HydroEnvironmental Solutions, April, 2011)
- Remedial Action Work Plan (HydroEnvironmental Solutions, June, 2011)

- Environmental Investigation Report (Conklin Services & Construction Inc., November 17, 2011) [Adjacent Property Investigative Report]
- Spill Remediation Report (HydroEnvironmental Solutions, December 2011)
- Post-Remediation QA Confirmatory Environmental Site Investigation Report (SIR) (Tectonic Engineering & Surveying Consultants P.C., May 22, 2012)
- Subsurface Investigation (HydroEnvironmental Solutions, Inc., June 28, 2012)
- Subsurface Investigation and Remedial Action Work Plan (HydroEnvironmental Solutions, April 4, 2013)
- Supplemental Phase II Environmental Site Assessment (Galli Engineering, P.C., October 7, 2013)
- Overburden Soil Sampling from Rock Outcrop (Galli Engineering, P.C., October 10, 2013)
- MTA Parcel - Surface Soil Sampling (Galli Engineering, P.C., October 11, 2013)
- Change-of-Use Remedial Report (Galli Engineering, P.C. May 12, 2014)
- Remedial Investigation Report (Galli Engineering, P.C. June 16, 2014)
- Remedial Action Work Plan (Galli Engineering, P.C., June 24, 2014)
- BCP Application Supplemental Investigation (Galli Engineering, P.C., July 3, 2014)

  Addendum to the Remedial Action Work Plan (Galli Engineering, P.C., September 22, 2014)

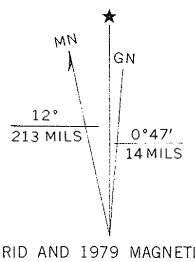
Electronic Disc: Figures and Appendices

List of Figures

1- Site Location Map
2- Site Location – Tax Map
3- Site Metes and Bounds
4- Remaining Soil Sample Exceedances

List of Appendices

A- Excavation Work Plan
B- List of Site Contacts
C- Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP)
D- Responsibilities of Owner and Remedial Party
E- Environmental Easement/Notice/Deed Restriction
F- Site Management Forms
G- As-Built Drawings



UTM GRID AND 1979 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

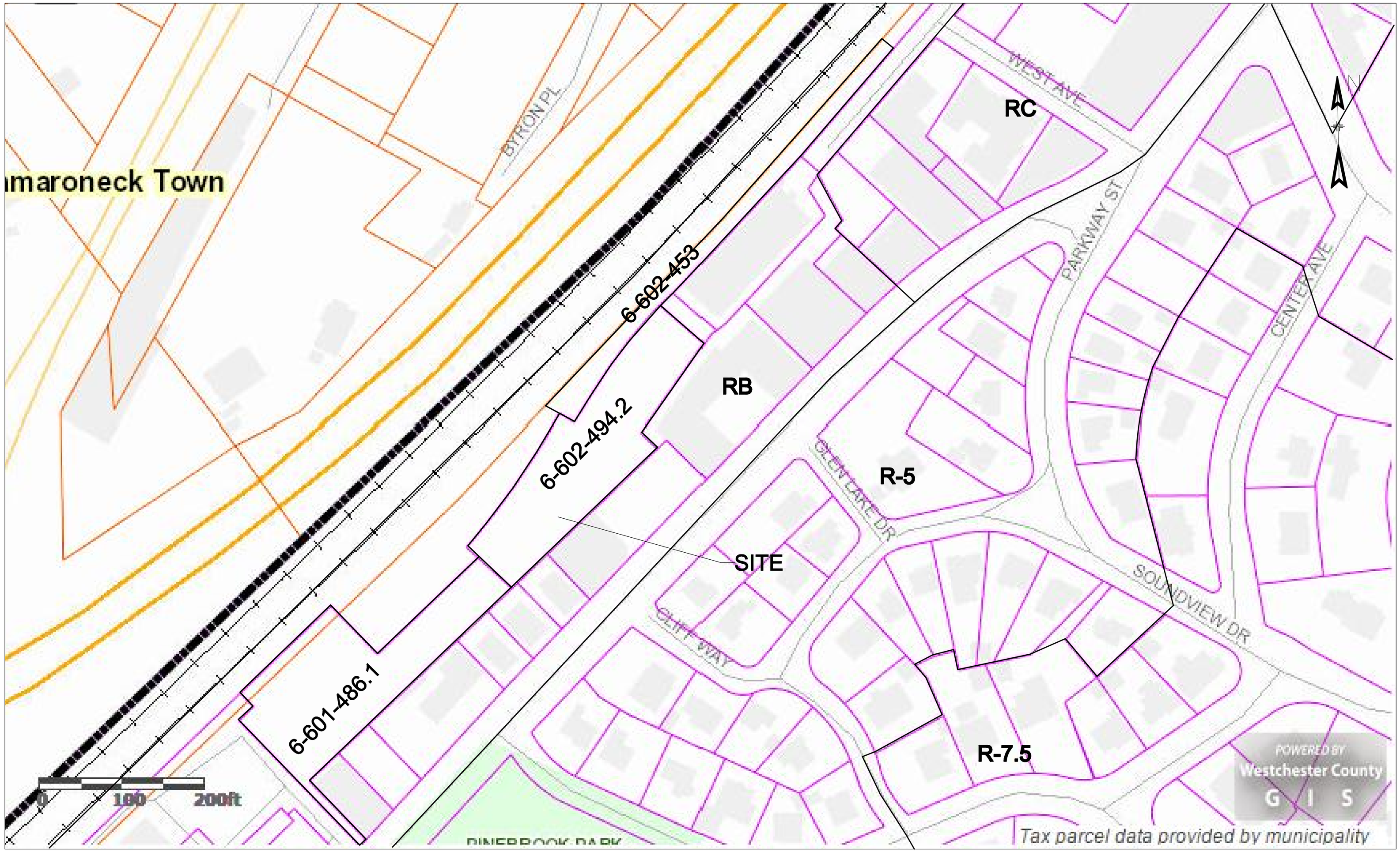
PROPOSED PINEBROOK CONDOMINIUMS

2101 PALMER AVE., LARCHMONT, N.Y. 11538

SITE LOCATION MAP

JOB NO.	DRAWN	CHECKED	APPROVED	DATE	SCALE	FIGURE NO.
0997-01-002	AXC	MG	RDG	11/12/13	1:24000	1

Galli Engineering, P.C.
734 Walt Whitman Road, Suite 402A
Melville, New York 11747
631-271-9292
FAX 631-271-9345



WESTCHESTER COUNTY PLANNING DEPARTMENT ZONING CODES:

MF	Multi-Family Residence
R-10	One-Family Residence
R-12.5	One-Family Residence
R-15	One-Family Residence
R-30	One-Family Residence
R-5	One-Family Residence
R-7.5	One-Family Residence
RB	Retail Business - Business, Office and Commercial
RC	Retail Center - Business, Office and Commercial
W	Waterfront

REV.	DATE	DESCRIPTION	BY

JOB NO. 0807-001-019

DRAWN VF

CHECKED

APPROVED

SEAL

PROPOSED PINEBROOK CONDOMINIUM
2101 PALMER AVENUE, LARCHMONT, NY 10538

SITE MANAGEMENT PLAN
BCP SITE NO. C360152
SITE LOCATION - TAX MAP

Galli Engineering, P.C.

DATE 7/28/15 | SCALE AS SHOWN | DRAWING NO. 2

Metes and Bounds Record Deed Descriptions

Parcel I:

ALL that certain plot, piece or parcel of land situate, lying and being in the Village of Larchmont, Town of Mamaroneck, County of Westchester and State of New York, being more particularly bounded and described as follows:

BEGINNING at a point on the southeasterly line of land of the Metropolitan Transportation Authority (formerly the New York, New Haven and Hartford Railroad Company), where the same is intersected by the southwesterly line of land described in deed from Frank E. Webers to Robert V. George dated February 9, 1988, recorded February 23, 1988 in Liber 9118 page 319;

RUNNING THENCE along the southwesterly line of land of said land conveyed to Robert V. George, South 36 degrees 29 minutes 05 seconds East 69.52 feet to the northwesterly line of land now or formerly of Constantine Monzidelis;

THENCE along said land the following courses and distances: South 45 degrees 43 minutes 17 seconds West 132.62 feet, and; South 33 degrees 42 minutes 20 seconds East 30.00 feet to the northwesterly line of Lots of map Entitled "Amended Map No. 3 as to Blocks 8, 9, 11, 12 and 15 Larchmont Park", filed in the Westchester County Clerk's Office in Volume 64 of Maps at page 46;

THENCE along the northwesterly line of Lot 8, 9, 10, 11, 12 and part of 13 on said map, South 56 degrees 17 minutes 40 seconds West 241.38 feet;

THENCE North 37 degrees 37 minutes 06 seconds West 75.27 feet to a point distant 106.24 feet southeasterly of and measured radially from Station 330 + 91.91 of said center line;

THENCE in a general northeasterly direction by a curve to the left having a radius of 1137.42 feet bounding northwesterly on remaining railroad land 193.28 feet to a point distant 70.62 feet southeasterly of and measured radially from Station 332 + 80.28 of said center line;

THENCE South 49 degrees 53 minutes 19 seconds East, bounding northwesterly on remaining railroad land, 17.00 feet to a point;

THENCE in a general northeasterly direction by a curve to the right having a radius of673.85 feet, bounding northwesterly on remaining railroad land 156.5 feet to a point distant 65.40 feet southeasterly of and measured radially from Station 334 + 38.28 of said center line;

THENCE North 53 degrees 25 minutes 10 seconds East, bounding northwesterly on remaining railroad land, 25.50 feet to the point or place of BEGINNING.

PARCEL II:

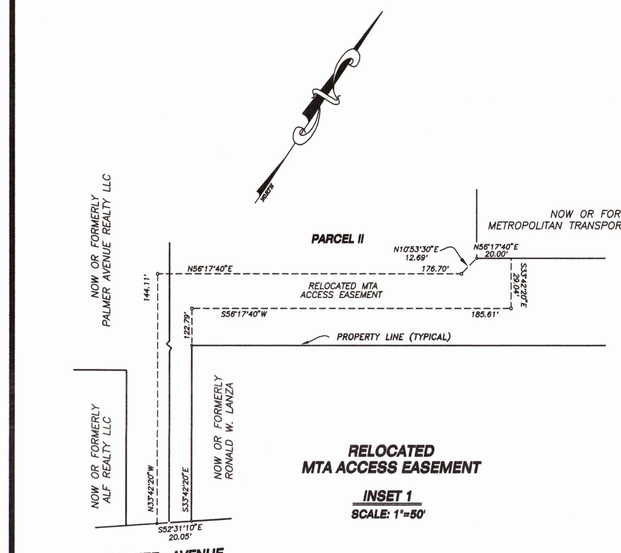
ALL that certain plot, piece or parcel of land situate lying and being in the Village of Larchmont, Town of Mamaroneck, County of Westchester and State of New York, being more particularly bounded and described as follows:

BEGINNING at a point on the northerly side of Palmer Avenue, where the same is intersected by lands now or formerly of JERJO Realty Corp., being the westerly line of Lot 19 in Block 11 as shown on a map entitled, "Amended Map No.3, Blocks 8, 9, 11, 12 and 15 Larchmont Park", and filed in the Westchester County Clerk's Office, Division of Land Records as Map Volume 64 page 46;

RUNNING THENCE along said northerly side of Palmer Avenue, South 52 degrees 31 minutes 10 seconds West 13.03 feet to a point;
RUNNING THENCE North 33 degrees 42 minutes 20 seconds West 209.88 feet to a point;
RUNNING THENCE North 56 degrees 15 minutes 10 seconds East 25.00 feet to a point;
RUNNING THENCE North 33 degrees 42 minutes 20 seconds West 24.99 feet to lands now or formerly of New York, New Haven & Hartford Railroad, now Metropolitan Transportation Authority;
RUNNING THENCE North 56 degrees 17 minutes 28 seconds East 153.61 feet to a point;
RUNNING THENCE South 33 degrees 42 minutes 32 seconds East 82.21 feet to a point;
RUNNING THENCE North 56 degrees 17 minutes 40 seconds East 174.33 feet to lands now or formerly of Collins Brothers Moving;
RUNNING THENCE along said lands, South 37 degrees 37 minutes 06 seconds East 50.66 feet to the northerly side of Lot 13 as shown on said map entitled, "Map Amending Map No.3, as to Blocks 8, 9, 10, 11, 12 and 15 Larchmont Park", dated May 28, 1927 and filed in the Westchester County Clerk's Office, (Division of Land Records) in Volume 64 page 46 of Maps;
THENCE along the northerly sides of Lots 13 through 19 on said map, South 56 degrees 17 minutes 40 seconds West 343.40 feet to a point being the northwest corner of Lot 19 as shown on the aforesaid filed map;
THENCE along the westerly side of Lot 19, South 33 degrees 42 minutes 20 seconds East 101.29 feet to a point on the northerly side of Palmer Avenue, the point or place of BEGINNING

PARCEL III:

ALL that certain plot, piece or parcel of land, situate, lying and being in the Village of Larchmont, Town of Mamaroneck, County of Westchester, State of New York, consisting of 0.461 acres, shown on a certain subdivision map prepared by DeRosa Land Surveying entitled, "Subdivision of Property prepared for Metropolitan Transportation Authority situate in the Village of Larchmont, Town of Mamaroneck, Westchester County, New York", dated June 2, 2014 and filed as Map No. 28770.

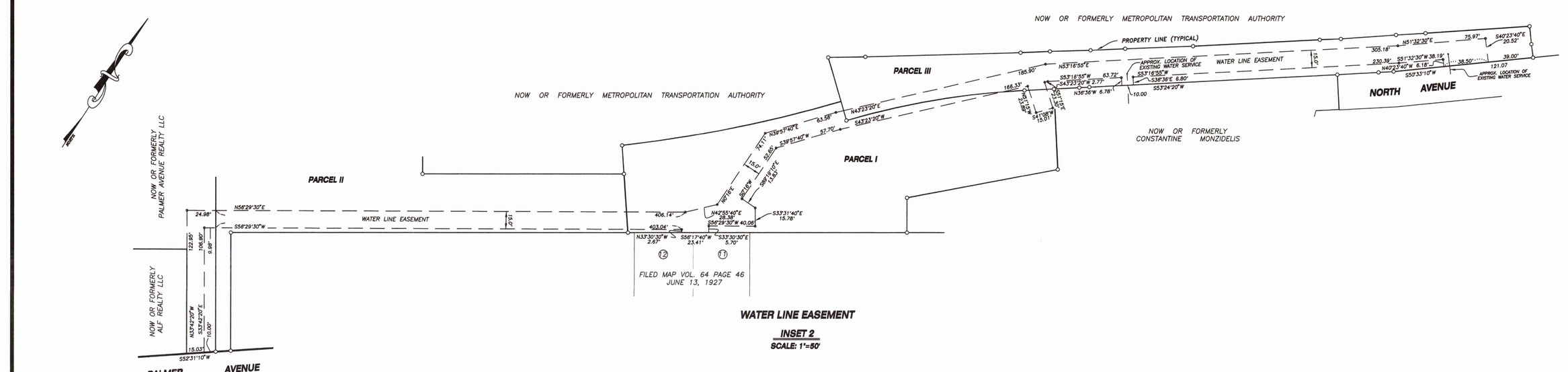


Metes and Bounds Description of BCP Site (Parcel I and Parcel II)

ALL that certain piece or parcel of land, situate, lying and being in the Village of Larchmont, Town of Mamaroneck, County of Westchester and State of New York, bounded and described as follows;

BEGINNING at a point on the northwesterly line of Palmer Avenue where it is intersected by the division line of lot 19 as shown on a map entitled "Map Amending Map No. 3 as to Blocks 8, 9, 11, 12, & 15 Larchmont Park" filed in the Westchester County Clerk's Office in Vol. 64 Pg. 46 on June 13, 1967 and lands now or formerly belonging to Larchmont Realty LLC; thence along said northwesterly line of Palmer Avenue, S52°31'10"W 13.03 feet to lands now or formerly belonging to Palmer Avenue Realty LLC; thence along said lands of Palmer Avenue Realty LLC; N33°42'20"W 209.88 feet, N56°15'10"E 25.00 feet and N33°42'20"W 24.99 feet to the lands now or formerly belonging to the Metropolitan Transportation Authority; thence along said lands of Metropolitan Transportation Authority the following courses and distances: N56°17'28"E 153.61 feet, S33°42'32"E 82.21 feet, N56°17'40"E 174.33 feet and N37°37'06"W 24.61 feet to a non-tangent curve; thence along said curve, to the left, having a radius of 1137.42, a length of 193.28 and a radial bearing of N40°09'08"W; thence S49°53'19"E 17.00 feet to a non-tangent curve; thence along said curve, to the right, having a radius of 673.85 feet, a length of 156.51 feet and a radial bearing of S49°53'19"E; thence N53°25'10"E 25.50 feet to the lands now or formerly belonging to Robert V. George; thence along said lands of George, S36°29'05"E 69.52 feet to the lands now or formerly belonging to Constantine Monzidelis; thence along said lands of Monzidelis, S45°43'17"W 132.62 feet and S33°42'20"E 30.00 feet to a point on the northwesterly line of Lot 8 on the aforementioned map in Vol. 64 Pg. 46; thence along Lots 8 through 19 on said map, S56°17'40"W 584.78 feet to the northwesterly corner of Lot 19; thence S33°42'20"E 101.29 feet to the northwesterly line of Palmer Avenue and the POINT OR PLACE OF BEGINNING.

Containing an area of 1.519 acres.

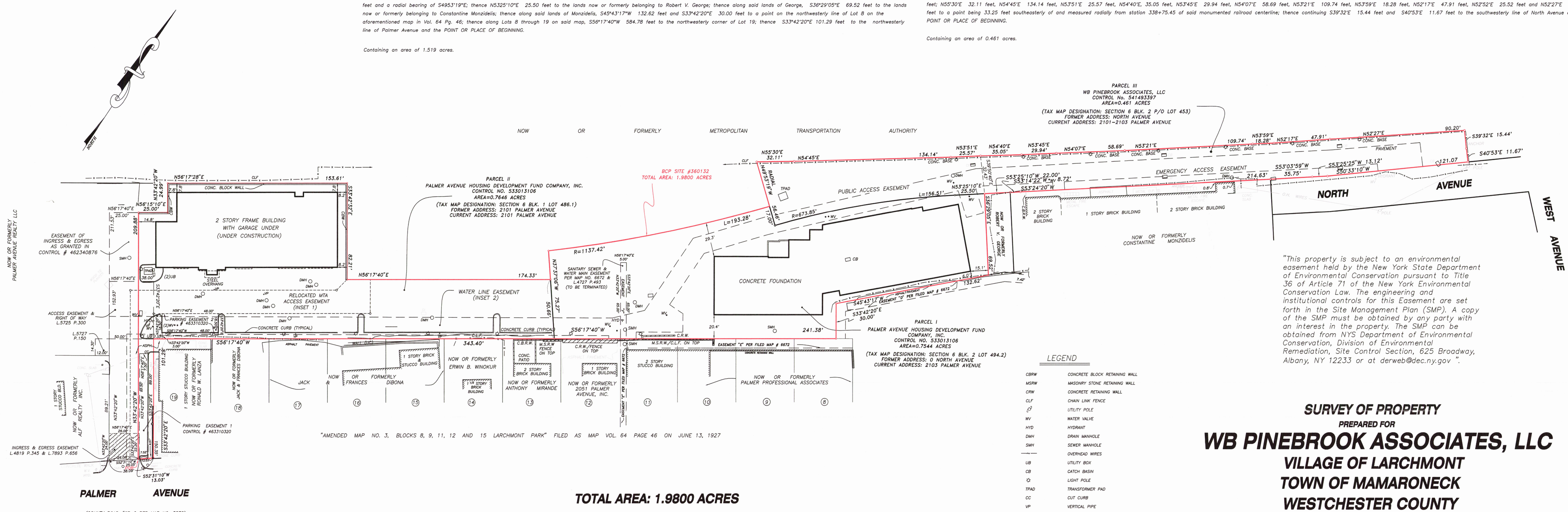


Metes and Bounds Description of BCP Site (Parcel III)

ALL that certain piece or parcel of land, situate, lying and being in the Village of Larchmont, Town of Mamaroneck, County of Westchester and State of New York, consisting of 0.461 acres as shown on a certain map entitled, "Subdivision of Property Prepared for Metropolitan Transportation Authority, etc.", prepared by DeRosa Land Surveying, PLLC and recorded in the Westchester County Clerk's office on June 2, 2014 as filed map number 28770, further bounded and described as follows:

BEGINNING at a point on the southwesterly line of North Avenue where the same is intersected by the lands now or formerly belonging to Metropolitan Transportation Authority and the northeasterly corner of the premises herein described, as shown on the aforementioned filed map; thence along said line of North Avenue, S50°33'10"W 121.07 feet, S53°25'25"W 13.12 feet and S53°03'59"W 35.75 feet to lands now or formerly belonging to 20 North Avenue, LLC; thence along said lands, S53°24'20"W 214.63 feet and S53°14'22"W 8.72 feet to lands now or formerly belonging to Robert V. George; thence along said lands of George and also along lands now or formerly belonging to Palmer Development LLC, S53°25'10"W 47.50 feet to a point of curve, said point being 65.40 feet southeasterly of and measured radially from station 334+38.28 of a monumented centerline of a railroad belonging to Metropolitan Transportation Authority; thence along said curve, to the left, having a radius of673.85 feet and a length of 156.51 feet to a point; thence N49°53'19"W 17.00 feet to the lands of Metropolitan Transportation Authority; thence running along said lands of Metropolitan Transportation Authority the following courses and distances: N49°53'19"W 39.46 feet; N55°30'E 32.11 feet, N54°45'E 134.14 feet, N53°51'E 25.57 feet, N54°40'E, 35.05 feet, N53°45'E 29.94 feet, N54°07'E 58.69 feet, N53°21'E 109.74 feet, N53°59'E 18.28 feet, N52°17'E 47.91 feet, N52°52'E 25.52 feet and N52°27'E 90.20 feet to a point being 33.25 feet southeasterly of and measured radially from station 338+75.45 of said monumented railroad centerline; thence continuing S39°32'E 15.44 feet and S40°53'E 11.67 feet to the southwesterly line of North Avenue and the POINT OR PLACE OF BEGINNING.

Containing an area of 0.461 acres.



TOTAL AREA: 1.9800 ACRES

LEGEND

CBRW	CONCRETE BLOCK RETAINING WALL
MSRW	MASONRY STONE RETAINING WALL
CRW	CONCRETE RETAINING WALL
CLF	CHAIN LINK FENCE
	UTILITY POLE
WV	WATER VALVE
HYD	HYDRANT
DMH	DRAIN MANHOLE
SMH	SEWER MANHOLE
	OVERHEAD WIRES
UB	UTILITY BOX
CB	CATCH BASIN
	LIGHT POLE
TPAD	TRANSFORMER PAD
CC	CUT CURB
VP	VERTICAL PIPE

"This property is subject to an environmental easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the New York Environmental Conservation Law. The engineering and institutional controls for this Easement are set forth in the Site Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property. The SMP can be obtained from NYS Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@dec.ny.gov ".

SURVEY OF PROPERTY
PREPARED FOR
WB PINEBROOK ASSOCIATES, LLC
VILLAGE OF LARCHMONT
TOWN OF MAMARONECK
WESTCHESTER COUNTY

SCALE: 1"=30' ***NEW YORK*** ***DATE: JUNE 22, 2015***
DATE: JULY 8, 2015
REVISED: NOVEMBER 18, 2015
REVISED: DECEMBER 9, 2015

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

GRAPHIC SCALE
0 5 10 20 40 60
(IN METERS)

15122.200
MAMARONECK\WB PINEBROOK SURVEY-INSITE.dwg

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place • Carmel, New York 10512
Phone (845) 225-9690 • Fax (845) 225-9717
www.insite-eng.com

JEFFREY E. DEROSA
New York State Licensed Land Surveyor No. 050749

Underground structures, if any exist, are not shown hereon, except as noted. The location of underground improvements or encroachments are not always known and often must be estimated. If underground improvements, easements, or encroachments exist and are neither visible during normal field survey operations nor described in instruments provided to this surveyor, they may not be shown on this map and are not certified.

Certifications indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc. Said certifications shall run only to the person for whom this survey was prepared and on his behalf to the title company, governmental agency and/or lending institution listed hereon, and to the assignees thereof.

Certifications are not transferable to additional lending institutions or subsequent owners.

This property may be affected by instruments which have not been provided to this surveyor. Users of this map should verify title with their attorney or a qualified title examiner.

Only copies from the original of this survey marked with the surveyor's embossed seal are genuine, true and correct copies of the surveyor's original work and opinion. A copy of this document without a proper application of the surveyor's embossed seal should be assumed to be an unauthorized copy.

FIELDWORK COMPLETED: MAY 22, 2015

MAP PREPARED: MAY 26, 2015

Subject Lot:

Property corner monuments were not placed as part of this survey.

This map may not be used in connection with a "Survey Affidavit" or similar document, statement or mechanism to obtain title insurance for any subsequent or future grantees.

Unauthorized alteration or addition to a survey map bearing a Licensed Land Surveyor's seal is a violation of Section 7209, sub-division 2, of the New York State Education Law.

According to NYSAPLS policy adopted January 23, 1993, the alteration of survey maps by anyone other than the original preparer is misleading, confusing and not in the general welfare and benefit of the public. Licensed Land Surveyors shall not alter survey maps, survey plans, or survey plats prepared by others.

1. *Refer to "Map Amending Map No. 3 as to Blocks 8,9,11,12,&15 Larchmont Park" filed in Volume 64 Page 46 Filed June 13, 1927.*

2. *Refer to "Survey of Land to be acquired for the Improvement of Parallel Route of the Boston Post Road- County Road 67-2" filed April 5, 1930 as Map No. 3878*

3. *Refer to "Supplementary Map of Easements for Sanitary Sewer and Water Main" filed October 11, 1948 as Map No. 6672.*

4. *Refer to a map entitled "Subdivision of Property prepared for Metropolitan Transportation Authority", filed in Westchester County Clerk's office on June 2, 2014 as Map No. 28770.*

Contaminant	Restricted Residential SCOs (ppm)	Sample Z2S2 (ppm)
Arsenic	16	**92.3**

Contaminant	Restricted Residential SCOs (ppm)	Sample Z3S2 (ppm)
Benzo(a)anthracene	1	**2.630**
Benzo(a)pyrene	1	**2.200**
Benzo(b)fluoranthene	1	**2.950**
Indeno(1,2,3-cd)pyrene	0.5	**1.580**

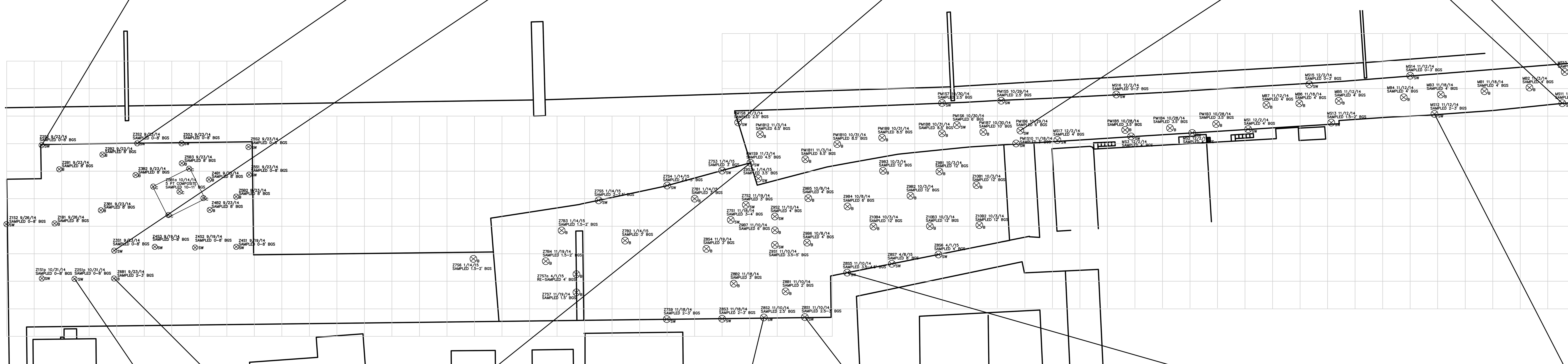
Contaminant	Restricted Residential SCOs (ppm)	Sample Z3S1 (ppm)
Benzo(b)fluoranthene	1	**1.05**
Indeno(1,2,3-cd)pyrene	0.5	**0.6**

Contaminant	Restricted Residential SCOs (ppm)	Sample PM1S8 (ppm)
Benzo(a)anthracene	1	**1.47**
Benzo(a)pyrene	1	**1.51**
Benzo(b)fluoranthene	1	**1.86**
Indeno(1,2,3-cd)pyrene	0.5	**1.02**

Contaminant	Restricted Residential SCOs (ppm)	Sample MS11 (ppm)
Benzo(b)fluoranthene	1	**1.08**
Indeno(1,2,3-cd)pyrene	0.5	**0.747**

Contaminant	Restricted Residential SCOs (ppm)	Sample MS10 (ppm)
Benzo(a)anthracene	1	**1.49**
.Benzo(a)pyrene	1	**1.73**
Benzo(b)fluoranthene	1	**1.94**
Dibenzo(a,h)anthracene	0.33	**0.377**
Indeno(1,2,3-cd)pyrene	0.5	**1.21**

Contaminant	Restricted Residential SCOs (ppm)	Sample PM1B6 (ppm)
Copper	270	**806**



Contaminant	Restricted Residential SCOs (ppm)	Sample Z6B1 (ppm)
Indeno(1,2,3-cd)pyrene	0.5	**0.515**

Contaminant	Restricted Residential SCOs (ppm)	Sample PM1S9 (ppm)
Arsenic	16	**17.9**

Contaminant	Restricted Residential SCOs (ppm)	Sample Z8S5 (ppm)
Benzo(a)anthracene	1	**7.43**
Benzo(a)pyrene	1	**6.97**
Benzo(b)fluoranthene	1	**8.09**
Dibenzo(a,h)anthracene	0.33	**1.03**
Indeno(1,2,3-cd)pyrene	0.5	**4.33**

Contaminant	Restricted Residential SCOs (ppm)	Sample MS12 (ppm)
Benzo(a)anthracene	1	**11.5**
Benzo(a)pyrene	1	**15.6**
Benzo(b)fluoranthene	1	**16.6**
Chrysene	3.9	**12.5**
Dibenzo(a,h)anthracene	0.33	**2.59**
Indeno(1,2,3-cd)pyrene	0.5	**9.99**
Arsenic	16	**23.5**

Contaminant	Restricted Residential SCOs (ppm)	Sample Z2S1p (ppm)
Benzo(a)pyrene	1	**1.03**
Benzo(b)fluoranthene	1	**1.54**
Chrysene	1	**1.16**
Indeno(1,2,3-cd)pyrene	0.5	**0.804**

Contaminant	Restricted Residential SCOs (ppm)	Sample Z8S2 (ppm)
Benzo(a)anthracene	1	**3.62**
Benzo(a)pyrene	1	**4.46**
Benzo(b)fluoranthene	1	**5.39**
Chrysene	3.9	**4**
Dibenzo(a,h)anthracene	0.33	**0.673**
Indeno(1,2,3-cd)pyrene	0.5	**3.13**

Contaminant	Restricted Residential SCOs (ppm)	Sample Z8S1 (ppm)
Benzo(a)anthracene	1	**3.38**
Benzo(a)pyrene	1	**4.34**
Benzo(b)fluoranthene	1	**5.21**
Chrysene	3.9	**4.15**
Dibenzo(a,h)anthracene	0.33	**0.633**
Indeno(1,2,3-cd)pyrene	.5	**2.83**

SAMPLE ID'S Z6B1, Z3S1, AND Z2S1P ARE LOCATED WITHIN THE BOUNDARIES OF THE SITE. CONTAMINATION AT THESE LOCATIONS IS MINIMAL AND HAS BEEN APPROVED BY THE DEPARTMENT AS HAVING MET THE REMEDY.

N

REV.	DATE	DESCRIPTION	BY
1	11/19/15	DRAFT FER MODIFICATIONS	VF

PROPOSED PINEBROOK CONDOMINIUM
2101 PALMER AVENUE, LARCHMONT, NY 10538

TRACK 2 RESTRICTED RESIDENTIAL EXCEEDANCES END POINT SAMPLING SPIDER MAP

JOB NO. 0907-001-017
DRAWN VF
CHECKED SD
APPROVED RG
SEAL

Galli Engineering, P.C.

DATE 4/15/15 | SCALE 20' GRID | DRAWING NO. 4

APPENDIX A – EXCAVATION WORK PLAN (EWP)

[A]-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the NYSDEC. Table 1includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B.

Table [1]: Notifications*

Name	**Contact Information**
R. Scott Deyette NYSDEC Project Manager	(518)-402-9662 scott.deyette@dec.ny.gov
[Central Office NYSDEC Representative]	[phone] [email address]
[Regional Office NYSDEC Representative]	[phone] [email address]
Kelly Lewandowski [NYSDEC Site Control]	(518)-402-9543 kelly.lewandowski@dec.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;

- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix C of this SMP;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

[A]-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil.

[A]-3 SOIL STAGING METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC.

[A]-4 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

The property owner is completely responsible for the safe performance of all invasive work, the structural integrity of excavations, and for structures that may be affected by excavations (such as building foundations and bridge footings).

[A]-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; (f) overall safety in transport; and [(g) community input.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

All truck tailgates and tires will be inspected for cleanliness prior to leaving the Site.

[A]-6 MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of material from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

[A]-7 MATERIALS REUSE ON-SITE

Materials reused on site will comply with the requirements of the NYSDEC DER-10 Section 5.4(e)4. 'Reuse on-site' means reuse on-Site of material that originates at the Site and which does not leave the Site during the excavation. The following summarizes the details for the methods to be followed for material reuse on-Site.

The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site.

Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots,

stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

[A]-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site. Dewatering fluids will be treated on-site and discharged to the local sewer system after meeting Westchester County Department of Environmental Facilities (WCDEF) discharge standards.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

[A]-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the RAWP. The existing cover system is comprised of a soil cover, with a minimum of 24 inches of clean soil that meets the SCOs established in 6 NYCRR Part 375-6.7(d) for restricted residential use, covering approximately 5% of the site; and asphalt pavement; concrete sidewalks; and concrete buildings covering the remaining 95% of the site. The upper six inches of the soil cover must be of sufficient quality to maintain a vegetation layer. The current demarcation layer consists of crushed stone. This will be replaced with orange snow fencing material, white geotextile or equivalent material, etc., to serve as a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in an updated SMP.

If excavation activities impact the vapor barrier, the barrier will be repaired prior to the cover system restoration.

[A]-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed in Table 375-6.8(b).

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Solid waste will not be imported onto the Site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

[A]-11 STORMWATER POLLUTION PREVENTION

The stormwater pollution prevention plan (SWPPP) addresses requirements of the New York State Stormwater Management Regulations, including physical methods to control and/or divert surface water flows and to limit the potential for erosion and migration of Site soils, via wind or water. The erosion and sediment controls of the Site will be in conformance with requirements presented in the New York State Guidelines for Urban Erosion and Sediment Control and the NYSDEC Division of Water guidelines. For excavations less than 1 acre, the

following would apply. For excavation projects exceeding 1 acre, a new SWPPP may be developed.

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

[A]-12 EXCAVATION CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline.

[A]-16 OTHER NUISANCES

A plan for rodent control maybe developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan for odor control may be developed to control emissions of nuisance odors off-site.

A plan for dust suppression may be developed for dust management during invasive on-site work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

APPENDIX [B] – LIST OF SITE CONTACTS

Name	Phone/Email Address
WB Pinebrook Associates LLC [Site Owner]	(914)6103650 bbalter@wilderbalter.com
Galli Engineering, P.C. [Qualified Environmental Professional]	(631)271-9292; rgalli@gallieng.com
R. Scott Deyette [NYSDEC DER Project Manager]	(518)402-9662; scott.deyette@dec.ny.gov
Edward Moore [NYSDEC Regional HW Engineer]	(845)256-3137; edward.moore.@dec.ny.gov
Kelley Lewanduski [Section Chief, NYSDEC Site Control]	(518)402-9553
Knauf Shaw, LLP [Remedial Party Attorney]	(585)546-8430; lshaw@nyenvlaw.com

APPENDIX C – HEALTH AND SAFETY PLAN

A Health and Safety Plan (HASP) and its associated Community Air Monitoring Plan (CAMP) will be applied to any intrusive activities. The HASP and CAMP will be updated to the most recent applicable general industry (29 CFR 1910) and construction (29 CFR 1926) standards of OSHA, the U.S. Department of Labor, as well as any other federal, state, or local applicable statutes or regulations. The CAMP will include the appropriate requirements identified by the NYSDOH, and both the CAMP and HASP will have been developed in accordance with NYSDEC's DER-10.

The HASP and CAMP developed for the site investigation and remediation will be retained as the documents for future intrusive activities. These documents will be updated in accordance with the most recent regulations, as described above, prior to the commencement of intrusive activities. These documents will also be updated, if necessary, to include procedures for specific activities. The updated HASP and CAMP will be available at the site during the conduct of all activities to which it is applicable.

HEALTH AND SAFETY PLAN
FOR:

New York, New Haven & Hartford Railroad Coal Freight Depot
MTA Easement Site
North Avenue
Larchmont, New York

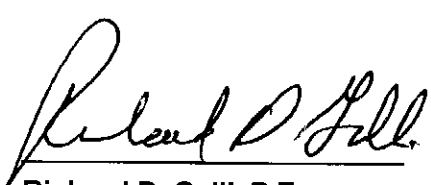
January 9, 2014

PREPARED FOR:

WB Pinebrook Associates, Inc.
570 Taxter Road, Sixth Floor
Elmsford, New York 10523

PREPARED BY:

Galli Engineering, P.C.
734 Walt Whitman Road, Suite 402A
Melville, NY 11747



Richard D. Galli, P.E.

1/9/14

Date

TABLE OF CONTENTS

APPENDICES:

1.0 PURPOSE

The currently underutilized subject Site is located immediately southeast of the MTA railway located in Larchmont, New York. The 0.46 acre Site includes a portion of the former New York, New Haven & Hartford Railroad Coal Freight Depot as well as the North Avenue emergency access roadway. The south end of the Site, also known as the MTA Easement Site, has historically been utilized as a coal storage facility. The Site does not contain any buildings, only the remains of concrete and asphalt pavements. The purpose of this Health and Safety Plan is to ensure that proper procedures are followed during the performance of the Remedial Action Work Plan (RIWP) including soil sampling, temporary well installation, groundwater sampling and soil vapor sampling. This Health and Safety Plan has been prepared to describe procedures to be employed to protect workers and to minimize nuisance impacts to adjacent properties during the period when excavation of soil and removal of bedrock are under way (the Work Period).

All persons working on the site during the Work Period will be given a copy of this Site Health and Safety Plan (HASP) for review prior to beginning excavation work at the Site. The Contractor and his sub contractors shall implement maintain and enforce these procedures during the Work Period.

The Contractor shall designate a responsible person to act as the Health and Safety Manager (HSM) for implementation of this HASP. The HSM will conduct initial site specific training and provide support for all health and safety activities as necessary, including upgrading or downgrading the level of personnel protection.

The HSM shall be assigned to the Site on a full time basis, whenever work is being performed, and be either the Contractor's employee, or a subcontractor who reports to the Contractor, in matters pertaining to site safety and health.

The following definitions shall be used throughout this specification:

1. Health and Safety Manager (HSM): The Contractor's employee or agent assigned to the Site on a full time basis for the duration of the Work Period with functional responsibility for implementation of the HASP.

2. Initial Remedial Action: An action taken to mitigate a health or safety problem so that subsequent work may have a lesser impact on worker safety or the environment.

3. Site: For the purpose of this HASP, “the Site” shall be the MTA Easement at North Avenue in Larchmont, New York.

4. Monitoring: Indicates the use of field instrumentation to provide information regarding the levels or organic vapors or dust being released during remedial action. Monitoring required by this HASP shall be conducted to evaluate employee exposures to toxic materials and potential for impacts to adjacent properties.

5. Physician: A licensed physician with experience in the practice of occupational medicine and provided by the Contractor.

2.0 REGULATORY REQUIREMENTS AND APPLICABLE PUBLICATIONS

The Site specific HASP shall be consistent with the requirements of:

1. Occupational Safety and Health Administration (OSHA) Standards and Regulations contained in Title 29, Code of Federal Regulations, Parts 1910 and 1926 (29 CFR 1910 and 1926), specifically including 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response".

2. United State Environmental Protection Agency (USEPA) Standard Operating Guidelines Revised November, 1984.

3. Corps of Engineers Accident Prevention and Safety and Health Requirements Manual, EM 385-1-1. Revised October 1984.

4. NIOSH/OSHA/USCG/EPA Occupational Safety and Health Guidance Manual for Hazardous Site Activities, October 1985, DHHS (NIOSH) Publ. No. 85-115.

5. United States Environmental Protection Agency (USEPA) Standard Operating Procedures and Quality Assurance Manual, Region IV. April 1986.

The HASP shall address, but not necessarily be limited to, the following components:

1. Names of key personnel and alternates responsible for Site Safety and Health (responsibilities and chain of command)

2. Site Description and Evaluation

3. Site Control Measures (work zones, communication, and security)

4. Safety Training

5. Emergency Equipment and First Aid Requirements

6. Personnel Protective Equipment

7. Personnel Hygiene and Decontamination

8. Air and Noise Monitoring (Environmental and Personnel)

9. Confined Space Entry Procedures

10. Equipment Decontamination

Determination of the appropriate level of worker safety equipment and procedures shall be made by the Contractor as a result of an initial site survey, review of existing data and a continuing safety and health monitoring program performed by the Contractor's HSM in accordance with the requirements specified herein.

Should any unforeseen or Site specific safety related factor, hazard, or condition become evident during the performance of work at this Site, the Contractor will bring such to the attention of the Owner both verbally and in writing as quickly as possible for resolution. In the interim, the Contractor shall take prudent action to establish and maintain safe working conditions and to safeguard employees, the public, and the environment.

3.0 SITE CONTROL

The Site will be locked during non-working hours to prevent unauthorized access. During the Work Period, all construction vehicles will be logged in and out of the Site by the HSM or his delegate.

Temporary controls will be put in place "as/where needed" to ensure safe and secure access for Site tenants (defined below).

Communications

Telephone communications will be available via cell phones. Emergency numbers, including police, fire, ambulance, hospital and DEP shall be prominently posted or available on site.

Security

In order to restrict unauthorized access to the Site, security fencing shall be provided and maintained 24 hours per day for the duration of the work. Specific components of this security operation are as follows:

1. Vehicular access to the work area shall be restricted to authorized vehicles only.
2. A log of security incidents will be maintained.
3. No visitors shall be allowed on-site without the expressed approval of the Owner.
4. Provisions will be made to ensure that open areas "those areas unable to be locked down" will be secured in a manner approved by owner (IE: temporary fencing or completion of work prior to end of working day).

Environmental Controls

Dust raised by activities will be minimized by spraying water freely on all access ways to and from the Site; on all exposed faces of any working pile; on areas traversed by construction equipment; and, at any other area where dust is seen to be created.

4.0 TRAINING

The Contractor shall be required to verify that all of his personnel assigned to or regularly entering the work area have been presented a copy of the HASP and have reviewed appropriate safety training in accordance with 29 CFR 1910.120. All contractors' workers will have received the 40 hour HAZWOPER initial training. They will also have an up-to-date 8 hour refresher course.

A Site-specific health and safety briefing will be given to all personnel who will be working in the Work Area during the Work Period to familiarize them with the Site safety procedures.

5.0 EMERGENCY EQUIPMENT AND FIRST AID

The Contractor shall be required to develop contingency plans including evacuation procedures and routes to places of refuge or safe distances from the danger area, for the following potential emergencies: chemical exposure, personal injury, potential or actual fire or explosion, and environmental accident (spill or release). In the event of any such emergency, the Contractor shall without delay take diligent action to remove or otherwise minimize the cause of the emergency. This means alerting the Owner and Institute to whatever measures may be necessary to prevent any repetition of the conditions or actions resulting in the emergency.

Emergency medical care services shall be available at a nearby medical facility with established emergency routes. The staff at the facility shall be advised of any potential unusual medical emergencies that might result.

The Contractor shall establish emergency communications with a health care facility and emergency services if warranted by anticipated site conditions. The name of this facility, name of contact, emergency routes and emergency communications arrangements are provided on the first page of this safety plan. In addition the Contractor shall provide the following equipment:

A fully stocked first aid kit shall be provided and maintained in close proximity to the Work Zone, but not inside a hazardous work area. The first aid kit shall be specially marked and provided with adequate supplies necessary to cleanse and decontaminate burns, wounds, and lesions. It shall comply with OSHA 29 CFR 1910.151 Appendix A or ANSI Z308.1-1998 "Minimum Requirements for Workplace First-aid Kits”.

6.0 PERSONNEL PROTECTIVE EQUIPMENT

During the Work Period, the Contractor and/or his sub contractors shall be required to provide all on-Site personnel with appropriate personnel safety equipment and protective clothing and will ensure that all safety equipment and protective clothing is kept clean and well maintained. "Action levels" for determining the specified minimum levels of protection shall be based upon air monitoring results and direct contact potential. Specific action levels are listed in Table 8.1. The level of personnel protection required at the Site is not expected to exceed Modified Level D. Any changes to the minimum level of protection shall be approved by the HSM and the Owner. At a minimum the following items shall be worn at all times, by all on-Site Personnel:

Modified Level D Equipment:

Appropriate work clothing for the weather conditions,
(*Including a minimum of long pants, work boots, and a shirt with sleeves.)*
Safety shoes or boots; chemical-resistant, steel toe and shank,
Hardhat,*
Safety glasses,*
Work Gloves,**
Outer, disposable, chemical resistant boots,**
Face shield.**

* - Required Personal Protective Equipment (PPE) for all on-site personnel shall be furnished by the contractor.

** - refers to optional PPE equipment, if applicable.

If air monitoring Action Levels are exceeded, STOP WORK immediately and contact the project manager.

Level C Equipment: ***(For Reference only, Level C work is not approved under this plan.)***

Appropriate work clothing for the weather conditions;
Safety shoes or boots; chemical-resistant, steel toe and shank,
Hardhat*
Safety glasses*
Full-face or half-mask air purifying, canister-equipped respirator* (NIOSH approved)
Hooded chemical-resistant clothing*
Face shield**
Gloves, inner, chemical-resistant**
Gloves, outer, chemical-resistant**
Disposable outer, chemical-resistant boot covers**
2 way radios** (worn under outside protective clothing)

* - Required Personal Protective Equipment (PPE) for all on-site personnel performing Level C work shall be furnished by the contractor.

** - refers to optional equipment, if applicable

All on-site personnel shall wear a minimum of: a hardhat, safety shoes/boots, and safety glasses at all times.

This Modified Level D shall be the minimum level of protection set for all primary operations performed at the Site, if an upgrade is required in accordance with the provisions set forth in the Air Monitoring program, the Project Manager and Health and Safety Representative must be notified prior to any upgrade in PPE.

- Footwear used on-site shall be steel-toed, steel shank safety shoes or boots, with chemical resistant soles and shall meet ASTM F2412 and F2413.
- All prescription eyeglasses in use on the Site shall be safety glasses. Prescription lens inserts shall be provided for full face respirators.
- If required, all personnel protective equipment worn on-Site shall be decontaminated or properly disposed of at the end of the work day. The HSM is responsible for ensuring all reusable personnel protective equipment is decontaminated and sanitized before being reissued.
- If required and approved, respirators shall be individually assigned and not interchanged between workers for the duration of the project. Respirators shall not be reissued without proper decontamination and disinfection.
- If required, cartridges, canisters and filters shall be changed at least daily. A procedure for assuring periodic cleaning and maintenance of facemasks and change-out of filters shall be provided by the Contractor.

7.0 PERSONAL HYGIENE AND DECONTAMINATION

During the Work Period, all on-Site personnel performing or supervising remedial work at this Site or exposed or subject to exposure to hazardous chemical vapors, liquids, or contaminated solids shall observe and adhere to the personnel hygiene-related provisions of this paragraph. The following conditions and procedures shall be followed:

1. The Contractor or his sub contractors shall be required to provide and require use by personnel of all protective clothing including disposable work clothing, safety boots, and storage and disposal containers for used disposable outerwear.

2. Portable Toilets shall be provided on the Site. Washing facilities, a facility for changing and storing clothing separate from street clothing, and a lunch and/or break room are recommended, but not required.

3. Disposable outerwear shall not be reused and when removed, shall be placed inside disposal containers provided for this purpose.

4. Smoking is prohibited at the worksite.

5. Employees must decontaminate skin and clothing before eating in the designated areas.

8.0 AIR AND NOISE MONITORING

Due to the identification of Heavy Metals, Volatile Organic Compounds (VOCs), PCBs, and Pesticides, detected in the natural soil deposits present at the Site, Air Monitoring will be performed at the Site whenever work is being performed, according to the Site Specific, Community Air Monitoring Plan (CAMP), attached as **Appendix A**.

In the event of any unseen chemical contamination, the Contractor will advise the Owner, who will call the Engineering Consultant. The Consultant will come in and monitor the work area with a photoionization detector (PID). All readings will be taken in the workers' breathing zone to determine whether an action level has been met and/or exceeded. Air monitoring results will be documented on the Air Monitoring Log (**Appendix B - Forms**).

Air monitoring action levels (Table 8.1) have been established to indicate the chemical concentrations in the breathing zone that require an upgrade in level of personal protective equipment (PPE). These action levels apply to all tasks performed on this Site. Guidelines for frequency of air monitoring are presented below.

If noise complaints are registered, noise measurements will be taken and readings compared against limits set forth by the Village of Larchmont. If required, appropriate steps will be taken to comply with the Village noise code.

.

TABLE 8.1
AIR MONITORING ACTION LEVELS

Instrument*	Function	Measurement	Action
Photoionization Detector (PID), (Measured in Breathing Zone)	Measured total organic vapors	0-5 ppm	• Level D required
		> 25 ppm	• **Stop work**. Contact PM and HSR for guidance
Oxygen/Combustible Gas Meter (O_2/LEL)	Measures oxygen level (O_2) and lower explosive limit (% LEL)	O_2 19.5-22%	• Acceptable conditions - Continue normal activity
		O_2 <19.5	• Ventilate the space • Notify PM and SSHO if unable to achieve acceptable conditions
NOTE: Combustible gas meter readings obtained in an oxygen deficient atmosphere will not be accurate		O_2 >22%	• **Leave area immediately**: this atmosphere is extremely flammable • Notify PM and SSHO
		LEL<10%	• Acceptable conditions - Continue normal activity
		LEL>10%	• **Leave area immediately** • Contact PM and SSHO for guidance on venting and other safety measures

* NOTE: Instruments must be calibrated according to manufacturer's recommendations

9.0 CONFINED SPACE ENTRY PROCEDURES AND PERMIT

NO CONFINED SPACE ENTRY IS ANTICIPATED FOR THIS WORK.

No personnel shall enter an area identified as a confined space without using the confined space entry procedures. The purpose of the confined space entry procedure is to protect employees from potentially hazardous environments and to facilitate immediate rescue in an emergency situation. A Confined Space Entry Permit must be posted at the entrance to each confined space.

DEFINITION: A Permit Required Confined Space means an enclosed space which is large enough and so configured that an employee can bodily enter and perform assigned work; has limited or restricted means for entry or exit (some examples are tanks, vessels, silos, storage bins, hoppers, vaults, pits and diked areas); is not designed for continuous employee occupancy; and has one or more of the following characteristics: (A) contains or has a known potential to contain a hazardous atmosphere (including oxygen deficient); (B) contains a material with the potential for engulfment of an entrant; (C) has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls, or a floor which slopes downward and tapers to a smaller cross-section; or (D) contains any other recognized serious safety or health hazard.

Protocol for Confined Space Entry

- Perform the appropriate air monitoring activity at various depths in the space prior to entry. Monitor for: (1) oxygen level, (2) flammable vapors, and (3) toxic vapors.
- Ventilate the atmosphere in the space so that entry may be made safely without respiratory protection. If this is not feasible, appropriate respiratory protection must be worn by authorized entrants and attendants.
- Wear appropriate respiratory protection when ventilation alone can not achieve acceptable atmospheric levels of oxygen or flammable or toxic vapors. Note: Respirators alone are not sufficient in oxygen deficient atmospheres.
- Provide emergency means of evacuation - lifelines, mechanical hoist, etc.
- Provide at least one attendant who will remain outside the confined space and who is required to stay at the entrance of the confined space.

10.0 EQUIPMENT DECONTAMINATION

All equipment used in the Work Area during the Work Period shall be decontaminated prior to leaving the Site. The procedures for decontamination of equipment shall be approved by the Engineer. The Contractor shall be responsible for monitoring all vehicle decontamination prior to exiting the Site, where required.

1. Personnel engaged in vehicle decontamination shall wear protective equipment including disposable clothing and respiratory protection (as necessary) consistent with the requirements of this HASP.

2. Decontamination will include removal of all debris from truck bodies, tailgates and tires. The debris shall be removed while in a dry state whenever possible, utilizing brooms, shovels and the like.

3. If rinsing fluids are also required, the rinseate will consist of water only. If there is an obvious need for additional cleaning surfactants, an approved environmental cleaner such as “Alconox®” will be utilized.

APPENDIX A

COMMUNITY AIR MONITORING PLAN

COMMUNITY AIR MONITORING PLAN

New York, New Haven & Hartford Railroad Coal Freight Depot
MTA Easement Site
North Avenue
Larchmont, New York

January 9, 2014

Prepared for:

WB Pinebrook Associates, LLC
570 Taxter Road, Sixth Floor
Elmsford, New York 10523

Prepared by:

Galli Engineering, P.C.
734 Walt Whitman Rd., Suite 402A
Melville, NY 11747

Community Air Monitoring Plan

Real-time air monitoring for volatile organic compounds (VOCs) and particulate levels at the perimeter of the exclusion zone or work area will be performed. Continuous monitoring will be performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pit excavation or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be performed during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. Periodic monitoring during sample collection, for instance, will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. Depending upon the proximity of potentially exposed individuals, continuous monitoring may be performed during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence. Exceedances of action levels observed during performance of the Community Air Monitoring Plan (CAMP) will be reported to the DEC Project Manager and included in the Daily Report.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis during invasive work. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions.

The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown.

All 15-minute readings must be recorded and be available for DEC personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter ($\mu g/m^3$) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 $\mu g/m^3$ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 $\mu g/m^3$ above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 $\mu g/m^3$ of the upwind level and in preventing visible dust migration.

All readings will be recorded and be available for DEC personnel to review.

APPENDIX B

FORMS

SITE EMERGENCY FORM

Contaminants of Concern: Volatile Organic Compounds, Semi Volatile Organic Compounds and Heavy Metals.

Minimum Level of Protection: Modified Level D - Minimum of Hard Hat, Work Boots and Safety Glasses.

Do not endanger your life. Survey the situation before taking any action

SITE LOCATION ADDRESS:

PROPOSED PINEBROOK CONDOMINUMS
MTA Easement
North Avenue
Larchmont, New York

EMERGENCY PHONE NUMBERS

IN THE EVENT OF ANY EMERGENCY, CONTACT PROJECT MANAGER OR HEALTH AND SAFETY REPRESENTATIVE.

Ambulance: 911
Fire: 911
Police (Precinct):
Poison Control: 1-800-222-1222

Project Manager: (631) 271-9292 Richard Galli, P.E.
Health/Safety Rep: (631) 271-9292

Hospital Name: **New Rochelle Hospital, 16 Guion Place, New Rochelle, NY 10801**

Hospital Phone: General Information: **(914) 632-5000**

FIRST AID FOR PETROLEUM HYDROCARBON EMERGENCIES

Ingestion: **DO NOT INDUCE VOMITING**. Call Poison Control, follow instructions. Administer CPR if necessary. Seek Medical attention.

Inhalation: Remove person from contaminated environment. **DO NOT ENTER A CONFINED SPACE TO RESCUE SOMEONE WHO HAS BEEN OVERCOME UNLESS PROPERLY EQUIPPED AND A STANDBY PERSON IS PRESENT**. Administer CPR if necessary. Seek medical attention.

Skin Contact: Brush off dry material, remove wet or contaminated clothing. Flush skin thoroughly with water. Seek medical attention if irritation persists.

Eye Contact: Flush eyes with water for 15 minutes. Seek medical attention.

Exposure Symptoms: Headache, dizziness, nausea, drowsiness, irritation of eyes, nose, throat breathing difficulties.

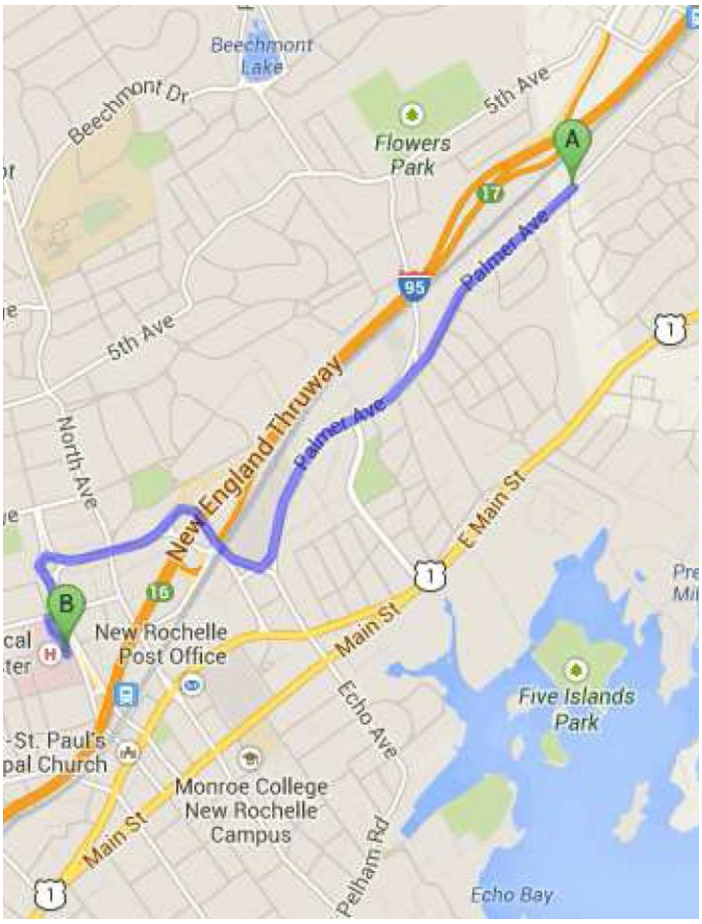
Contingency Plan: Report incident to Project Manager after emergency procedures have been implemented.

HOSPITAL INFORMATION

New Rochelle Hospital
16 Guion Place
New Rochelle, NY 10801

Phone: (914) 632-5000

MAP TO HOSPITAL



ROUTE TO HOSPITAL

Hospital Directions	
1. Head **southwest** on **Palmer Avenue** toward **Harrison Drive**	0.2 mi
2. Turn right onto **River Street**	0.1 mi
3. Continue onto **Cedar Street**	443 ft
4. Slight left to stay on **Cedar Street**	0.2 mi
5. Continue onto **Memorial Highway**	0.2 mi
6. At the traffic circle, take the **2nd** exit onto **Norman Rockwell Boulevard**	0.2 mi
7. Turn right onto **Lockwood Ave**	131 ft
8. Take the first left onto **Guion Place.**	0.1 mi
Hospital will be on the right	

EMERGENCY FIRST AID

1. Survey the situation. Do not endanger your own life. **DO NOT ENTER A CONFINED SPACE TO RESCUE SOMEONE WHO HAS BEEN OVERCOME UNLESS PROPERLY EQUIPPED AND A STANDBY PERSON IS PRESENT.**

2. Call 911 or the fire department **IMMEDIATELY**. Explain the physical injury, chemical exposure, fire or release.

3. Decontaminate the victim without delaying life-saving procedures.

4. If the victim's condition appears to be noncritical, but seems to be more severe than minor cuts, he/she should be transported to the nearest hospital by trained Emergency Medical Services (EMS) personnel. Let the doctor assume the responsibility for determining the severity of the injury. If the condition is obviously serious, EMS must transport the victim.

5. Notify the Project Manager.

EMERGENCY FIRST AID PROCEDURES	
To Stop Bleeding	Cardiopulmonary Resuscitation (CPR) **Only to be used by trained persons**
1. Give medical statement. 2. Assure airway, breathing and circulation. 3. Use **DIRECT PRESSURE** over the wound with clean dressing or your hand (use nonpermeable gloves). Direct pressure will control most bleeding. 4. Bleeding from an artery or several injury sites may require **DIRECT PRESSURE** on a **PRESSURE POINT**. Use pressure points for 30-60 seconds to help control severe bleeding. 5. Continue primary care and seek medical aid as needed.	1. Give medical statement 2. Arousal: Check for consciousness. 3. Open airway with chin-lift. 4. Look, listen and feel for breathing. 5. If breathing is absent, give 2 full rescue breaths. 6. Check the pulse for 5 to 10 seconds. 7. If pulse if present, continue rescue breathing: **1 breath every 5 seconds.**

MSDS DEFINITIONS

TLV-TWA	**Threshold Limit Value - Time Weighted Average** - The time-weighted average concentration for a normal 8-hour work day and a 40-hour work week, to which nearly all workers may be repeatedly exposed without adverse effect.
PEL	**Permissible Exposure Limit** - Time-weighted average concentrations similar to (and in many cases derived from) the Threshold Limit Values.
REL	**Recommended Exposure Limit** - as defined by NIOSH similar to the Threshold Limit Values.
IDLH	**Immediately Dangerous to Life or Health** - Any atmospheric condition that poses an immediate threat to life, or which is likely to result in acute or immediate severe health effects. Oxygen deficiency is IDLH.
LEL	**Lower Explosive Limit** - The minimum concentration of vapor in air below which propagation of a flame will not occur in the presence of an ignition source.
UEL	**Upper Explosive Limit** - The maximum concentration of vapor in air above which propagation of a flame will not occur in the presence of an ignition source.
FP	**Flash Point** - The lowest temperature at which the vapor of a combustible liquid can be made to ignite momentarily in air.
VP	**Vapor Pressure** - The pressure characteristic at any given temperature of a vapor in equilibrium with its liquid or solid form, often expressed in millimeters of mercury (mm Hg).
Odor Threshold	A property displayed by a particular compound. Low detection indicates a physiological sensation due to molecular contact with the olfactory nervous system (based on 50% of the population).
IP	**Ionization Potential** - The energy required to form an ion by removal of a given electron from an atom.

CONTAMINANTS PROFILE

Chemical	Exposure Route	Symptoms of Overexposure	Incompatibilities
Volatile Organic Compounds	Inhalation and/or ingestion, skin contact	Eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system.	
Semi-Volatile Organic Compounds	Inhalation and/or ingestion, skin contact	Eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system.	
Heavy Metals	Inhalation and/or ingestion, skin contact	Abdominal discomfort, nausea and/or constipation, diarrhea, metallic taste, weakness, muscle pains, irritability, headache, dizziness.	
Lead	Inhalation, ingestion, skin and/or eye contact	Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension	Strong oxidizers, hydrogen peroxide, acids
Mercury	Inhalation, skin absorption, ingestion, skin and/or eye contact	Paresthesia; ataxia, dysarthria; vision, hearing disturbance; spasticity, jerking limbs; dizziness; salivation; lacrimation (discharge of tears); nausea, vomiting, diarrhea, constipation; skin burns; emotional disturbance; kidney injury; possible teratogenic effects	Strong oxidizers such as chlorine

VAPOR MONITORING FORM

Date	Time	PID Reading	Explosimeter Reading		Location	Initials
			%LEL	O_2		

VISITOR/TENANT/TRAINEE GUIDELINES

Galli Engineering is committed to providing a safe environment on all work sites for visitors, tenants, trainees, employees and/or passersby. In order to accomplish this, the following guidelines must be followed.

1. **VISITORS**

   Any person not actively participating in the work at the Site is regarded as a "visitor" and must follow these visitor/trainee guidelines. Visitors must be accompanied by an authorized representative while on Site.

   Sites must be marked with signs, placards, and/or barricades to designate hazardous boundaries. Visitors will not be allowed on any site that is not adequately marked.

2. **TENANTS**

   Any person not participating in the work at the Site yet requiring access per employment with Site occupant is regarded as a “tenant”. However, the subject Site is currently vacant and does not have any tenants.

   On projects where Tenants do exist on the Site, Tenants will be provided a “work plan” showing areas of work, durations, any potential issues that may arise from said activities and any precautions deemed prudent by project management team/Health and Safety Representatives that are being taken.

   Due diligence and all applicable precautions will be taken during activities impacting tenant access/workspace to ensure tenant safety and security.

   As required, Tenant groups to be provided with:

   Health and Safety Representative contact details
   Emergency phone number list
   Project Management contact list
   Site Emergency Form
   First Aid directions
   Hospital Directions

3. **TRAINEES**

Trainees are employees of Galli Engineering or their representatives who have not yet completed the required safety training program. New hires and in-house company transfers will be considered trainees until safety training requirements are met.

Trainees will be informed of restrictions by their supervisor and must abide by them before visiting active sites.

Trainees will be permitted to visit Galli Engineering sites as observers provided the following conditions are met:

- Trainees are supervised at all times while observing on Site.
- Trainees do not perform work functions of any type while on Site.
- Trainees do not handle any equipment, tools and/or supplies while on Site.
- Trainees do not enter any hazardous or hot zone or confined space areas while on Site.

Supervisors will be responsible for informing trainees of the above conditions and for ensuring that the conditions are met. Supervisors will also ensure that trainees will not be asked to violate the conditions listed above.

A Trainee/Visitor Agreement Form must be signed by both the trainee and the supervisor.

Infractions of the above agreement are extremely serious. Violators will be subject to discipline up to and including termination for either the trainee and/or supervisor.

AGREEMENT AND ACKNOWLEDGMENT STATEMENT

Health and Safety Plan Agreement

Galli personnel have the authority to stop activities performed by our subcontractors or visitors at this Site if any field activity is not performed in accordance with the requirements of this Health and Safety Plan and as per directive of the Site Supervisor (SS).

All Galli Engineering, P.C. Project personnel, subcontractor personnel, and visitors are required to sign the following agreement.

1. I have read and fully understand the Health and Safety Plan (HASP) and my individual responsibilities.

2. I agree to abide by the provisions of the Health and Safety Plan (HASP).

Printed Name: _____

Signature: _____

Company: _____

Date: _____

DAILY REPORT

MTA Easement Site
North Avenue
Larchmont, New York

Date: _____ **Prepared By: _____**

ENVIRONMENTAL SAMPLING RESULTS:

PARAMETER	TIME	SAMPLE LOCATION	RESULT

Signed: _____

HEALTH AND SAFETY PLAN
For Remedial Investigation Work Plan

Chatsworth Coal and Supply
North Avenue and 2101 Palmer Avenue
Larchmont, New York

BCP Site No.: C360132

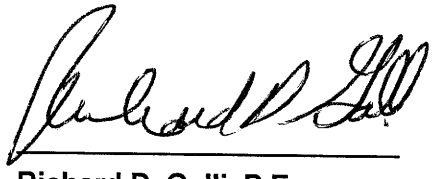
November 22, 2013

PREPARED FOR:

WB Pinebrook Associates, Inc.
570 Taxter Road, Sixth Floor
Elmsford, New York 10523

PREPARED BY:

Galli Engineering, P.C.
734 Walt Whitman Road, Suite 402A
Melville, NY 11747



Richard D. Galli, P.E.

11/22/13
Date

TABLE OF CONTENTS

APPENDICES:

1.0 PURPOSE

The currently vacant Site is located at 2101 Palmer Avenue in Larchmont, New York. The Site has historically been utilized for as a coal storage facility and in October 2013 was accepted into the Brownfield Cleanup Program. The purpose of this Health and Safety Plan is to ensure that proper procedures are followed during the performance of the Remedial Action Work Plan (RIWP) including soil sampling, temporary well installation, and groundwater sampling. This Health and Safety Plan has been prepared to describe procedures to be employed to protect workers and to minimize nuisance impacts to adjacent properties during the period when excavation of soil and removal of bedrock are under way (the Work Period).

All persons working on the site during the Work Period will be given a copy of this Site Health and Safety Plan (HASP) for review prior to beginning excavation work at the Site. The Contractor and his sub contractors shall implement maintain and enforce these procedures during the Work Period.

The Contractor shall designate a responsible person to act as the Health and Safety Manager (HSM) for implementation of this HASP. The HSM will conduct initial site specific training and provide support for all health and safety activities as necessary, including upgrading or downgrading the level of personnel protection.

The HSM shall be assigned to the Site on a full time basis, whenever work is being performed, and be either the Contractor's employee, or a subcontractor who reports to the Contractor, in matters pertaining to site safety and health.

The following definitions shall be used throughout this specification:

1. Health and Safety Manager (HSM): The Contractor's employee or agent assigned to the Site on a full time basis for the duration of the Work Period with functional responsibility for implementation of the HASP.

2. Initial Remedial Action: An action taken to mitigate a health or safety problem so that subsequent work may have a lesser impact on worker safety or the environment.

3. Site: For the purpose of this HASP, “the Site” shall be the entire construction site at 2101 Palmer Avenue in Larchmont, New York.

4. Monitoring: Indicates the use of field instrumentation to provide information regarding the levels or organic vapors or dust being released during remedial action. Monitoring required by this HASP shall be conducted to evaluate employee exposures to toxic materials and potential for impacts to adjacent properties.

5. Physician: A licensed physician with experience in the practice of occupational medicine and provided by the Contractor.

2.0 REGULATORY REQUIREMENTS AND APPLICABLE PUBLICATIONS

The Site specific HASP shall be consistent with the requirements of:

1. Occupational Safety and Health Administration (OSHA) Standards and Regulations contained in Title 29, Code of Federal Regulations, Parts 1910 and 1926 (29 CFR 1910 and 1926), specifically including 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response".

2. United State Environmental Protection Agency (USEPA) Standard Operating Guidelines Revised November, 1984.

3. Corps of Engineers Accident Prevention and Safety and Health Requirements Manual, EM 385-1-1. Revised October 1984.

4. NIOSH/OSHA/USCG/EPA Occupational Safety and Health Guidance Manual for Hazardous Site Activities, October 1985, DHHS (NIOSH) Publ. No. 85-115.

5. United States Environmental Protection Agency (USEPA) Standard Operating Procedures and Quality Assurance Manual, Region IV. April 1986.

The HASP shall address, but not necessarily be limited to, the following components:

1. Names of key personnel and alternates responsible for Site Safety and Health (responsibilities and chain of command)

2. Site Description and Evaluation

3. Site Control Measures (work zones, communication, and security)

4. Safety Training

5. Emergency Equipment and First Aid Requirements

6. Personnel Protective Equipment

7. Personnel Hygiene and Decontamination

8. Air and Noise Monitoring (Environmental and Personnel)

9. Confined Space Entry Procedures

10. Equipment Decontamination

Determination of the appropriate level of worker safety equipment and procedures shall be made by the Contractor as a result of an initial site survey, review of existing data and a continuing safety and health monitoring program performed by the Contractor's HSM in accordance with the requirements specified herein.

Should any unforeseen or Site specific safety related factor, hazard, or condition become evident during the performance of work at this Site, the Contractor will bring such to the attention of the Owner both verbally and in writing as quickly as possible for resolution. In the interim, the Contractor shall take prudent action to establish and maintain safe working conditions and to safeguard employees, the public, and the environment.

3.0 SITE CONTROL

The Site will be locked during non-working hours to prevent unauthorized access. During the Work Period, all construction vehicles will be logged in and out of the Site by the HSM or his delegate.

Temporary controls will be put in place "as/where needed" to ensure safe and secure access for Site tenants (defined below).

Communications

Telephone communications will be available via cell phones. Emergency numbers, including police, fire, ambulance, hospital and DEP shall be prominently posted or available on site.

Security

In order to restrict unauthorized access to the Site, security fencing shall be provided and maintained 24 hours per day for the duration of the work. Specific components of this security operation are as follows:

1. Vehicular access to the work area shall be restricted to authorized vehicles only.
2. A log of security incidents will be maintained.
3. No visitors shall be allowed on-site without the expressed approval of the Owner.
4. Provisions will be made to ensure that open areas "those areas unable to be locked down" will be secured in a manner approved by owner (IE: temporary fencing or completion of work prior to end of working day).

Environmental Controls

Dust raised by activities will be minimized by spraying water freely on all access ways to and from the Site; on all exposed faces of any working pile; on areas traversed by construction equipment; and, at any other area where dust is seen to be created.

4.0 TRAINING

The Contractor shall be required to verify that all of his personnel assigned to or regularly entering the work area have been presented a copy of the HASP and have reviewed appropriate safety training in accordance with 29 CFR 1910.120. All contractors' workers will have received the 40 hour HAZWOPER initial training. They will also have an up-to-date 8 hour refresher course.

A Site-specific health and safety briefing will be given to all personnel who will be working in the Work Area during the Work Period to familiarize them with the Site safety procedures.

5.0 EMERGENCY EQUIPMENT AND FIRST AID

The Contractor shall be required to develop contingency plans including evacuation procedures and routes to places of refuge or safe distances from the danger area, for the following potential emergencies: chemical exposure, personal injury, potential or actual fire or explosion, and environmental accident (spill or release). In the event of any such emergency, the Contractor shall without delay take diligent action to remove or otherwise minimize the cause of the emergency. This means alerting the Owner and Institute to whatever measures may be necessary to prevent any repetition of the conditions or actions resulting in the emergency.

Emergency medical care services shall be available at a nearby medical facility with established emergency routes. The staff at the facility shall be advised of any potential unusual medical emergencies that might result.

The Contractor shall establish emergency communications with a health care facility and emergency services if warranted by anticipated site conditions. The name of this facility, name of contact, emergency routes and emergency communications arrangements are provided on the first page of this safety plan. In addition the Contractor shall provide the following equipment:

A fully stocked first aid kit shall be provided and maintained in close proximity to the Work Zone, but not inside a hazardous work area. The first aid kit shall be specially marked and provided with adequate supplies necessary to cleanse and decontaminate burns, wounds, and lesions. It shall comply with OSHA 29 CFR 1910.151 Appendix A or ANSI Z308.1-1998 "Minimum Requirements for Workplace First-aid Kits".

6.0 PERSONNEL PROTECTIVE EQUIPMENT

During the Work Period, the Contractor and/or his sub contractors shall be required to provide all on-Site personnel with appropriate personnel safety equipment and protective clothing and will ensure that all safety equipment and protective clothing is kept clean and well maintained. "Action levels" for determining the specified minimum levels of protection shall be based upon air monitoring results and direct contact potential. Specific action levels are listed in Table 8.1. The level of personnel protection required at the Site is not expected to exceed Modified Level D. Any changes to the minimum level of protection shall be approved by the HSM and the Owner. At a minimum the following items shall be worn at all times, by all on-Site Personnel:

Modified Level D Equipment:

Appropriate work clothing for the weather conditions,
(*Including a minimum of long pants, work boots, and a shirt with sleeves.)*
Safety shoes or boots; chemical-resistant, steel toe and shank,
Hardhat,*
Safety glasses,*
Work Gloves,**
Outer, disposable, chemical resistant boots,**
Face shield.**

* - Required Personal Protective Equipment (PPE) for all on-site personnel shall be furnished by the contractor.

** - refers to optional PPE equipment, if applicable.

If air monitoring Action Levels are exceeded, STOP WORK immediately and contact the project manager.

Level C Equipment: ***(For Reference only, Level C work is not approved under this plan.)***

Appropriate work clothing for the weather conditions;
Safety shoes or boots; chemical-resistant, steel toe and shank,
Hardhat*
Safety glasses*
Full-face or half-mask air purifying, canister-equipped respirator* (NIOSH approved)
Hooded chemical-resistant clothing*
Face shield**
Gloves, inner, chemical-resistant**
Gloves, outer, chemical-resistant**
Disposable outer, chemical-resistant boot covers**
2 way radios** (worn under outside protective clothing)

* - Required Personal Protective Equipment (PPE) for all on-site personnel performing Level C work shall be furnished by the contractor.

** - refers to optional equipment, if applicable

All on-site personnel shall wear a minimum of: a hardhat, safety shoes/boots, and safety glasses at all times.

This Modified Level D shall be the minimum level of protection set for all primary operations performed at the Site, if an upgrade is required in accordance with the provisions set forth in the Air Monitoring program, the Project Manager and Health and Safety Representative must be notified prior to any upgrade in PPE.

- Footwear used on-site shall be steel-toed, steel shank safety shoes or boots, with chemical resistant soles and shall meet ASTM F2412 and F2413.
- All prescription eyeglasses in use on the Site shall be safety glasses. Prescription lens inserts shall be provided for full face respirators.
- If required, all personnel protective equipment worn on-Site shall be decontaminated or properly disposed of at the end of the work day. The HSM is responsible for ensuring all reusable personnel protective equipment is decontaminated and sanitized before being reissued.
- If required and approved, respirators shall be individually assigned and not interchanged between workers for the duration of the project. Respirators shall not be reissued without proper decontamination and disinfection.
- If required, cartridges, canisters and filters shall be changed at least daily. A procedure for assuring periodic cleaning and maintenance of facemasks and change-out of filters shall be provided by the Contractor.

7.0 PERSONAL HYGIENE AND DECONTAMINATION

During the Work Period, all on-Site personnel performing or supervising remedial work at this Site or exposed or subject to exposure to hazardous chemical vapors, liquids, or contaminated solids shall observe and adhere to the personnel hygiene-related provisions of this paragraph. The following conditions and procedures shall be followed:

1. The Contractor or his sub contractors shall be required to provide and require use by personnel of all protective clothing including disposable work clothing, safety boots, and storage and disposal containers for used disposable outerwear.

2. Portable Toilets shall be provided on the Site. Washing facilities, a facility for changing and storing clothing separate from street clothing, and a lunch and/or break room are recommended, but not required.

3. Disposable outerwear shall not be reused and when removed, shall be placed inside disposal containers provided for this purpose.

4. Smoking is prohibited at the worksite.

5. Employees must decontaminate skin and clothing before eating in the designated areas.

8.0 AIR AND NOISE MONITORING

Due to the identification of Heavy Metals, Volatile Organic Compounds (VOCs), PCBs, and Pesticides, detected in the natural soil deposits present at the Site, Air Monitoring will be performed at the Site whenever work is being performed, according to the Site Specific, Community Air Monitoring Plan (CAMP), attached as **Appendix A**.

In the event of any unseen chemical contamination, the Contractor will advise the Owner, who will call the Engineering Consultant. The Consultant will come in and monitor the work area with a photoionization detector (PID). All readings will be taken in the workers' breathing zone to determine whether an action level has been met and/or exceeded. Air monitoring results will be documented on the Air Monitoring Log (**Appendix B - Forms**).

Air monitoring action levels (Table 8.1) have been established to indicate the chemical concentrations in the breathing zone that require an upgrade in level of personal protective equipment (PPE). These action levels apply to all tasks performed on this Site. Guidelines for frequency of air monitoring are presented below.

If noise complaints are registered, noise measurements will be taken and readings compared against limits set forth by the Village of Larchmont. If required, appropriate steps will be taken to comply with the Village noise code.

.

TABLE 8.1
AIR MONITORING ACTION LEVELS

Instrument*	Function	Measurement	Action
Photoionization Detector (PID), (Measured in Breathing Zone)	Measured total organic vapors	0-5 ppm	• Level D required
		> 25 ppm	• **Stop work**. Contact PM and HSR for guidance
Oxygen/Combustible Gas Meter (O_2/LEL)	Measures oxygen level (O_2) and lower explosive limit (% LEL)	O_2 19.5-22%	• Acceptable conditions - Continue normal activity
		O_2 <19.5	• Ventilate the space • Notify PM and SSHO if unable to achieve acceptable conditions
NOTE: Combustible gas meter readings obtained in an oxygen deficient atmosphere will not be accurate		O_2 >22%	• **Leave area immediately**: this atmosphere is extremely flammable • Notify PM and SSHO
		LEL<10%	• Acceptable conditions - Continue normal activity
		LEL>10%	• **Leave area immediately** • Contact PM and SSHO for guidance on venting and other safety measures

* NOTE: Instruments must be calibrated according to manufacturer's recommendations

9.0 CONFINED SPACE ENTRY PROCEDURES AND PERMIT

NO CONFINED SPACE ENTRY IS ANTICIPATED FOR THIS WORK.

No personnel shall enter an area identified as a confined space without using the confined space entry procedures. The purpose of the confined space entry procedure is to protect employees from potentially hazardous environments and to facilitate immediate rescue in an emergency situation. A Confined Space Entry Permit must be posted at the entrance to each confined space.

DEFINITION: A Permit Required Confined Space means an enclosed space which is large enough and so configured that an employee can bodily enter and perform assigned work; has limited or restricted means for entry or exit (some examples are tanks, vessels, silos, storage bins, hoppers, vaults, pits and diked areas); is not designed for continuous employee occupancy; and has one or more of the following characteristics: (A) contains or has a known potential to contain a hazardous atmosphere (including oxygen deficient); (B) contains a material with the potential for engulfment of an entrant; (C) has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls, or a floor which slopes downward and tapers to a smaller cross-section; or (D) contains any other recognized serious safety or health hazard.

Protocol For Confined Space Entry

- Perform the appropriate air monitoring activity at various depths in the space prior to entry. Monitor for: (1) oxygen level, (2) flammable vapors, and (3) toxic vapors.
- Ventilate the atmosphere in the space so that entry may be made safely without respiratory protection. If this is not feasible, appropriate respiratory protection must be worn by authorized entrants and attendants.
- Wear appropriate respiratory protection when ventilation alone can not achieve acceptable atmospheric levels of oxygen or flammable or toxic vapors. Note: Respirators alone are not sufficient in oxygen deficient atmospheres.
- Provide emergency means of evacuation - lifelines, mechanical hoist, etc.
- Provide at least one attendant who will remain outside the confined space and who is required to stay at the entrance of the confined space.

10.0 EQUIPMENT DECONTAMINATION

All equipment used in the Work Area during the Work Period shall be decontaminated prior to leaving the Site. The procedures for decontamination of equipment shall be approved by the Engineer. The Contractor shall be responsible for monitoring all vehicle decontamination prior to exiting the Site, where required.

1. Personnel engaged in vehicle decontamination shall wear protective equipment including disposable clothing and respiratory protection (as necessary) consistent with the requirements of this HASP.

2. Decontamination will include removal of all debris from truck bodies, tailgates and tires. The debris shall be removed while in a dry state whenever possible, utilizing brooms, shovels and the like.

3. If rinsing fluids are also required, the rinseate will consist of water only. If there is an obvious need for additional cleaning surfactants, an approved environmental cleaner such as "Alconox®" will be utilized.

APPENDIX A

COMMUNITY AIR MONITORING PLAN

APPENDIX B

FORMS

SITE EMERGENCY FORM

Contaminants of Concern: Volatile Organic Compounds, Semi Volatile Organic Compounds and Heavy Metals.

Minimum Level of Protection: Modified Level D - Minimum of Hard Hat, Work Boots and Safety Glasses.

Do not endanger your life. Survey the situation before taking any action

SITE LOCATION ADDRESS:

PROPOSED PINEBROOK CONDOMINUMS
North Avenue and 2101 Palmer Avenue
Larchmont, New York

EMERGENCY PHONE NUMBERS

IN THE EVENT OF ANY EMERGENCY, CONTACT PROJECT MANAGER OR HEALTH AND SAFETY REPRESENTATIVE.

Ambulance: 911
Fire: 911
Police (Precinct):
Poison Control: 1-800-222-1222

Project Manager: (631) 271-9292 Richard Galli, P.E.
Health/Safety Rep: (631) 271-9292

Hospital Name: **New Rochelle Hospital, 16 Guion Place, New Rochelle, NY 10801**

Hospital Phone: General Information: **(914) 632-5000**

FIRST AID FOR PETROLEUM HYDROCARBON EMERGENCIES

Ingestion: **DO NOT INDUCE VOMITING**. Call Poison Control, follow instructions. Administer CPR if necessary. Seek Medical attention.

Inhalation: Remove person from contaminated environment. **DO NOT ENTER A CONFINED SPACE TO RESCUE SOMEONE WHO HAS BEEN OVERCOME UNLESS PROPERLY EQUIPPED AND A STANDBY PERSON IS PRESENT**. Administer CPR if necessary. Seek medical attention.

Skin Contact: Brush off dry material, remove wet or contaminated clothing. Flush skin thoroughly with water. Seek medical attention if irritation persists.

Eye Contact: Flush eyes with water for 15 minutes. Seek medical attention.

Exposure Symptoms: Headache, dizziness, nausea, drowsiness, irritation of eyes, nose, throat breathing difficulties.

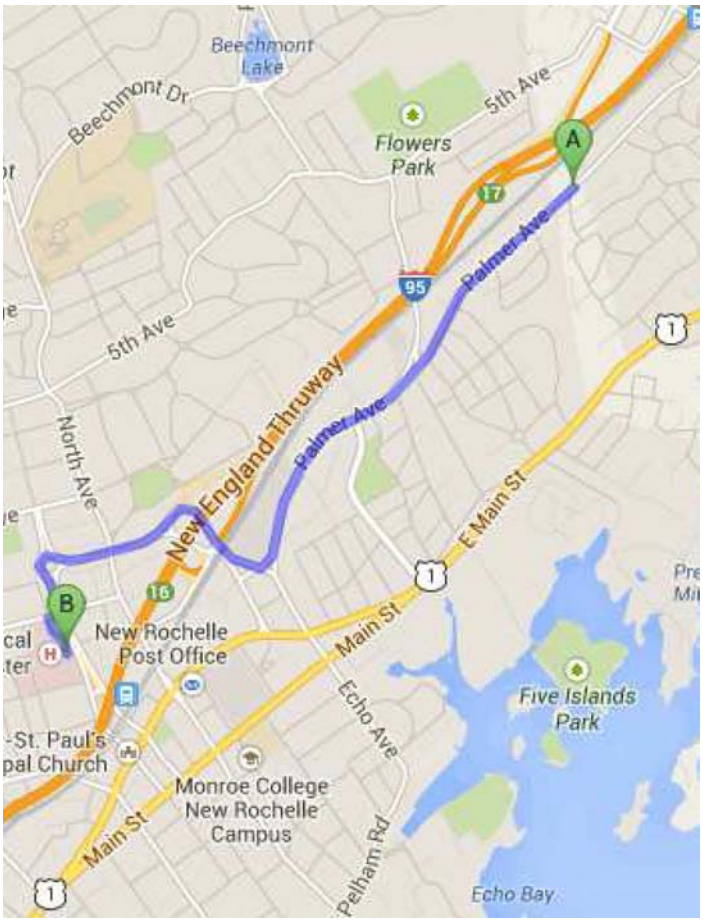
Contingency Plan: Report incident to Project Manager after emergency procedures have been implemented.

HOSPITAL INFORMATION

New Rochelle Hospital
16 Guion Place
New Rochelle, NY 10801

Phone: (914) 632-5000

MAP TO HOSPITAL



ROUTE TO HOSPITAL

Hospital Directions	
1. Head **southwest** on **Palmer Avenue** toward **Harrison Drive**	0.2 mi
2. Turn right onto **River Street**	0.1 mi
3. Continue onto **Cedar Street**	443 ft
4. Slight left to stay on **Cedar Street**	0.2 mi
5. Continue onto **Memorial Highway**	0.2 mi
6. At the traffic circle, take the **2nd** exit onto **Norman Rockwell Boulevard**	0.2 mi
7. Turn right onto **Lockwood Ave**	131 ft
8. Take the first left onto **Guion Place.**	0.1 mi
Hospital will be on the right	

EMERGENCY FIRST AID

1. Survey the situation. Do not endanger your own life. **DO NOT ENTER A CONFINED SPACE TO RESCUE SOMEONE WHO HAS BEEN OVERCOME UNLESS PROPERLY EQUIPPED AND A STANDBY PERSON IS PRESENT.**

2. Call 911 or the fire department **IMMEDIATELY**. Explain the physical injury, chemical exposure, fire or release.

3. Decontaminate the victim without delaying life-saving procedures.

4. If the victim's condition appears to be noncritical, but seems to be more severe than minor cuts, he/she should be transported to the nearest hospital by trained Emergency Medical Services (EMS) personnel. Let the doctor assume the responsibility for determining the severity of the injury. If the condition is obviously serious, EMS must transport the victim.

5. Notify the Project Manager.

EMERGENCY FIRST AID PROCEDURES	
To Stop Bleeding	Cardiopulmonary Resuscitation (CPR) **Only to be used by trained persons**
1. Give medical statement. 2. Assure airway, breathing and circulation. 3. Use **DIRECT PRESSURE** over the wound with clean dressing or your hand (use nonpermeable gloves). Direct pressure will control most bleeding. 4. Bleeding from an artery or several injury sites may require **DIRECT PRESSURE** on a **PRESSURE POINT**. Use pressure points for 30-60 seconds to help control severe bleeding. 5. Continue primary care and seek medical aid as needed.	1. Give medical statement 2. Arousal: Check for consciousness. 3. Open airway with chin-lift. 4. Look, listen and feel for breathing. 5. If breathing is absent, give 2 full rescue breaths. 6. Check the pulse for 5 to 10 seconds. 7. If pulse if present, continue rescue breathing: **1 breath every 5 seconds.**

MSDS DEFINITIONS

TLV-TWA	**Threshold Limit Value - Time Weighted Average** - The time-weighted average concentration for a normal 8-hour work day and a 40-hour work week, to which nearly all workers may be repeatedly exposed without adverse effect.
PEL	**Permissible Exposure Limit** - Time-weighted average concentrations similar to (and in many cases derived from) the Threshold Limit Values.
REL	**Recommended Exposure Limit** - as defined by NIOSH similar to the Threshold Limit Values.
IDLH	**Immediately Dangerous to Life or Health** - Any atmospheric condition that poses an immediate threat to life, or which is likely to result in acute or immediate severe health effects. Oxygen deficiency is IDLH.
LEL	**Lower Explosive Limit** - The minimum concentration of vapor in air below which propagation of a flame will not occur in the presence of an ignition source.
UEL	**Upper Explosive Limit** - The maximum concentration of vapor in air above which propagation of a flame will not occur in the presence of an ignition source.
FP	**Flash Point** - The lowest temperature at which the vapor of a combustible liquid can be made to ignite momentarily in air.
VP	**Vapor Pressure** - The pressure characteristic at any given temperature of a vapor in equilibrium with its liquid or solid form, often expressed in millimeters of mercury (mm Hg).
Odor Threshold	A property displayed by a particular compound. Low detection indicates a physiological sensation due to molecular contact with the olfactory nervous system (based on 50% of the population).
IP	**Ionization Potential** - The energy required to form an ion by removal of a given electron from an atom.

CONTAMINANTS PROFILE

Chemical	Exposure Route	Symptoms of Overexposure	Incompatibilities
Volatile Organic Compounds	Inhalation and/or ingestion, skin contact	Eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system.	
Semi-Volatile Organic Compounds	Inhalation and/or ingestion, skin contact	Eye, nose, and throat irritation; headaches, loss of coordination, nausea; damage to liver, kidney, and central nervous system.	
Heavy Metals	Inhalation and/or ingestion, skin contact	Abdominal discomfort, nausea and/or constipation, diarrhea, metallic taste, weakness, muscle pains, irritability, headache, dizziness.	
Lead	Inhalation, ingestion, skin and/or eye contact	Lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation eyes; hypertension	Strong oxidizers, hydrogen peroxide, acids
Mercury	Inhalation, skin absorption, ingestion, skin and/or eye contact	Paresthesia; ataxia, dysarthria; vision, hearing disturbance; spasticity, jerking limbs; dizziness; salivation; lacrimation (discharge of tears); nausea, vomiting, diarrhea, constipation; skin burns; emotional disturbance; kidney injury; possible teratogenic effects	Strong oxidizers such as chlorine

VAPOR MONITORING FORM

Date	Time	PID Reading	Explosimeter Reading		Location	Initials
			%LEL	O_2		

VISITOR/TENANT/TRAINEE GUIDELINES

Galli Engineering is committed to providing a safe environment on all work sites for visitors, tenants, trainees, employees and/or passersby. In order to accomplish this, the following guidelines must be followed.

1. **VISITORS**

   Any person not actively participating in the work at the Site is regarded as a "visitor" and must follow these visitor/trainee guidelines. Visitors must be accompanied by an authorized representative while on Site.

   Sites must be marked with signs, placards, and/or barricades to designate hazardous boundaries. Visitors will not be allowed on any site that is not adequately marked.

2. **TENANTS**

   Any person not participating in the work at the Site yet requiring access per employment with Site occupant is regarded as a “tenant”. However, the subject Site is currently vacant and does not have any tenants.

   On projects where Tenants do exist on the Site, Tenants will be provided a “work plan” showing areas of work, durations, any potential issues that may arise from said activities and any precautions deemed prudent by project management team/Health and Safety Representatives that are being taken.

   Due diligence and all applicable precautions will be taken during activities impacting tenant access/workspace to ensure tenant safety and security.

   As required, Tenant groups to be provided with:

   Health and Safety Representative contact details
   Emergency phone number list
   Project Management contact list
   Site Emergency Form
   First Aid directions
   Hospital Directions

3. **TRAINEES**

Trainees are employees of Galli Engineering or their representatives who have not yet completed the required safety training program. New hires and in-house company transfers will be considered trainees until safety training requirements are met.

Trainees will be informed of restrictions by their supervisor and must abide by them before visiting active sites.

Trainees will be permitted to visit Galli Engineering sites as observers provided the following conditions are met:

- Trainees are supervised at all times while observing on Site.
- Trainees do not perform work functions of any type while on Site.
- Trainees do not handle any equipment, tools and/or supplies while on Site.
- Trainees do not enter any hazardous or hot zone or confined space areas while on Site.

Supervisors will be responsible for informing trainees of the above conditions and for ensuring that the conditions are met. Supervisors will also ensure that trainees will not be asked to violate the conditions listed above.

A Trainee/Visitor Agreement Form must be signed by both the trainee and the supervisor.

Infractions of the above agreement are extremely serious. Violators will be subject to discipline up to and including termination for either the trainee and/or supervisor.

AGREEMENT AND ACKNOWLEDGMENT STATEMENT

Health and Safety Plan Agreement

Galli personnel have the authority to stop activities performed by our subcontractors or visitors at this Site if any field activity is not performed in accordance with the requirements of this Health and Safety Plan and as per directive of the Site Supervisor (SS).

All Galli Engineering, P.C. Project personnel, subcontractor personnel, and visitors are required to sign the following agreement.

1. I have read and fully understand the Health and Safety Plan (HASP) and my individual responsibilities.

2. I agree to abide by the provisions of the Health and Safety Plan (HASP).

Printed Name: _____

Signature: _____

Company: _____

Date: _____

DAILY REPORT

Former Chatsworth Coal and Supply Site
North Avenue and 2101 Palmer Avenue
Larchmont, New York

Date: _____ **Prepared By: _____**

ENVIRONMENTAL SAMPLING RESULTS:

PARAMETER	TIME	SAMPLE LOCATION	RESULT

Signed: _____

COMMUNITY AIR MONITORING PLAN

New York, New Haven & Hartford Railroad Coal Freight Depot
MTA Easement Site
North Avenue
Larchmont, New York

January 9, 2014

Prepared for:

WB Pinebrook Associates, LLC
570 Taxter Road, Sixth Floor
Elmsford, New York 10523

Prepared by:

Galli Engineering, P.C.
734 Walt Whitman Rd., Suite 402A
Melville, NY 11747

Community Air Monitoring Plan

Real-time air monitoring for volatile organic compounds (VOCs) and particulate levels at the perimeter of the exclusion zone or work area will be performed. Continuous monitoring will be performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pit excavation or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be performed during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. Periodic monitoring during sample collection, for instance, will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. Depending upon the proximity of potentially exposed individuals, continuous monitoring may be performed during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence. Exceedances of action levels observed during performance of the Community Air Monitoring Plan (CAMP) will be reported to the DEC Project Manager and included in the Daily Report.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis during invasive work. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions.

The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shutdown.

All 15-minute readings must be recorded and be available for DEC personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter ($\mu g/m^3$) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 $\mu g/m^3$ above the upwind level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 $\mu g/m^3$ above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 $\mu g/m^3$ of the upwind level and in preventing visible dust migration.

All readings will be recorded and be available for DEC personnel to review.

APPENDIX D

RESPONSIBILITIES of

OWNER and REMEDIAL PARTY

Responsibilities

This page may be used when site management responsibilities are to be carried out by multiple parties. For example, it can be used when a Remedial Party does not own the site property, and, therefore, must share site management and/or reporting obligations with a site owner, or when the State is operating a remedial system or otherwise carrying out site management.

The responsibilities for implementing the Site Management Plan ("SMP") for the Former Chatsworth Coal and Supply site (the "site"), number C360132 are divided between the site owner(s) and a Remedial Party, as defined below. The owner(s) is/are currently listed as:
WB Pinebrook Associates, LLC (the "owner").

Solely for the purposes of this document and based upon the facts related to a particular site and the remedial program being carried out, the term Remedial Party ("RP") refers to any of the following: certificate of completion holder, volunteer, applicant, responsible party, and, in the event the New York State Department of Environmental Conservation ("NYSDEC") is carrying out remediation or site management, the NYSDEC and/or an agent acting on its behalf. The RP is:

WB Pinebrook Associates, LLC
570 Taxter Road
Elmsford, NY 10523

Nothing on this page shall supersede the provisions of an Environmental Easement, or other legally binding document that affects rights and obligations relating to the site.

Site Owner's Responsibilities:

1) The owner shall follow the provisions of the SMP as they relate to future construction and excavation at the site.

2) In accordance with a periodic time frame determined by the NYSDEC, the owner shall periodically certify, in writing, that all Institutional Controls set forth in a(n) Environmental Easement remain in place and continue to be complied with. The owner shall provide a

written certification to the RP, upon the RP's request, in order to allow the RP to include the certification in the site's Periodic Review Report (PRR) certification to the NYSDEC.

3) In the event the site is delisted, the owner remains bound by the Environmental Easement and shall submit, upon request by the NYSDEC, a written certification that the Environmental Easement is still in place and has been complied with.

4) The owner shall grant access to the site to the RP and the NYSDEC and its agents for the purposes of performing activities required under the SMP and assuring compliance with the SMP.

5) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. In the event that damage to the remedial components or vandalism is evident, the owner shall notify the site's RP and the NYSDEC in accordance with the timeframes indicated in Section [xxx]-Notifications.

6) In the event some action or inaction by the owner adversely impacts the site, the owner must notify the site's RP and the NYSDEC in accordance with the time frame indicated in [Section xxx]- Notifications and (ii) coordinate the performance of necessary corrective actions with the RP.

7) The owner must notify the RP and the NYSDEC of any change in ownership of the site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner of the site property/ies. 6 NYCRR Part contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: Sixty days prior written notification must be made to the NYSDEC. Notification is to be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section. Notification requirements for a change in use are detailed in Section 2.4 of the SMP. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html.

11) In accordance with the tenant notification law, within 15 days of receipt, the owner must supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds NYSDOH or OSHA guidelines on the site, whether produced by the NYSDEC, RP, or owner, to the tenants on the property. The owner must otherwise comply with the tenant and occupant notification provisions of Environmental Conservation Law Article 27, Title 24.

Remedial Party Responsibilities

1) The RP must follow the SMP provisions regarding any construction and/or excavation it undertakes at the site.

2) The RP shall report to the NYSDEC all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to, periodic review reports and certifications, electronic data deliverables, corrective action work plans and reports, and updated SMPs.

3) Before accessing the site property to undertake a specific activity, the RP shall provide the owner advance notification that shall include an explanation of the work expected to be completed. The RP shall provide to (i) the owner, upon the owner's request, (ii) the NYSDEC, and (iii) other entities, if required by the SMP, a copy of any data generated during the site visit and/or any final report produced.

4) If the NYSDEC determines that an update of the SMP is necessary, the RP shall update the SMP and obtain final approval from the NYSDEC. Within 5 business days after NYSDEC approval, the RP shall submit a copy of the approved SMP to the owner(s).

5) The RP shall notify the NYSDEC and the owner of any changes in RP ownership and/or control and of any changes in the party/entity responsible for the operation, maintenance, and monitoring of and reporting with respect to any remedial system (Engineering Controls). The RP shall provide contact information for the new party/entity. Such activity constitutes a Change of Use pursuant to 375-1.11(d) and requires 60-days prior notice to the NYSDEC. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html .

6) The RP shall notify the NYSDEC of any damage to or modification of the systems as required under Section [xxx]- Notifications] of the SMP.

7) The RP is responsible for the proper maintenance of any installed vapor intrusion mitigation systems associated with the site, as required in Section [X] or Appendix[X] (Operation , Monitoring and Maintenance Manual) of the SMP.

8) The RP is responsible for the proper monitoring and maintenance of any installed drinking water treatment system associated with the site, as required in Section [X] or Appendix [X](Operation , Monitoring and Maintenance Manual).

9) Prior to a change in use that impacts the remedial system or requirements and/or responsibilities for implementing the SMP, the RP shall submit to the NYSDEC for approval an amended SMP.

10) Any change in use, change in ownership, change in site classification (*e.g.*, delisting), reduction or expansion of remediation, and other significant changes related to the site may result in a change in responsibilities and, therefore, necessitate an update to the SMP and/or

updated legal documents. The RP shall contact the Department to discuss the need to update such documents.

Change in RP ownership and/or control and/or site ownership does not affect the RP's obligations with respect to the site unless a legally binding document executed by the NYSDEC releases the RP of its obligations.

Future site owners and RPs and their successors and assigns are required to carry out the activities set forth above.

APPENDIX [E] – ENVIRONMENTAL EASEMENT

Submitted under a separate cover.

APPENDIX [F]

SITE MANAGEMENT FORMS

The following Monitoring Form will be used during site inspections as described in Section 7.0 of the Site Management Plan. The frequency by which inspections shall occur must be determined by the Department. Inspection forms must be submitted to the Department, electronically.

Monitoring Form

Site Name: _____ Site Code: _____

Address: _____ City: _____

State: _____ Zip Code: _____ County: _____

Initial Report Period (Start Date of period covered by the Initial Report submittal)

Start Date: _____

Current Reporting Period

Reporting Period From: _____ To: _____

Time of Inspection: _____

Weather Conditions: _____

Contact Information

Preparer's Name: _____ Phone No.: _____

Preparer's Affiliation: _____

Cover System and Vapor Barrier– Building Interiors

Inspection of the ground floor in each building.

Inspection must include a walk-through of all rooms at grade including stairwells and maintenance rooms. Inspection should evaluate the effectiveness of the open-air layout of the garage in combination with the sub-slab vapor barrier to ensure no vapors remain in the building.

- Are there any visible cracks, depressions, openings in the floors? (Y / N)
    - Are openings intentional? (Y / N)
    - How large are the cracks/depressions/openings?
        - Length? _____
        - Width? _____
        - Depth? _____
    - Where are the cracks/depressions/openings located?
      _____
- Are any odors present in the open-air garage? (Y / N)
    - Are odors from a nearby source? (Y / N)
        - Are they quickly dispersed? (Y / N)
- Are any odors present in enclosed areas of the main level (stairwells, mechanical rooms)? (Y / N)
    - Are odors from a nearby source? (Y / N)
        - If odors are from an identifiable source, is this source permanent or mobile? (Y / N)
        - Are they quickly dispersed? (Y / N)
            - Is a smoke test required? (Y / N)

Cover System – Building Exterior

Inspection of the road leading into and out of the two parking garages; the outdoor parking area, and the road leading into and out of the site. Inspection of all sidewalks. Inspection of landscaped areas.

Inspection must include a perimeter walk-around whereby all concrete and asphalt are examined. Inspection must include a walk-around of all landscaped areas.

- Are there any visible cracks, depressions, openings in the paved areas? (Y / N)
    - Are the openings intentional? (Y / N)
    - How large are the cracks/depressions/openings?
        - Length? _____
        - Width? _____
        - Depth? _____
    - Where are the cracks/depressions/openings located?

      _____
- Are there any signs of deterioration in paved areas? (Y / N)
    - Describe and locate deterioration.

      _____
- Are there any signs of paved material being removed or replaced? (Y / N)
    - Describe and locate where the paved material has been removed or replaced.

      _____
    - Were any modifications to the paved material documented (I.e. maintenance)? (Y / N)
- Are there any signs of intrusive activities in the paved areas? (Y / N)
    - Describe and locate the signs of intrusive activities.

      _____
    - Were any intrusive activities documented? (Y / N)
- Are there any signs of intrusive activities in the landscaped areas? (Y / N)
    - Were any intrusive activities documented? (Y / N)
    - Describe and locate intrusive activities.

      _____
- Are there any signs of gardening in the landscaped areas? (Y / N)
    - Does gardening contain edibles? (Y / N)

Repairs and Recommendations

If applicable, make recommendations regarding the effectiveness of the ECs inspected.

Attach copies of documentation (receipts, invoices) of repairs/maintenance for ECs. Attach photos and/or sketches of observations.

INSPECTOR'S SIGNATURE_____

DATE _____