HIGHLAND PLAZA

ERIE COUNTY

TONAWANDA, NEW YORK

SITE MANAGEMENT PLAN

NYSDEC Site Number: C915293

Prepared for:

Highland Plaza

215 Highland Parkway

Tonawanda, New York

Prepared by:

Environmental & Geologic Management Services, LLC

15 Briar Hill Road

Orchard Park, New York 14127

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date
1	12/14/17	Address Agency Comments	
2	12/20/17	Address NYSDOH Comments	

DECEMBER, 2017

CERTIFICATION STATEMENT

I, NORMAN K. WOHLABAUGH certify that I am a Qualified Environmental Professional as 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).

NK Wohlabaugh CPG

12/21/17 DATE

TABLE OF CONTENTS

HIGHLAND PLAZA

ERIE COUNTY

TONAWANDA, NEW YORK

SITE MANAGEMENT PLAN

TABLE OF CONTENTS (Continued)

TABLE OF CONTENTS (Continued)

List of Tables

List of Figures

TABLE OF CONTENTS (Continued)

List of Appendices

List of Acronyms

BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CAMP	Community Air Monitoring Plan
C/D	Construction and Demolition
CLP	Contract Laboratory Program
COC	Certificate of Completion
DER	Division of Environmental Remediation
EC	Engineering Control
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
ERP	Environmental Restoration Program
EWP	Excavation Work Plan
GHG	Green House Gas
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	Operation and Maintenance
OM&M	Operation, Maintenance and Monitoring
OSHA	Occupational Safety and Health Administration
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
ROD	Record of Decision
RP	Remedial Party
RSO	Remedial System Optimization
SCG	Standards, Criteria and Guidelines
SCO	Soil Cleanup Objective
SMP	Site Management Plan
SOP	Standard Operating Procedures
SOW	Statement of Work
SPDES	State Pollutant Discharge Elimination System
SSD	Sub-slab Depressurization
SVI	Soil Vapor Intrusion
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
USEPA	United States Environmental Protection Agency

ES EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan:

Site Identification: C915293 Highland Plaza; 215 Highland Parkway, Tonawanda, New York

Institutional Controls:	1. The property may be used for commercial use;	
	2. An environmental easement is in place to restrict use to commercial or industrial use.	
	3. All ECs must be inspected at a frequency and in a manner defined in the SMP.	
Engineering Controls:	1. Cover and cap system	
	2. Two sub-slab depressurization systems (SSDSs).	
Inspections:		Frequency
1. Cover inspection 2. Sub-Slab Depressurization Systems		Annually Annually
Monitoring:		
1. Groundwater Wells MW-1, MW-2 and MW-3		Annually
Maintenance:		
1. Cap and Cover System		As needed
2. Blower maintenance		Semi-annually or as needed.
Reporting:		
1. Groundwater, Cap and Cover Integrity, SSDS data		Annually
2. Periodic Review Report		Annually

Further descriptions of the above requirements are provided in detail in the latter sections of this Site Management Plan.

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the Highland Plaza located in Tonawanda, 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. C915293 which is administered by New York State Department of Environmental Conservation (NYSDEC).

Highland Plaza entered into a Brownfield Cleanup Agreement (BCA), on April 1, 2015 with the NYSDEC to remediate the site. A figure showing the site location and boundaries of this site is provided in Figure 2. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Environmental Easement provided in Appendix A. The boundaries of the environmental easement are the same as the site boundaries.

After completion of the remedial work, some contamination was left at this site, which is hereafter referred to as "remaining contamination". Institutional and Engineering Controls (ICs and ECs)] have been incorporated into the site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Erie County Clerk, requires compliance with this SMP and all ECs and ICs placed on the site.

This SMP was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. 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 Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC); and

- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the BCA, Site C915293 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 Environmental & Geologic Management Services, LLC, on behalf of Highland Plaza, in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs and/or ECs that are required by the Environmental Easement for the site.

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 Brownfield Cleanup Agreement (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 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 below 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**
NYSDEC Project Manager Glenn May	(716) 851-7220; glenn.may@dec.gov
NYSDEC Regional HW Engineer] Mary McIntosh	(716) 851-7220; mary.mcintosh@dec.gov
NYSDEC Site Control Kelly Lewandowski	(518) 402-9553; kelly.lewandowski@dec.gov
NYSDOH Project Manager Sara Bogardus	(518) 402-7860; beei@health.ny.gov

* 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 Tonawanda, Erie County, New York and is identified as Lot #33, Township 12, Range 6 of the Holland Land Company's Survey and being Sublots #35 to 46 inclusive on the Town of Tonawanda, Erie County Tax Map (Figure 1). The site is an approximately 0.69-acre area and is bounded by Highland Parkway to the north, an alley way followed by residential properties to the south, a parking lot and credit union to the east, and a gasoline station followed by Colvin Boulevard to the west (Figures 1, 2 and 3). The boundaries of the site are more fully described in Appendix A –Environmental Easement. The owner of the Site at the time of issuance of this SMP is:

Gary Crewson
Buffalo Business Park
1800 Broadway Avenue, Building 1D
Buffalo, New York 14212

A metes and bounds description of the Site is as follows:

COMMENCING at the intersection of the east line of Colvin Boulevard (125 feet wide) with the south line of Highland Parkway (66 feet wide):

Thence easterly along the south line of Highland Parkway a distance of eighty (80.0) feet to the true POINT OF BEGINNING:

Thence easterly along the south line of Highland Parkway a distance of three hundred (300.0) feet to a point:

Thence southerly at right angles to the said south line of Highland Parkway a distance of one hundred (100.0) feet to a point;

Thence westerly and parallel with the south line of Highland parkway a distance of three hundred (300.0) feet to a point;

Thence northerly at right angles to the last described line a distance of one hundred (100.0) feet to the POINT OF BEGINNING.

The NYSDEC is presently investigating potential off-site soil and groundwater contamination located immediately south of the described property noted as Site #C915293CA by the NYSDEC.

2.2 Physical Setting

2.2.1 Land Use

The Site consists of the following: a strip plaza (50% of the Site), asphalt parking area to the north of the strip plaza (approximately 47% of the Site) and a narrow strip of soil behind the building approximately 2.95 feet wide (approximately 3% of the Site). The strip plaza is a slab-on-grade block building that is situated 2.95 feet from the southern property boundary to the back of the parcel. The strip plaza consists of three attached buildings (Building #1 is the easternmost building; Building #2 is the centermost building; and, Building #3 is the westernmost building) that are separated by common firewalls, foundation breaks and different roof lines. They do not share overhead crawl spaces. The Site is zoned commercial and is currently utilized for commercial purposes. Site occupants currently include a pizzeria, hair salon, nail salon, and an occupational therapy center.

The properties adjoining the Site and in the neighborhood surrounding the Site primarily include commercial and residential properties. The properties immediately south of the Site include residential properties; the properties immediately north of the Site include commercial properties; the properties immediately east of the Site include commercial properties; and the properties to the west of the Site include commercial properties.

2.2.2 Geology

The Site is underlain by a thin veneer of fill material 1 to 1.5 feet in thickness consisting of sand and gravel. This is underlain by native, dense red-brown clay with minor amounts of silt, sand and gravel. The clay unit is greater than 24 feet in thickness with little variation laterally. Soil samples collected from soil borings of this unit were generally dry to damp, until a depth of approximately 15 feet where soil samples were damp to moist and more pliable. Soil boring logs are attached as Appendix C.

2.2.3 Hydrogeology

Water levels collected from the RI groundwater monitoring wells were used to collect a potentiometric surface map of the water table. Depth to groundwater is approximately three to five feet below ground surface, and groundwater flow direction was determined to be toward the north and east. There are no known water supply wells in the vicinity of the Site. Potable water is provided by the Erie County Water Authority. A groundwater contour map is shown in Figure 4. Groundwater elevation data is provided in Table 2. Groundwater monitoring well construction logs are provided in Appendix D.

2.3 Investigation and Remedial History

Sanborn Maps of the Site show that the property was undeveloped in 1928, but by 1950 had been developed into the present plaza. There was no indication from available public information that the property has ever been used for industrial or manufacturing purposes.

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. Preliminary Phase II Investigation

A Preliminary Phase II Investigation and Soil Vapor Intrusion Study were completed at the Site in 2014 consisting of twelve soil borings ranging in depths from 8 to 12 feet below ground surface (Figure 3). Groundwater was encountered in one soil boring during this investigation. Eleven soil samples were collected for laboratory analysis from the soil borings; in addition, one shallow surface soil sample was collected on-site and three shallow surface soil samples were also collected off site in the adjacent service alleyway directly south of the site for a total of 15 soil samples.

The Preliminary Phase II Investigation and SVI Study concluded that there were no apparent environmental impacts from the former Getty Station based on the soil and groundwater samples collected. Low levels of soil contamination as volatile organic compounds were identified on Site under the floor of the building where the former dry cleaner was located. Soil

contamination is also present off site in the service alley directly south of the former dry cleaner from spills or disposal of cleaning solvents from the former dry cleaner. The concentrations of these compounds are below the NYSDEC's Commercial Soil Cleanup Objectives (CSCOs), but are above the Restricted Residential SCO for Tetrachloroethene.

VOCs associated with the former dry cleaning operation were also detected in the soil vapor under the concrete slab and have impacted indoor air quality in the eastern end of the building. Impacts to groundwater from the dry cleaner operations could not be evaluated since groundwater was not encountered at the eastern end of the Site.

2.3.2 Remedial Investigation

In October, 2015 a Remedial Investigation (RI) started at the Site which consisted of the completion of 12 soil borings with the collection of soil samples for laboratory analysis: installation of five groundwater monitoring wells (three onsite and two off site): collection of groundwater samples for analysis: collection of six shallow surface soil samples for analysis: and the completion of a soil vapor intrusion study consisting of the collection of two sub-slab vapor samples, two indoor air samples in the two tenant spaces to the former dry cleaner, and the collection of one outdoor background air sample (Figures 2 and 5).

2.3.3 Summary of Investigative Work

A total of 20 on-site soil samples have been collected and analyzed as part of the two investigations. In addition, 31 soil samples have been collected off-site as part of the two investigations, four of which were collected immediately adjacent to the south end of the property. The soil samples have mostly been analyzed for VOCs: however four on-site and three off-site samples located immediately adjacent to the site were analyzed for a full suite of analytes which included VOCs, semi-volatile organic compounds (SVOCs), total metals, pesticides and poly-chlorinated biphenyls (PCBs) as follows:

- three off – site surface soil samples (0 inches to 4 inches);
- three on – site shallow soil samples (6 inches to 12 inches); and
- one deep on – site soil sample (23 feet to 24 feet).

Undisturbed native clay soils were encountered in all soil borings at depths greater than three feet. There were no visual (staining) or olfactory (odor) indications of contamination at depth; only evidence of VOCs associated with readings obtained with a photo-ionoization detector (PID).

Groundwater samples have been collected on-site from four different locations and off-site from two different locations. All have been analyzed for VOCs with SVOCs at one location on-site (SB-2) (Figure 2). Limited chemical analysis of groundwater samples was approved by the NYSDEC during field sampling due to the slow recharge of groundwater in the monitoring wells.

On-Site Impacts to Soil and Groundwater

There were no impacts to soil and groundwater noted along the west side of the Site from the former Getty Service station.

Volatile organic compounds are present in soil from the former dry cleaner at the eastern end of the Site. These compounds are present under the floor of the eastern end of the former dry cleaner (soil boring locations SB – 5 through SB – 11), and in shallow soils in the parking lot north of the building at soil boring SB – 19 (Figure 2). Benzene, Tetrachloroethene and Trichloroethene were detected at concentrations below their respective NYSDEC Part 375 Commercial Soil Cleanup Objectives (SCOs), but above the NYSDEC Part 375 Protection of Groundwater SCO (Table 3A). Cis-1,2-Dichloroethene was detected below the Groundwater SCO. These results will be discussed further under section 2.5 – Remaining On-Site Contamination.

There were no SVOCs detected in the on-site soil samples collected north of the site building and analyzed as part of the RI (Table 4A). Ten metals typically found in soils were present in the on-site soil samples that were analyzed for metals (Table 6). There were no pesticides detected above their respective method detection limits in the on-site soil samples analyzed as part of the RI, and there were no PCBs detected in the on-site soil samples analyzed.

Groundwater quality has been slightly impacted by former dry cleaning operations at the easternmost end of the Site. The VOC Cis-1,2-dichloroethene was detected at a concentration slightly above its guidance value per NYSDEC Technical and Operational Series 1.1.1 – Ambient

Water Quality Standards and Guidance in groundwater monitoring well MW - 3. There were no other VOCs detected in on-site groundwater (Table 5A).

Additional information regarding on-site impacts to soil and groundwater can be reviewed in the Site Remedial Investigation Final Report dated May, 2017.

Off-Site Impacts to Soil and Groundwater

Volatile organic compounds and SVOCs were detected at elevated concentrations in the soil samples from the service alley directly south of the Site. The VOCs detected are commonly associated with dry cleaning operations, and are prevalent in the shallow soils and some deep soils on the easternmost end of the service alley adjacent to the former dry cleaner. The concentration of Tetrachloroethene exceeded the Part 375 Commercial SCO (CSCO) in soil borings SB -24 (6"-14", 14'-15', and 23'-24') and SB – 25 (16"-20" and 6'-7'); and, Part 375 Protection of Groundwater SCO (GSCO) in soil borings SB – 23 (17"-24" and 6'-7'), SB – 27 (23'-24') SB – 29 (7'-8'), and in shallow soil samples AWSS – 1, AWSS – 2 and AWSS – 3 (Table 3B, Figure 2).

The concentration of Trichloroethene exceeded the Part 375 Protection of Groundwater SCO in soil borings SB – 23 (17"-24" and 6'-7'), SB – 24 (6"-14"), SB – 27 (23'-24') and SB – 29 (7'-8'). The concentrations are shown on Table 3B and are compared to the respective CSCO and GSCO.

The concentration of cis–1,2-Dichloroethene exceeded the Part 375 Protection of GSCO in soil borings SB – 24 (6"-14"), SB – 25 (16"-20") and SB – 29 (7'-8'). The concentrations are shown on Table 3B and are compared to the respective CSCO and GSCO.

The concentration of Acetone (a common laboratory contaminant) slightly exceeded the Part 375 Protection of Groundwater SCO in soil boring SB – 21 (12"-20") (Table 3B; Figure 2).

The SVOCs Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene were detected in shallow soils off-site in the service alleyway at concentrations above of their respective Commercial SCOs. The SVOCs Benzo(k)fluoranthene and Chrysene were detected above their respective Residential SCOs. The

occurrence of these SVOCs is most likely related to the presence of millings that have been placed on the alley way services road (Figure 2, Table 4B).

Benzo(a)anthracene was detected in shallow soil samples AWSS-7 and AWSS-9 (0”-4”) above their respective CSCO of 5.6 ppm. Concentrations ranged from 9.5 ppm at AWSS-7 to 28.0 ppm at AWSS-9 (Table 4B).

Benzo(a)pyrene was detected at the seven off-site locations that were sampled above the CSCO of 1.0 ppm: SB-24 (6”-14”); SB-27 (0”-14”); SB-28 (10”-22”); AWSS-6 (0”-4”), AWSS-7 (0”-4”), AWSS-9 (0”-4”), and AWSS-11 (0”-4”). Concentrations ranged from a low of 1.0 ppm at SB-27 to a high of 26.0 ppm at AWSS-9 (Table 4B).

Benzo(b)fluoranthene was detected at two locations above the CSCO of 5.6 ppm: AWSS-7 (0”-4”) at a concentration 12.0 ppm; and, AWSS-9 (0”-4”) at a concentration of 33.0 ppm (Table 4B).

Dibenzo(a,h)anthracene was detected at two locations above the CSCO of 0.56 ppm: AWSS-9 (0”-4”) at a concentration 6.6 ppm; and, AWSS-11 (0”-4”) at a concentration of 2.2 ppm (Table 4B).

Indeno(1,2,3-cd)pyrene was detected at two locations above the CSCO of 5.6 ppm: AWSS-7 (0”-4”) at a concentration 6.5 ppm; and, AWSS-9 (0”-4”) at a concentration of 17.0 ppm (Table 4B).

Off-site impacts to groundwater from the former dry cleaner were noted in both off-site groundwater monitoring wells that were installed as part of the RI investigation (MW – 4 and MW – 5). The concentrations of 1,1 Dichloroethene (10.0 ug/L in MW-4); Cis-1,2-dichloroethene (900.0 ug/L in MW-4 and 1100.0 ug/l in MW-5); trans-1,2-Dichloroethene (34.0 ug/L in MW-5); Tetrachloroethene(22,000.0 ug/L in MW-4 and 3,200.0 ug/L in MW-5); and Trichloroethene (740.0 ug/L in MW-4 and 1700.0 ug/L) were detected at concentrations significantly above their respective TOGS 1.1.1 guidance values of 5.0 ug/L (Table 5B, Figure 2).

Additional information regarding on-site impacts to soil and groundwater can be reviewed in the site Remedial Investigation Final Report dated May, 2017. Off-site impacts to soil and

groundwater are presently being investigated under the NYS Superfund program through site # C915293A,

2.3.4 Interim Remedial Measure – Installation of Sub-Slab Depressurization System at 235-237 Highland Parkway

Highland Plaza received approval in February of 2016 from the NYSDEC and NYSDOH to construct and operate an interim remedial measure (IRM) consisting of a Sub-Slab Depressurization System (SSDS). The implementation of the IRM started in March of 2016 and was completed the third week of April, 2016. The SSDS was constructed in the easternmost building of the strip plaza (235 and 237 Highland Parkway) in the tenant space formerly occupied by the dry cleaner (Figure 5). The SSDS is designed to depressurize the entire concrete slab of the easternmost plaza building where the former dry cleaner was located. Detailed drawings and specifications for the SSDS can be found in the Site Final Engineering Report. The IRM consisted of the following work elements:

- Removal of the concrete floor where it was covered with a wooden lattice (approximately 80% of the tenant space);
- Placement of a crushed stone substrate in the area where the concrete was removed;
- Placement of four perforated horizontal PVC pipe vapor collection runs within the crushed stone for the SSDS that connected to solid vertical PVC piping to three blower units mounted on the roof of the building;
- Placement of a plastic membrane over the crushed stone substrate and pipe runs; and
- Placement of new concrete in the area of the tenant spaces where the old concrete was removed.

Approximately 32 feet by 50 feet of existing concrete floor was left in place in the easternmost part of this tenant space (237 Highland Parkway). In order to install the SSDS in this area, the existing concrete floor was saw-cut. The soils were excavated out of the saw-cut area to a depth of approximately 18 inches. Four inch perforated PVC vapor collection pipe was placed in the trench and covered with crushed stone in the saw cut and associated excavation. The perforated pipe was then attached to the solid vertical PVC pipe to connect to the roof top mounted blower. The sub-slab vapor collection points for this area are shown on Figure 5.

The SSDS became operational the last week of April, 2016. The three fans were installed one at a time, tested and put into operation. This process took approximately one week to complete. The SSDS has been in continuous operation since that time.

The SSDS was physically and chemically tested for effectiveness in February and March of 2017 and was confirmed to be performing as designed.

Routine maintenance will be completed within 18 months after the system becomes operational and will occur every 12 to 18 months thereafter. A summary of these activities will be included in a progress reports that will be submitted to the agencies.

2.3.5 Remedial Measure - Installation of Sub-Slab Depressurization System at 231 Highland Parkway

A second SSDS was installed in the tenant space at 231 Highland Parkway in October, 2017 consisting of one vapor collection point through the concrete floor centrally located within the tenant space, with a vertical pipe run to a roof top blower. The SSDS was also physically tested for effectiveness in November and December, 2017 and was confirmed to be performing as designed.

2.3.6 Remedial Measure – Placement of Soil Cap

A clean soil cap was placed over the approximately 2.95 feet wide soil strip along the back of building. Soil cap thickness is variable from approximately one foot to 18 inches in thickness immediately adjacent to the building, to approximately 12 inches in thickness at the property boundary (Figure 2).

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the Decision Document dated [month, day, year] are as follows:

Groundwater

RAOs for Public Health Protection:

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

RAOs for Environmental Protection:

- Prevent the discharge of contaminants to surface water.

Soil

RAOs for Public Health Protection:

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure 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 On-Site Contamination

Soil and groundwater contamination remains on-site under the easternmost end of the building and under the easternmost end of the parking lot.

2.5.1 Soil

Review of the soil sampling results indicates the VOCs Benzene, Cis-1,2-Dichloroethene, Tetrachloroethene and Trichloroethene are present on site under the east end of Building #1 where

the former dry cleaner was located (soil samples SB – 5 through SB – 11), and under the easternmost end the parking lot north of the building (soil sample SB – 19).

Benzene was detected in soil sample SB-19 (6”-18”) at a concentration of 0.24 ppm well below the CSCO of 44 ppm (Figure 2, Table 3A).

Cis-1,2-Dichloroethene was present in the soil samples SB-5 (4’-8’) and SB-6 (4’-8’) under the Building #1 floor at concentrations of 0.163ppm and 0.0816 ppm respectively; well below the CSCO of 500 ppm (Figure 2, Table 3A).

Tetrachloroethene was present in soil samples SB-5 through SB-11 under the Building #1 floor at concentrations ranging from a low of 0.0218 ppm at SB-10 (0’-4’) to a high of 3.4 ppm at SB-5 (4’-8’), well below the CSCO of 150 ppm. Tetrachloroethene was also present in soil sample SB-19 (6”-18”) well below the CSCO of 150 ppm (Figure 2, Table 3A).

Trichloroethene was present in soil samples SB-5 (4’-8’), SB-6 (4’-8’), SB-7 (4’-8’), SB-9 (0.5’-2’) and SB-19 (6”-18”) at concentrations ranging from a low 0.101 ppm at SB-6 to a high of 0.625 ppm at SB-5 well below the CSCO of 200 ppm. Trichloroethene is also present on the east end of the 2.95 feet wide soil strip behind the building (shallow soil sample SS – 12) at a concentration of 0.01 ppm, well below the Commercial Soil Cleanup Objective (CSCO) of 200 ppm. These compounds are often associated with dry cleaning operations (Figure 2, Table 3A).

There were no semi-volatile organic compounds (SVOCs) detected in the six soil samples collected on-site from the parking lot of the building (Table 4A). However SVOCs are likely present along the approximately 2.95 feet wide strip of soil along the back of the building that is adjacent to the alley way located immediately south of the Site. This occurrence is likely due to the presence of millings and dark soil associated with the adjoining alley way road located immediately south of the site. Off-site surface soil samples AWSS - 6, AWSS – 7 and AWSS – 9 were collected approximately one to three feet south of the property boundary and have elevated concentrations of SVOCs (Figure 2, Table 4B).

The VOC contamination on-site is confined to the easternmost end of the Site in a strip approximately 50 feet wide east-west by 100 feet wide north-south (Figure 6).

SVOC contamination is confined to the 2.95 feet wide north-south strip of land behind the plaza that is 300 feet in length. The area of the Site where contamination above relevant Unrestricted Use SCOs is designated on Figure 6. The top of the VOC contamination will be encountered directly under the floor of Building #1 in the area noted on Figure 6, and potentially at depth in the portion of the parking lot noted on Figure 6.

The top of the SVOC contamination will be encountered directly under the soil cap in the area of the Site noted on Figure 6. Sewer, water, and gas lines are also present in this area as underground utilities.

Table 3A and Figures 2 and 6 summarize the results of all soil samples collected and their locations that exceed the Unrestricted Use SCOs and the Commercial Use SCOs at the site after completion of remedial action.

2.5.2 Groundwater

Groundwater contamination as VOCs is present in the northeast corner of the Site at monitoring well MW-3 (Figure 2, Table 5A). Since VOCs are present in soil under the eastern end of the building (soil samples SB – 5 through SB – 11), groundwater contamination is also likely present under the eastern end of Building #1 where the former dry cleaning operation was located.

Groundwater Monitoring Well MW-1 (On Site)

Acetone was detected in MW-1 at a concentration of 5.4 micrograms per liter (ug/L), well below the TOGs 1.1.1 guidance value of 50 ug/l (Table 5A). No other VOCs were detected in this groundwater sample above their respective method detection limits (MDLs).

Groundwater Monitoring Well MW-2 (On Site)

There were no VOCs detected in the groundwater sample collected from MW-2 (Table 5A).

Groundwater Monitoring Well MW-3 (On Site)

Cis-1,2-Dichloroethene was detected at a concentration of 24.0 ug/L in the groundwater sample collected from this monitoring well, above the TOGs 1.1.1 guidance value of 5 ug/l (Table 5A).

Table 5A and Figure 2 show location of the sampling points and summarize the results of all samples of on-site groundwater that exceed the SCGs after completion of the remedial action.

2.5.3 Soil Vapor

2014 Soil Vapor Intrusion Investigation

A soil vapor intrusion (SVI) study was completed in October, 2014 at the former dry cleaner 235 – 237 Highland Parkway as part of the Phase II Preliminary Phase II Investigation. Three sub-slab vapor samples were collected inside Building #1 near boring locations with the highest PID readings (Figure 2). Analytical results from the SVI study showed that cis-1,2-Dichloroethene, Tetrachloroethene and Trichloroethene were detected at elevated concentrations in the sub-slab and indoor air samples that were collected (Table 7).

2016 Soil Vapor Intrusion Investigation

A second soil vapor intrusion (SVI) investigation was completed in February, 2016 as part of the RI in the tenant spaces at 227 and 231 Highland Parkway, Highland Plaza. The investigation consisted of the collection of a sub-slab and indoor air sample in each tenant space, and an out door air sample for comparative purposes (Figure 5, Table 8).

Comparison of the 2016 SVI investigation results to Guidance for Evaluating Soil Vapor Intrusion in the State of New York, with updates (October, 2006) (SVI Guidance) showed Tetrachloroethene in the indoor air and sub-slab vapor sample from 227 Highland Plaza to the NYSDOH Soil Vapor/Indoor Air Matrix Table 2 Guidance shows the tenant space at 227 Highland Plaza falls into Category 2: *Take reasonable and practical actions to identify source(s) and reduce exposure.*

Comparison of the 2016 SVI investigation results to SVI Guidance for Tetrachloroethene in the indoor air and sub-slab samples from 231 Highland Plaza to the air matrix shows this tenant space falls into Category 6: *Monitor/Mitigate.*

Comparison of results for Trichloroethene in the indoor air and sub-slab vapor sample from 227 Highland Plaza to the NYSDOH Soil Vapor/Indoor Air Matrix 1 Guidance Table shows the tenant space at 227 Highland Plaza falls into Category 3: *Take reasonable and practical actions to identify source(s) and reduce exposure.*

Comparison of the results for Trichloroethene in the indoor air and sub-slab samples from 231 Highland Plaza to applicable SVI Guidance shows this tenant space falls into Category 10 on Matrix 1: *Monitor/Mitigate.*

2017 Soil Vapor Intrusion Investigation

A third soil vapor intrusion (SVI) investigation was completed in February, 2017 as part of the RI in the tenant spaces at 215, 217, 221 and 225 Highland Parkway, Highland Plaza. The analytical results are tabulated as Table 9, and sampling locations are shown on Figure 5. Eleven compounds were detected at concentrations at or above 10 micrograms per cubic meter (ug/m3).

Comparison of SVI Investigation results to SVI Guidance for Tetrachloroethene in the indoor air and sub-slab vapor samples for all tenant spaces to the NYSDOH Indoor/Indoor Air Matrix Table 2 Guidance shows the four tenant spaces fall into Category 1: *No further action.* Comparison of results for Trichloroethene in the indoor air and sub-slab vapor sample for these four tenant spaces to the NYSDOH Indoor/Indoor Air Matrix Table 2 Guidance shows the four tenant spaces fall into Category 1: *No further action.*

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 IC/ECs, such as the implementation of the Excavation Work Plan (EWP) (as provided in Appendix E for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC.

3.2 Institutional Controls

A series of ICs is required by the Decision Document 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 commercial 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 IC boundaries are shown on Figure 2. These ICs are:

- The property may be used for commercial use only;

- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Erie County Department of Health 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;
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or 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;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries, and any potential impacts that are identified must be monitored or mitigated; and
- Vegetable gardens and farming on the site are prohibited.

3.3 Engineering Controls

3.3.1 Cover and Cap System

Exposure to remaining contamination at the site is prevented by a cover system placed over the site. This cover system is comprised of three systems:

- The asphalt parking lot cap (approximately four inches thick) that covers the north half of the Site;
- The building concrete slab on grade floor (approximately four inches thick) which covers most of the southern half of the Site; and

- A clean soil cap 12 to 18 inches thick that was placed over the approximately 2.95 feet wide strip of soil located immediately south of the building.

Figure 8 is a profile of the site cap and cover system; Figure 9 is a plan view of the site cap and cover system.

The Excavation Work Plan (EWP) provided in Appendix E 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 and Sampling 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 Appendices F and G.

3.3.2 Sub-Slab Depressurization Systems (SSDSs)

3.3.2.1 235 - 237 Highland Parkway SSDS

Highland Plaza received approval in February of 2016 from the NYSDEC and NYSDOH to construct and operate an interim remedial measure (IRM) consisting of a Sub-Slab Depressurization System (SSDS). The Implementation of the IRM started in March of 2016 and was completed the third week of April, 2016. The SSDS was constructed in the easternmost building of the strip plaza (235 and 237 Highland Parkway) in the tenant space formerly occupied by the dry cleaner (Figure 5). The SSDS is designed to depressurize the entire concrete slab of the easternmost plaza building where the former dry cleaner was located. Detailed drawings and specifications for the SSDS can be found in the Site Final Engineering Report. The IRM consisted of the following work elements:

- Removal of the concrete floor where it was covered with a wooden lattice (approximately 80% of the tenant space);
- Placement of a crushed stone substrate in the area where the concrete was removed;
- Placement of four inch perforated horizontal PVC pipe vapor collection runs within the crushed stone for the SSDS that connected to solid vertical PVC piping to the blower units mounted on the roof of the building;

- Placement of a plastic membrane over the crushed stone substrate and pipe runs; and
- Placement of new concrete in the area of the tenant spaces where the old concrete was removed.

Approximately 32 feet by 50 feet of existing concrete floor was left in place in the easternmost part of this tenant space (237 Highland Parkway). In order to install the SSDS in this area, the existing concrete floor was saw-cut. The soils were excavated out of the saw-cut area to a depth of approximately 18 inches. Four inch perforated PVC vapor collection pipe was placed in the trench and covered with crushed stone in the saw cut and associated excavation. The perforated pipe was then attached to the solid vertical PVC pipe to connect to the roof top mounted blower.

The SSDS consists of three blowers and four sub-slab vapor collection pipe runs. The three blowers are located on the roof of the building and are designated as follows:

- The easternmost blower is designated as BL-1;
- The central blower is designated as BL-2; and
- The westernmost blower is designated as BL-3.

The sub-slab vapor collection points for this area are as follows (Figure 5):

- Approximately 25 feet from the front of the building and approximately 25 feet from the back of the building;
- The easternmost vapor collection pipe run (designated as EP-1) is located approximately 25 feet west of the east building wall and is approximately 5 feet 9 inches in length east-west;
- The east central vapor collection point (designated as EP-2) is located approximately 50 west of the east building wall and is approximately 10 feet in length east-west;
- The west central vapor collection point (designated as EP-3) is located approximately 45 feet east of the west building wall and is approximately 15 feet in length east-west; and
- The westernmost vapor collection point (designated as EP-4) is located approximately 25 feet east of the west building wall and is approximately 25 feet 6 inches in length east-west..

All sub-slab piping for the SSDS consist of schedule 40 perforated PVC pipe and was wrapped with a permeable sleeve to prevent small rock chips from entering the piping. Piping was placed in a trench approximately 18 inches wide and 6 inches below the concrete floor. Once the vapor collection piping was placed in the trench, the trench was backfilled with crushed stone.

Solid PVC piping runs vertically from the concrete floor through the drop ceiling and roof to roof mounted blowers. Tjernlund R5HF (R-Series Radon Mitigation Fans) are mounted on the roof for vapor extraction. The Tjernlund R5HF is a moderate to high flow blower used for commercial areas (up to 2500 square feet). It has a maximum flow rate of 353 cubic feet per minute. A warning device has been installed as part of the SSDS to signal when the system is not operational.

The SSDS became operational the last week of April, 2016. The three fans were installed one at a time, tested and put into operation. This process took approximately one week to complete. The SSDS has been in continuous operation since that time.

3.3.2.2 231 Highland Parkway SSDS

A second SSDS is installed at 231 Highland Parkway and is designed to depressurize this tenant space, which is approximately 30 feet wide (east-west) and approximately 50 feet deep (north-south). This extraction point (EP) is designated EP-5 to coordinate with extraction point designations for the SSDS located immediately east in the former dry cleaner tenant space in Building #1.

One sub-slab collection point EP-5 is centrally located within the tenant space approximately mid-point east-west and midpoint north-south. The extraction point is 14.7 feet from the east wall of the tenant space, and 19.6 feet from the north wall of the tenant space (Figure 5). EP-5 is excavated approximately 12 to 16 inches below the concrete floor slab with a short piece of four inch diameter perforated schedule 40 PVC pipe inserted through the concrete slab to a depth of approximately 12 inches below the concrete floor. The 4.0 inch diameter perforated pipe is wrapped in a breathable covering to prevent crushed rock or other debris from entering into the perforated PVC pipe. The space around the 4.0 inch diameter perforated PVC pipe is backfilled with crushed stone.

Solid 4.0 inch schedule 40 PVC piping is glued to the 4.0 inch diameter perforated PVC pipe that extends below the concrete floor slab. The solid 4.0 inch PVC pipe runs vertically approximately 12 feet from the concrete floor through the drop ceiling and up through the roof to a roof top mounted blower (fan), designated as Blower #4. A vent pipe is attached that is 12 inches above the highest eave of the building and in accordance with NYSDOH, "Guidance for Evaluating Soil Vapor Intrusion in the State New York, with updates (2006) (SVI Guidance).

This blower is designated blower #4 (BL-4) to coordinate with the blower designations associated with the existing SSDS in operation at the former dry cleaner space located immediately to the east in Building #1 of the strip plaza. A Tjernlund R5HF (R-Series Radon Mitigation Fans) will be used for vapor extraction. The fan is mounted on the roof vertically above the extraction point.

The Tjernlund R5HF is a moderate to high flow blower used for commercial areas (up to 2500 square feet). It has a maximum flow rate of 353 cubic feet per minute. The Tjernlund R5HF blower specifications are attached Appendix H.

The SSDS will remain in continuous operation until the NYSDEC/NYSDOH collectively determines if/when the mitigation system will be turned off.

A warning device is installed on the SSDS riser pipe to signal when the system is not operational. The SSDS is equipped with a test port in the riser pipe (EP-5). The SSDS Failure Indicator is placed over the test port opening and attached by a downward hinge to signal if the system is running. When the system is running, the suction created from the system holds the failure indicator (painted black) in place. During a system failure or a decrease in suction, the failure indicator falls away from the test port opening exposing the back part of the indicator (painted yellow) and a significant "hissing noise" occurs which will be audible throughout the tenant space. The failure indicator is visible and accessible by all tenants. A professional engineer has evaluated the system's effectiveness and efficiency.

Verification pressure field extension testing was completed after system start up to confirm the presence negative pressure under concrete floor slab the system was operating as designed. In

addition, confirmation indoor air sampling was completed to verify the indoor air quality conditions at the start of operations.

Routine maintenance will be completed within 18 months after the system becomes operational and will occur every 12 to 18 months thereafter.

Procedures for operating and maintaining the two SSDSs are documented in the Operation and Maintenance Plan (Section 5.0 of this SMP). As built drawings, signed and sealed by a professional engineer, are included in Appendix L – IRM Sub-Slab Depressurization Final Construction Report. Figure 5 shows the location of the ECs for the site.

3.3.3 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10.

3.3.3.1 - Cover and Cap

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.

3.3.3.2 - Sub-Slab Depressurization Systems (SSDSs)

The active SSDSs will not be discontinued unless prior written approval is granted by the NYSDEC and the NYSDOH. In the event that monitoring data indicates that the SSDSs may no longer be required, a proposal to discontinue the SSD system will be submitted by the remedial party to the NYSDEC and NYSDOH.

3.3.3.3 - Monitoring Wells associated with Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC with consultation with NYSDOH, until residual groundwater concentrations are found to be consistently below ambient water quality standards, the site SCGs,

or have become asymptotic at an acceptable level over an extended period. In the event that monitoring data indicates that monitoring for natural attenuation may no longer be required, a proposal to discontinue the system will be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment and/or control measures will be evaluated.

4.0 MONITORING AND SAMPLING PLAN

4.1 General

This Monitoring and Sampling Plan describes the measures for evaluating the overall performance and effectiveness of the remedy. This Monitoring and Sampling Plan may only be revised with the approval of the NYSDEC. Details regarding the sampling procedures, data quality usability objectives, analytical methods, etc. for all samples collected as part of site management for the site are included in the Quality Assurance Project Plan provided in Appendix I.

This Monitoring and Sampling Plan describes the methods to be used for:

- Sampling and analysis of groundwater;
- Assessing compliance with applicable NYSDEC standards, criteria and guidance (SCGs), particularly groundwater standards and Part 375 SCOs for soil; and
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment.

To adequately address these issues, this Monitoring and Sampling Plan provides information on:

- Sampling locations, protocol and frequency;
- Information on all designed monitoring systems;
- Analytical sampling program requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual 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 annually. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, an inspection form will be completed as provided in Appendix J - 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.

Inspections of all remedial components installed at the site will be conducted. A comprehensive site-wide inspection will be conducted and documented according to the SMP schedule, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria; and
- If site records are complete and 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.

4.3 Treatment System Monitoring and Sampling

4.3.1 Remedial System Monitoring

Monitoring of the Sub-Slab Depressurization Systems (SSDSs) will be performed on a routine basis, as identified in Table 10 Remedial System Monitoring Requirements and Schedule (see below). Modification to the frequency or sampling requirements will require approval from the NYSDEC. A visual inspection of the complete system will be conducted during each monitoring event. Unscheduled inspections and/or sampling may take place when a suspected failure of the SSDSs has been reported or an emergency occurs that is deemed likely to affect the operation of the system. SSDSs components to be monitored include, but are not limited to, the components included in Table 8 below.

Table 10 – Remedial System Monitoring Requirements and Schedule

Remedial System Component	Monitoring Parameter	Operating Range	Monitoring Schedule
Tjernlund Roof Top Blowers BL-1 through BL-4	Flow Rate	350 CFM	Monthly

A complete list of components to be inspected is provided in the Inspection Checklist, provided in Appendix K - Site Management Forms. If any equipment readings are not within their specified operation range, any equipment is observed to be malfunctioning or the system is not performing within specifications; maintenance and repair, as per the Operation and Maintenance Plan, is required immediately.

4.3.2 Remedial System Sampling

Samples shall be collected from the SSDSs tenant spaces on a routine basis. Sampling locations, required analytical parameters and schedule are provided in Table 11 – Remedial

System Sampling Requirements and Schedule below. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

Table 11 – Remedial System Sampling Requirements and Schedule

Sampling Location	Inspection/ Certification	
SSDS 235-237 and 231 Highland Parkway	X	Annually

Detailed sample collection and analytical procedures and protocols are provided in Appendix L – Field Activities Plan and Appendix I – Quality Assurance Project Plan.

4.4 Post-Remediation Media Monitoring and Sampling

Samples shall be collected from the groundwater on a routine basis. Sampling locations, required analytical parameters and schedule are provided in Table 12 – Post Remedial System Sampling Requirements and Schedule below. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

Table 12 – Post Remediation Sampling Requirements and Schedule

Sampling Location	VOCs (EPA Method 8260)	pH (EPA Method 9040)	
Monitoring Wells MW-1, MW-2, MW-3	X	X	Annually

Detailed sample collection and analytical procedures and protocols are provided in Appendix L – Field Activities Plan and Appendix I – Quality Assurance Project Plan.

4.4.1 Groundwater Sampling

Groundwater monitoring will be performed annually to assess the performance of the remedy. Modification to the frequency or sampling requirements will require approval from the NYSDEC.

The network of monitoring wells has been installed to monitor on-site and downgradient groundwater conditions at the site. The network of on-site wells has been designed based on the following criteria:

Table 13 summarizes the wells identification number, as well as the purpose, location, depths, diameter and screened intervals of the wells. As part of the groundwater monitoring, three on-site wells will be sampled to evaluate the effectiveness of the remedial system.

Table 13– Monitoring Well Construction Details

Monitoring Well ID	Well Location	Coordinates (Site reference)	Well Diameter (inches)	Elevation (above mean sea level)			
				Casing	Surface	Screen Top	Screen Bottom
MW-1	Upgradient	104.43 E 22.36 S	1	613.56	613.71	599.71	589.71
MW-2	Sidegradient	216.22 E 22.43 S	1	613.25	613.40	599.40	589.40
MW-3	Downgradient	282.43 E 24.2 S	1	613.12	613.28	599.12	589.12

* Note reference point on Figure 2

The onsite monitoring well network is shown on Figure 2. The groundwater monitoring wells are approximately 24 feet in depth and are screened in the silty clay unit that underlies the Site. Monitoring wells screens are 10 feet in length. The top of groundwater is at three to five feet below ground surface, and groundwater flow is to the north and east (Figure 4). Groundwater recharge is very slow and may take several weeks to equilibrate when the wells are purged, based on purging/sampling results from the RI.

Monitoring well construction logs are included in Appendix D of this document.

If bio-fouling or silt accumulation occurs in the on-site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced, if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC. Well abandonment will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC.

The sampling frequency may only be modified with the approval of the NYSDEC. This SMP will be modified to reflect changes in sampling plans approved by the NYSDEC.

Deliverables for the groundwater monitoring program are specified in Section 7.0 – Reporting Requirements.

4.4.2 Monitoring and Sampling Protocol

All sampling activities will be recorded in a field book and associated sampling log as provided in Appendix J - Site Management Forms. Other observations (e.g., groundwater monitoring well integrity, etc.) will be noted on the sampling log. The sampling log will serve as the inspection form for the monitoring network.

5.0 OPERATION AND MAINTENANCE PLAN

5.1 General

This Operation and Maintenance Plan provides a brief description of the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the site. This Operation and Maintenance Plan:

- Includes the procedures necessary to allow individuals unfamiliar with the site to operate and maintain the SSDSs; and
- Will be updated periodically to reflect changes in site conditions or the manner in which the SSDSs are operated and maintained.

Further detail regarding the Operation and Maintenance of the SSDSs is provided in Appendix H – Tjernlund Blower Specifications. Since these fans are self contained and maintenance free, an Operation and Maintenance Manual is not provided by Tjernlund.

5.2 Sub-Slab Depressurization System Performance Criteria

Specifications for the Tjernlund blowers used for the SSDSs is attached as Appendix H

5.3 Operation and Maintenance of the Sub-Slab Depressurization Systems (SSDSs)

The following sections provide a description of the operation and maintenance of SSDSs at 235 and 231 Highland Parkway in Highland Plaza. Cut-sheets and as-built drawings for SSDSs are provided in Appendix N – IRM Sub-Slab Depressurization Final Construction Reports. In the event of a system failure, the NYSDEC/NYSDOH will be notified the next business day.

5.3.1 System Start-Up and Testing

Prior to system start up, the system will be inspected for cracks in pipes, new floor cracks and general condition of the Tjernlund Mitigation fan. Once the system is inspected for defects and cleared, the fan will be turned on and pressure will be monitored through the test port on the vertical pipe run. Once the system is fully operational, the warning device will be secured over the test port.

If, periodically, one of the four fans is determined to be off, then the facility maintenance department will take steps to correct the problem and bring the system back on-line. That specific system fan will be inspected to determine the nature of the outage. Once the specific system fan is inspected and cleared, it will be turned back on using the protocols described above. If the fan is inspected and determined to be unusable, the existing fan will be replaced with a new Tjerlund replacement fan or a fan of similar specifications.

If notified of a problem by a tenant, the facility maintenance department will take steps to correct the problem and bring the system back on-line. Subsequent to the system repair or restart, the system will be checked the following week and then monthly.

The system testing described above will be conducted if, in the course of the SSDSs lifetime, the system goes down or significant changes are made to the system and the system must be restarted. In addition, a change in the use of the tenant space (vacant to occupied: retail to restaurant: etc.) will require the completion of a soil vapor intrusion evaluation and an assessment of the current SSDS.

5.3.2 Routine System Operation and Maintenance

During operation, the SSDSs will be inspected monthly. Checks will consist of observations to assure that the power is on and that the fan is working. Should the power be off or the fan not operating, the facility maintenance department will take steps to correct the problem and bring the system back on-line.

The Tjerlund Mitigation fans that are in place are self contained, maintenance free fans with 5 year warranties. They are fixed rate fans, so it is not possible adjust flow rates.

5.3.3 Non-Routine Operation and Maintenance

In the event a warning device is initiated, system damage is noted, apparent reduced effectiveness, or system or component replacement, the system will be inspected, the cause of the non-routine operation interruption will be noted in the monthly inspection log, and repairs will be made to the system(s) in a manner that ensures the minimum amount of downtime.

5.3.4 System Monitoring Devices and Alarms

The SSDSs at 235-237 and 231 Highland Parkway in Highland Plaza have warning devices to indicate that the system is not operating properly. The SSDSs are equipped with a test port in the riser pipes. The SSDS Failure Indicator is placed over the test port opening and attached by a downward hinge to signal if the system is running. When the system is running, the suction created from the system holds the failure indicator (painted black) in place. During a system failure or a decrease in suction, the failure indicator falls away from the test port opening exposing the back part of the indicator (painted yellow) and a significant "hissing noise" occurs which will be audible throughout the tenant space.

Placards visible to tenants have been placed at the SSDSs risers near the failure system that state, "In the event of a loud hissing noise, or the presence of a yellow indicator color, please contact Highland Plaza maintenance or management immediately."

In the event that warning device is activated, applicable maintenance and repairs will be conducted, as specified in the Operation and Maintenance Plan, and the SSDS will be restarted. Operational problems will be noted in the Periodic Review Report to be prepared for that reporting period.

6.0 PERIODIC ASSESSMENTS/EVALUATIONS

6.1 Climate Change Vulnerability Assessment

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that the site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

This section provides a summary of vulnerability assessments that will be conducted for the site during periodic assessments, and briefly summarizes the vulnerability of the site and/or engineering controls to severe storms/weather events and associated flooding:

- Flood Plain: the Site is not situated on a flood plain;
- Site Drainage and Storm Water Management: The Site is higher than it's surrounding area so it is unlikely that it will flood during significant rain events;
- Erosion: Since the Site is 98% covered by asphalt and concrete, it is unlikely that erosion will impact the Site;
- High Wind: There are no high trees located on the Site, so it is unlikely that remediation systems will be damaged during high wind events;
- Electricity: Electricity is supplied to the Site by overhead power lines so there is the potential for power failures due to downed power lines which would adversely impact remediation systems; and
- Spill/Contaminant Release: There is no potential for spills with the SSDSs that are located on-site.

6.2 Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This section of the SMP provides a summary of any green remediation evaluations to be completed for the site during site management, and as reported in the Periodic Review Report (PRR):

- Waste Generation: There is no waste generated by the SSDSs located onsite;
- Energy usage: The SSDSs located onsite are equipped with new blowers that are energy efficient and located on the building roof minimizing the need for additional Site lighting or security devices; and
- Emissions: The SSDSs located onsite use electricity and therefore do not contribute the use of additional fuel for transportation purposes, for sampling or operation of gas powered generators.

6.2.1 Timing of Green Remediation Evaluations

For major remedial system components, green remediation evaluations and corresponding modifications will be undertaken as part of a formal Remedial System Optimization (RSO), or at any time that the Project Manager feels appropriate, e.g. during significant maintenance events or in conjunction with storm recovery activities.

Modifications resulting from green remediation evaluations will be routinely implemented and scheduled to occur during planned/routine operation and maintenance activities. Reporting of these modifications will be presented in the PRR.

6.2.2. Remedial Systems

Remedial systems will be operated properly considering the current site conditions to conserve materials and resources to the greatest extent possible. Spent materials will be sent for recycling, as appropriate.

6.2.3 Building Operations

Structures including buildings and sheds will be operated and maintained to provide for the most efficient operation of the remedy, while minimizing energy, waste generation and water consumption.

6.2.4 Frequency of System Checks, Sampling and Other Periodic Activities

Transportation to and from the Site and use of consumables in relation to visiting the Site in order to conduct system checks and or collect samples and shipping samples to a laboratory for analyses have direct and/or inherent energy costs. The schedule and/or means of these periodic

activities have been prepared so that these tasks can be accomplished in a manner that does not impact remedy protectiveness but reduces expenditure of energy or resources.

6.2.5 Metrics and Reporting

As discussed in Section 7.0 and as shown in Appendix J – Site Management Forms, information on energy usage, solid waste generation, transportation and shipping, water usage and land use and ecosystems will be recorded to facilitate and document consistent implementation of green remediation during site management and to identify corresponding benefits; a set of metrics has been developed.

6.3 Remedial System Optimization

A Remedial Site Optimization (RSO) study will be conducted any time that the NYSDEC or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the Decision Document;
- The management and operation of the remedial system is exceeding the estimated costs;
- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Plume shift has potentially occurred;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of the site management to another remedial party or agency; and
- A new and applicable remedial technology becomes available.

An RSO will provide a critique of a site's conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the site's cleanup goals, gather additional performance or media specific data and information and provide

recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

The RSO study will focuse on overall site cleanup strategy, process optimization and management with the intent of identifying impediments to cleanup and improvements to site operations to increase efficiency, cost effectiveness and remedial time frames. Green remediation technology and principals are to be considered when performing the RSO.

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 J. These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of Table 14 and summarized in the Periodic Review Report.

Table 14: Schedule of Interim Monitoring/Inspection Reports

*

Task/Report	**Reporting Frequency***
Inspection Report	Monthly
Periodic Review Report	Annually

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

All interim 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);
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);

- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether contaminant conditions have changed since the last reporting event.

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™ database in accordance with the requirements 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 sixteen (16) months after the Certificate of Completion is issued. After submittal of the initial Periodic Review Report, the next PRR shall be submitted annually to the Department or at another frequency as may be required 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 A-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. Media sampling results will also be incorporated into the Periodic Review Report. 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.
- A summary of any discharge monitoring data and/or information generated during the reporting period, with comments and conclusions.
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor, etc.), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC. Currently, data is supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.
- A site evaluation, which includes the following:

- The compliance of the remedy with the requirements of the site-specific RAWP, ROD or Decision Document;

- The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;

- Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring and Sampling Plan for the media being monitored;

- Recommendations regarding any necessary changes to the remedy and/or Monitoring and Sampling Plan; and

- The overall performance and effectiveness of the remedy.

- A performance summary for all treatment systems at the site during the calendar year, including information such as:

  - The number of days the system operated for the reporting period;

  - A description of breakdowns and/or repairs along with an explanation for any significant downtime;

  - A description of the resolution of performance problems;

  - Alarm conditions;

  - Trends in equipment failure; and

  - A summary of the performance, effluent and/or effectiveness monitoring; and

7.2.1 Certification of Institutional and Engineering Controls

Following the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State (depending on the need to evaluate engineering systems 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;*

- *If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;*

- *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 generally accepted engineering practices]; 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."*

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.

7.4 Remedial Site Optimization Report

In the event that an RSO is to be performed (see Section 6.3, upon completion of an RSO, an RSO report must be submitted to the Department for approval. A general outline for the RSO report is provided in Appendix M. The RSO report will document the research/ investigation and data gathering that was conducted, evaluate the results and facts obtained, present a revised conceptual site model and present recommendations. RSO recommendations are to be implemented upon approval from the NYSDEC. Additional work plans, design documents, HASPs etc., may still be required to implement the recommendations, based upon the actions that need to be taken. A final engineering report and update to the SMP may also be required.

The RSO report will be submitted, in electronic format, to the NYSDEC Central Office, Regional Office in which the site is located, Site Control and the NYSDOH Bureau of Environmental Exposure Investigation.

8.0 REFERENCES

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

NYSDEC DER-10 – "Technical Guidance for Site Investigation and Remediation".

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).

NYSDOH, Guidance for Evaluating Soil Vapor Intrusion in the State of New York (2006) with Updates

TABLES

EGMS September, 2017

TABLE 2: REMEDIAL INVESTIGATION GROUNDWATER ELEVATIONS
HIGHLAND PLAZA IN TONAWANDA, NEW YORK
DECEMBER 4 of 2015

Well	Surface Elevation	Riser Elevation (ft)	Depth to Groundwater (ft) (from Top of Riser)	Groundwater Elevation (ft)
MW-1		100.51	3.8	96.71
MW-2		100.18	2.8	97.38
MW-3		100.08	5.4	94.68
MW-4		101.45	3.1	98.35
MW-5		102.06	2.8	99.26

EGMS April, 2017

TABLE 3A: ON SITE REMEDIAL INVESTIGATION SUBSURFACE & SURFACE SOIL ANALYTICAL RESULTS VOLATILE ORGANIC COMPOUNDS (DETECTED) HIGHLAND PLAZA IN TONAWANDA, NEW YORK

			Sample #	SB -2	SB -3	SB -4	SB - 5	SB -6	SB -7	SB -8	SB -9	SB -10	SB -11	SB-15
Volatile Organic Compounds		*ppm=mg/kg*	Depth	4 ft-8 ft	0 ft-4 ft	8 ft-12 ft	4 ft-8 ft	4 ft-8 ft	0.5 ft- 2 ft	0.5 ft- 2 ft	0.5 ft- 2 ft	0 ft-4 ft	0.5 ft- 2 ft	4 ft-8 ft
	Protection Groundwtr	Commer-cial	Date	5/13/2014	5/13/2014	5/13/2014	5/13/2014	5/13/2014	5/13/2014	5/13/2014	5/13/2014	5/13/2014	5/13/2014	5/13/2014
1,1,1-Trichloroethane [f]	0.68	500[b]		ND (0.00938)	ND (0.00892)	ND (0.0093)	ND (0.162)	ND (0.0119)	ND (0.0361	ND (0.119)	ND (0.0105)	ND (0.010)	ND (0.0094)	ND (0.00831)
cis -1,2-Dichloroethene [f]	0.25	500[b]		ND (0.08938)	ND (0.00892)	ND (0.0093)	**0.163**	**0.0816**	ND (0.0361	ND (0.119)	ND (0.0105)	ND (0.010)	ND (0.0094)	ND (0.00831)
Acetone	0.05	500[b]		ND (0.0469)	ND (0.0446)	ND (0.0465)	ND (0.812)	ND (0.0595)	ND (0.181)	ND (0.597)	ND (0.0524)	ND (0.050)	ND (0.047)	ND (0.0416)
Benzene	0.06	44		ND(0.00938)	ND (0.00892)	ND (0.0093)	ND (0.162)	ND (0.0119)	ND (0.0361)	ND (0.119)	ND (0.0105)	ND (0.010)	ND (0.0094)	ND (0.0831)
Methylene chloride	0.05	500[b]		ND (0.0234)	ND (0.0223)	ND (0.0233)	ND (0.406)	ND (0.0297)	ND (0.0903	ND (0.299)	ND (0.0262	ND (0.025)	ND (0.0235)	ND (0.0208
Tetrachloroethene	1.3	150		ND (0.00938)	ND (0.00892)	ND (0.0093)	**3.4**	**0.5150**	**1.95**	**1.23**	**0.061**	**0.0218**	**0.0333**	ND (0.0831)
Trichloroethene	0.47	200		ND (0.00938)	ND (0.00892)	ND (0.0093)	**0.625**	**0.101**	**0.118**	ND (0.119)	**0.0108**	ND (0.010)	ND (0.0094)	ND (0.0831)
Xylene (mixed)	1.6	500[b]		ND (0.00938)	ND (0.00892)	ND (0.0093)	ND (0.162)	ND (0.0119)	ND (0.0361)	ND (0.119)	ND (0.0105)	ND (0.010)	ND (0.0094)	ND (0.0831)

Footnotes:

Exceeds NYSDEC Part 375 Protection of Groundwater Soil Cleanup Objective

Exceeds NYSDEC Part 375 Commercial Soil Cleanup Objective

ND Not Detected above method detection limit

NA Not Analyzed

H **Sample was prepped or analyzed beyond the specified holding time**

B **Compound was found in the blank and sample**

J **Result is less than the reporting limit (RL), but > than or = to the method detection limit (MDL), and is estimated.**

F1 **MS and/or MSD Recovery is outside acceptance limits**

F2 **MS/MSD RPD exceeds control limits**

EGMS April, 2017

TABLE 3A: ON SITE REMEDIAL INVESTIGATION SUBSURFACE & SURFACE SOIL ANALYTICAL RESULTS VOLATILE ORGANIC COMPOUNDS (DETECTED) HIGHLAND PLAZA IN TONAWANDA, NEW YORK

			Sample #	SB -16	SB -16	SB -17	SB -17	Dup#1 SB-17	SB -18	SB -18	SB -19	SB -19
Volatile Organic Compoun	*ppm=mg/kg*		Depth	6 in-12 in	23 ft-24 ft	6 in-12 in	23 ft-24 ft	23 ft-24 ft	12 in-18 in	7 ft-8 ft	6 in-18 in	23 ft-24 ft
	Protection Groundwtr	Commer-cial	Date	10_14	10_14	10_14	10_14	10_14	10_14	10_14	10_14	10_14
1,1,1-Trichloroethane [1]	0.68	500[b]		ND (0.00035)	ND (0.00028)	ND (0.00034)	ND (0.00028)	ND (0.00025)	ND (0.00037)	ND (0.00029)	ND (0.00029)	ND (0.00026)
cis -1,2-Dichloroethene [1]	0.25	500[b]		ND (0.00061)	ND (0.00049)	ND (0.00059)	ND (0.00049)	ND 0.00043)	ND (0.00064)	ND (0.00051)	0.0072 F1	ND (0.00045)
Acetone	0.05	500[b]		ND (0.0040)	0.012 JHB	0.0078 JB	0.0054 JB	0.01 JHB	ND (0.0042)	0.0043 JB	0.019 JF1	0.0095 J
Benzene	0.06	44		ND (0.00024)	ND (0.00019)	ND (0.00023)	ND (0.00019)	ND (0.00017)	ND (0.00025)	ND (0.0002)	**0.24**	ND (0.00017)
Methylene chloride	0.05	500[b]		ND (0.0022)	0.0027 JHB	0.0024 JB	ND (0.0018)	ND (0.0016)	ND (0.00023)	ND (0.0019)	0.0021 JB	ND (0.0016)
Tetrachloroethene	1.3	150		1.3 JHB	0.001 JHB	0.0097 JB	0.00066 JB	0.00067 JHB	0.00089 JB	0.0007 JB	**9.6**	0.00057 JB
Trichloroethene	0.47	200		ND (0.0011)	ND (0.00085)	ND (0.0001)	ND (0.00085)	ND (0.00075)	ND (0.0011)	ND (0.00088)	**0.53**	ND (0.00078)
Xylene (mixed)	1.6	500[b]		ND (0.0008)	ND (0.00065)	ND (0.00078)	ND (0.00065)	ND (0.00057)	ND (0.00084)	ND (0.00068)	0.0008	ND (0.00060)

(JF2F1B)

Footnotes:

Exceeds NYSDEC Part 375 Protection of Groundwater Soil Cleanup Objective

Exceeds NYSDEC Part 375 Commercial Soil Cleanup Objective

ND Not Detected above method detection limit

NA Not Analyzed

H **Sample was prepped or analyzed beyond the specified holding time**

B **Compound was found in the blank and sample**

J **Result is less than the reporting limit (RL), but > than or = to the method detection limit (MDL), and is estimated.**

F1 **MS and/or MSD Recovery is outside acceptance limits**

F2 **MS/MSD RPD exceeds control limits**

TABLE 3A: ON SITE RI SUBSURFACE & SURFACE SOIL ANALYTICAL RESULTS VOLATILE ORGANIC COMPOUNDS (DETECTED) HIGHLAND PLAZA IN TONAWANDA, NEW YORK

			Sample #	SS-12
Volatile Organic compounds	*ppm=mg/kg*		Depth	0 in-4 in
	Protection Groundwater	Commer-cial	Date	10_18
1,1,1-Trichloroethane [1]	0.68	500[b]		ND (0.00756)
cis -1,2-Dichloroethene [1]	0.25	500[b]		ND (0.00756)
Acetone	0.05	500[b]		ND (0.0378)
Benzene	0.06	44		ND (0.0756)
Methylene chloride	0.05	500[b]		ND (0.0189)
Tetrachloroethene	1.3	150		0.002 J
Trichloroethene	0.47	200		**0.01**
Xylene (mixed)	1.6	500[b]		ND (0.00756)

Footnotes:

Exceeds NYSDEC Part 375 Protection of Groundwater Soil Cleanup Objective

Exceeds NYSDEC Part 375 Commercial Soil Cleanup Objective

ND Not Detected above method detection limit

NA Not Analyzed

H: Sample was prepped or analyzed beyond the specified holding time

B: Compound was found in the blank and sample

J: Result is less than the reporting limit (RL), nut > than or = to the method detection limit (MDL), and is estimated

F1: MS and/or MSD Recovery is outside acceptance limits

F2: MS/MSD RPD exceeds control limits

April, 2017

TABLE 3B: OFF SITE REMEDIAL INVESTIGATION SUBSURFACE & SURFACE SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS (DETECTED)
HIGHLAND PLAZA IN TONAWANDA, NEW YORK

Volatile Organic compounds	Protection Groundwater	Commer-cial	ppm=mg/kg	Sample #	SB-20	SB-20	SB-21	SB-21	SB-22	SB -22	SB -23	SB -23
				Depth	6 in-18 in	7 ft-8 ft	12 in-20 in	7 ft-8 ft	6 in-18 in	7 ft-8 ft	17 in-24 in	6 ft-7 ft
				Date	10_15	10_15	10_15	10_15	10_15	10_15	10_15	10_15
1,1 Dichloroethene	0.27	500[b]			ND (0.00057)	ND (0.00048)	ND (0.0005)	ND (0.00056)	ND (0.0005)	ND (0.00046)	0.00089 J	ND (0.00047)
cis -1,2-Dichloroethene [f]	0.25	500[b]			ND (0.00053)	ND (0.00056)	ND (0.00052)	ND (0.00056)	0.00079 J	ND (0.00046)	0.23 J	**0.018**
trans-1,2-Dichloroethene [f]	0.19	500[b]			ND (0.00043)	ND (0.0004)	ND (0.00042)	ND (0.00042)	ND (0.00042)	ND (0.00046)	0.00078 J	ND (0.00039)
Acetone	0.05	500[b]			0.047 B	0.0033 J	**0.084**	ND (0.00038)	**0.039**	0.0044 J	0.049	0.01
Chloroform	0.37	350			ND (0.00026	ND (0.00024)	ND (0.00025)	ND (0.00028)	ND (0.00025)	ND (0.00023)	ND (0.00028)	ND (0.00024)
Methyl ethyl ketone	0.12	500[b]			0.0065 J	ND (0.00014)	0.017 J	ND (0.0017)	ND (0.00015)	ND (0.0014)	ND (0.0016)	ND (0.0014)
Methylene chloride	0.05	500[b]			ND (0.0019)	ND (0.00018)	ND (0.00019)	ND (0.0021)	ND (0.00019)	ND (0.0017)	ND (0.0021)	ND (0.0018)
n - Propylbenzene [f]	3.9	500[b]			ND (0.00033)	ND (0.00031)	ND (0.00033)	ND (0.0037)	ND (0.00033)	ND (0.0003)	ND (0.00036)	ND (0.00033)
Tetrachloroethene	1.3	150			0.0019 J	0.00095 J	0.0009 J	ND (0.00061)	0.00086 J	0.0006 J	**19.0**	**4.9**
Toluene	0.7	500[b]			ND (0.00032)	ND (0.0003)	ND (0.00031)	ND (0.00035)	ND (0.00031)	ND (0.00029)	ND (0.00034)	ND (0.00029)
Trichloroethene	0.47	200			ND (0.00092)	ND (0.00086)	ND (0.00096)	ND (0.001)	ND (0.00089)	ND (0.00083)	**3.0**	**0.5**
1,2,4-Trimethylbenzene [f]	3.6	190			ND (0.0008)	ND (0.00075)	ND (0.00078)	ND (0.00088)	ND (0.00078)	ND (0.00073)	ND (0.00086)	ND (0.00073)
1,3,5-Trimethylbenzene[f]	8.4	190			ND (0.00027)	ND (0.00025)	ND (0.00026)	ND (0.00029)	ND (0.00026)	ND (0.00024)	ND (0.00024)	ND (0.00025)
Xylene (mixed)	1.6	500[b]			ND (0.00070)	ND (0.00066)	ND (0.00068)	ND (0.00077)	ND (0.00068)	ND (0.00064)	ND (0.00076)	ND (0.00064)

Footnotes:

Exceeds NYSDEC Part 375 Protection of Groundwater Soil Cleanup Objective

Exceeds NYSDEC Part 375 Commercial Soil Cleanup Objective

ND Not Detected above methoid detection limit

NA Not Analyzed

H Sample was prepped or analyzed beyond the specified holding time

B Compound was found in the blank and sample

J Result is less than the reporting limit (RL), but > than or = to the method detection limit (MDL), and is estimated.

F1 MS and/or MSD Recovery is outside acceptance limits

F2 MS/MSD RPD exceeds control limits

TABLE 3B: OFF SITE REMEDIAL INVESTIGATION SUBSURFACE & SURFACE SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS (DETECTED)
HIGHLAND PLAZA IN TONAWANDA, NEW YORK

Volatile Organic compounds	Protection Groundwater	Commer-cial	ppm=mg/kg	Sample #	SB -24	SB -24	SB -24	SB -25	SB -25	SB -26	SB -26
				Depth	6 in-14 in	14 ft-15 ft	23 ft-24 ft	16 in-20 in	6 ft-7ft	17 in-22 in	7 ft-8 ft
				Date	10_15	10_15	10_15	10_16	10_16	10_16	10_16
1,1 Dichloroethene	0.27	500[b]			ND (0.32)	0.00082 J	0.0018 J	ND (0.14)	0.0029 J	ND (0.016)	ND (0.00042)
cis -1,2-Dichloroethene [f]	0.25	500[b]			**29.0**	**0.0078**	0.0011 J	**1.6**	0.29 E	ND (0.00056)	0.00057 J
trans-1,2-Dichloroethene [f]	0.19	500[b]			ND (0.22)	ND (0.0004)	ND (0.00037)	ND (0.11)	0.0018 J	ND (0.00045)	ND (0.00036)
Acetone	0.05	500[b]			ND (3.9)	0.005 J	0.0085 J	ND (1.9)	**0.045**	ND (0.0037)	ND (0.00029)
Chloroform	0.37	350			ND (0.64)	0.00049 J	ND (0.00022)	ND (0.32)	0.0013 J	ND (0.0027)	ND (0.00021)
Methyl ethyl ketone	0.12	500[b]			ND (2.8)	ND (0.0014)	ND (0.0013)	ND (1.4)	ND (0012)	ND (0.0016)	ND (0.00013)
Methylene chloride	0.05	500[b]			ND (0.19)	ND (0.0018)	ND (0.0017)	ND (0.092)	ND (0015)	ND (0.002)	ND (0.00016)
n - Propylbenzene [f]	3.9	500[b]			ND (0.25)	ND (0.00031)	ND (0.0029)	ND (0.12)	0.0004 J	ND (0.00035)	ND (0.00028)
Tetrachloroethene	1.3	150			**1600.0**	**170.0**	**140.0**	**1400.0**	**740.0**	**0.22**	**0.0054**
Toluene	0.7	500[b]			0.5 J	0.0004 JB	0.00039 JB	ND (0.12)	0.00048 J	ND (0.00033)	ND (0.00026)
Trichloroethene	0.47	200			**15.0**	**0.023**	**0.061**	**0.014**	0.21 E	ND (0.00096)	ND (0.00026)
1,2,4-Trimethylbenzene [f]	3.6	190			ND (0.26)	ND (0.00074)	ND (0.00069)	ND (0.13)	0,0015 J	ND (0.00084)	ND (0.00067)
1,3,5-Trimethylbenzene [f]	8.4	190			ND (0.28)	ND (0.00025)	ND (0.00023)	ND (0.14)	0.00071 J	ND (0.00028)	ND (0.00022)
Xylene (mixed)	1.6	500[b]			0.98 J	ND (0.00065)	ND (0.00061)	ND (0.26)	ND (0.00057)	ND (0.00073)	ND (0.00058)

Footnotes:

Exceeds NYSDEC Part 375 Protection of Groundwater Soil Cleanup Objective

Exceeds NYSDEC Part 375 Commercial Soil Cleanup Objective

ND Not detected above methoid detection limit

NA Not Analyzed

H Sample was prepped or analyzed beyond the specified holding time

B Compound was found in the blank and sample

J Result is less than the reporting limit (RL), but > than or = to the method detection limit (MDL), and is estimated.

F1 MS and/or MSD Recovery is outside acceptance limits

F2 MS/MSD RPD exceeds control limits

TABLE 3B: OFF SITE REMEDIAL INVESTIGATION SUBSURFACE & SURFACE SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS (DETECTED)
HIGHLAND PLAZA IN TONAWANDA, NEW YORK

			Sample #	SB -27	SB -27	SB -27	SB -28	SB -28	SB -29	SB -29
Volatile Organic compounds		*ppm=mg/kg*	Depth	0 in-14 in	14 ft-15 ft	23 ft-24 ft	10 in-22 in	7 ft-8 ft	17 in-22 in	7 ft-8 ft
	Protection Groundwater	Commer-cial	Date	10_15	10_15	10_15	10_16	10_16	10_16	10_16
1,1 Dichloroethene	0.27	500[b]		ND (0.00082)	ND (0.00043)	0.0012 J	ND (0.00052)	ND (0.00046)	ND (0.00048)	0.0005 J
cis -1,2-Dichloroethene [l]	0.25	500[b]		0.0039 J	0.003 J	0.88 J	ND (0.00054)	ND (0.00048)	ND (0.0005)	**1.2**
trans-1,2-Dichloroethene [l]	0.19	500[b]		ND (0.00069)	ND (0.00036)	**0.03**	ND (0.00044)	ND (0.00038)	ND (0.0004)	0.0012 J
Acetone	0.05	500[b]		ND (0.0057)	0.0062 JB	0.0046 J	ND (0.0036)	0.0097 JB	0.011 J	0.0035 J
Chloroform	0.37	350		ND (0.0042)	ND (0.00022)	ND (0.00028)	ND (0.00026)	ND (0.00023)	ND (0.00024)	ND (0.00023)
Methyl ethyl ketone	0.12	500[b]		ND (0.0025)	ND (0.0013)	ND (0.0016)	ND (0.0016)	ND (0.0014)	ND (0.00014)	ND (0.00014)
Methylene chloride	0.05	500[b]		0.0032 JB	ND (0.0016)	ND (0.0021)	ND (0.002)	ND (0.0017)	ND (0.00018)	ND (0.00017)
n - Propylbenzene [l]	3.9	500[b]		ND (0.00034)	ND (0.00028)	ND (0.00036)	ND (0.0034)	ND (0.0003)	ND (0.00031)	ND (0.0003)
Tetrachloroethene	1.3	150		**0.029**	**0.011**	**79.0**	0.0065 F1	0.0006 J	0.0015 JB	**18.0**
Toluene	0.7	500[b]		ND (0.00051)	ND (0.00026)	ND (0.00034)	ND (0.00032)	ND (0.00028)	ND (0.0003)	ND (0.00029)
Trichloroethene	0.47	200		**0.011**	**0.0027**	**5.4**	ND (0.00093)	ND (0.00082)	ND (0.00086)	**0.59**
1,2,4-Trimethylbenzene [l]	3.6	190		ND (0.0013)	ND (0.00067)	ND (0.00086)	ND (0.00081)	ND (0.00071)	ND (0.00075)	0.25 J
1,3,5-Trimethylbenzene [l]	8.4	190		ND (0.0043)	ND (0.00023)	ND (0.00029)	ND (0.00027)	ND (0.00024)	ND (0.00025)	ND (0.00024)
Xylene (mixed)	1.6	500[b]		ND (0.0011)	ND (0.00059)	ND (0.00075)	ND (0.00071)	ND (0.00062)	ND (0.00086)	ND (0.00064)

Footnotes:

Exceeds NYSDEC Part 375 Protection of groundwater Soil Cleanup Objective

Exceeds NYSDEC Part 375 Commercial Soil Cleanup Objective

ND Not Detected above method detection limit

NA Not Analyzed

H Sample was prepped or analyzed beyond the specified holding time

B Compound was found in the blank and sample

J Result is less than the reporting limit (RL), but > than or = to the method detection limit (MDL), and is estimated.

F1 MS and/or MSD Recovery is outside acceptance limits

F2 MS/MSD RPD exceeds control limits

TABLE 3B: OFF SITE REMEDIAL INVESTIGATION SUBSURFACE & SURFACE SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS (DETECTED)
HIGHLAND PLAZA IN TONAWANDA, NEW YORK

			Sample #	AWSS-1	AWSS-2	AWSS-3	AWSS-6	AWSS-7	Dup 2 AWSS-7	AWSS-8	AWSS-9	AWSS-10	AWSS-11
Volatile Organic compounds		*ppm=mg/kg*	Depth	0 in-6 in	0 in-6 in	0 in-6 in	0"-4"	0"-4"	0"-4"	0"-4"	0"-4"	0"-4"	0"-4"
	Protection Groundwater	Commer-cial	Date	7/8/2014	7/8/2014	7/8/2014	10_18	10_18	10_18	10_18	10_18	10_18	10_18
1,1 Dichloroethene	0.27	500[b]		ND (0.973)	ND (0.822)	ND (1.19)	ND (0.00067)	ND (0.00062)	ND (0.00062)	ND (0.00072)	ND (0.00062)	ND (0.00046)	ND (0.0013)
cis -1,2-Dichloroethene [l]	0.25	500[b]		ND (0.973)	ND (0.822)	ND (1.19)	ND (0.0007)	ND (0.00065)	ND (0.00065)	ND (0.00071)	ND (0.00065)	ND (0.00048)	ND (0.0014)
trans-1,2-Dichloroethene [l]	0.19	500[b]		ND (0.973)	ND (0.822)	ND (1.19)	ND (0.00056)	ND (0.00052)	ND (0.00052)	ND (0.00061)	ND (0.00053)	ND (0.00039)	ND (0.0011)
Acetone	0.05	500[b]		ND (4.86)	ND (4.11)	ND (5.94)	ND (0.00041)	ND (0.00043)	ND (0.0043)	ND (0.005)	ND (0.0043)	ND (0.0032)	ND (0.0089)
Chloroform	0.37	350		ND (0.973)	ND (0.822)	ND (1.19)	ND (0.00034)	ND (0.00031)	ND (0.00031)	ND (0.00037)	ND (0.00032)	ND (0.00023)	ND (0.00065)
Methyl ethyl ketone	0.12	500[b]		ND (4.86)	ND (4.11)	ND (5.94)	ND (0.002)	ND (0.0018)	ND (0.0018)	ND (0.0022)	ND (0.0019)	0.016 J	ND (0.0039)
Methylene chloride	0.05	500[b]		ND (2.43)	ND (2.06)	ND (2.97)	ND (0.0025)	ND (0.0023)	ND (0.0023)	0.0035 JB	ND (0.0023	ND (0.00017)	0.0097 JB
n - Propylbenzene [l]	3.9	500[b]		NA	NA	NA	ND (0.0004)	ND (0.0004)	ND (0.0004)	ND (0.00047)	ND (0.00047)	ND (0.00030)	ND (0.00089)
Tetrachloroethene	1.3	150		**40.2**	**19.3**	**89.3**	0.002 J	**0.0063**	**0.0019**	**0.0062**	0.001 J	0.0006 J	ND (0..0014)
Toluene	0.7	500[b]		ND (0.973)	ND (0.822)	ND (1.19)	ND (0.00041)	ND (0.00038)	ND (0.00038)	ND (0.00045)	ND (0.00039)	ND (0.00028)	ND (0.0008)
Trichloroethene	0.47	200		ND (0.973)	ND (0.822)	ND (1.19)	ND (0.0012)	ND (0.0011)	ND (0.0011)	ND (0.0013)	ND (0.00011)	ND (0.00083)	ND (0.0023)
1,2,4-Trimethylbenzene [l]	3.6	190		NA	NA	NA	ND (0.0011)	ND (0.00097)	ND (0.00097)	0.0014 J	ND (0.00098)	ND (0.00072)	ND (0.002)
1,3,5-Trimethylbenzene [l]	8.4	190		NA	NA	NA	ND (0.00035)	ND (0.00033)	ND (0.00033)	ND (0.00038)	ND (0.00033)	ND (0.00024)	ND (0.00068)
Xylene (mixed)	1.6	500[b]		ND (0.973)	ND (0.822)	ND (1.19)	ND (0.00092)	ND (0.00085)	ND (0.00085)	0.0015 JB	ND (0.00086)	ND (0.00063)	0.0019 JB

Footnotes:

Exceeds NYSDEC Part 375 Protection of Groundwater Soil Cleanup Cleanup Objective

Exceeds NYSDEC Part 375 Commercial Soil Cleanup Objective

ND Not detected above the method detection limit

NA Not analyzed

H Sample was prepped or analyzed beyond the specified holding time

B Compound was found in the blank and sample

J Result is less than the reporting limit (RL), but > than or = to the method detection limit (MDL), and is estimated.

MS and/or MSD Recovery is outside acceptance limits

MS/MSD RPD exceeds control limits

EGMS April, 2017

TABLE 4A: ON SITE REMEDIAL INVESTIGATION SUBSURFACE AND SURFACE SOIL ANALYTICAL RESULTS
SEMI - VOLATILE ORGANIC COMPOUNDS (DETECTED)
HIGHLAND PLAZA IN TONAWANDA, NEW YORK

		Sample #	SB -2	SB -3	SB -16	SB-17	SB-17	Dup SB-17	SB-19
		Depth	4 ft-8 ft	0 ft-4 ft	6 in-12 in	6 in -12 in	23 ft-24 ft	23 ft-24 ft	6 in-18 in
	Commercial	Date	5/13/2014	5/13/2014	10/14/2015	10/14/2015	10/14/2015	10/14/2015	10/14/2015
Compounds	*ppm=mg/kg*								
Bis(2-ehtylhexyl) phthalate	NS		ND (0.328)	ND (0.341)	ND (0.028)	ND (0.067)	ND (0.061)	0.099 J	ND (0.067)

Footnotes:

Exceeds NYSDEC Part 375 Commercial Soil Cleanup Objective

NS: No standard

ND Not Detected above method detection limit

NA Not Analyzed

H: Sample was prepped or analyzed beyond the specified holding time

B: Compound was found in the blank and sample

J: Result is < than the reporting limit (RL), but > than or = to the method detection limit (MDL), and is estimated

F1: MS and/or MSD Recovery is outside acceptance limits

F2: MS/MSD RPD exceeds control limits

EGMS April, 2017

TABLE 4B: OFF SITE REMEDIAL INVESTIGATION SUBSURFACE AND SURFACE SOIL ANALYTICAL RESULTS
SEMI - VOLATILE ORGANIC COMPOUNDS (DETECTED)
HIGHLAND PLAZA IN TONAWANDA, NEW YORK

		Sample #	SB-24	SB-24	SB-27	SB -28	AWSS-6	AWSS-7	AWSS-9	AWSS-11
		Depth	6 in-14 in	23 ft-24 ft	0 in-14 in	10 in-22 in	0 in-4 in	0 in-4 in	0 in-4 in	0 in-4 in
	Commercial	Date	10/15/2015	10/15/2015	10/15/2015	10/16/2015	10/18/2015	10/18/2015	10/18/2015	10/18/2015
Compounds	*ppm=mg/kg*									
Bis(2-ehtylhexyl) phthalate	NS		ND (1.4)	ND (0.066)	ND (1.4)	ND (0.69)	ND (3.2)	ND (3.4)	6.9 J	ND (2.5)
Acenaphthene	500[b]		ND (0.6)	ND (0.028)	ND (0.62)	0.77 JF1	ND (1.4)	ND (1.5)	4.7 J	ND (1.1)
Anthracene [1]	500[b]		ND (1.0)	ND (0.048)	ND (1.07)	1.5 JF1	ND (2.3)	3.1 J	1.1	ND (1.8)
Benz(a)anthracene [1]	5.6		0.76 J	ND (0.019)	0.46 J	**2.3** F1	ND (0.95)	**9.5** J	**28.0**	2.38 J
Benzo(a)pyrene	1[1]		**2.1** J	ND (0.028)	**1.0** J	**2.1** F1	**2.0** J	**9.6** J	**26.0**	**3.4** J
Benzo(b)fluoranthene[1]	5.6		2.5 J	ND (0.031)	0.98 J	2.2 F1	1.7 J	**12.0**	**33.0**	4.5 J
Benzo(g,h,i)perylene [1]	500[b]		2.6 J	ND (0.020)	0.93 J	1.4 JF1	ND (1.0)	6.8 J	21.0	2.9 J
Benzo(k)fluoranthene[1]	56		1.2 J	ND (0.025)	ND (0.55)	1.4 JF1	ND (1.2)	5.3 J	16.0	1.1 J
Carbazole	NS		ND (0.48)	ND (0.023)	ND (0.5)	0.62 JF1	ND (1.1)	2.6 J	5.7 J	ND (0.85)
Chrysene [1]	56		1.1 J	ND (0.043)	ND (0.95)	2.1 F1	ND (2.1)	9.7 J	28.0	2.8 J
Dibenzo(a,h) anthracene	0.56		ND (0.72)	ND (0.048)	ND (0.75)	ND (0.36)	ND (1.7)	ND (1.8)	**6.6** J	**2.2** J
Dibenzofuran	350		ND (0.48)	ND (0.034)	ND (0.5)	0.49 JF1	ND (1.1)	ND (1.2)	2.5 J	ND (0.85)
Fluoranthene [1]	500[b]		1.5 J	ND (0.020)	0.69 J	5.4 F1	1.1 J	22.0	68.0	5.2 J
Fluorene	500[b]		ND (0.48)	ND (0.023)	ND (0.5)	0.79 JF1	ND (1.1)	1.2 J	4.6 J	ND (0.85)
Indeno(1,2,3-cd)pyrene [1]	5.6		2.5 J	ND (0.024)	1.1 J	1.4 JF1	ND (1.2)	**6.5** J	**17.0**	3.0 J
Naphthalene [1]	500[b]		ND (0.53)	ND (0.023)	ND (0.55)	0.99 JF1	ND (1.2)	ND (1.3)	2.3 J	ND (0.94)
Phenanthrene [1]	500[b]		ND (0.60)	ND (0.028)	ND (0.62)	5.1 F1	ND (1.4)	14.0	43.0	1.9 J
Pyrene[1]	500[b]		1.6 J	ND (0.023)	0.58 J	4.2 F1	ND (1.1)	16.0	50.0	4.0 J

Footnotes: Exceeds NYSDEC Part 375 Commercial Soil Cleanup Objective

NS: No standard

ND Not Detected above method detection limit

NA Not Analyzed

H: Sample was prepped or analyzed beyond the specified holding time

B: Compound was found in the blank and sample

J: Result is < than the reporting limit (RL), but > than or = to the method detection limit (MDL), and is estimated

F1: MS and/or MSD Recovery is outside acceptance limits

F2: MS/MSD RPD exceeds control limits

EGMS APRIL, 2017

TABLE 5A: ON SITE REMEDIAL INVESTIGATION GROUNDWATER DETECTIONS - VOLATILE ORGANIC COMPOUNDS HIGHLAND PLAZA, IN TONAWANDA, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values (ug/L)	SB - 2	MW-1	MW-2	MW-2 Dup	MW-3
Sample Date		13-May-14	22-Dec-15	22-Dec-15	22-Dec-15	22-Dec-15
Matrix		Water	Water	Water	Water	Water
Units		ug/L	ug/L	ug/L	ug/L	ug/L
Contaminant						
Volatile Organic Compounds						
Acetone	50	ND (<10.0)	**5. 4 J**	ND (3.0)	ND (3.0)	ND (3.0)
cis-1,2-Dichloroethene	5	ND (<2.0)	ND (0.74)	ND (0.81)	ND (0.81)	**24.0**
Trichloroethene	5	ND (<2.0)	ND (0.46)	ND (0.46)	ND (0.46)	**0.85 J**

Notes

Exceeds standard

1) Standards are NYSDEC T.O.G.S 1.1.1 Ambient Water Quality Standards
2) NS=no standard
J= Estimated Value
E= Result Exceeded Calibration Range

EGMS April, 2017

TABLE 5B: OFF SITE REMEDIAL INVESTIGATION GROUNDWATER DETECTIONS - VOLATILE ORGANIC COMPOUNDS HIGHLAND PLAZA, IN TONAWANDA, NEW YORK

Sample Location	NYSDEC Standards & Guidance Values (ug/L)	MW-4	MW-4	MW-5	MW-5
Sample Date		22-Dec-15	22-Dec-15	22-Dec-15	22-Dec-15
Matrix		Water	Water	Water	Water
Units		ug/L	ug/L	ug/L	ug/L
Contaminant			***DILUTE***		***DILUTE***
Volatile Organic Compounds					
1,1-Dichloroethene	5	**10.0 J**	ND (290.0)	ND (5.8)	ND (15.0)
cis-1,2-Dichloroethene	5	**900.0**	ND (810.0)	**1100.0**	**910.0**
trans-1,2-Dichloroethene	5	ND (18.0)	ND (900.0)	**34.0**	ND (45.0)
Tetrachloroethene	5	**22,000 E**	**58,000.00**	**3200 E**	**3000.0**
Trichloroethene	5	**740**	**560 J**	**1700**	**1500**

Notes

Exceeds standard

1) Standards are NYSDEC T.O.G.S 1.1.1 Ambient Water Quality Standards
2) NS=no standard
J= Estimated Value
E= Result Exceeded Calibration Range

EGMS April, 2017

TABLE 6
SUMMARY OF ON-SITE ANALYTICAL RESULTS FOR TOTAL METALS DETECTED IN NEAR SURFACE & SUBSURFACE SOIL HIGHLAND PLAZA BCP SITE, SITE NO. C915293

Sample No. Sample Depth Sample Date	Unrestricted SCOs (ppm)	Commercial SCOs (ppm)	SB16 6 in-12 in 10/14/2015	SB-17 6 in-12 in 10/14/2015	SB-17 23 ft-24 ft 10/14/2015	SB-17 Dup 23 ft-24 ft 10/14/2015	SB-19 6 in-18 in 10/14/2015
Arsenic	13	16	6.6	6.1	3.1	3.0	6.2
Barium	350	400	110.0	122.0	90.5	82.5	131.0 F2F1
Beryllium	7.2	590	0.68	0.78	0.35	0.48	0.86
Cadmium	2.5	9.3	0.28	0.33	0.36	0.19 J	0.27
Copper	50	270	15.5	12.9	7.5	12.9	13.7
Lead	63	1,000	9.5	11.9	6.9	8.4	10.9
Manganese	1,600	10,000	447.0 B	721.0 B	497.0 B	470.0 B	460.0 F2B
Total Mercury	0.18	2.8	0.021 J	ND (0.0089)	ND (0.008)	ND (0.0084)	0.015 J
Nickel	30	310	21.6	23.0	11.8	17.0	25.9
Selenium	3.9[c]	1,500	ND (0.50)	ND (0.47)	ND (0.41)	ND (0.43)	ND (0.47)
Silver	2	1,500	ND (0.25)	ND (0.23)	ND (0.21)	ND (0.22)	ND (0.24)
Zinc	109	10,000	48.2	83.7	61.3	41.3	57.7 F1

Notes:

ND = Not Detected above method detection limit given in parentheses.

B = Value is greater than or equal to the instrument detection limit, but less than the contract required detection limit (inorganics).

J = Result is less than the reporting limit (RL), but > than or = to the method detection limit (MDL), and is estimated.

F1 = MS and/or MSD Recovery is outside acceptance limits.

F2 = MS/MSD RPD exceeds control limits.

Yellow shaded values exceed the NYSDEC Part 375 Unrestricted Soil Cleanup Objectives.

Orange shaded values exceed the NYSDEC Part 375 Commercial Soil Cleanup Objectives.

TABLE 7: PRELIMINARY PHASE II SOIL VAPOR INTRUSION STUDY (2014)
VOLATILE ORGANIC COMPOUNDS DETECTED IN AIR & SUB-SLAB VAPORS
HIGHLAND PLAZA IN TONAWANDA, NEW YORK

Analyte (ug/m3)	NYSDOH GUIDANCE ug/m3	SS-5	SS-7	SS-9	INDOOR AIR	OUTDOOR AIR #1*	OUTDOOR Air #2
1,1-Dichloroethene		**1.7**	<0.59	<0.59	<0.59	**0.44**	<0.59
1,2,4-Trimethylbenzene		**6.8**	**6.3**	**8.4**	**4.7**	**0.84**	**1.0**
1,2-Dichloroethane		**7.8**	**8.4**	**7.9**	<0.61	<0.61	<1.2
1,3,5-Trimethylbenzene		**3.3**	**3.0**	**3.6**	**2.4**	<0.74	**0.79**
2,2,4-trimethylpentane		**0.98**	**1.8**	<0.70	<0.70	<0.70	<0.70
4-ethyltoluene		**2.7**	**2.2**	**2.9**	0.96	<0.74	<0.74
Acetone		**56**	**250.0**	**120.0**	31.0	**23.0**	**2.4**
Benzene		**2.5**	**2.7**	**2.8**	0.51	**0.35**	<0.48
Carbon disulfide		**2.3**	**38.0**	**12.0**	0.47	**1.1**	**0.62**
Carbontetrachloride		**0.75**	**0 75**	<0.94	0.75	**0.63**	**0.82**
Chloroform		**12**	**5.2**	**2.1**	0.68	<0.73	<0.73
Chloromethane		<0.40	<0.31	<0.31	1.4	**1.3**	**1.0**
cis-1,2-Dichloroethene		**520.0**	**31.0**	**2.1**	0.95	**54.0**	**1.3**
Cyclohexane		**4.3**	**9.3**	**11.0**	<0.52	<0.52	<0.52
Ethyl acetate		<0.90	**7.9**	**8.6**	1.3	<0.90	<0.90
Ethylbenzene		**2.6**	**3.1**	**2.6**	1.3	<0.65	<0.65
Freon 11		**1.7**	**2.0**	**1.8**	2	**1.8**	**2.0**
Freon 113		<1.1	<1.1	<1.1	0.77	<1.1	<1.1
Freon 12		**3.0**	**2.9**	**3.2**	3.7	**3.5**	**3.4**
Heptane		<0.61	**9.8**	**12.0**	<0.61	<0.61	<0.61
Hexane		<0.53	**16.0**	**20.0**	<0.53	**0.63**	**0.63**
Isopropyl alcohol		<0.37	<0.37	<0.37	9.3	**7.9**	**1.9**
m&p-Xylene		**5.5**	**6.9**	**6.0**	3.5	**1.4**	**0.69**
Methyl Ethyl Ketone		**8.6**	**14.0**	**14.0**	4.4	<0.88	**1.7**
Methylene chloride	60	**9.4**	**8.7**	**11.0**	1.6	**0.83**	**0.69**
a-Xylene		**2.5**	**2.8**	**2.6**	1.7	**0.82**	**0.43**
Tetrachloroethylene	30	**1600.0**	**550.0**	**74.0**	**180.0**	**2900.0**	**7.0**
Toluene		**34.0**	**38.0**	**30.0**	5.8	**2.0**	**2.0**
trans-1,2-Dichloroethene		**260.0**	**41.0**	<0.59	<0.59	<0.59	<0.59
Trichloroethene	2	**1200.0**	**87.0**	**11.0**	**1.8**	**43.0**	**1.2**
Vinyl chloride		**12.0**	<0.38	<0.38	<0.10	<0.10	<0.10

SS Sub-slab Sample

0.0 Bold is a detection of specified volatile organic compound

< Not detected at or below specified quantitation limit

NYSDOH (2006) Table 3.1 and 3.2 Guidance Intended for Indoor and Outdoor Air and not sub-slab vapor

EGMS April, 2017

TABLE 8: REMEDIAL INVESTIGATION SOIL VAPOR INTRUSION STUDY (2016)
VOLATILE ORGANIC COMPOUNDS DETECTED IN AIR & SUB-SLAB VAPORS
HIGHLAND PLAZA IN TONAWNADA, NEW YORK

Compound	NYSDOH Guidance ug/m3	227 Highland Pkwy Franklin Telecom		231 Highland Pkwy Nat'l Hearing		
		Indoor Air #1 3/15/2016 ug/m3	Sub-slab #1 3/15/2016 ug/m3	Indoor Air #2 3/15/2016 ug/m3	Sub-slab #2 3/15/2016 ug/m3	Outdoor Air #1 3/15/2016 ug/m3
1,1,1-Trichloroethane		**1.3**	<0.82	<0.82	<0.82	<0.82
1,1 Dichloroethene		<0.59	<0.59	<0.59	**0.95**	<0.59
1,2,4-Trimethylbenzene		**2.0**	**5.7**	**3.1**	**3.7**	**2.2**
1,3,5-Trimethylbenzene		**0.98**	**3.2**	**1.1**	**2.0**	**1.0**
2,2,4-trimethylpentane		**1.4**	<0.70	**1.6**	**1.5**	**1.5**
4-ethyltoluene		**0.59 J**	**1.5**	**0.79**	**1.1**	**0.64 J**
Acetone		**43.0**	**47.0**	**30.0**	**48.0**	**21.0**
Benzene		**7.3**	**2.3**	**6.5**	**6.0**	**1.8**
Carbon disulfide		**0.34 J**	**0.62**	<0.47	**13.0**	**0.31 J**
Carbon tetrachloride		**0.38 J**	**0.31 J**	**0.44 J**	**0.38 J**	**0.44 J**
Chloroform		<0.73	**0.98**	<0.73	**7.8**	<0.73
Chloromethane		**1.3**	**0.31**	**1.3**	<0.31	**0.93**
cis-1,2 Dichloroethene		**0.4 J**	<0.59	<0.59	**170.0**	<0.59
Cyclohexane		**2.3**	**8.3**	**1.8**	**44.0**	**4.1**
Ethyl acetate		**1.6**	**2.7**	**0.86 J**	**2.1**	**1.1**
Ethylbenzene		**2.5**	**3.3**	**1.8**	**2.8**	**1.5**
Freon 11		**1.2**	**1.2**	**1.2**	**1.0**	**1.2**
Freon 12		**2.4**	**2.1**	**2.5**	**2.1**	**2.4**
Heptane		**2.5**	**2.7**	**2.0**	**22.0**	**0.9**
Hexane		<0.53	**3.1**	**7.1**	**24.0**	**2.6**
Isopropyl Alcohol		**23.0**	**8.8**	**7.6**	**8.8**	**4.0**
m&p Xylene		**9.3**	**11.0 J**	**6.7**	**10.0**	**4.9**
Methyl Ethyl Ketone		**93.0**	**14.0**	**8.8 J**	**9.4**	**4.2**
Methyl Isobutyl Ketone		<1.2	**0.74 J**	<1.2	**2.5**	**1.6**
Methylene chloride	60	**1.9**	**17.0**	**0.94**	**6.5**	**1.9**
0-Xylene		**2.8**	**4.6**	**2.1**	**3.7**	**1.9**
Styrene		**1.0**	**2.5**	**0.81**	**1.7**	**0.94**
Tetrachloroethylene	30	**5.5**	**23.0**	**7.3**	**150.0**	**5.4**
Tetrahyrdofuran		**5.2**	**1.8**	**12.0**	<0.44	**1.0**
Toluene		**13**	**17.0**	**9.8**	**20.0**	**9.8**
Trichloroethene	2	**0.48 J**	**1.2**	**0.48 J**	**110.0**	**0.27 J**
trans 1,2 Dichloroethene		<0.59	<0.59	<0.59	**21.0**	<0.59
Vinyl Chloride		<0.38	<0.38	<0.38	**2.4**	<0.38

J: Analyte detected at or below quantitation limit
0.0 Bold is a detection of specified volatile organic compound
< Not detected at or below specified quantitation limit
NYSDOH (2006) Table 3.1 and 3.2 Guidance

TABLE 9: Volatile Organic Compound Detections in Air and Sub-slab Vapors
2017 Soil Vapor Intrusion Study at Highland Plaza

Compound	NYSDOH Guidance ug/m3	Indoor Air 215 Mama Mia 3/9/2017 ug/m3	Indoor Air 217 Vacant 3/9/2017 ug/m3	Indoor Air 217 Vacant 3/9/2017 ug/m3	Indoor Air 217 Vacant 3/9/2017 ug/m3	Sub-slab 217 Vacant 3/9/2017 ug/m3	Indoor Air 221 Louis Salon 3/9/2017 ug/m3	Sub-slab 221 Louis Salon 3/9/2017 ug/m3	Indoor Air 225 Vacant 3/9/2017 ug/m3	IndoorAir 235 Bflo Ergonom 2/16/2017 ug/m3	Outdoor Air #1 W End of Bldg 3/9/2017 ug/m3
				MS	*MSD*						
1,1,1-Trichloroethane		<0.82	<0.82	<0.82	<0.82	**5.0**	<0.82	<0.82	<0.82	<0.82	<0.82
1,2,4-Trimethylbenzene		<0.74	<0.74	<0.74	<0.74	**1.2**	**0.49J**	**1.5**	<0.74	<0.74	<0.74
1,3,5-Trimethylbenzene		<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	**0.59J**	<0.74	<0.74	<0.74
2,2,4-trimethylpentane		<0.70	<0.70	<0.70	<0.70	<0.70	**1.9**	<0.70	<0.70	<0.70	<0.70
4-ethyltoluene		<0.74	<0.74	<0.74	<0.74	<0.74	<0.74	**0.49J**	<0.74	<0.74	<0.74
Acetone		**67.0**	**200.0**	**200.0**	**200.0**	**140.0**	**36000.0**	**430.0**	**140.0**	**30.0**	**13.0**
Benzene		**0.77**	**0.64**	**0.64**	**0.64**	**2.3**	**0.73**	**3.3**	**0.57**	**1.3**	**0.61**
Carbon disulfide		**0.37J**	**0.40J**	**0.34J**	**0.34J**	**5.9**	**0.44J**	**2.9**	**0.37J**	**0.53**	**0.34J**
Carbon tetrachloride		**0.38**	**0.38**	**0.38**	**0.38**	<0.94	**0.38**	<0.94	**0.44**	<0.94	**0.38**
Chloroform		<0.73	<0.73	<0.73	<0.73	**2.8**	**1.4**	**0.78**	<0.73	<0.73	<0.73
Chloromethane		**1.6**	**1.6**	**1.4**	**1.4**	**0.62**	<0.31	**1.3**	**1.7**	<0.31	**1.9**
Cyclohexane		<0.52	<0.52	<0.52	<0.52	**10.0**	<0.52	**6.5**	<0.52	**0.34J**	<0.52
Ethyl acetate		**1.9**	**1.0**	**0.97**	**0.97**	**9.7**	**99.0**	<0.54	**0.58**	<0.54	<0.54
Ethylbenzene		<0.65	<0.65	<0.65	<0.65	**3.5**	<0.65	**4.6**	<0.65	**0.52J**	<0.65
Freon 11		**1.9**	**1.5**	**1.5**	**1.5**	**1.6**	**1.5**	**1.6**	**1.4**	**1.1**	**1.5**
Freon 12		**2.4**	**2.4**	**2.3**	**2.3**	**2.3**	**2.0**	**2.2**	**2.2**	**2.2**	**2.2**
Heptane		**0.57J**	**0.53J**	**0.41J**	**0.41J**	**18.0**	<0.61	**28.0**	<0.61	**0.61**	<0.61
Hexane		<0.53	**0.63**	<0.53	<0.53	**6.7**	<0.53	**12.0**	<0.53	**1.4**	**0.49J**
Isopropyl Alcohol		**4.5**	**4.9**	**5.1**	**5.1**	**6.9**	**2900.0**	**19.0**	**2.70**	**83.0**	**0.86**
m&p Xylene		**0.69J**	**0.65J**	**0.61J**	**0.61J**	**12.0**	**0.91J**	**15.0**	**0.48J**	**1.7**	**0.52J**
Methyl Butyl Ketone		<1.2	<1.2	**0.98J**	**0.98J**	**9.8J**	<1.2	<1.2	<1.2	<1.2	<1.2
Methyl Ethyl Ketone		**1.5**	**1.8**	**1.2**	**1.2**	**270.0**	**64.0**	**340.0**	**1.0**	**1.4**	**0.62J**
Methyl Isobutyl Ketone		<1.2	<1.2	<1.2	<1.2	<1.2	**2.2**	<1.2	<1.2	**0.49J**	<1.2
Methylene chloride	60	**0.9**	**0.9**	**0.94**	**0.94**	**9.7**	**1.7**	**18.0**	**0.66**	**1.1**	**0.73**
0-Xylene		<0.65	<0.65	<0.65	<0.65	**4.1**	<0.65	**5.3**	<0.65	**0.61J**	<0.65
Styrene		<0.64	<0.64	<0.64	<0.64	**1.4**	<0.64	**1.9**	<0.64	<0.64	<0.64
Tetrachloroethylene	30	<1.0	<1.0	<1.0	<1.0	**13.0**	<1.0	**4.4**	<1.0	<1.0	<1.0
Tetrahyrdofuran		<0.44	<0.44	<0.44	<0.44	**5.5**	<0.44	**16.0**	<0.44	**0.74**	<0.44
Toluene		**1.2**	**1.1**	**1.1**	**1.1**	**46.0**	**2.1**	**70.0**	**1.0**	**4.7**	**0.87**
Trichloroethene	2	<0.21	<0.21	<0.21	<0.21	**1.1**	<0.21	**1.8**	<0.21	<0.21	<0.81

J: Analyte detected at or below quantitation limit
0.0 Bold is a detection of specified volatile organic compound
< Not detected at or below specified quantitation limit
NYSDOH (2006) Table 3.1 and 3.2 Guidance

FIGURES

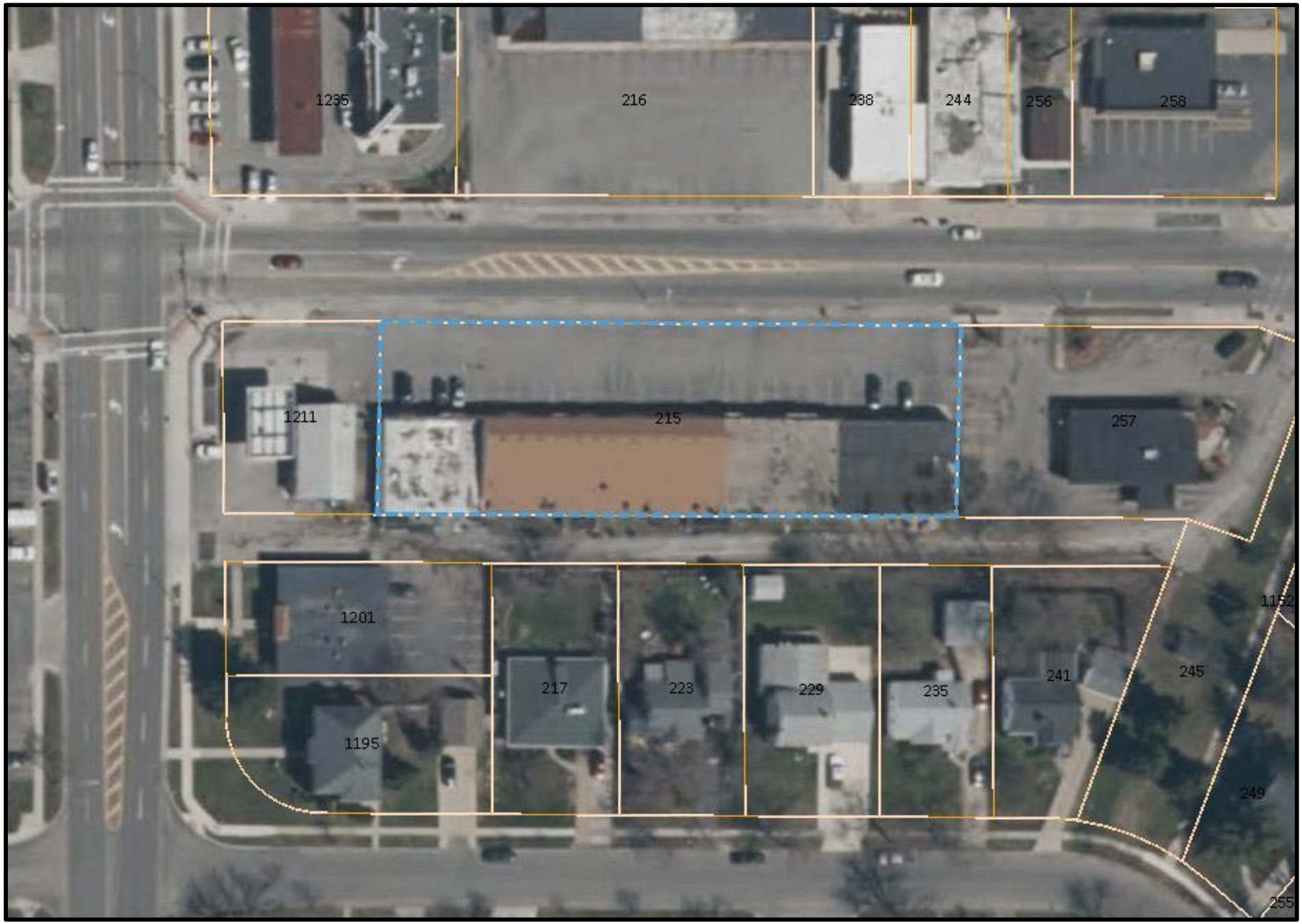
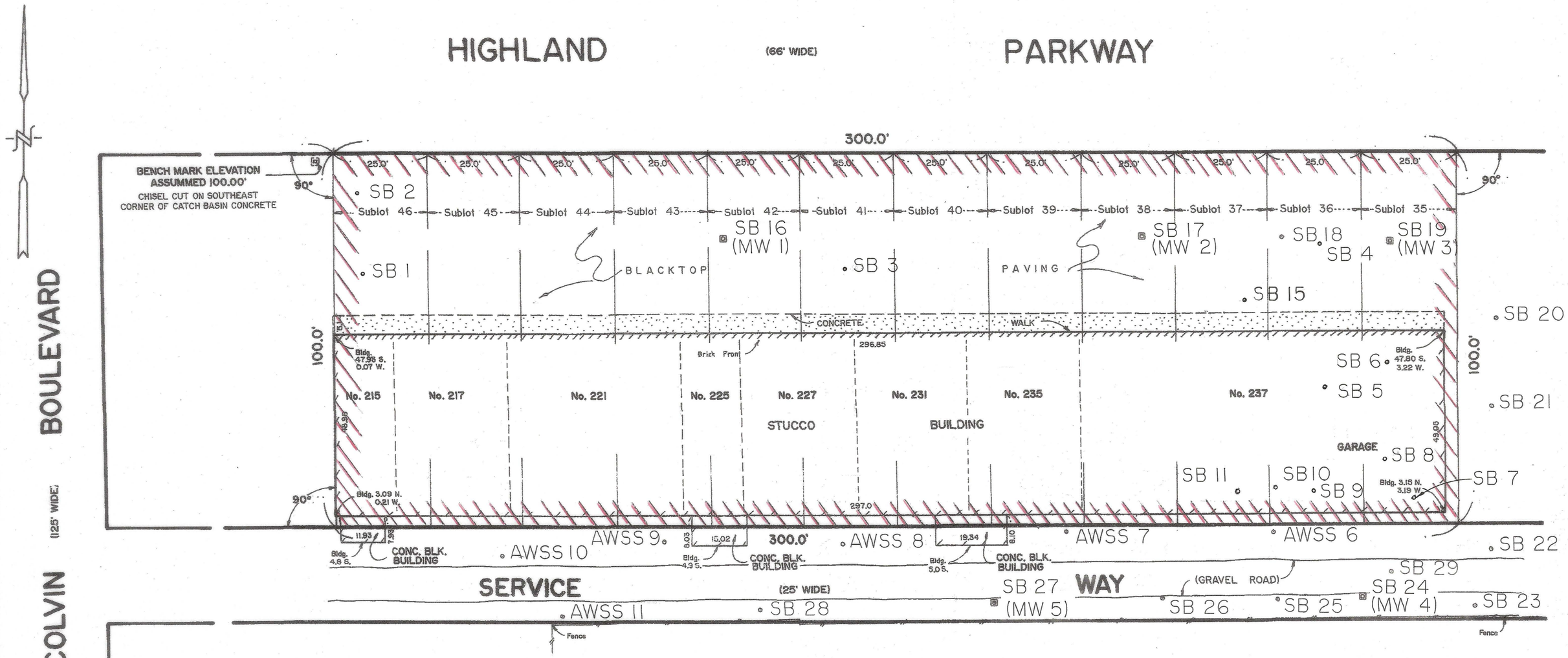


Figure 1. Location of the Highland Plaza BCP Site (Site No. C915293) in Tonawanda, Erie County, New York.



NOTE:
DELINEATES BROWNFIELD AREA BOUNDARY

NOTE:
Tenant spaces/Addresses are as shown on EGMS Drawing FIGURE 4: RI VAPOR INTRUSIONSAMPLE LOCATIONS SOIL VAPOR INTRUSION INVESTIGATION HIGHLAND PLAZA IN TONAWANDA, N.Y. Dated May 2016

NOTE:
SOIL BORING SB 1 WAS NOT SAMPLED

NOTE:
THE ADDITIONAL SOIL BORING LOCATIONS AND REVISED SOIL BORING LOCATIONS ARE SHOWN ACCORDING TO DIMENSIONS PROVIDED TO OUR FIRM IN A LETTER FROM ENVIRONMENTAL & GEOLOGICAL MANAGEMENT SERVICES, LLC Dated May 15, 2017

NOTE:
SONNENBERGER LAND SURVEYING ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF ADDITIONAL AND REVISED SOIL BORING LOCATIONS.

Point Description	Distance East of Northwest Property Corner	Distance South of Northwest Property Corner	Elevation (PVC Pipe)
SB 16 (MW 1)	104.45	22.36	100.51
SB 17 (MW 2)	216.22	22.43	100.18
SB 19 (MW 3)	282.43	24.29	100.08
SB 24 (MW 4)	274.59	119.19	101.45
SB 27 (MW 5)	176.13	120.15	102.06
SB 18	253.63	22.88	
SB20	310.68	44.85	
SB 21	309.38	68.53	
SB 22	309.20	106.52	
SB 23	304.75	121.78	
SB 25	251.83	119.34	
SB 26	221.32	118.93	
SB 28	113.74	121.41	
SB 29	282.23	112.08	
AWSS 6	251.01	101.56	
AWSS 7	195.55	101.02	
AWSS 8	136.09	104.20	
AWSS 9	88.35	102.98	
AWSS 10	45.14	106.68	
AWSS 11	61.17	122.98	

Point Description	Distance East of Northwest Property Corner	Distance South of Northwest Property Corner
SB 1	8'	32.5'
SB 2	6.5'	10'
SB 3	136'	31'
SB 15	242'	39.5'
SB 4	262'	24'
SOIL BORING LOCATIONS ARE APPROXIMATE		

Point Description	Distance West of Northeast Building Corner	Distance South of Northeast Building Corner
SB 5	32'	15'
SB 6	15'	8'
SB 7	8'	44'
SB 8	16'	34'
SB 9	35'	43'
SB 10	45'	42'
SB 11	55'	43'
SOIL BORING LOCATIONS ARE ESTIMATED		

FIGURE 2 : SITE BASE MAP

HIGHLAND PLAZA
TONAWANDA, NEW YORK

SUBLOTS 35 to 46 INCLUSIVE
MAP COVER 1400
PART OF LOT 33, TOWNSHIP 12, RANGE 8
TOWN OF TONAWANDA
ERIE COUNTY, NEW YORK

40 20 0 10 20
BAR SCALE 1"= 20'

SONNENBERGER LAND SURVEYING
60 NIAGARA STREET
BUFFALO, NEW YORK 14202
(716) 854-0159
SonnenbergerLandSurveying.com

SCALE: 1" = 20' DATE: NOV. 10, 2015
SHEET: 69621 No. 15-221 ATS-1
REVISED 5/20/16 REVISED 5/18/17

LICENSED LAND SURVEYOR
FRANCIS X. METZGER
Francis X. Metzger
049989
STATE OF NEW YORK

This map void unless EMBOSSED with New York State Licensed Land Surveyor's Seal No. 049989

Altering any item on this map is in violation of the law, excepting as provided in Section 7209, Part 2 of the New York State Education Law.

This Survey was prepared without the benefit of a current full abstract of title and is subject to any state of facts that may be revealed by an examination of same

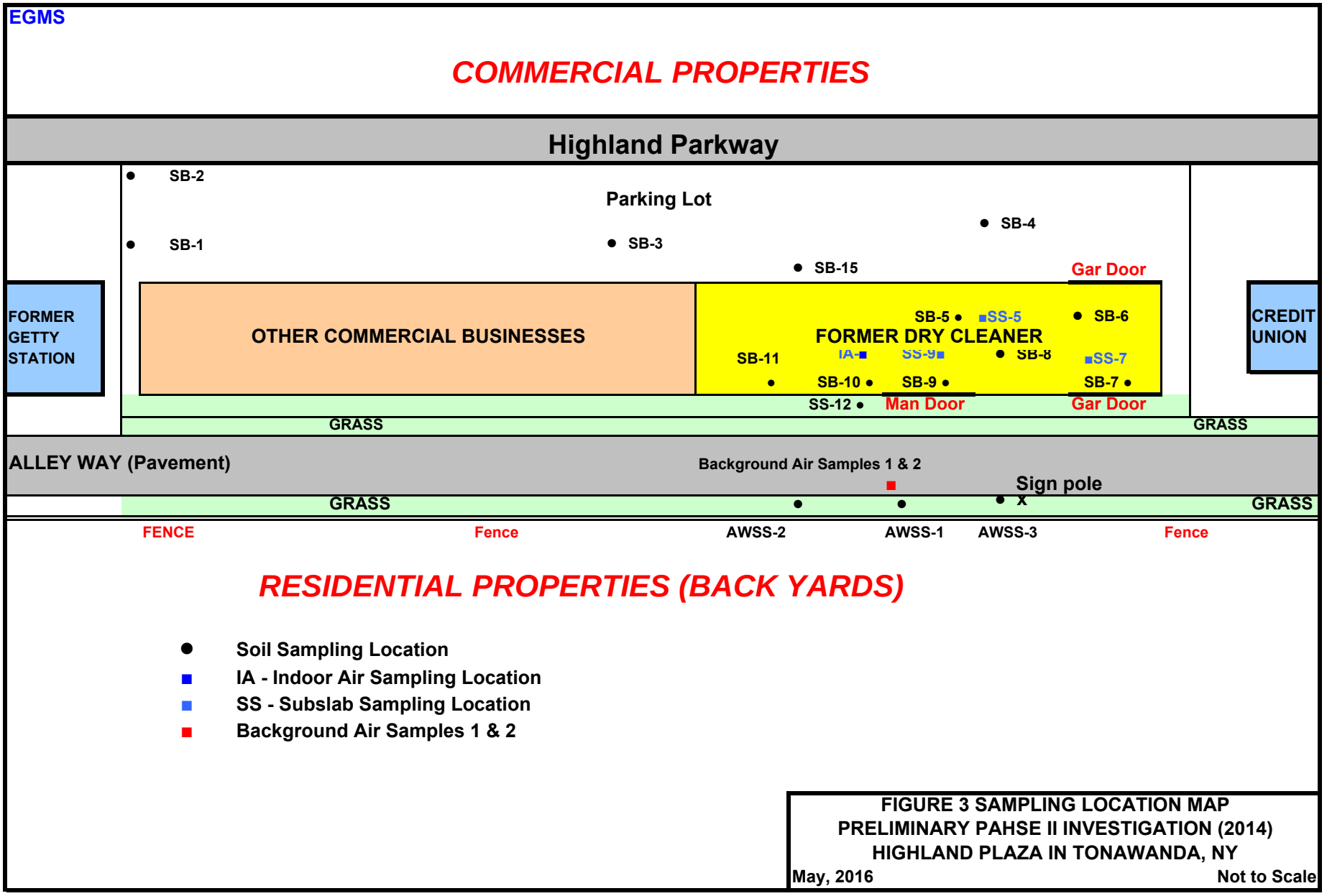
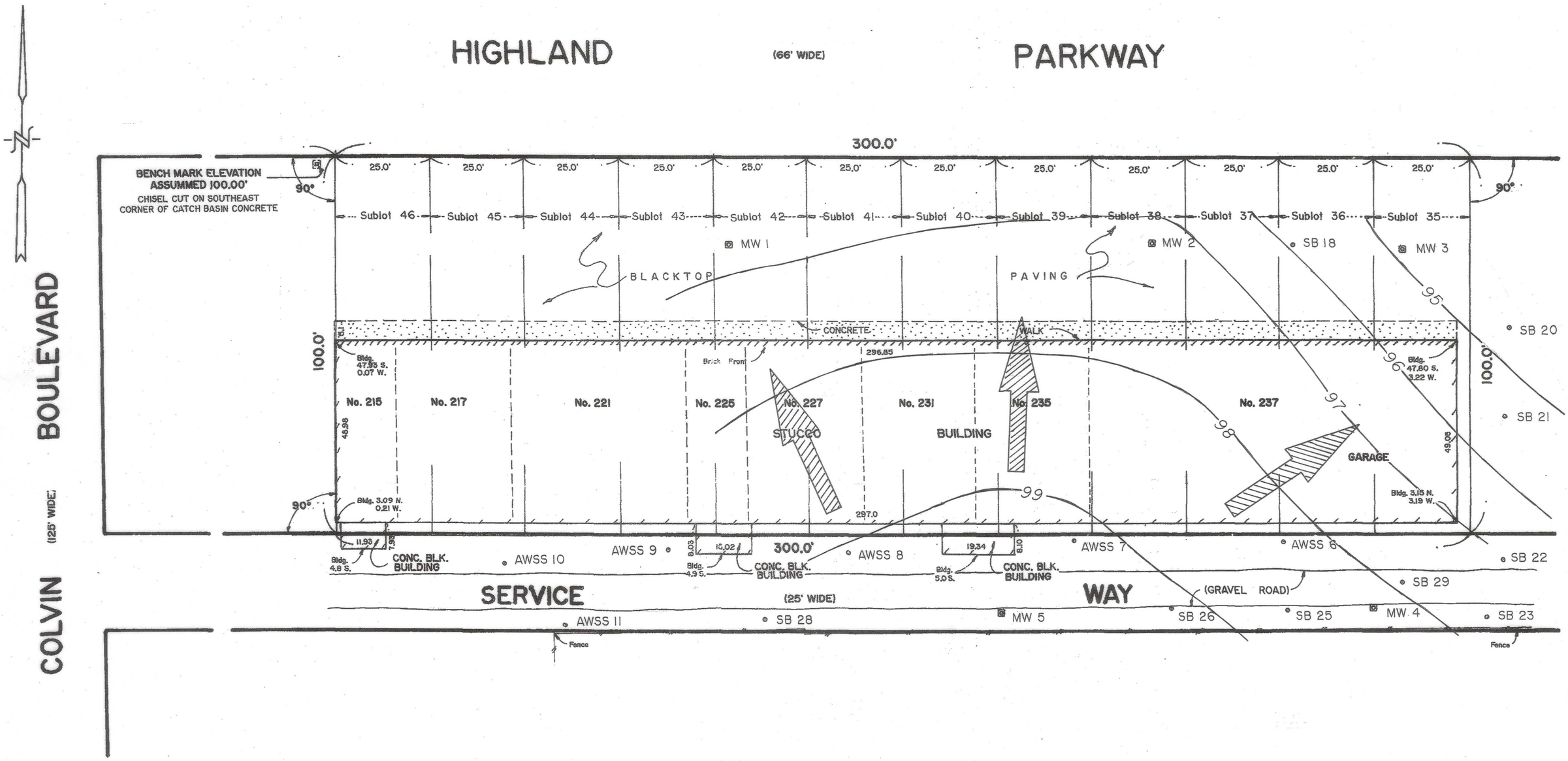


FIGURE 3 SAMPLING LOCATION MAP
PRELIMINARY PAHSE II INVESTIGATION (2014)
HIGHLAND PLAZA IN TONAWANDA, NY
May, 2016 **Not to Scale**



NOTE:
The groundwater contour lines were provided to Sonnenberger Land Surveying by Environmental & Geological Management Services, LLC based on measurements shown on:
TABLE 3: REMEDIAL INVESTIGATION GROUNDWATER ELEVATIONS
HIGHLAND PLAZA IN TONAWANDA , N.Y.
Dated December 4, 2015

Sonnenberger Land Surveying accepts no responsibility for the accuracy or completeness of the contour lines shown.

Point Description	Distance East of Northwest Property Corner	Distance South of Northwest Property Corner	Elevation (PVC Pipe)	Groundwater Elevation as supplied by Environmental & Geological Management Services, LLC Table 3 Dated 12/4/15
MW 1	104.45	22.36	100.51	96.71
MW 2	216.22	22.43	100.18	97.38
MW 3	282.43	24.29	100.08	94.68
MW 4	274.59	119.19	101.45	98.35
MW 5	176.13	120.15	102.06	99.26
SB 18	253.63	22.88		
SB20	310.68	44.85		
SB 21	309.38	68.53		
SB 22	309.20	106.52		
SB 23	304.75	121.78		
SB 25	251.83	119.34		
SB 26	221.32	118.93		
SB 28	113.74	121.41		
SB 29	282.23	112.08		
AWSS 6	251.01	101.56		
AWSS 7	195.55	101.02		
AWSS 8	136.09	104.20		
AWSS 9	88.35	102.98		
AWSS 10	45.14	106.68		
AWSS 11	61.17	122.98		

FIGURE 4 : WATER TABLE MAP

HIGHLAND PLAZA
TONAWANDA, NEW YORK

SUBLOTS 35 to 46 INCLUSIVE
MAP COVER 1400
PART OF LOT 33, TOWNSHIP 12, RANGE 8
TOWN OF TONAWANDA
ERIE COUNTY, NEW YORK

40 20 0 10 20
BAR SCALE 1" = 20'

SONNENBERGER LAND SURVEYING
60 NIAGARA STREET
BUFFALO, NEW YORK 14202
(716) 854-0159
SonnenbergerLandSurveying.com

SCALE: 1" = 20' DATE: NOV. 10, 2015
SHEET: 69621 No. 15-221 GW-1
REVISED 5/20/16 REVISED 5/18/17

LICENSED LAND SURVEYOR FRANCIS X. METZGER NEW YORK
Francis X. Metzger Lic. No. 049989

This map void unless EMBOSSED with New York State Licensed Land Surveyor's Seal No. 049989

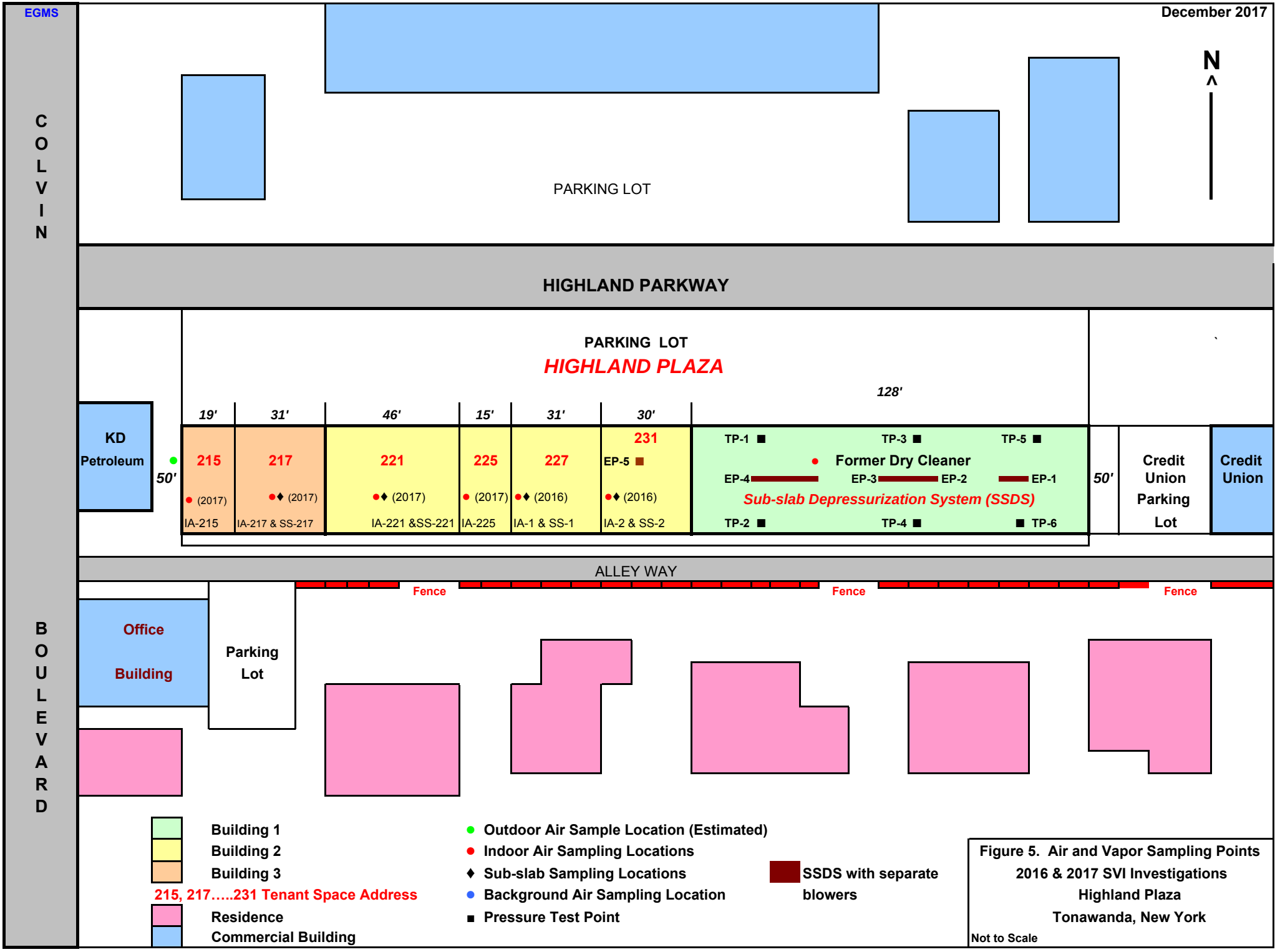


Figure 5. Air and Vapor Sampling Points
2016 & 2017 SVI Investigations
Highland Plaza
Tonawanda, New York
Not to Scale

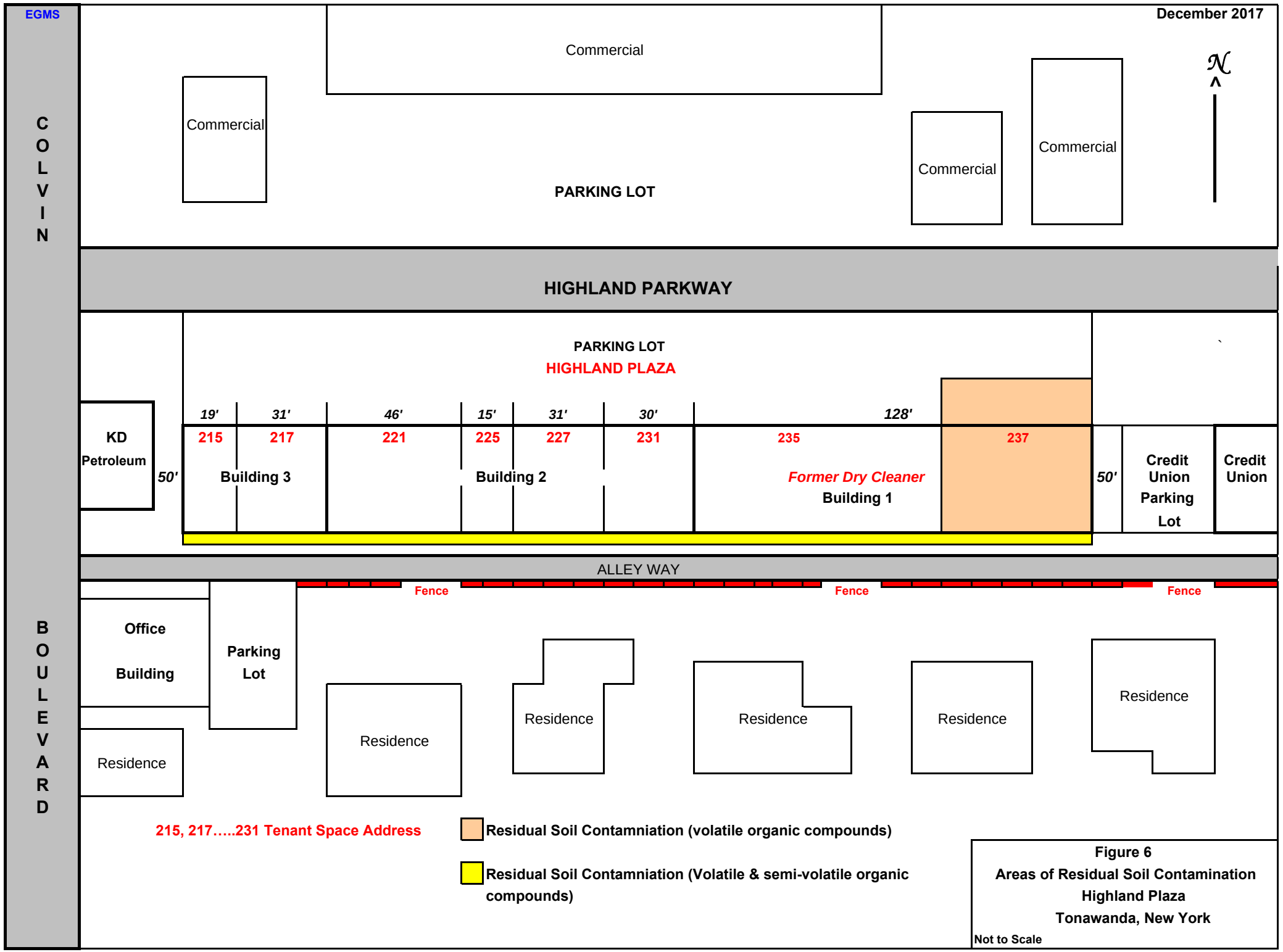


Figure 6
Areas of Residual Soil Contamination
Highland Plaza
Tonawanda, New York
Not to Scale

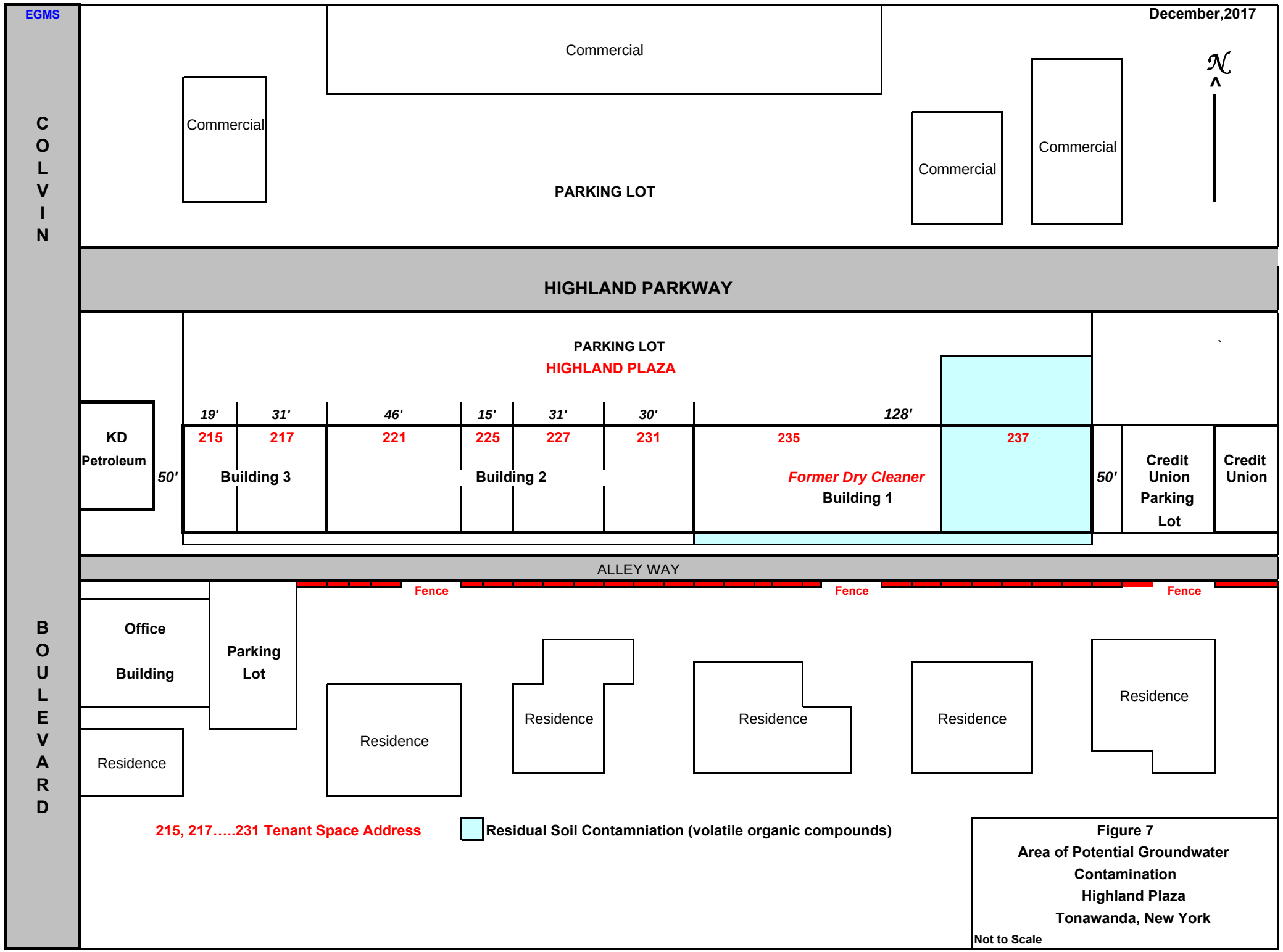
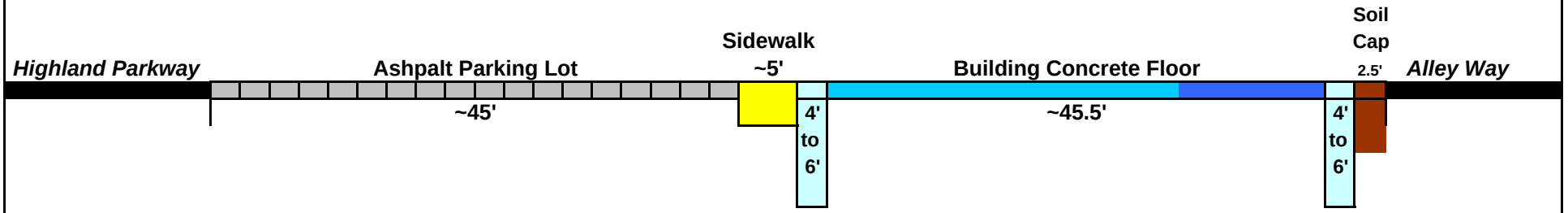


Figure 7
Area of Potential Groundwater Contamination
Highland Plaza
Tonawanda, New York
Not to Scale

EGMS December, 2017

HIGHLAND PLAZA

Looking East



- Highland Parkway and Alley Way
- Asphalt Parking Lot (~ 4 Inches Thick)
- Sidewalk (Variable Thickness from 4 to 18 Inches)
- Building Foundation (Variable Thickness from 4 to 6 Feet)
- Building Concrete Floor (~ 4 Inches Thick)
- Soil Cap (Variable Thickness from 12 to 24 Inches)

Figure 8. Profile of Cap and Cover System
Highland Plaza
Site Management Plan

Not to Scale

EGMS

December, 2017

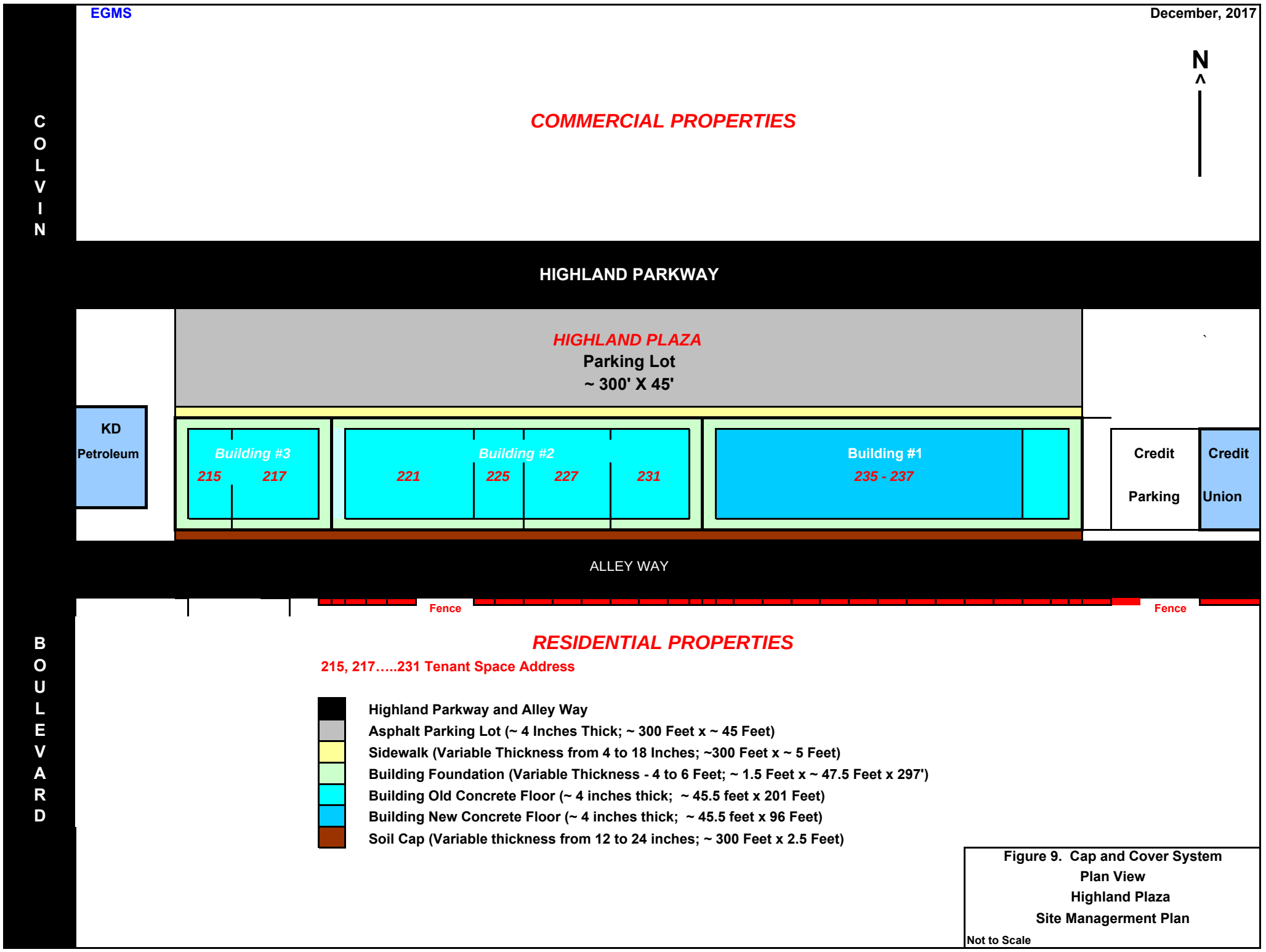


Figure 9. Cap and Cover System
Plan View
Highland Plaza
Site Managerment Plan

Not to Scale

APPENDIX A – ENVIRONMENTAL EASEMENT/NOTICES/DEED

THOMAS WHISSEL
ATTORNEY AND COUNSELOR AT LAW
80 WEST HURON STREET
BUFFALO, NEW YORK 14202

OFFICE TELEPHONE - (716) 852-2025
FAX NO. - (716) 852-8013

AUG 2 8 2017

August 24, 2017

Andrew Guglielmi, Associate Attorney
NYS Dept. of Environmental Conservation
Bureau of Remediation
625 Broadway, 14th Floor
Albany, New York 12233-1500

Re: 215 Highland Parkway
Tonawanda, New York
Site No. C915293
Owner: Gary Crewson

Dear Mr. Guglielmi:

Thank you for your correspondence of August 14, 2017. Per your instructions, I enclose herewith a copy of the recorded easement with a copy of the recording receipt from the Erie County Clerk's Office attached which shows the document was recorded on August 22, 2017 in Book 11317 at page 6208.

Also enclosed is a copy of my letter to the Office of the Town Clerk of the Town of Tonawanda providing a copy of the recorded easement. This letter was mailed by certified mail, return receipt requested and a copy of the certified mail receipt from the US Postal Service is attached to this letter.

Should anything further be required, please advise.

Very truly yours,

Thomas Whissel

THOMAS WHISSEL

TW/lms
Enc.

cc: Mr. Gary Crewson

PEGGY A. LAGREE, ACTING ERIE COUNTY CLERK
REF:

DATE:8/22/2017
TIME:1:39:03 PM
RECEIPT: 17146235

THOMAS WHISSEL
ACCOUNT #: 0

ITEM - 01 785
RECD: 8/22/2017 1:46:55 PM
FILE: 2017168610 BK/PG D 11317/6208
Deed Sequence: TT2017001627
CREWSON GARY
PEOPLE OF THE STATE OF NEW YORK (THE)

Recording Fees	90.00
TP584	10.00

Subtotal 100.00

TOTAL DUE	$100.00
PAID TOTAL	$100.00
PAID CHECK	$100.00
Check #16821:	100.00

REC BY: Donna G
COUNTY RECORDER

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36
OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 3RD day of August, 2017, between Owner(s) Gary Crewson, having an address of 5387 Oakridge Drive, Hamburg, New York 14075, County of Erie, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 215 Highland Parkway in the Town of Tonawanda, County of Erie and State of New York, known and designated on the tax map of the County Clerk of Erie as tax map parcel numbers: Section 66.57 Block 2 Lot 8.11, being the same as that property conveyed to Grantor by deed dated December 18, 2014 and recorded in the Erie County Clerk's Office in Liber and Page 11279/9309. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 0.690 +/- acres, and is hereinafter more fully described in the Land Title Survey dated April 14, 2017 prepared by Francis X. Metzger, L.L.S. of Sonnenberger Land Surveying, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is

extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C915293-04-15, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Erie 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;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) 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 this Environmental Easement.

B. The Controlled Property shall not be used for Residential or Restricted Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i) and (ii), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

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 Environmental Conservation

Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against

the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: C915293
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the

recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

Remainder of Page Intentionally Left Blank

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Gary Crewson:

By: _____

Print Name: Gary Crewson

Title: Owner Date: July 25, 2017

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ERIE)

On the 25TH day of July, in the year 2017, before me, the undersigned, personally appeared Gary Crewson, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Thomas Whissel
Notary Public - State of New York

THOMAS WHISSEL
Notary Public, State of New York
Qualified in Erie County
My Commission Expires August 31, 2017

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 3rd day of August, in the year 2017, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2018

SCHEDULE "A" PROPERTY DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Tonawanda, County of Erie and State of New York, being part of Lot No. 33, Township 12, Range 6 of the Holland Land Company's Survey and being Sublot Nos. 35 to 46 inclusive, under Map Cover 1400 according to a map of Highland Park filed in the Erie County Clerk's Office and more particularly described as follows:

COMMENCING at the intersection of the east line of Colvin Boulevard (125 feet wide) with the south line of Highland Parkway (66 feet wide);

Thence easterly along the south line of Highland Parkway a distance of eighty (80.0) feet to the true POINT OF BEGINNING;

Thence easterly along the south line of Highland Parkway a distance of three hundred (300.0) feet to a point;

Thence southerly at right angles to the said south line of Highland Parkway a distance of (100.0) feet to a point;

Thence westerly and parallel with the south line of Highland Parkway a distance of three hundred (300.0) feet to a point;

Thence northerly at right angles to the last described line a distance of one hundred (100.0) feet to the true POINT OF BEGINNING.

Containing 0.69 ± Acre.

THOMAS WHISSEL
ATTORNEY AND COUNSELOR AT LAW
80 WEST HURON STREET
BUFFALO, NEW YORK 14202

OFFICE TELEPHONE - (716) 852-2025
FAX NO. - (716) 852-8013

August 23, 2017

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

COPY

Office of the Town Clerk
Town of Tonawanda
2919 Delaware Avenue
Room 14
Kenmore, New York 14217

Re: 215 Highland Parkway
Tonawanda, New York

Ladies and Gentlemen:

I am the attorney for Gary Crewson, the owner of property at 215 Highland Parkway, Tonawanda, New York.

Recently, Mr. Crewson provided an environmental easement to the State of New York, Department of Environmental Conservation. That easement is dated August 3, 2017 and was recorded in the Erie County Clerk's Office on August 22, 2017 in Book 11317 of Deeds at page 6208.

At the direction of the Department of Environmental Conservation, I enclose herewith a copy of the easement that was recorded in August 22, 2017. I also enclose a copy of the recording receipt issued by the Erie County Clerk.

Should you need additional information, please advise.

Very truly yours,

THOMAS WHISSEL

TW/lms
Enc.

cc: Gary Crewson

7009 1410 0001 9394 2934

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com®

OFFICIAL USE

BUFFALO NY 14217

Postage	$ $3.85	
Certified Fee	~~$2.75~~	
Return Receipt Fee (Endorsement Required)	$0.00 ~~$0.00~~	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00 ~~$0.00~~	
	$1.40	
Total Postage & Fees	$ $7.50	08/23/2017

USPS BUFFALO NEW YORK 14241 AUG 23 2017 0241 99

CrewsonDEChighland

Sent To Office of Town Clerk

~~Town of Tonawanda~~

Street, Apt. No., or PO Box No. 2919 Delaware Ave., Room 14

City, State, ZIP+4 Kenmore, NY 14217

PS Form 3800, August 2006 See Reverse for Instructions

THOMAS WHISSEL
ATTORNEY AND COUNSELOR AT LAW
80 WEST HURON STREET
BUFFALO, NEW YORK 14202

OFFICE TELEPHONE - (716) 852-2025
FAX NO - (716) 852-8013

April 20, 2017

HAND DELIVERED

Mr. Gary Crewson
Buffalo Business Park, Inc.
1800 Broadway
Buffalo, New York 14212

Re: 215 Highland Parkway

Dear Gary:

Enclosed herewith please find a copy of my correspondence to attorney Burns dated April 18, 2017 along with copies of the items enclosed in that correspondence.

Please note that Form TP-584 must be signed by you and delivered to attorney Burns.

Also enclosed is a photocopy of the tax map maintained by the Town of Tonawanda. The premises on Highland Parkway are highlighted on that tax map.

Finally, I enclose four prints of the revised survey map of the premises now dated April 14, 2017.

Very truly yours,

THOMAS WHISSEL

TW/lms
Enc.

THOMAS WHISSEL
ATTORNEY AND COUNSELOR AT LAW
80 WEST HURON STREET
BUFFALO, NEW YORK 14202

OFFICE TELEPHONE - (716) 852-2025
FAX NO. - (716) 852-8013

April 18, 2017

FEDERAL EXPRESS

Bradford D. Burns, Senior Attorney
NYS Dept. of Environmental Conservation
Office of General Counsel
625 Broadway, 14th Floor
Albany, New York 12233-1500

Re: 215 Highland Parkway
Tonawanda, New York
Site No. C915293
Owner: Gary Crewson

Dear Mr. Burns:

I apologize for the delay in responding to you. Due to a prolonged illness, my time in the office has been somewhat limited.

The owner of the premises, Gary Crewson, will be coming to Albany on Friday, April 21, 2017. He will bring with him a revised and enlarged survey map and hard copies of the environmental Easement Checklist and the Notice to Municipality and Form TP-584.

For your convenience, I am enclosing herewith the following:

1. Copy of Environmental Easement Checklist.
2. Copy of proposed Notice to Municipality.
3. Copy of metes and bounds description prepared by the land surveyor.
4. Copy of deed conveying premises to Mr. Crewson.
5. Form TP-584.

Under separate cover, I will forward to you a copy of the tax map issued by the Town of Tonawanda Assessor's Office. I expect to be able to forward that tomorrow.

Thank you for your attention.

Very truly yours,

THOMAS WHISSEL

TW/lms
Enc.

Box 178

CORPORATE WARRANTY DEED

THIS INDENTURE, made the 18th day of December, Two Thousand Fourteen

BETWEEN, HIGHLAND PLAZA MANAGEMENT, INC., a corporation organized under the Laws of the State of New York, and having its place of business at 215 Highland Parkway, Tonawanda, County of Erie and State of New York,

party of the first part, and

GARY CREWSON, residing at 5387 Oakridge Drive, Hamburg, New York 14075

party of the second part.

WITNESSETH that the party of the first part, in consideration of ----One and More---Dollars ($1.00 & more), lawful money of the United State, paid by the party of the second part, does hereby grant and release unto the said party of the second part,

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Tonawanda, County of Erie and State of New York, being part of Lot No. 33, Township 12, Range 8 of the Holland Land Company's Survey and according to a map of Highland Park filed in Erie County Clerk's Office under Cover No. 1400 and known and distinguished as Subdivision Lots Nos. 35 through 46, inclusive.

TOGETHER with the appurtenances and all the estate and rights of the said party of the first part in and to the said premises.

TO HAVE AND TO HOLD, the above granted premises unto the said party of the second part, and assigns forever.

AND the said party of the first part does covenant with the said party of the second part as follows:

FIRST. - That the party of the second part shall quietly enjoy the said premises.

SECOND. - That the said party of the first part will forever **WARRANT** the title to said premises.

THIRD. - Subject to the trust fund provisions of section thirteen of the lien law.

THAT THIS CONVEYANCE is not of all or substantially all of the property of the party of the first part and is made in the regular course of business actually conducted by the party of the first part.

IN WITNESS WHEREOF, The said party of the first part has caused its corporate seal to be hereunto affixed, and these presents to be signed by its duly authorized officer the day and year first above written.

IN PRESENCE OF

HIGHLAND PLAZA MANAGEMENT INC.

By: J Lachut VP (L.S.)
JANET LACHUT, Vice-President

STATE OF NEW YORK)
COUNTY OF ERIE) ss:

On the 18 day of December, in the year 2014 before me, the undersigned, a Notary Public in and for said State, personally appeared JANET LACHUT, Vice-President of Highland Plaza Management, Inc., personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Karl Patrick Bridge
NOTARY PUBLIC

CHARLES PATRICK BRIDGE
Notary Public, State of New York
Qualified in Erie County
My Commission Expires 12/31/20 17

METES AND BOUNDS DESCRIPTION
215 – 237 HIGHLAND PARKWAY
TONAWANDA, NEW YORK

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Tonawanda, County of Erie and State of New York, being part of Lot No. 33, Township 12, Range 6 of the Holland Land Company's Survey and being Sublot No.s 35 to 46 inclusive, under Map Cover 1400 according to a map of Highland Park filed in the Erie County Clerk's Office and more particularly described as follows:

COMMENCING at the intersection of the east line of Colvin Boulevard (125 feet wide) with the south line of Highland Parkway (66 feet wide);

Thence easterly along the south line of Highland Parkway a distance of eighty (80.0) feet to the true POINT OF BEGINNING;

Thence easterly along the south line of Highland Parkway a distance of three hundred (300.0) feet to a point;

Thence southerly at right angles to the said south line of Highland Parkway a distance of one hundred (100.0) feet to a point;

Thence westerly and parallel with the south line of Highland Parkway a distance of three hundred (300.0) feet to a point;

Thence northerly at right angles to the last described line a distance of one hundred (100.0) feet to the true POINT OF BEGINNING.

Containing 0.69 ± Acre

NOTICE TO MUNICIPALITY

Marguerite Greco, Town Clerk
Town of Tonawanda
2910 Delaware Avenue
Kenmore, New York 14217

Re: Environmental Easement

Dear Sir or Madam:

Attached please find a copy of an environmental easement granted to the New York State Department of Environmental Conservation ("Department")

on _____,
by _____,
for property at 215 Highland Parkway,
Tax Map No. _____,
DEC Site No. _____.

This environmental easement restricts future use of the above-referenced property to restricted (residential, commercial or industrial) _____ uses. Any on-site activity must be done in accordance with the Environmental Easement and the Site Management Plan which is incorporated into the Environmental Easement. Department approval is also required prior to any groundwater use.

Article 71, Section 71-3607 of the New York State Environmental Conservation Law requires that:

1. Whenever the department is granted an environmental easement, it shall provide each affected local government with a copy of such easement and shall also provide a copy of any documents modifying or terminating such environmental easement.

2. Whenever an affected local government receives an application for a building permit or any other application affecting land use or development of land that is subject to an environmental easement and that may relate to or impact such easement, the affected local government shall notify the department and refer such application to the department. The department shall evaluate whether the application is consistent with the environmental easement and shall notify the affected local government of its determination in a timely fashion, considering the time frame for the local government's review of the application. The affected local government shall not approve the application until it receives approval from the department.

An electronic version of every environmental easement that has been accepted by the Department is available to the public at: http://www.dec.ny.gov/chemical/36045.html. Please forward this notice to your building and/or planning departments, as applicable, to ensure your compliance with these provisions of New York State Environmental Conservation Law. If you have any questions or comments regarding this matter, please do not hesitate to contact me.

Very truly yours,

ENVIRONMENTAL EASEMENT CHECKLIST/CERTIFICATION

SITE No. C915293

The following requirements and attachments must be included as part of the submission to the Department for an Environmental Easement. Upon completion of the review, an attorney must sign the checklist indicating that they have fully completed the checklist. The Department will not accept submissions which have not been signed as being accurate and complete by both the Remedial Party and Attorney. Where the property owner is not the Remedial Party, the Department also requires the Owner to sign the checklist.

1) Special Circumstances

The last owner search was completed and the deed transfer is by Quit Claim or other restricted transfer deed ☐Yes ☒No

The property in the Brownfield Cleanup Agreement includes lands under water ☐Yes ☒No

The property has multiple owners ☐Yes ☒No

If you answered "Yes" to any of these items, contact the Department's Environmental Easement contact person for a determination as to whether further title work is necessary.

2) Verification of ownership of the property

- ☐ Submit documentation (such as a corporate resolution) that the signatory on the easement has authority to sign the Easement
- ☒ Ownership of the property matches the current deed.
- ☒ Verification reviewed and included for authority to sign Easement.
- ☐ Updated copies of legal organizational documents have been reviewed and are included. Examples of the appropriate documentation will include, for:
  - corporations: articles of incorporation, organizational agreements, minutes of annual meetings, resolutions, authorities for signature;
  - partnerships: a copy of the partnership agreement; verification that necessary parties are participating in the Easement;
  - trusts: trust agreement, affidavit of no change in the trust; and
  - estates: estate letters, powers of attorney.

3) Verification of Property Subject to Easement

- ☒ Description of the property for the Easement and DEC Agreement/Order/SAC matches description of property in the deed (Separate submittal must be included to explain to the satisfaction of the Department why there is any discrepancy).
- ☒ The Tax Map identifier (SBL) matches on all documents.

4) Survey Review

- [x] Survey includes metes and bounds description.
- [x] Survey includes a graphic scale.
- [ ] Survey includes Tax Map Section, Block and Lot.
- [x] Survey includes physical address and is consistent with the DEC Agreement/Order/SAC.
- [x] The survey must bear the name, address, telephone number, signature and certification of the professional land surveyor who performed the survey, his or her official seal and registration number, the date the survey was completed, the dates of all of the surveyor's revisions.
- [x] The survey boundaries must be drawn to a convenient scale, with that scale clearly indicated. A graphic scale, shown in feet and meters, must be included.
- [ ] The symbols and abbreviations that are used on the survey must be identified by the use of a legend.
- [ ] Diagrams must be accurately presented.
- [x] The point of beginning of the legal description must be shown.
- [x] The legal description must be correct.
- [ ] The legal description must state the acreage.
- [ ] If the deed(s) description differs from the measured bearings/angles/distances, both must be indicated on the survey.
- [x] The survey must show the location of all buildings/monuments/overlaps/encroachments upon the surveyed property with their locations defined by measurement perpendicular to the nearest perimeter boundaries.
- [x] The survey must depict the location of visible improvements within five feet of each side of boundary lines.
- [ ] The survey must show ponds, lakes, springs, rivers or a natural water boundary bordering on or running through the surveyed property; the survey must measure the location of the natural water boundary and note on the survey the date of the measurement.
- [ ] The survey must correctly depict the environmental easement area with corresponding metes & bounds description and acreage, and include the following sentence: "*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*". This reference must be located on the face of the survey and be in at least 15-point type.
- [x] If the survey consists of more than one sheet, sheets must be numbered and the total number of sheets must be indicated on each sheet.

☐ In addition to county-specific requirements, submittal of the approved survey to the Department must include the following:

- A "D" sized copy (24" x 36") of the final signed, stamped map
- A 600 DPI scan of the final signed, stamped map
- An Autocad .dwg or exported .dxf file of the polyline (at a minimum) of the final survey

5) Submissions

☐ The Environmental Easement Package being submitted to the Department includes the applicable documents set forth in Attachment A.

PLEASE READ THE FOLLOWING CAREFULLY

The Remedial Party and the Remedial Party's attorney understand and acknowledge that the New York State Department of Environmental Conservation will rely on each and every answer in this statement: (1) to determine whether the Easement Package can be reviewed in a timely fashion; and (2) to determine whether the Easement Package should be approved. The Remedial Party and the Remedial Party's attorney understand and acknowledge that any false statement or misrepresentation herein will constitute cause for the revocation of the Certificate of Completion issued in reliance on this checklist and accompanying documentation. The Remedial Party and the Remedial Party's attorney further acknowledge that the failure to provide the Department with valid and enforceable Environmental Easement on the property may be grounds for the Department to revoke any Certificate of Completion for the site.

Statement of Certification and Signatures

I have reviewed the information being submitted in relation to this Environmental Easement and this information, to the best of my knowledge and belief, is accurate and correct. I further acknowledge that the failure to provide the Department with valid and enforceable Environmental Easement on the property may be grounds for the Department to revoke any Certificate of Completion for the site.

1) By Remedial Party:
I hereby affirm that information provided on this form and its attachments is true and complete to the best of my knowledge and belief. I further acknowledge that the failure to provide the Department with valid and enforceable Environmental Easement on the property may be grounds for the Department to revoke any Certificate of Completion for the site.

Date: July 13, 2016 Signature: Gary Crewson

Print Name: GARY CREWSON

2) By Remedial Party's Attorney:
I hereby affirm that I am the attorney for GARY CREWSON (entity); that I am authorized by that entity to make this certification; that this certification was prepared by me or under my supervision and direction; and that information provided on this form and its attachments is true and complete to the best of my knowledge and belief.

Date: JULY 13, 2016 Signature: Thomas Whissel

Print Name: THOMAS WHISSEL

Attachment

Attachment A

Documents required to be sent in hard copy with electronic formats copied to the Project Manager and Project Attorney for a complete Environmental Easement package:

1) Copy(ies) of current deed(s) and supporting title documentation (see Department Title Requirements).

2) Copy of tax map.

3) Proof of authority to obligate owner of property as set forth in "Verification of ownership of property" on the Easement checklist.

4) Legal description of the easement area, electronic copy to be in an electronic text format (i.e., MS Word or Rich Text Format).

5) One full-sized, signed Survey and an electronic Survey submitted as a fully rendered PDF (not scanned).

6) A draft Notice to Municipality, with appropriate site-specific provisions.

7) Easement Checklist with certification signed by Remedial Party and Remedial Party's attorney.

8) Signed transfer tax forms (TP-584 or ACRIS Forms).

Hard copy submission shall be sent to:

Bradford Burns, Esq.
New York State Department of Environmental Conservation
Office of General Counsel
625 Broadway
Albany, NY 12233-1500

Schedule B — Real estate transfer tax return (Tax Law, Article 31)

Part I – Computation of tax due

1	Enter amount of consideration for the conveyance *(if you are claiming a total exemption from tax, check the exemption claimed box, enter consideration and proceed to Part III)* ☐ **Exemption claimed**	1.	
2	Continuing lien deduction *(see instructions if property is taken subject to mortgage or lien)*	2.	
3	Taxable consideration *(subtract line 2 from line 1)*	3.	0
4	Tax: $2 for each $500, or fractional part thereof, of consideration on line 3	4.	
5	Amount of credit claimed for tax previously paid *(see instructions and attach Form TP-584.1,* Schedule G*)*	5.	
6	Total tax due* *(subtract line 5 from line 4)*	6.	0

Part II – Computation of additional tax due on the conveyance of residential real property for $1 million or more

1	Enter amount of consideration for conveyance *(from* Part I*, line 1)*	1.	
2	Taxable consideration *(multiply line 1 by the percentage of the premises which is residential real property, as shown in* Schedule A*)*	2.	
3	Total additional transfer tax due* *(multiply line 2 by 1% (.01))*	3.	

Part III – Explanation of exemption claimed on Part I, line 1 *(check any boxes that apply)*

The conveyance of real property is exempt from the real estate transfer tax for the following reason:

a. Conveyance is to the United Nations, the United States of America, the state of New York, or any of their instrumentalities, agencies, or political subdivisions (or any public corporation, including a public corporation created pursuant to agreement or compact with another state or Canada) ..... a ☐

b. Conveyance is to secure a debt or other obligation ..... b ☐

c. Conveyance is without additional consideration to confirm, correct, modify, or supplement a prior conveyance ..... c ☐

d. Conveyance of real property is without consideration and not in connection with a sale, including conveyances conveying realty as bona fide gifts ..... d ☐

e. Conveyance is given in connection with a tax sale ..... e ☐

f. Conveyance is a mere change of identity or form of ownership or organization where there is no change in beneficial ownership. (This exemption cannot be claimed for a conveyance to a cooperative housing corporation of real property comprising the cooperative dwelling or dwellings.) Attach Form TP-584.1, Schedule F ..... f ☐

g. Conveyance consists of deed of partition ..... g ☐

h. Conveyance is given pursuant to the federal Bankruptcy Act ..... h ☐

i. Conveyance consists of the execution of a contract to sell real property, without the use or occupancy of such property, or the granting of an option to purchase real property, without the use or occupancy of such property ..... i ☐

j. Conveyance of an option or contract to purchase real property with the use or occupancy of such property where the consideration is less than $200,000 and such property was used solely by the grantor as the grantor's personal residence and consists of a one-, two-, or three-family house, an individual residential condominium unit, or the sale of stock in a cooperative housing corporation in connection with the grant or transfer of a proprietary leasehold covering an individual residential cooperative apartment ..... j ☐

k. Conveyance is not a conveyance within the meaning of Tax Law, Article 31, section 1401(e) *(attach documents supporting such claim)* ..... k ☐

*The total tax (from Part I, line 6 and Part II, line 3 above) is due within 15 days from the date conveyance. Please make check(s) payable to the county clerk where the recording is to take place. If the recording is to take place in the New York City boroughs of Manhattan, Bronx, Brooklyn, or Queens, make check(s) payable to the ***NYC Department of Finance.*** If a recording is not required, send this return and your check(s) made payable to the ***NYS Department of Taxation and Finance,*** directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-5045.

Schedule C — Credit Line Mortgage Certificate (Tax Law, Article 11)

Complete the following only if the interest being transferred is a fee simple interest.
I (we) certify that: *(check the appropriate box)*

1. ☒ The real property being sold or transferred is not subject to an outstanding credit line mortgage.

2. ☐ The real property being sold or transferred is subject to an outstanding credit line mortgage. However, an exemption from the tax is claimed for the following reason:
   - ☐ The transfer of real property is a transfer of a fee simple interest to a person or persons who held a fee simple interest in the real property (whether as a joint tenant, a tenant in common or otherwise) immediately before the transfer.
   - ☐ The transfer of real property is (A) to a person or persons related by blood, marriage or adoption to the original obligor or to one or more of the original obligors or (B) to a person or entity where 50% or more of the beneficial interest in such real property after the transfer is held by the transferor or such related person or persons (as in the case of a transfer to a trustee for the benefit of a minor or the transfer to a trust for the benefit of the transferor).
   - ☐ The transfer of real property is a transfer to a trustee in bankruptcy, a receiver, assignee, or other officer of a court.
   - ☐ The maximum principal amount secured by the credit line mortgage is $3,000,000 or more, and the real property being sold or transferred is **not** principally improved nor will it be improved by a one- to six-family owner-occupied residence or dwelling.

     Please note: for purposes of determining whether the maximum principal amount secured is $3,000,000 or more as described above, the amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements.
   - ☐ Other *(attach detailed explanation)*.

3. ☐ The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason:
   - ☐ A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed.
   - ☐ A check has been drawn payable for transmission to the credit line mortgagee or his agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available.

4. ☐ The real property being transferred is subject to an outstanding credit line mortgage recorded in _____ (insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is _____. No exemption from tax is claimed and the tax of _____ is being paid herewith. *(Make check payable to county clerk where deed will be recorded or, if the recording is to take place in New York City but not in Richmond County, make check payable to the **NYC Department of Finance.**)*

Signature (both the grantor(s) and grantee(s) must sign)

The undersigned certify that the above information contained in schedules A, B, and C, including any return, certification, schedule, or attachment, is to the best of his/her knowledge, true and complete, and authorize the person(s) submitting such form on their behalf to receive a copy for purposes of recording the deed or other instrument effecting the conveyance.

Grantor signature	Title	Grantee signature	Title
Grantor signature	Title	Grantee signature	Title

Reminder: Did you complete all of the required information in Schedules A, B, and C? Are you required to complete Schedule D? If you checked *e*, *f*, or *g* in Schedule A, did you complete Form TP-584.1? Have you attached your check(s) made payable to the county clerk where recording will take place or, if the recording is in the New York City boroughs of Manhattan, Bronx, Brooklyn, or Queens, to the ***NYC Department of Finance***? If no recording is required, send your check(s), made payable to the ***Department of Taxation and Finance,*** directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-5045.

Schedule D - Certification of exemption from the payment of estimated personal income tax (Tax Law, Article 22, section 663)

Complete the following only if a fee simple interest or a cooperative unit is being transferred by an individual or estate or trust.

If the property is being conveyed by a referee pursuant to a foreclosure proceeding, proceed to Part II, and check the second box under *Exemptions for nonresident transferor(s)/seller(s)* and sign at bottom.

Part I - New York State residents

If you are a New York State resident transferor(s)/seller(s) listed in Schedule A of Form TP-584 (or an attachment to Form TP-584), you must sign the certification below. If one or more transferors/sellers of the real property or cooperative unit is a resident of New York State, **each** resident transferor/seller must sign in the space provided. If more space is needed, please photocopy this Schedule D and submit as many schedules as necessary to accommodate all resident transferors/sellers.

Certification of resident transferor(s)/seller(s)

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor(s)/seller(s) as signed below was a resident of New York State, and therefore is not required to pay estimated personal income tax under Tax Law, section 663(a) upon the sale or transfer of this real property or cooperative unit.

Signature	Print full name	Date
Signature	GARY CREWSON	
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

Note: A resident of New York State may still be required to pay estimated tax under Tax Law, section 685(c), but not as a condition of recording a deed.

Part II - Nonresidents of New York State

If you are a nonresident of New York State listed as a transferor/seller in Schedule A of Form TP-584 (or an attachment to Form TP-584) but are not required to pay estimated personal income tax because one of the exemptions below applies under Tax Law, section 663(c), check the box of the appropriate exemption below. If any one of the exemptions below applies to the transferor(s)/seller(s), that transferor(s)/seller(s) is not required to pay estimated personal income tax to New York State under Tax Law, section 663. **Each** nonresident transferor/seller who qualifies under one of the exemptions below must sign in the space provided. If more space is needed, please photocopy this Schedule D and submit as many schedules as necessary to accommodate all nonresident transferors/sellers.

If none of these exemption statements apply, you must complete Form IT-2663, *Nonresident Real Property Estimated Income Tax Payment Form*, or Form IT-2664, *Nonresident Cooperative Unit Estimated Income Tax Payment Form.* For more information, see *Payment of estimated personal income tax,* on page 1 of Form TP-584-I.

Exemption for nonresident transferor(s)/seller(s)

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor(s)/seller(s) (grantor) of this real property or cooperative unit was a nonresident of New York State, but is not required to pay estimated personal income tax under Tax Law, section 663 due to one of the following exemptions:

☐ The real property or cooperative unit being sold or transferred qualifies in total as the transferor's/seller's principal residence (within the meaning of Internal Revenue Code, section 121) from _____ (Date) to _____ (Date) *(see instructions).*

☐ The transferor/seller is a mortgagor conveying the mortgaged property to a mortgagee in foreclosure, or in lieu of foreclosure with no additional consideration.

☐ The transferor or transferee is an agency or authority of the United States of America, an agency or authority of the state of New York, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Tonawanda, County of Erie and State of New York, being part of Lot No. 33, Township 12, Range 6 of the Holland Land Company's Survey and being Sublot Nos. 35 to 46 inclusive, under Map Cover 1400 according to a map of Highland Park filed in the Erie County Clerk's Office and more particularly described as follows:

COMMENCING at the intersection of the east line of Colvin Boulevard (125 feet wide) with the south line of Highland Parkway (66 feet wide);

Thence easterly along the south line of Highland Parkway a distance of eighty (80.0) feet to the true POINT OF BEGINNING;

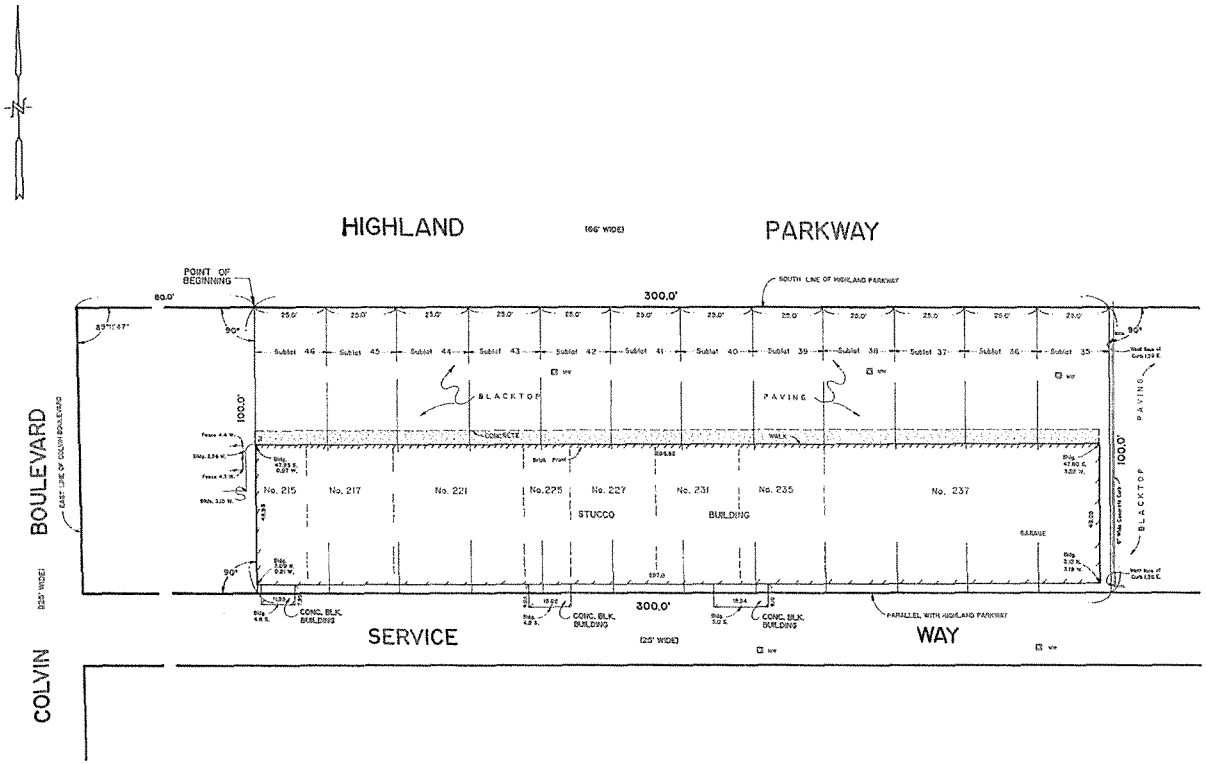
Thence easterly along the south line of Highland Parkway a distance of three hundred (300.0) feet to a point;

Thence southerly at right angles to the said south line of Highland Parkway a distance of one hundred (100.0) feet to a point;

Thence westerly and parallel with the south line of Highland Parkway a distance of three hundred (300.0) feet to a point;

Thence northerly at right angles to the last described line a distance of one hundred (100.0) feet to the true POINT OF BEGINNING.

Containing 0.69 ± Acre



LEGEND

CONCRETE	CONC.
BLACKTOP	BLKTP.
FENCE	
BUILDING	Bldg.
NORTH	N.
SOUTH	S.
EAST	E.
WEST	W.
MONITORING WELL	MW

SUBLOTS 35 to 46 INCLUSIVE
MAP COVER 1400
PART OF LOT 33, TOWNSHIP 12, RANGE 8
TOWN OF TONAWANDA
ERIE COUNTY, NEW YORK

BAR SCALE 1" = 20'
1 METER = 3.281 FEET

I HEREBY CERTIFY

THAT THIS REPORT OF SURVEY, OF THAT PARCEL OF LAND DEPICTED HEREON, DATED: APRIL 14, 2017 AND NUMBERED 17-69

HAS BEEN PREPARED UNDER MY DIRECTION/SUPERVISION FROM DESCRIPTIONS FURNISHED THIS OFFICE AND TO THE BEST OF MY KNOWLEDGE AND BELIEF, IS IN ACCORDANCE WITH THE STANDARDS FOR LAND TITLE SURVEYS AS JOINTLY ADOPTED BY THE NIAGARA FRONTIER LAND SURVEYORS ASSOCIATION AND ERIE COUNTY BAR ASSOCIATION (NEW YORK)

THIS CERTIFICATION DOES NOT EXTEND TO SUBSEQUENT OWNERS, LENDING INSTITUTIONS OR TITLE INSURERS.

Francis X. Metzger
Francis X. Metzger
N.Y.S. License No. 049989

This map void unless EMBOSSED with New York State Licensed Land Surveyor's seal No. 049989

NOTE: THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE SEARCH OF PROPERTY OF AND IS SUBJECT TO ANY STATE OF FACT THAT MAY BE REVEALED BY AN EXAMINATION OF SAME.
NO DETERMINATION MADE FOR EASEMENTS UNDER LAKE, SEWER DRAINS, CONDUITS ETC.

Altering any item on this map is in violation of the law, according as provided in Section 7209, Part 2 of the New York State Education Law

SONNENBERGER LAND SURVEYING
2228 WILLIAM STREET
BUFFALO, NEW YORK 14206
(716) 824-0159
SonnenbergerSurveying.com

SCALE 1" = 20' DATE APRIL 14, 2017
SHEET 6062A No. 17-69

APPENDIX [B] – LIST OF SITE CONTACTS

Name	Phone/Email Address
Owner - Mr. Gary Crewson (Owner)	(716)867-2369; gcrewson@aol.com
Remedial Party - Same	
Environmental Professional – EGMS	(716)445-2105; nwohlabaugh@verizon.net
NYSDEC Project Manager – Glenn May	(716)851-7220; glenn.may@dec,gov
NYSDEC Regional HW Engineer – Mary McIntosh	(716)851-7220; mary.mcintosh@dec.gov
NYSDEC Site Control] – Kelly Lewandowski	(518)402-9553; Kelly.lewandowski@dec.gov
Remedial Party Attorney–Thomas Whissel	(716) 852-2025

APPENDIX C

REMEDIAL INVESTIGATION SOIL BORING LOGS

EGMS	SUBSURFACE BORING LOG	Start Date: 10/14 End Date: 10/14	Boring No. SB-16/MW-1
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Overcast	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing:	Datum:
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting:	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	
Type of Sampling Device: GeoProbe Macro-Core Sampler		Type of Casing:	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 4" Asphalt		
			4" to 12" Crushed Stone		1.5
1			*6" to 12" - Soil sample collected for lab analysis*		1.1
2	1	44"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.1
			Moist and compact		
3					1.1
4					1.1
5					1.1
6	2	42"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.1
			Damp and compact		
7					1.1
8					1.1
9					1.0
10	3	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.0
			Damp and compact		
11					1.0
12					1.0
13					1.0
14	4	48"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.2
			Damp to slightly moist; compact		
15					1.1
16					1.0
17					1.1
18	5	47"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.0
			Slightly moist; less compact		
19					1.1
20					1.0
21					1.0
22	6	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.9
			Slightly moist; less compact to pliable		
23			Drill rods are dry		0.9
			23' to 24' - Soil sample collectd for lab analysis		
24			**END OF BORING**		1.0

Depth to Water: Not encountered	Comments: **Converted to MW-1**	Boring No. **SB-16**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/14 End Date: 10/14	Boring No. SB-17/MW-2

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Overcast**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Asphalt		
			6" to 12" Crushed Stone		0.8
1			***6" to 12" - Soil sample collected for lab analysis***		0.7
2	1	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.7
			Damp and compact		
3					0.7
4					0.7
5					0.7
6	2	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.7
			Dry to damp; very compact		
7					0.7
8					0.7
9					0.5
10	3	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.5
			Damp and compact		
11					0.5
12					0.5
13					0.5
14	4	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.4
			Damp and compact		
15					0.4
16					0.5
17					0.4
18	5	47"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.4
			Slightly moist; less compact at 19' to 20'		
19					0.4
20					0.4
21					0.4
22	6	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.4
			Moist; pliable to soft		
23			***23' to 24' - Soil sample collectd for lab analysis***		0.4
			23.5 to 24' Red brown **SILT**, some Clay, minor fine Sand, little Gravel		
24			**END OF BORING**		0.4

Depth to Water: Not encountered	**Comments: Converted to MW-2**	**Boring No. SB-17**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/14 End Date: 10/14	Boring No. SB-18
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Sunny	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing:	Datum:
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting:	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	
Type of Sampling Device: GeoProbe Macro-Core Sampler		Type of Casing:	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Asphalt		
			6" to 12" Crushed Stone		0
1			12" to 16" Black stained Sand		0
			12" to 18" - Soil sample collected for lab analysis		
2	1	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
3					0
4					0
5					0
6	2	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Dry to damp; very compact		
7					0
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		0

Depth to Water: Not encountered_____	**Comments**: Groundwater not encountered in completed geoprobe boring.	Boring No. SB-18

EGMS	SUBSURFACE BORING LOG	Start Date: 10/14 End Date: 10/14	Boring No. SB-19/MW-3

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Overcast**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Asphalt		
			6" to 12" Crushed Stone		0.4
1			***6" to 18" - Soil sample collected for lab analysis***		0.3
2	1	42"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.3
			Damp and compact		
3					0.3
4					0.3
5					0.2
6	2	43.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.2
			Damp; very compact		
7					0.2
8					0.2
9					0.2
10	3	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.2
			Damp; very compact		
11					0.2
12					0.2
13					0.1
14	4	46"	Red Brown **CLAY**, some Silt, very little fine Sand, very little Gravel		0.2
			Damp to moist; less compact		
15					0
16					0.1
17					0.1
18	5	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.1
			Slightly moist; less compact at 19' to 20'		
19					0.1
20					0.1
21					0
22	6	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.1
			Moist; pliable to soft		
23					0
			23' to 24' - Soil sample collected for lab analysis		
24			**END OF BORING**		0.1

Depth to Water: Not encountered	**Comments: Converted to MW-3**	**Boring No. SB-19**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/15 End Date: 10/15	Boring No. SB-20

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~48°F, Sunny**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Asphalt & crushed stone		
					0.2
1			6" to 18" Dark Brown stained **CLAY**		2.3
			6" to 18" - Soil sample collected for lab analysis		
2	1	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.1
			Damp and compact		
3					0.1
4					1.4
5					0.2
6	2	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0.8
			Dry to damp; compact		
7					0
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		0

Depth to Water: Not encountered	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No.** **SB-20**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/15 End Date: 10/15	Boring No. SB-21

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~48°F, Sunny**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 8" Asphalt & crushed stone		
					0
1			8" to 20" Dark Brown stained **CLAY**		0
			12" to 20" - Soil sample collected for lab analysis		
2	1	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
3					0
4					0
5					0
6	2	44"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
7					0
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		0

Depth to Water: Not encountered_____	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No.** **SB-21**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/15 End Date: 10/15	Boring No. SB-22

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~48°F, Sunny**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 10" Asphalt & crushed stone		
					0
1			10" to 19" Dark Brown stained **CLAY**		0
			6" to 18" - Soil sample collected for lab analysis		
2	1	45"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
3					0
4					0
5					0
6	2	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
7					0
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		0

Depth to Water: Not encountered_____	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No.** **SB-22**

EGMS	SUBSURFACE BORING LOG	Start Date:	Boring No. SB-23
		End Date:	

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Overcast**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 8" Dark grey coarse SAND		0.3
			8" to 10" Medium grey Coarse SAND		1.3
1			10" to 17" Light grey andgular GRAVEL (crushed stone)		0
			17" to 24" Dark grey stained CLAY ***Soil sample collected for lab analysis***		
2	1	40"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
3					0
4					0
5					1.7
6	2	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		1.7
			Damp and compact		
7			***6' to 7' - Soil sample collected for lab analysis***		1.6
8			**END OF BORING**		0.4

Depth to Water: Not encountered	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No. SB-23**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/15 15-Oct	Boring No. SB-24/MW-4

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Sunny**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Dark grey angular GRAVEL (crushed stone)t		5.4
			6" to 12" Medium grey angular GRAVEL (crushed stone)		
1			12" to 14" Black coarse SAND (stained) ***Sample collected for analysis***		92.6
			14" to 24" Black CLAY (stained) some Silt, little fine Sand, very little		13.1
2	1	41"	Gravel; Damp and compact		
			24" to 48" Red brown **CLAY,** some Silt, little fine Sand, very little Gravel		
3			Damp and compact		0.3
4					0.3
5					9.3
6	2	43"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		49.6
			Damp; very compact		
7					64.2
8					39.4
9					48.3
10	3	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		66.1
			Damp; very compact		
11					132.1
12					Not recorded
13					25.8
14	4	43"	Red Brown **CLAY**, some Silt, very little fine Sand, very little Gravel		66
			Damp to moist; less compact		
15			***14' to 15' - Soil sample collected for lab analysis***		203
16					44.2
17					36.5
18	5	44"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		22.8
			Slightly moist; less compact at 17.5' to 20'		
19					8.3
20					43.5
21					50.8
22	6	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		22.7
			Moist; pliable to soft		
23					8.3
			23' to 24' - Soil sample collected for lab analysis		
24			**END OF BORING**		4.4

Depth to Water: Not encountered	**Comments: Converted to MW-4**	**Boring No. SB-24**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/16 16-Oct	Boring No. SB-25

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Sunny**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 3" Dark greyTopsoil		7.4
			3" to 16" Medium grey angular GRAVEL (crushed stone)		1.3
1			16" to 18" Dark black GRAVEL (crushed stone) ***Soil sample***		30.0
			18" to 22" Dark grey stained CLAY ***collected for analysis (16" to 20")***		885
2	1	39.5"	22" to 48' Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		
			Damp and compact		
3					69.2
4					0
5					188.8
6	2	40.0"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		122.4
			Damp and compact		
7			***6' to 7' - Soil sample collected for lab analysis***		393.4
8			**END OF BORING**		365.2

Depth to Water: Not encountered	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No.** **SB-25**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/16 End Date: 10/16	Boring No. SB-26

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Overcast**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 3" Dark grey Topsoil		0.5
			3" to 16.5" Medium grey angular GRAVEL (crushed stone)		1.0
1					
			17" to 22" - Soil sample collected for lab analysis		
2	1	41.0"	16.5" to 48" Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		2
			Damp and compact		
3					1.9
4					0.7
5					188.8
6	2	46.0"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		122.4
			Damp and compact		
7					393.4
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		365.2

Depth to Water: Not encountered	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No.** **SB-26**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/15 End Date: 10/15	Boring No. SB-27/MW-5

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Sunny**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	
Type of Sampling Device: GeoProbe Macro-Core Sampler		**Type of Casing:**	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 6" Dark grey Topsoil		0
			6" to 12" Medium grey angular GRAVEL (crushed stone)		0
1			***17" to 22" - Soil sample collected for lab analysis***		
			14" to 19" Dark grey CLAY (stained) some Silt, little fine Sand, very little		0
2	1	40"	Gravel; Damp and compact		
			19" to 48" Red brown **CLAY,** some Silt, little fine Sand, very little Gravel		0
3			Damp and compact		
4					0
5					0
6	2	46"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp; very compact		
7					0
8					0
9					0
10	3	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp; very compact		
11					0.5
12					0.2
13					0
14	4	39.5"	Red Brown **CLAY**, some Silt, very little fine Sand, very little Gravel		2.7
			Damp to moist; less compact		
15			***14' to 15' - Soil sample collected for lab analysis***		9.6
16					3.8
17					0
18	5	43"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Moist to wet; less compact at 17.5' to 20'		
19					0
20					0
21					0
22	6	40.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Mois to wet; pliable to soft		
23					0
			23' to 24' - Soil sample collected for lab analysis		
24			**END OF BORING**		0

Depth to Water: Not encountered	**Comments: Converted to MW-5**	**Boring No. SB-27**

EGMS	SUBSURFACE BORING LOG	Start Date: 10/16 End Date:	Boring No. SB-28
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Overcast	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing:	Datum:
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting:	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	
Type of Sampling Device: GeoProbe Macro-Core Sampler		Type of Casing:	

Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 2.5" Dark grey Topsoil		0.1
			2.5" to 17" Medium grey angular GRAVEL (crushed stone)		1.0
1					
			10" to 22" - Soil sample collected for lab analysis		
2	1	42.0"	17" to 48" Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		2.7
			Damp and compact		
3					0
4					0
5					0
6	2	45.5"	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		0
			Damp and compact		
7					0
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		0

Depth to Water: Not encountered	Comments: Groundwater not encountered in completed geoprobe boring.	Boring No. SB-28

EGMS	SUBSURFACE BORING LOG	Start Date:	Boring No. SB-29
		End Date:	

Project Number:	**Geologist: N. Wohlabaugh**	**Weather: ~50°F, Overcast**	
Client: HIGHLAND PLAZA	**Project Manager: N. Wohlabaugh**	**Northing:**	**Datum:**
Location (City, State): Tonawanda, New York	**Driller: R. Steiner**	**Easting:**	
Drill Rig Type: GeoProbe 6620 (Track Mounted)		**Borehole Diameter (ft.): 0.25**	

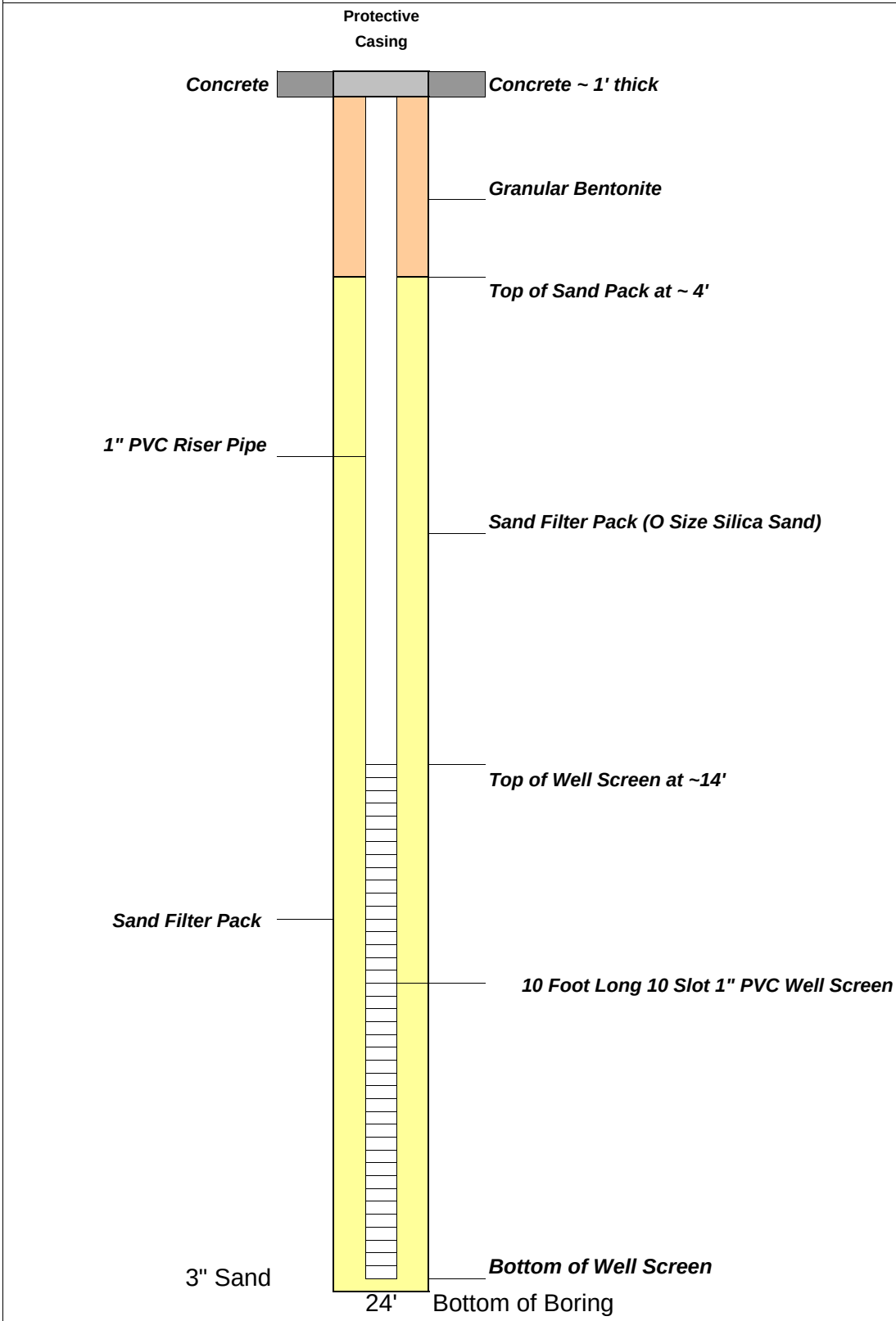
Depth *(feet)*	Sample ID	Recovery	SOIL DESCRIPTION	USCS Symbol	PID Screening (ppm)
0			0 to 10" Medium grey angular GRAVEL (crushed stone)		1.1
			10" to 16" Light grey angular GRAVEL (crushed stone)		1.0
1			***17" to 22" - Soil sample collected for lab analysis***		
			16' to 26" Dark brown CLAY (stained) some Silt, little fine Sand, very		0.8
2	1	45.5"	Gravel; damp and compact		
			26" to 48" Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		
3			Damp and compact		3.0
4					5.7
5					2.2
6	2	44'	Red Brown **CLAY**, some Silt, little fine Sand, very little Gravel		32.9
			Damp and compact		
7					21.5
			7' to 8' - Soil sample collected for lab analysis		
8			**END OF BORING**		51.1

Depth to Water: Not encountered	**Comments: Groundwater not encountered in completed geoprobe boring.**	**Boring No. SB-29**

APPENDIX D

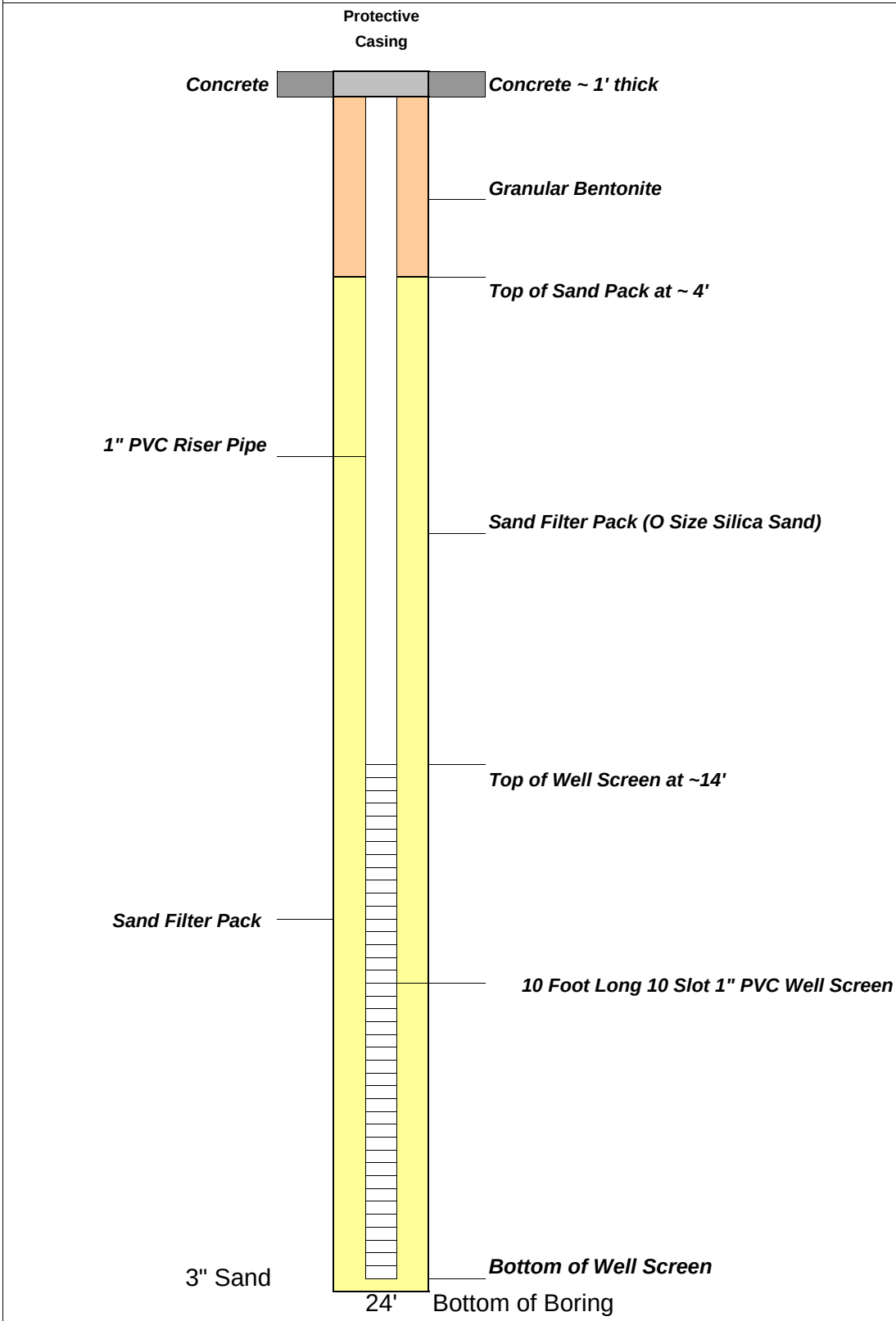
REMEDIAL INVESTIGATION GROUNDWATER MONITORING WELL CONSTRUCTION DIAGRAMS

EGMS	MONITORING WELL CONSTRUCTION DIAGRAM	Start Date: 10/14 End Date: 10/14	Boring No. MW-1
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Overcast	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing: 23.36' S	Top Riser:
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting: 104.45' E	100.51'
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	



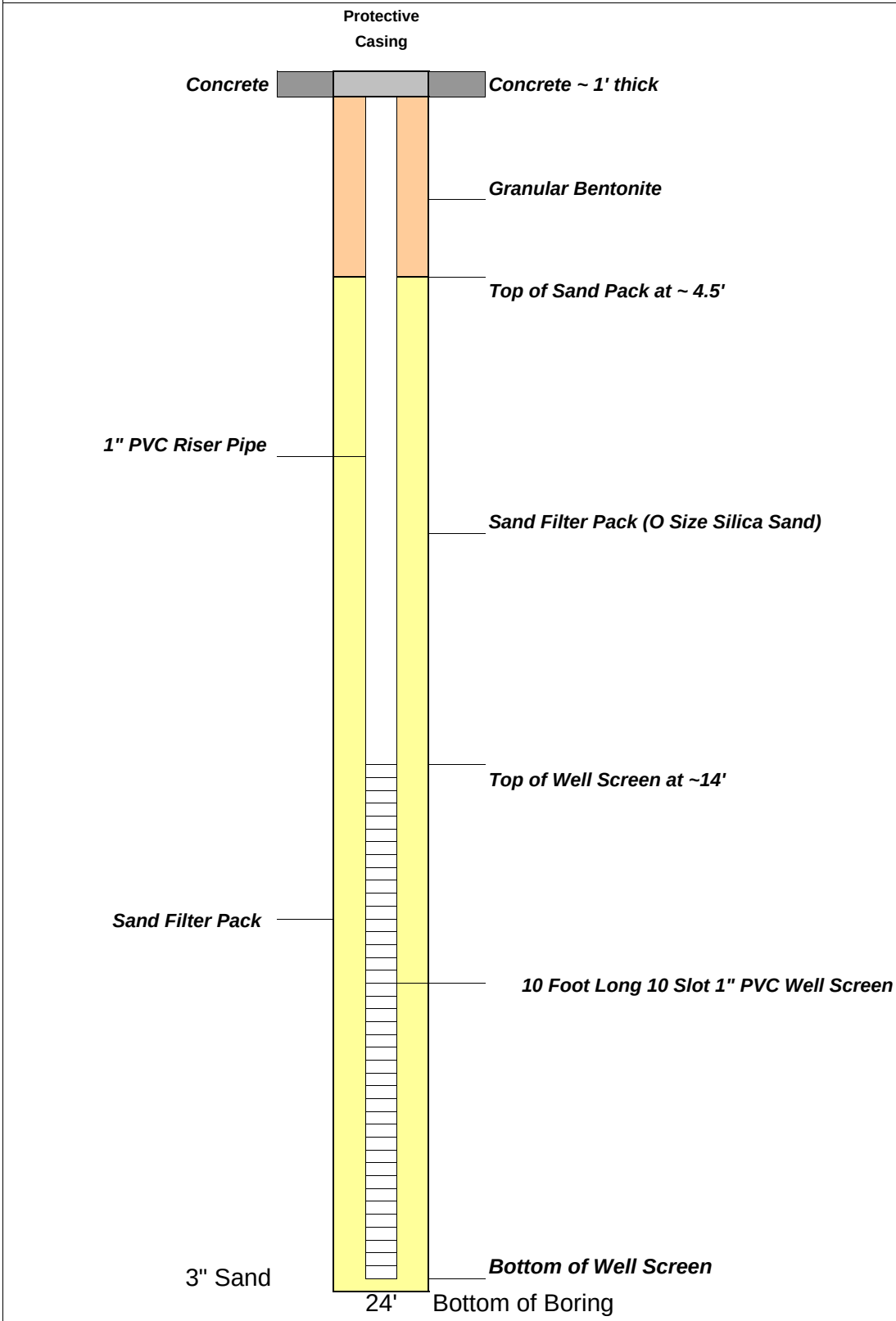
Depth to Water: Not encountered during drilling or well construction.	Comments:	MW-1

EGMS	MONITORING WELL CONSTRUCTION DIAGRAM	Start Date: 10/14 End Date: 10/14	Boring No. MW-2
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Overcast	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing: 23.43' S	Top Riser
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting: 216.22' E	100.18'
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	



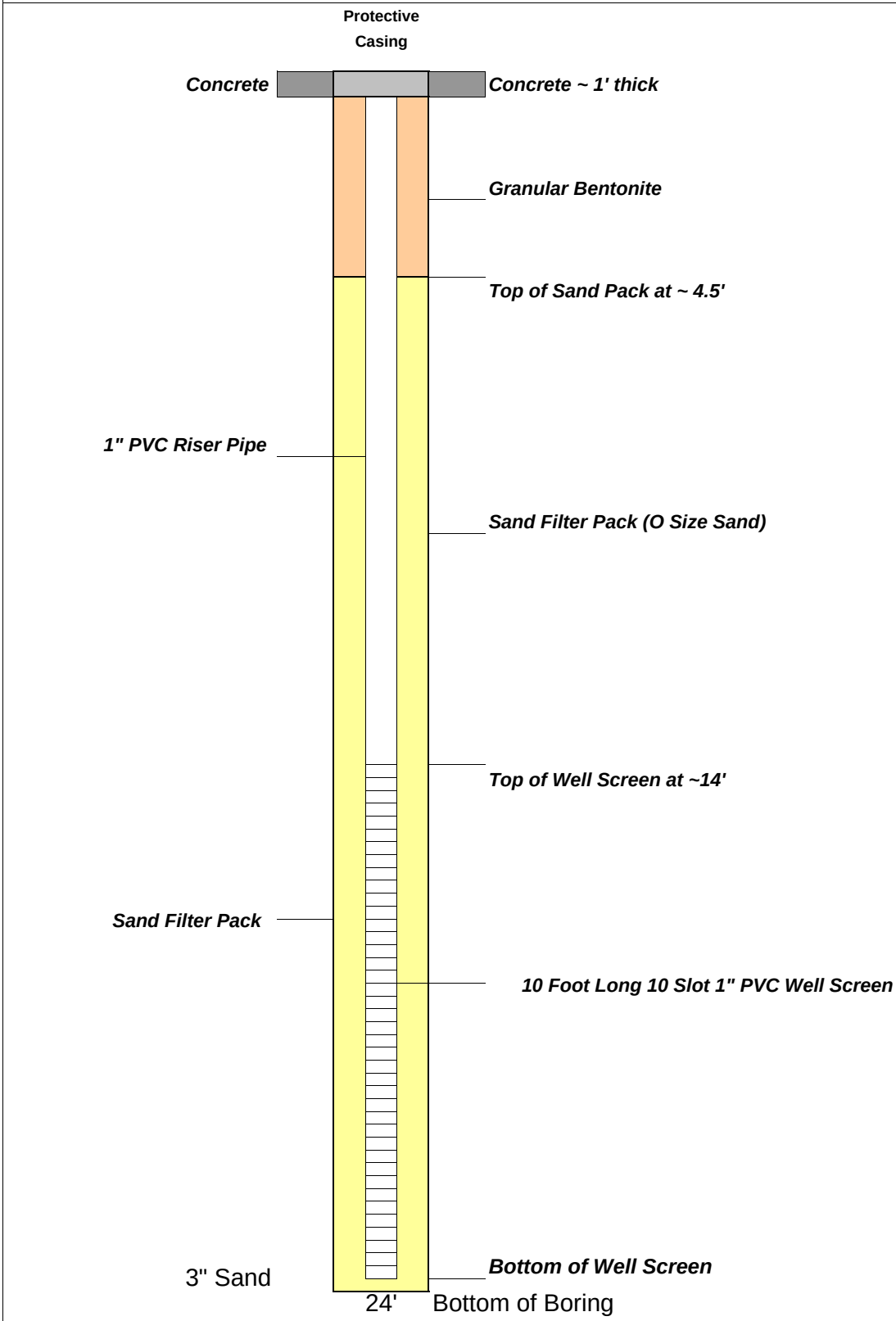
Depth to Water: Not encountered during drilling or well construction.	Comments:	MW-2

EGMS	MONITORING WELL CONSTRUCTION DIAGRAM	Start Date: 10/14 End Date: 10/14	Boring No. MW-3
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Overcast	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing: 24.29' S	Top Riser
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting: 282.43' E	100.08'
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	



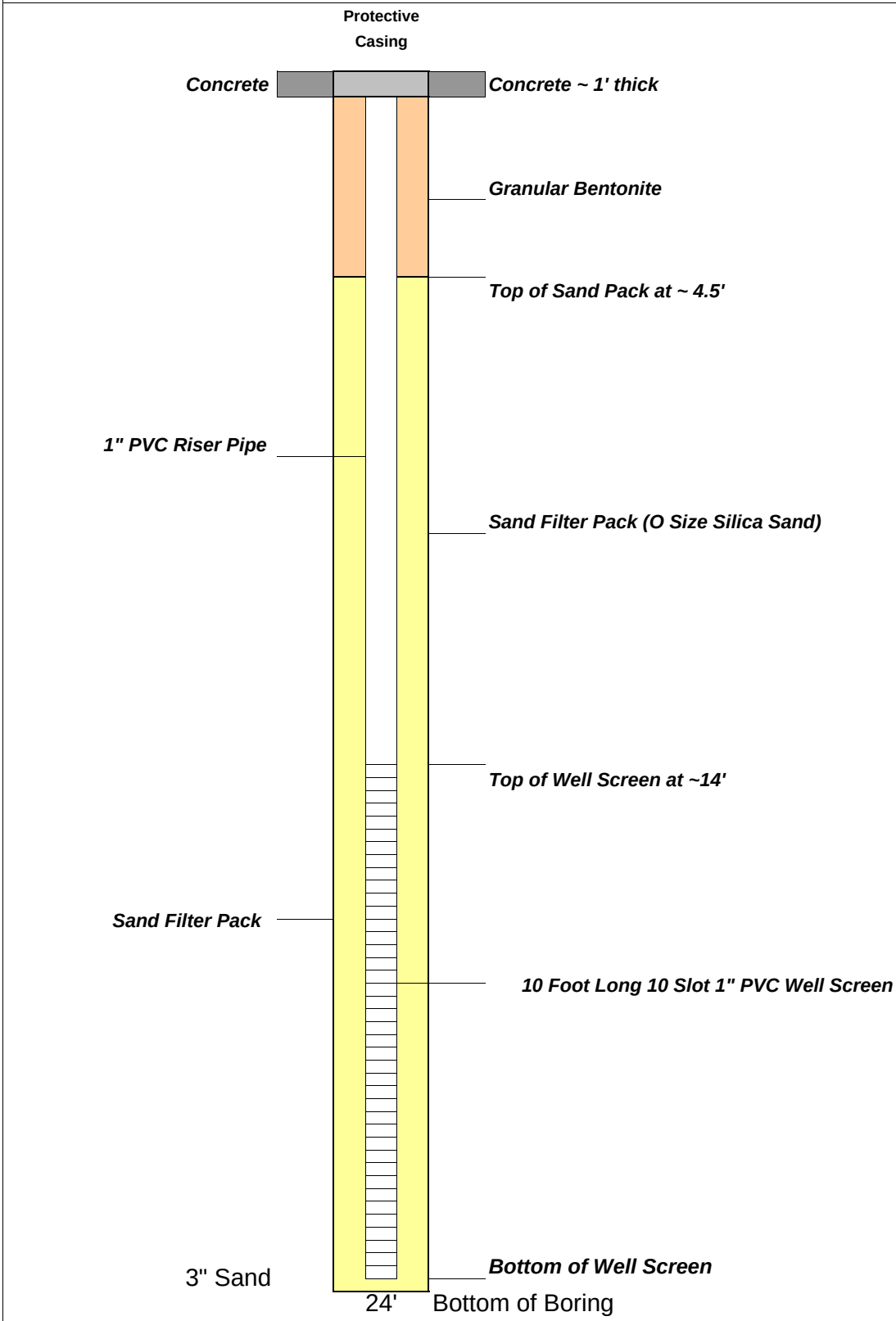
Depth to Water: Not encountered during drilling or well construction.	Comments:	MW-3

EGMS	MONITORING WELL CONSTRUCTION DIAGRAM	Start Date: 10/16 End Date: 10/16	Boring No. MW-4
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Overcast	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing: 119.19' S	Top Riser
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting: 274.59' E	101.45'
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	



Depth to Water: Not encountered during drilling or well construction.	Comments:	MW-4

EGMS	MONITORING WELL CONSTRUCTION DIAGRAM	Start Date: 10/16 End Date: 10/16	Boring No. MW-5
Project Number:	Geologist: N. Wohlabaugh	Weather: ~50°F, Overcast	
Client: HIGHLAND PLAZA	Project Manager: N. Wohlabaugh	Northing: 120.15' S	Top Riser
Location (City, State): Tonawanda, New York	Driller: R. Steiner	Easting: 176.13' E	102.06'
Drill Rig Type: GeoProbe 6620 (Track Mounted)		Borehole Diameter (ft.): 0.25	



Depth to Water: Not encountered during drilling or well construction.	Comments:	MW-5

APPENDIX E – EXCAVATION WORK PLAN (EWP)

E-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 1 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*

Mary McIntosh (Regional HW Engineer)	(716) 851-7220; mary.mcintosh@dec.gov
Glenn May (DEC Project Manager)	(716) 851-7220; glenn.may@dec.gov
Kelly Lewandowski (Site Control]	(518) 402-9553; Kelly.lewandowski@dec.gov
Sara Bogardus (DOH Project Manager)	(518) 402-7860; beei@health.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 F 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.

E-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. Further discussion of off-site disposal of materials and on-site reuse is provided in Section E-6 of this Appendix.

E-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.

E-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 remedial party (if applicable) 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 onsite, 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.

E-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.

Truck transport routes are as follows: Highland Parkway west to Colvin Boulevard; north to US 290. 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; and (f) overall safety in transport.

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.

E-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).

E-7 MATERIALS REUSE ON-SITE

On-site excavated materials may be re-used onsite provided they meet the requirements of re-use in accordance with DER – 10 and it is determined that the material/soil for re-use on site at a minimum meet the 6 NYCRR Part 375 Commercial Soil Clean-up Objectives. Discrete, non-homogenized soil samples of soil generated will be collected using clean sampling devices and will be placed in laboratory certified glassware and sealed. The soil samples will then be placed on ice and shipped to an elap certified laboratory for analysis. Samples will be analyzed for a full suite of analytes including VOCs, SVOCs, metals, pesticides and PCBs.

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.

E-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination water 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, and will be managed off-site, unless prior approval is obtained from NYSDEC.

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.

E-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 decision document. The existing cover system is comprised of a minimum of: 12 or 24 inches of clean soil (2.95 feet wide strip behind the building), asphalt pavement (north half of the property), and the concrete building. 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 the subsequent Periodic Review Report and in an updated SMP.

E-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.

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.

E-11 STORMWATER POLLUTION PREVENTION

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.

E-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, 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. These findings will be also included in the Periodic Review Report.

E-13 COMMUNITY AIR MONITORING PLAN

A generic Community Air Monitoring Plan is attached to this document as Appendix G.

Air sampling locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

E-14 DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved though the use of dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

E-15 OTHER NUISANCES

A plan for rodent control will be developed and utilized by the contractor prior to and during all remedial work.

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

APPENDIX F

RESPONSIBILITIES of

OWNER and REMEDIAL PARTY

Responsibilities

The responsibility for implementing the Site Management Plan ("SMP") for the Highland Plaza site (the "site"), number C915293 is soley the responsibility of Highland Plaza, LLC. The owner is currently listed as:

Gary Crewson
Buffalo Business Park
1800 Broadway, Building 1D
Buffalo, New York 14221

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:

Gary Crewson
Buffalo Business Park
1800 Broadway, Building 1D
Buffalo, New York 14221

Nothing on this page shall supersede the provisions of an Environmental Easement, Consent Order, Consent Decree, agreement, 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 an 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 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 NYSDEC in accordance with the timeframes indicated in Section 1.3 - Notifications.

6) In the event some action or inaction by the owner adversely impacts the site, the owner must notify the NYSDEC in accordance with the time frame indicated in Section 1.3 - Notifications and (ii) coordinate the performance of necessary corrective actions with the RP.

7) The owner must notify 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. 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.

8) The owner remains ultimately responsible for maintaining the engineering controls.

9) Until such time as the NYSDEC deems the vapor mitigation system unnecessary, the owner shall operate the system, pay for the utilities for the system's operation, and report any maintenance issues to the NYSDEC.

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.

APPENDIX F – HEALTH AND SAFETY PLAN

Highland Plaza
Tonawanda, New York

215 Highland Parkway
Tonawanda, New York
BCP # C915293

GENERIC
HEALTH AND SAFETY PLAN

Prepared For:

Highland Plaza
215 Highland Parkway
York 14127

Prepared By:

Environmental & Geologic Management Services, LLC

EGMS

15 Briar Hill Road
Orchard Park, New York

August, 2017

Table of Contents

GENERIC SITE
SAFETY PLAN

A. GENERAL INFORMATION

Project Title: Highland Plaza Project No. _____
Town of Tonawanda
BCP Program # C915293

Project Manager: _____ Project Director: Same

Location: 215 Highland Parkway
Tonawanda, Erie County, New York

Prepared by: _____ Date Prepared: August, 2017
Revised by: _____ Date Revised: _____

Approved by: _____ Date Approved: _____

Scope/Objective of Work: Work activities at Site may include groundwater sampling or future excavation activities, and collection of indoor air samples. Additional Activities may include stabilizationand/or disposal of contaminated soil and groundwater.

- Task 1: To be determined
- Task 2: To be determined
- Task 3: To be determined; and
- Task 4: To be determined

EGMS will provide all necessary labor, equipment, materials, temporary site controls, facilities, and utilities as required to complete the work described in the Supplemental Phase II Investigation Work Plan. It is anticipated that airborne levels of VOCs and dust particulates will be minimal at near surface soil elevations.

Site investigation activities will be managed by EGMS throughout the duration of the field work. The requirements of the HASP shall be in effect from initial site mobilization through final demobilization. The requirements of this HASP including modification to standard operating procedures, engineering controls and levels of personal protective equipment that may be required during this project are based upon changing site conditions, the availability of data, personal sampling results and environmental monitoring. Such changes will be published as a revision to this document and will be distributed to the Owner and affected employees.

Proposed Date of Field Activities:	_____	
Background Information:	[X] Complete	[X]* Preliminary (limited analytical data) * Background information provided by NYSDEC and City of Rochester
Overall Chemical Hazard:	[ ] Serious	[X] Moderate
	[ ] Low	[ ] Unknown
Overall Physical Hazard:	[ ] Serious	[X] Moderate
	[ ]Low	[ ] Unknown

B. SITE/WASTE CHARACTERISTICS

Waste Type(s):

[ ] Liquid [ ] Solid [ ] Sludge [ ] Gas/Vapor

Characteristic(s):

[ ] Flammable/Ignitable [X] Volatile [ ] Corrosive [ ] Acutely Toxic [ ] Explosive (moderate)[ ] Reactive [X] Carcinogen [ ] Radioactive

Other: _____

Physical Hazards:

[ ] Overhead [ ] Confined Space [ ] Below Grade [X] Trip/Fall
[X] Puncture [X] Burn [X] Cut [X] Splash
[X] Noise [X] Other: Heat Stress/Cold Stress

Site History/Description and Unusual Features:

The Site consists of a strip plaza for commercial usage that was built in the 1950's. It has been primarily occupied by commercial businesses since it was built, most of whom have not generated wastes that were considered hazardous, with the exception of a dry cleaner that was located at the eastern end of the building.

Locations of Chemicals/Wastes: Soil, and/or groundwater.

Estimated Volume of Chemicals/Wastes: Unknown.

Site Currently in Operation: [X] Yes[ ] No [ ] Not Applicable

C. HAZARD EVALUATION

PHYSICAL HAZARD EVALUATION:		
TASK	**HAZARD(S)**	**HAZARD PREVENTION**
General Tasks	General physical hazards associated with drill rig and Geoprobe operations (spinning, augers, overhead equipment, noise, and, drill rig movement). Physical hazards also associated with demolition	Hard hats, eye protection, and steel-toed boots required at all times while working around drill rig. Hearing protection required during sampling (hammering). Keep safe distance from rig and all moving parts.
	Contact with or inhalation of contaminants, potentially in high concentration in sampling media and/or fire and explosion.	To minimize exposure to chemical contaminants, a thorough review of suspected contaminants should be completed and implementation of an adequate protection program. Under-ground vaults to be ventilated during inspections.
	Contact with or inhalation of decontamination solutions.	Material Safety Data Sheets for all decon solutions. First aid equipment available.
	Overhead Hazards/ Falling Objects	**See Appendix A**
	Back strain and muscle fatigue, ergonomic stress due to lifting.	Use proper lifting techniques and limit load to prevent back strain.
	Slip/ tripping/ fall	Observe terrain and drilling equipment while walking to minimize slips and falls. Steel-toed boots provide additional support and stability. Use adequate lighting. Inspect Site and mark existing hazards.
	Noise	**See Appendix A**
	Sunburn	Apply sunscreen, wear appropriate clothing.
	Utility Lines	**See Appendix A**
	Weather Extremes	Establish Site-specific contingencies for severe weather situations. Discontinue work in severe weather.

Physical Hazard Evaluation: Basic health and safety protection (steel-toed boots, work clothes, and safety glasses or goggles) will be worn by all personnel at all times. Any allergies should be reported to the Site Safety Officer prior to the start of the project.

D. SITE SAFETY WORK PLAN

Site Control: Site perimeter is open and not fully secure.

Perimeter Identified?	**[Y]**	**Site Secured?**	**[N]**
Work Areas Designated?	**[Y]**	**Zone(s) of contamination identified?**	**[Y]**

Anticipated Level of Protection (cross-reference task numbers in Section C):

	A	B	C	D
All tasks				X

All Site work will be performed at Level D (steel-toed boots, work clothes, eye protection, gloves and hard hats) unless monitoring indicates otherwise. Gloves will be worn if contact with Site soil, sediment or water is anticipated, due to concerns of polychlorinated biphenyl (PCB) contamination. Level C will be available, and used when indicated by photoionizaton detector (PID) of 10 parts per million (ppm) or greater above ambient air.

Air Monitoring:

Contaminant	Monitoring Device	Frequency
Organic Vapors	MiniRAE 2000 PID	Continuous

Perimeter air monitoring for VOCs will be performed at 30 minute intervals during intrusive activities and is described in the New York State Department of Health (NYSDOH) Generic Community Air Monitoring Plan (CAMP).

pARTY will also conduct continuous air monitoring of worker breathing zone air during intrusive investigations. If action levels are exceeded during intrusive investigation, appropriate precautions will be taken, as described below.

Action Levels:

PID readings of **10 ppm** above background in the breathing zone or greater, sustained for greater than 1 minute.

Action: Halt work activities and move away from the vapor source. Consider upgrading to Modified Level D protection (air purifying respirator). If PID readings drop to within 5 ppm above background, work may resume with continuous air monitoring.

PID readings of **10 ppm to <25 ppm** above background at breathing zone, sustained for greater than 1 minute
Action: Upgrade to Modified Level D protection.

PID readings of **>25 ppm** above background at breathing zone, sustained for greater than 1 minute
Action: Stop work.

All air monitoring results as well as wind direction and speed (estimates) will be documented in the Site specific log book.

Decontamination Solutions and Procedures for Equipment, Sampling Gear, etc.:

Disposable sampling equipment will be used where possible. If decon is necessary, distilled or deionized water and alconox will be used. A 10% nitric acid rinse will be added if metals sampling is to be conducted.

Personnel Decon Protocol:

Personal protective clothing will be removed in a manner that will minimize the potential of contaminant to skin contact. Visible contamination will be removed from protective clothing prior to the individual doffing the articles. Soap, water and paper towels will be available for all personnel and will be used before eating, drinking or leaving the Site. Personnel will shower upon return to home or hotel. Disposable personal protection equipment (PPE) will be double-bagged and disposed of as non-hazardous waste unless PCBs are detected. If PCBs are detected, the PPE will be disposed of accordingly.

Decontamination Solution Monitoring Procedures, if Applicable:

All decontamination procedures will take place in a well ventilated area. Decontamination solutions will be collected and sampled for proper disposal.

Special Site Equipment, Facilities or Procedures:

All personnel will be required to maintain the Buddy System at all times. A toilet and potable water will be available on Site. All parties will be required to attend an on-Site briefing, which will identify the roles of each organization's personnel and will integrate emergency procedures for all Site participants.

Site Entry Procedures and Special Considerations:

Entry to the Site will be into the parking north of the Site building. The Buddy System should be employed at all times onsite and entering and exiting the Site, along with the work zone areas.

Work Limitations (time of day, weather conditions, etc.) and Heat/Cold Stress Requirements:

All work will be completed during daylights hours. Severe inclement weather may be cause to suspend outdoor activities. Heat stress protocol will dictate work/rest regimen. Heavy equipment will not be used during electrical storms.

General Spill Control, if Applicable:

Absorbent material will be available to control spills during drilling and sampling activities.

Investigation Derived Material (i.e., Expendables, Decon Waste, Cuttings) Disposal:

Investigation Derived Materials or excavated materials should be disposed of properly.

Sampling Handling Procedures Including Protective Wear:

Samples collected from soil and groundwater will be handled with neoprene outer gloves prior to decontamination. At minimum nitrile surgical gloves will be worn while handling samples during labeling, documentation and packaging.

Team Member*	**Responsibility**

* All entries into the work zone require "Buddy System" use. All EGMS personnel

E. EMERGENCY INFORMATION

LOCAL RESOURCES

Ambulance: 911

Hospital Emergency Room: Kenmore Mercy (716) 447-6100

2950 Elmwood Avenue, Buffalo, New York

Poison Control Center: 911

Police (include local, county sheriff, state): 911

Fire Department: 911

Airport: N/A

Laboratory:

UPS/Federal Express: N/A

SITE RESOURCES

Site Emergency Evaluation Alarm Method: Sound vehicle horn.

Water Supply Source: Water is available onsite.

Telephone Location, Number: None available

Cellular Phone, if Available:

Radio: NA

Other: NA

EMERGENCY CONTACTS

1.	Fire/Police:	911
2.	Gary Crewson:	(716) 867-2369

EMERGENCY ROUTES

Note: Field team must know route(s) prior to start of work.

Directions from the Site to Strong Memorial Hospital (map on following page):

Turn west on Highland Parkway (0.4 miles).
Turn left on Delaware Road (0.03 miles).
Take first right onto Princeton Blvd (0.3 miles).
Take first right onto Delaware Avenue (0.2 miles).
Turn left on Kenview Avenue (0.3 miles).
Turn right Elmwood Avenue, the hospital is at 2950 Elmwood Avenue.

On-Site Assembly Area: Corner of Highland Parkway and Colvin Avenue.

Off-Site Assembly Area: Same.

Emergency egress routes to get off-Site: N/A .

APPENDIX A

ADDITIONAL POTENTIAL PHYSICAL AND CHEMICAL HAZARDS

ADDITIONAL POTENTIAL PHYSICAL AND CHEMICAL HAZARDS	
POTENTIAL PHYSICAL HAZARDS	**CONTROL METHODS**
Overhead Hazards/Falling Objects	Overhead hazards will be identified prior to each task (i.e., inspecting drill rig mast, building structure). Hard hats will be required for each task that poses an overhead hazard.
Contact with Utilities	Prior to initiating site activities, all utilities will be located by the appropriate utility company and will be marked and/or barricaded to minimize the potential of accidental contact. A minimum distance of 25 feet between the derrick and overhead power lines must be maintained at all times.
Noise Exposure	Areas of potentially high sound pressure levels (>85 dBA) will be restricted to authorized personnel only. Engineering controls will be used to the extent possible. Hearing protection will be made available to all workers on site. Exposure to time-weighted average levels in excess of 85 dBA is not anticipated.
Contaminant Inhalation	Direct reading instruments will be used to monitor airborne contaminants. Established Lu Engineers' action levels will limit exposure to safe levels. Respiratory protection will be used as appropriate.
Contaminant Ingestion	Standard safety procedures such as restricting eating, drinking, and smoking to the support zone and utilizing proper personal decontamination procedures will minimize ingestion as a potential route of exposure.
Dermal Contaminant Contact	The proper selection and use of personal protective clothing and decontamination procedures will minimize dermal contaminant contact.
Potential contact with waste and naturally occurring contaminants (i.e., methane)	Dermal contact with contaminants will be minimized by proper use of the following PPE: • Tyvex coveralls • Neoprene gloves • Booties (latex) or over-boots.
Falls (into slab penetrations and/or excavations)	• Unauthorized personnel prohibited • Open holes filled quickly • Existing open holes filled prior to Site Work Task 1 (Preparation) • Construction fencing as appropriate

APPENDIX B

HAZARD EVALUATION SHEETS / MSDS

CHEMICAL HAZARD EVALUATION										
Task Number	Compound	Exposure Limits (TWA)			Dermal Hazard (Y/N)	Route(s) of Exposure	Acute Symptoms	Odor Threshold/ Descriptio	FID/PID	
		PEL	REL	TLV					Relative Response	Ioniz. Poten. (eV)
1-10	Tetrachloroethylene (PCE)	100 ppm	---	25 ppm	Y	Inh, Abs, Ing, Con	Irritation to eyes, nose, upper respiratory tract, throat; skin,	Colorless liquid, mild	---	9.32
1-10	Trichloroethene* (TCE)	100 ppm (per 6/97 NIOSH Pocket Guide)	---	---	Y	Inh, Abs, Ing, Con	Irritation to eyes, skin, mucous membranes and GI, headache, vertigo, fatigue, giddiness, tremors, vomiting, nausea, may burn skin, visual disturbance,	Colorless liquid, sometimes dyed blue, chloroform	---	9.45

KEY:

PEL = Permissible Exposure Limit
REL = Recommended Exposure Limit
--- = Information not available
TLV = Threshold Limit Value (ACGIH)
Inh = Inhalation
Ing = Ingestion
mg/m^3 = Milligrams per cubic meter
* = Chemical is a known or suspected carcinogen
Abs = Skin Absorption
Con = Skin and/or eye Contact
ppm = Parts per million
sk = Skin notation

APPENDIX C

EQUIPMENT CHECKLIST

EQUIPMENT CHECKLIST

PROTECTIVE GEAR			
LEVEL A	**N/A**	**LEVEL B**	**N/A**
SCBA		SCBA	
SPARE AIR TANKS		SPARE AIR TANKS	
ENCAPSULATING SUITE (Type)		PROTECTIVE COVERALL (Type)	
SURGICAL GLOVES		RAIN SUIT	
NEOPRENE SAFETY BOOTS		BUTYL APRON	
BOOTIES		SURGICAL GLOVES	
GLOVES (Type)		GLOVES (Type)	
OUTER WORK GLOVES		OUTER WORK GLOVES	
HARD HAT		NEOPRENE SAFETY BOOTS	
CASCADE SYSTEM		BOOTIES	
5-MINUTE COOLING VEST		HARD HAT WITH FACE SHIELD	
		CASCADE SYSTEM	
		MANIFOLD SYSTEM	
LEVEL C		**LEVEL D**	
ULTRA-TWIN RESPIRATOR	X	ULTRA-TWIN RESPIRATOR (available)	X
POWER AIR PURIFYING RESPIRATOR		CARTRIDGES (Type GMC-H) (available)	X
CARTRIDGES (Type GMC-H)	X	5-MINUTE ESCAPE MASK (available)	
5-MINUTE ESCAPE MASK		PROTECTIVE COVERALL (Type Tyvek/Saranax)	X
PROTECTIVE COVERALL (Type Tyvek/Saranax)	X	RAIN SUIT (available)	X
RAIN SUIT	X	NEOPRENE SAFETY BOOTS	
BUTYL APRON		BOOTIES (available)	X
SURGICAL GLOVES	X	NITRILE	X
GLOVES (Type: Nitrite/Neoprene)	X	HARD HAT WITH FACE SHIELD (available)	X
OUTER WORK GLOVES		SAFETY GLASSES	X
NEOPRENE SAFETY BOOTS		GLOVES (Type: Surgical)	X
HARD HAT WITH FACE SHIELD	X	WORK GLOVES (Type: Neoprene/Nitrile) (available)	X
BOOTIES	X	SAFETY BOOTS	X
HARD HAT	X	BLAZE ORANGE VEST	X

INSTRUMENTATION	NO.	**FIRST AID EQUIPMENT**	NO.
OVA		FIRST AID KIT	X
THERMAL DESORBER		OXYGEN ADMINISTRATOR	
O_2/EXPLOSIMETER W/CAL.KIT (Drilling)		STRETCHER	
PHOTOVAC TIP		PORTABLE EYE WASH	
PID	X	BLOOD PRESSURE MONITOR	
MAGNETOMETER		FIRE EXTINGUISHER	X
PIPE LOCATOR			
WEATHER STATION		**DECON EQUIPMENT**	
DRAEGER PUMP, TUBES ( )		WASH TUBS	
BRUNTON COMPASS		BUCKETS	X
MONITOX CYANIDE		SCRUB BRUSHES	X
HEAT STRESS MONITOR		PRESSURIZED SPRAYER	
NOISE EQUIPMENT		DETERGENT (Type: Alconox) = TSP	X
PERSONAL SAMPLING PUMPS		SOLVENT (HEXANE)	
MINI-RAM (Particulates) (Drilling)		PLASTIC SHEETING	X
NITON XL3t 600 analyzer(X-ray fluorescence (XRF)		TARPS AND POLES	

		TRASH BAGS	X
RADIATION EQUIPMENT		TRASH CANS	
DOCUMENTATION FORMS		MASKING TAPE	
PORTABLE RATEMETER		DUCT TAPE	X
SCALER/RATEMETER		PAPER TOWELS	X
NaI Probe		FACE MASK	
ZnS Probe		FACE MASK SANITIZER	
GM Pancake Probe		FOLDING CHAIRS	
GM Side Window Probe		STEP LADDERS	
MICRO R METER		DISTILLED WATER	X
ION CHAMBER			
ALERT DOSIMETER			
MINI-RAD			

SAMPLING EQUIPMENT	**NO.**	**MISCELLANEOUS (cont.)**	**NO.**
4-OZ BOTTLES	X	BUNG WRENCH	
1 LITER AMBER BOTTLES	X	SOIL AUGER	
VOA BOTTLES	X	PICK	
SOIL SAMPLING (CORING) TOOL	X	SHOVEL	X
SOIL VAPOR PROBE		CATALYTIC HEATER	
THIEVING RODS WITH BULBS	X	PROPANE GAS	
SPOONS	X	BANNER TAPE	X
GENERAL TOOL KIT	X	SURVEYING METER STICK	
FILTER PAPER		CHAINING PINS AND RING	
PERSONAL SAMPLING PUMP SUPPLIES		TABLES	
4-OZ JARS	X	WEATHER RADIO	
		BINOCULARS	
VAN EQUIPMENT		MEGAPHONE	
TOOL KIT		PORTABLE RADIOS (4)	
HYDRAULIC JACK		CELL PHONE	X
LUG WRENCH		CAMERA	X
TOW CHAIN		HEARING PROTECTION	X
VAN CHECK OUT			
GAS		**SHIPPING EQUIPMENT**	
OIL		COOLERS	X
ANTIFREEZE		PAINT CANS WITH LIDS, 7 CMIPS EACH	
BATTERY		VERMICULITE	
WINDSHIELD WASH		SHIPPING LABELS	X
TIRE PRESSURE		DOT LABELS: “DANGER”, “UP”;	
		“INSIDE CONTAINER COMPLIES...”;	
MISCELLANEOUS		“HAZARD GROUP”	
PITCHER PUMP		STRAPPING TAPE	X
SURVEYOR’S TAPE	X	BOTTLE LABELS	X
100 FIBERGLASS TAPE	X	BAGGIES	X
300 NYLON ROPE		CUSTODY SEALS	X
NYLON STRING	X	CHAIN-OF-CUSTODY FORMS	X
SURVEYING FLAGS	X	FEDERAL EXPRESS FORMS	X
FILM		CLEAR PACKING TAPE	X
WHEEL BARROW			

APPENDIX G – COMMUNITY AIR MONITORING PLAN

NEW YORK STATE DEPARTMENT OF HEALTH GENERIC COMMUNITY AIR MONITORING PLAN

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites.

The CAMP is not intended for use in establishing action levels for worker respiratory protection.

Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

COMMUNITY AIR MONITORING PLAN

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required 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 might reasonably 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. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required 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.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a **continuous** basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should 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 must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can 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 must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can 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 must be shutdown.

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

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored **continuously** at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations.

The particulate monitoring should 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 must 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 (mcg/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m3 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 mcg/m3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

Special Requirements for Work within 20 Feet of Potentially Exposed Individuals or Structures

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative- pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

- If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Background readings in the occupied spaces must be taken prior to commencement of the planned work. Any unusual background readings should be discussed with NYSDOH prior to commencement of the work.

- If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m3 or less at the monitoring point.

- Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

Special Requirements for Indoor Work With Co-Located Residences or Facilities

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under "Special Requirements for Work Within 20 Feet of Potentially Exposed Individuals or Structures" except that in this instance "nearby/occupied structures" would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g. weekends or evenings) when building occupancy is at a minimum.

APPENDIX H – TJERLUND BLOWER SPECIFICATIONS

R-Series Radon Mitigation Fans

Product & System Overview

Description:
The R-Series Radon Fans span a wide range of both pressure and flow performance. All feature waterproof electrical junction box covers and high quality, maintenance-free motors made by ebm-papst.

The R4B & R4BC Commercial wall hugging low profile designs are the choice for discrete, architecturally sensitive, exterior wall installations.

Housing Construction:
The R-Series housings are constructed of non-yellowing, UV resistant, fiberglass reinforced polyester with a light gray finish.

The R4B & R4BC are constructed of heavy duty 20 gauge steel with white powder coat finish and stainless steel hardware.

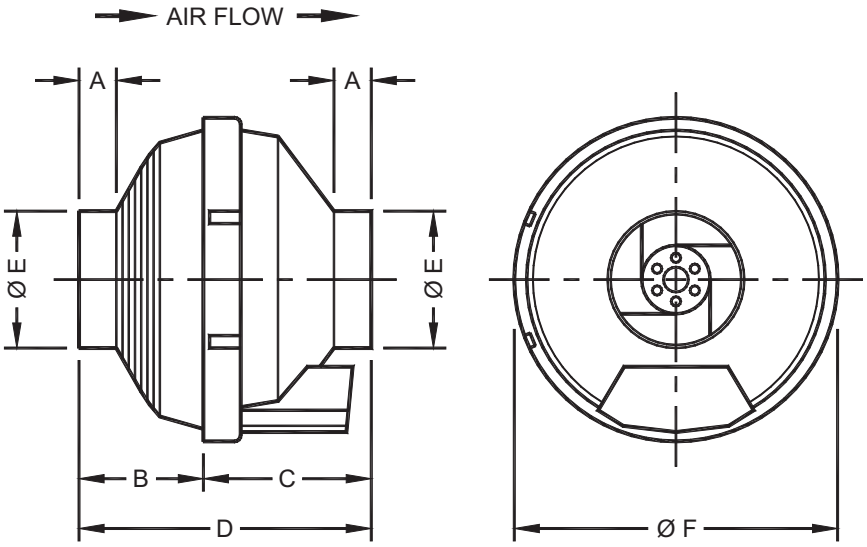
Motor:
German made ebm-papst motors for quiet, efficient and high performance operation.

Listings:
UL # E364664

Warranty:
5 year full replacement

Optional Equipment:
- Rubber Couplers: RC3X3", RC4X3", RC4X4", RC6X4"
- Power Cord
- Mounting Bracket

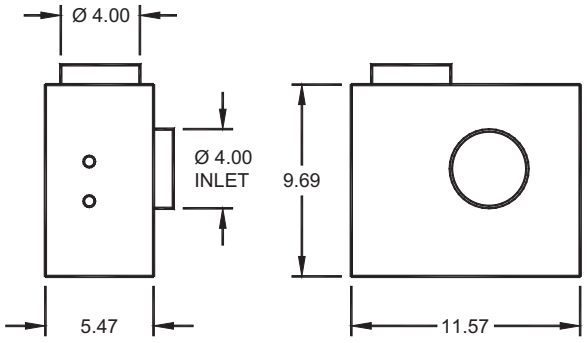
R-Series Dimensional Data



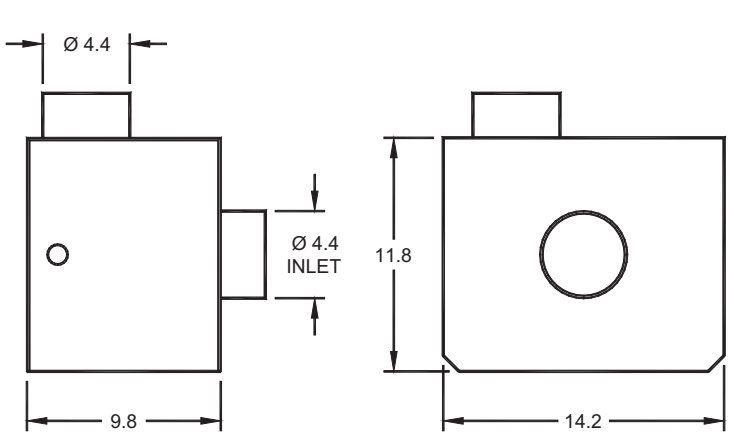
DIMENSIONS IN INCHES

	A	B	C	D	Ø E	Ø F
R3HF	1.25	3.56	5.69	9.25	3.40	12.06
R4HF	1.25	3.56	5.69	9.25	4.40	12.06
R5HF	1.25	3.56	5.69	9.25	5.88	12.06
R3LW	1.25	3.81	5.69	9.50	5.00	8.00
R5LW	1.25	3.56	5.69	9.25	5.88	12.06
R3HS	1.25	3.56	5.69	9.25	3.40	12.06
R8C	1.25	3.74	5.83	9.57	7.87	13.86

R4B DIMENSIONS IN INCHES



R4BC DIMENSIONS IN INCHES



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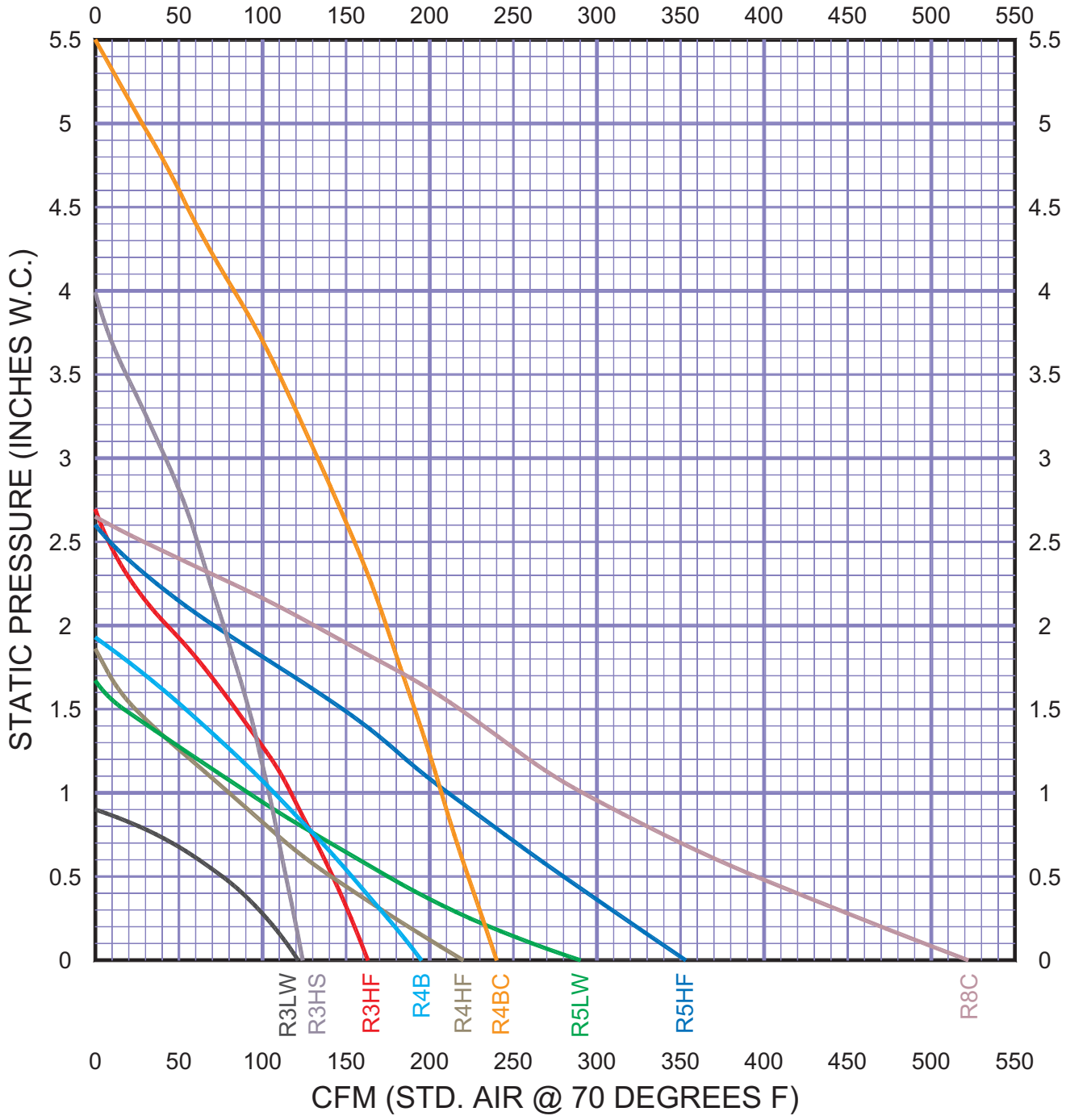
P/N 8513044

R-Series Fan Curves



R-Series Comparison

MODEL	MAX. FLOW CU. FT. / MIN.	STATIC PRESSURE	RESULTS
R3HF	163	2.71"	Moderate Suction, Low Flow
R4HF	220	1.88"	Low Suction, Moderate Flow
R5HF	353	2.60"	Moderate Suction, Very High Flow
R3LW	121	0.90"	Low Suction, Low Flow
R5LW	294	1.75"	Low Suction, High Flow
R3HS	124	3.99"	High Suction, Low Flow
R4B	195	1.90"	Low Suction, Low to Moderate Flow
R4BC	240	5.51"	Very High Suction, Moderate Flow
R8C	520	2.65"	Moderate Suction, Extremely High Flow

R-Series Cross Reference

MODEL	MAX. FLOW CU. FT. / MIN.	STATIC PRESSURE	COMPETITORS	MAX. FLOW CU. FT. / MIN.	STATIC PRESSURE
R3HF	163	2.71"	RadonAway GP201	100	2.00"
			RadonAway GP301	110	2.60"
R4HF	220	1.88"	RadonAway XP151	170	1.60"
			RadonAway XP201	150	2.00"
			RadonAway XP145	173	1.70"
			Fantech FR100	108	0.86"
			Fantech HP190	173	1.99"
			Fantech HP2190	163	1.93"
R5HF	353	2.60"	RadonAway RP265	327	2.20"
			Fantech FR160	289	2.32"
			Fantech HP220	345	2.46"
R3LW	121	0.90"	RadonAway RP140	134	0.80"
			Fantech HP2133	134	0.84"
R5LW	294	1.75"	RadonAway RP260	275	1.50"
			RadonAway XR261	250	1.90"
			Fantech FR150	243	1.56"
R3HS	124	3.99"	RadonAway GP401	86	3.40"
			RadonAway GP501	120	4.20"
R4B	195	1.90"	Fantech HP190SL	158	2.14"
R4BC	240	5.51"	NO COMPARISON		
R8C	520	2.65"	Fantech FR225	429	2.48"
			Fantech FR250	563	2.95"

R-Series Application Guide

CONDITIONS	REQUIREMENTS	RECOMMENDATION
Small Footprint Very Porous Subslab	Low Suction, Low Flow	R3LW
Small Footprint Porous Subslab Submembrane	Low Suction, Low to Moderate Flow	R4HF
Small Footprint Porous Subslab Submembrane	Low Suction, Low to Moderate Flow	R4B
Medium Footprint Porous Subslab	Low Suction, Moderate to High Flow	R5LW
Medium-Large Footprint Porous Subslab	Low Suction, Moderate to High Flow	R5LW
Small-Medium Footprint Moderately Compacted Subslab	Moderate Suction, Low Flow	R3HF
Very Large Footprint Porous-SemiPorous Subslab	Moderate Suction, Very High Flow	R5HF
Very Large Footprint Porous Subslab	Moderate Suction, Extremely High Flow	R8C
Large Footprint NonPorous Subslab	High Suction, Low Flow	R3HS
Very Large Footprint Moderately Compacted Subslab	High Suction, Moderate Flow	R4BC

APPENDIX I – QUALITY ASSURANCE PROJECT PLAN

Brownfields Cleanup Program
Highland Plaza Site (#C915293)
215 Highland Parkway
Tonawanda, New York

QUALITY ASSURANCE PROJECT PLAN

Prepared For:

Highland Plaza
215 Highland Parkway
Tonawanda, New York

Prepared By:

Environmental & Geologic Management Services, LLC

EGMS

August, 2017

Table of Contents

Table of Contents (cont.)

1.1 Introduction

This Quality Assurance Project Plan (QAPP) was prepared for the Highland Plaza site located in Tonawanda, New York. This QAPP presents the policies, organization, objectives, functional activities, and specific quality assurance (QA) and quality control (QC) activities that will be implemented during project work. This QAPP is designed to ensure that all technical data generated is accurate and representative.

All QA/QC procedures are implemented in accordance with applicable professional technical standards, NYSDEC and the United States Environmental Protection Agency (USEPA) requirements, government regulations and guidelines, and specific project goals and requirements. This QAPP is prepared in accordance with all NYSDEC and USEPA QAPP guidance documents. This QAPP incorporates the following activities:

- Sample Management and Chain of Custody;
- Document Control;
- Laboratory Quality Control; and
- Review of Project Deliverables.

Analytical samples will be collected in the field utilizing standard operating procedures (SOPs) and sent to the contracted New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) Contract Laboratory Protocol (CLP)-certified laboratory for analysis. Field data compilation, tabulation, and analysis will be checked for accuracy. Calculations and other post-field tasks will be reviewed by field personnel and the project manager.

Equipment used to take field measurements will be maintained and calibrated in accordance with established procedures. Records of calibration and maintenance will be kept by assigned personnel. Field testing and data acquisition will be performed in standard fashion following strict guidelines.

Document control procedures will be used to coordinate the distribution, coding, storage, retrieval, and review of all data collected during all sampling tasks. These include, but are not limited to, the sampling of soil/sediment, groundwater, air and wastes.

In addition, the laboratory has developed SOPs for individual analytical methods and internal QC procedures. These documents are an important aspect of their QA program and are available for review upon request.

2.0 Project Objectives

Sampling of site media (soil, groundwater, soil vapor and air) may take place onsite. A complete project description, including Site history and background information, is provided in the Site Management Plan.

3.1 Project Organization and Responsibility

Sampling will be completed by experienced environmental professionals.

QA contacts include other technical professionals under contract to the owner of the property.

A NYSDOH ELAP-CLP certified laboratory will provide analytical services for project work.

If necessary, data validation and QA staff will include data validation chemists, QA auditors, and other technical specialists who remain independent of the laboratory and project management. The staff will independently validate analytical data to assess and summarize their accuracy, precision, and reliability and determine their usability.

4.1 Sampling Procedures

4.2 Sampling Design

Sampling procedures for this project work will be designed to further monitor the nature and extent of contamination at the Site. Soil, groundwater and air and soil vapor may be used to further evaluate Site conditions.

Soil and groundwater samples will be analyzed for:

- Target Compound List (TCL) volatile organic compounds (VOCs) (USEPA Method 8260).

Detection and reporting limits for all analytes will be below applicable Standards, Criteria and Guidance values.

Investigative derived waste will be drummed and treated as contaminated until sampling results are reviewed.

Low flow sampling procedures will be used to minimize the amount of VOC loss from groundwater samples and to reduce groundwater waste associated with well development and sampling activities. Groundwater waste water will be filtered through activated carbon and discharged to the ground surface.

Continuous perimeter and work zone air monitoring for VOCs will also be conducted during all intrusive activities in accordance with the actions outlined in the project CAMP.

A Site map showing groundwater sample locations is provided as Figure 2 of the SMP.

4.3 QC Samples

Various types of field QC samples are used to check the cleanliness and effectiveness of field handling methods. They are analyzed in the laboratory as samples, and their purpose is to assess the sampling and transport procedures as possible sources of sample contamination and

document overall sampling and analytical precision. Rigorous documentation of all field QC samples in the site logbooks is mandatory.

- **Trip Blanks** are similar to field blanks with the exception that they are not exposed to field conditions. Their analytical results give the overall level of contamination from everything except ambient field conditions. Trip blanks are prepared at the lab prior to the sampling event and shipped with the sample bottles. Trip blanks are prepared by adding organic-free water to a 40-ml volatile organic analysis (VOA) vial. One trip blank will be used with every batch of water samples shipped for volatile organic analysis. Each trip blank will be transported to the sampling location, handled like a sample, and returned to the laboratory for analysis without being opened in the field.
- **Field Equipment/Rinsate Blanks** are blank samples designed to demonstrate that sampling equipment has been properly prepared and cleaned before field use and that cleaning procedures between samples are sufficient to minimize cross-contamination. Rinsate blanks are prepared by passing analyte-free water over sampling equipment and analyzing the samples for all applicable parameters. If a sampling team is familiar with a particular site, its members may be able to predict which areas or samples are likely to have the highest concentration of contaminants. Unless other constraints apply, these samples should be taken last to avoid excessive contamination of sampling equipment. Rinsate blanks are not required if dedicated sampling equipment is used for sample collection.
- **Field Duplicates** consist of a set of two (2) samples collected independently at a sampling location during a single sampling event. Field duplicates can be sent to the laboratory so that they are indistinguishable from other analytical samples and personnel performing the analysis are not able to determine which of the samples field duplicates are. Field duplicates are designed to assess the consistency of the overall sampling and analytical system.

Field QC samples and the frequency of analysis for this project are summarized in Table 1.

4.4 Decontamination Procedures

All decontamination will be performed in accordance with NYSDEC-approved procedures. Sampling methods and equipment have been chosen to minimize decontamination requirements and prevent the possibility of cross-contamination. All drilling equipment will be decontaminated prior to drilling, after drilling each boring/monitoring well, and after the completion of all drilling. Special attention will be given to the drilling assembly, augers, split-spoons, and polyvinyl chloride (PVC) casing. Soil samples will be collected using clean disposable acetate liners in the Geoprobe macro-sampler. Groundwater wells will be developed and sampled using clean disposable bailers.

Non-disposable sampling equipment and stainless steel spoons will be decontaminated using the following procedure:

- Disassembling the split spoon or other sampling equipment if necessary;
- Cleaning equipment of all foreign matter;
- Scrubbing equipment with brushes in alconox solution;

- Rinsing equipment with distilled water; and
- Rinsing equipment with 10% nitric acid (when sampling for metals only);
- Triple-rinsing equipment with distilled water; and
- Allowing equipment to air dry.

All drill cuttings and water generated during drilling boring and monitoring well installation will remain on-Site. A low flow pump will used for purging and sampling. All waters generated by decontamination or by developing, purging, or pumping the monitoring wells will be filtered through activated carbon and discharged to the ground surface.

A temporary decontamination pad will be established in a secure area on Site using 6-mil polyethylene sheeting. The drill rig and associated tooling will be decontaminated using steam-cleaning methods at the designated location. Fluids generated during decontamination will be collected in the plastic-lined pool. All decontamination wastes will be transferred into drums or an on-Site holding tank for appropriate staging and disposal. It is not anticipated that investigative derived waste needing off-Site disposal will be generated as part of this investigation.

4.5 Sampling Methods

This section describes the sampling procedures to be utilized for each environmental medium that will be collected and analyzed in accordance with the Supplemental Phase II Investigation Work Plan. All sampling procedures described are consistent with USEPA sampling procedures as described in SW-846, third edition and the NYSDEC Analytical Services Protocols (ASP), or equivalent.

4.5.1 Surface and Subsurface Soil Samples

Any surface soil samples that may be collected (0 to 2 inches) will be collected with dedicated plastic, handheld sampling shovels. The discrete non-composited and non-homogenized samples for VOC analysis will be placed directly into the sampling jar with as little disturbance as possible.

Any subsurface soil samples that may be collected from soil borings will preferable be collected using a direct push Geoprobe drill rig or equivalent. A four-foot long macro-core sample barrel lined with a new acetate sleeve will be used for all subsurface soil sampling in this area. Non-disposable sampling equipment will be decontaminated between sampling locations.

Soil samples will be described at the time it is retrieved, and a subsurface log will be produced by an on-Site sampler based upon visual examination and other field observations. Soil descriptions will be based the Burmister Soil Classification System.

All soil samples will be screened at one foot intervals for the presence of VOCs with a PID. Screening will be performed by placing a representative soil sample into a Ziploc™ (or equivalent) plastic bag, sealing the bag, and then allowing the sample to volatilize for at least

15-minutes. The concentration of VOCs will then be measured by inserting the tip of the PID or equivalent device into the sample's headspace and taking a reading. VOC measurements will be entered on the boring log. Soil borings can be converted into micro-monitoring wells.

The field sampler will also evaluate soil samples for the presence of staining or other unusual observations. Samples noted to have these characteristics may require analysis, for parameters described in Section 4.1. Discrete non-composited and non-homogenized samples for VOC analysis will be placed directly into the sampling jar with as little disturbance as possible

4.5.2 Groundwater Sampling

Static water levels will be measured to within 0.01-foot prior to purging and sampling. Purging and sampling of each well will be accomplished using a low flow sampling pump and procedures. The well will be purged until field parameters (pH, temperature and conductivity stabilize). Sample volumes will be collected immediately following stabilization of field parameters. Any observable physical characteristics of the groundwater (i.e., color, sheen, odor, turbidity) at the time of sampling will be recorded, and weather conditions (i.e., air temperature, sky condition, recent heavy rainfall, drought conditions) at the time of sampling will be recorded.

A low flow pump will be used for development, purging and sampling purposes. The development process will continue until a stabilization of pH, specific conductance, temperature, and clarity (goal of <50 Nephelometric Turbidity Unit NTUs) of the discharge is achieved and/or five well volumes are extracted from the respective well.

Groundwater samples will be placed in the appropriate sampling jars and stored in a cooler maintained at 4 degrees centigrade. All groundwater samples and their accompanying QA/QC samples will be analyzed as specified in the SMP.

4.6 Sample Documentation

4.6.1 Logbooks

All field activities will be documented in a field logbook. This logbook will provide a record of activities conducted at the Site. All entries will be signed and dated at the end of each day of fieldwork. The field logbook will include the following: date and time of all entries; names of all personnel on Site; weather conditions (temperature, precipitation, etc.); location of activity; and description of activity. In addition, the following standard field forms as necessary:

- Test boring/probing logs;
- Groundwater elevations, development, sampling and conductivity logs;
- Field sampling records; and
- Chain of custody for all analytical laboratory sampling.

As with any data logbooks, no pages will be removed for any reason. If corrections are

necessary, these must be made by drawing a single line through the original entry (so that the original entry can still be read) and writing the corrected entry alongside it. The correction must be initialed and dated. Most corrected errors will require a footnote explaining the correction.

4.6.2 Sample Identification

All containers of samples collected for project work will be identified using a format identified in the field on a label affixed to the sample container. Generally, the format will include two letters identifying the Site (HP –Highland Plaza), two additional letters identifying the type of sample (GW – Groundwater), two numbers identifying a sample location, two to four additional numbers identifying a sample depth if appropriate, and additional letters identifying special parameters (MS/MSD – Matrix Spike, Matrix Spike Duplicate) if applicable.

Each sample will be labeled and sealed immediately after collection. To minimize handling of sample containers, labels will be filled out prior to sample collection. The sample label will be filled out using waterproof ink and will be firmly affixed to the sample containers. The sample label will give the sample number, the date of the collection and analysis required. The laboratory sample number will appear on a barcode label affixed to each sample, extract, or digestate.

4.7 Field Instrumentation

All instruments and equipment used during sampling and analysis will be operated, calibrated and maintained according to manufacture's guidelines and recommendations. Operation, calibration, and maintenance will be performed by personnel properly trained in these procedures. Documentation of calibration information will be maintained in the appropriate log book or reference file and will be available upon request.

Perimeter and work zone air monitoring will occur as needed using a MiniRAE 2000 PID with an 11.7 eV bulb to ensure that workers and the public are not exposed to elevated concentrations of VOCs. A Generic CAMP is included in the SMP to address potential fugitive dust, odors, and vapors.

5.1 Sample Handling and Custody

This section describes procedures for sample handling and chain-of-custody to be followed by sampling personnel and the analytical laboratory. The purpose of these procedures is to ensure that the integrity of the samples is maintained during their collection, transportation, storage, and analysis. All chain-of-custody requirements comply with SOPs indicated in USEPA sample-handling protocol.

All samples will be obtained, handled and characterized in accordance with NYSDEC ASP methods. Samples will be relinquished to the contract accredited NYSDEC ELAP CLP and certified analytical laboratory. All chain of custody requirements will be strictly adhered to for designated analyses.

Sample identification documents will be carefully prepared so that sample identification and chain-of-custody can be maintained and sample disposition controlled. Sample identification documents include field notebooks, sample labels, custody seals, chain-of-custody records, and laboratory sample log-in and tracking forms.

The primary objective of the chain-of-custody procedures is to provide an accurate written record that can be used to trace the possession and handling of a sample from the moment of its collection through it analyses. A sample is in custody if it is:

- In someone's physical possession;
- In someone's view;
- Locked up; or
- Kept in a secured area that is restricted to authorized personnel.

5.2 Sample Containers and Preservation

For sample collection, prewashed sample containers obtained from a reliable supplier will be provided by the analytical laboratory. All containers provided by the laboratory are pre-cleaned (Level 1), with certificates of analysis available for each bottle type. Certifications of Analysis provided by the vendor are kept on file by the laboratory.

All samples will be stored on ice pending delivery to the laboratory. In addition, all water samples for volatile analysis will be preserved with HCl to a pH of less than 2. A list of preservatives and holding times for each type of analysis is included on the attached Table 2.

Sample preservation will be verified at the lab just prior to extraction, digestion, and/or analysis and the pH will be recorded in the extraction/digestion logbook. The pH may be checked upon arrival, if desired. If the samples are improperly preserved, a QA/QC discrepancy form will be submitted to the lab manager and QA coordinator for appropriate follow-up action (i.e., evaluation of the data during the data validation process and, if necessary, additional instruction of personnel regarding proper procedures).

5.3 Field Custody Procedures

- Sample bottles must be obtained pre-cleaned from the laboratory or directly from an approved retail source. All containers will be prepared in a manner consistent with the NYSDEC ASP 1991 bottle-washing procedures. Coolers or boxes containing cleaned bottles should be sealed with a custody tape seal during transport to the field or while in storage prior to use.
- All containers will have assigned lot numbers to ensure traceability through the supplier.
- As few persons as possible should handle samples.
- The sample collector is personally responsible for the care and custody of samples collected until the samples are transferred to another person or dispatched properly under chain-of-custody rules.

- The sample collector will record sample data in the field notebook.

- The project manager will determine whether proper custody procedures were followed during the fieldwork and decide if additional samples are required.

5.3.1 Custody Seals

Custody seals are preprinted adhesive-backed seals with security slots designed to break if the seals are disturbed. A custody seal is placed over the cap of individual sample bottles by the sampling technician. Sample shipping containers (coolers, cardboard boxed, etc., as appropriate) are sealed in as many places as necessary to ensure security. Seals must be signed and dated before use. Strapping tape should be placed around the lid to ensure that seals are not accidentally broken during shipment and in a manner that allows easy removal by laboratory personnel. On receipt at the laboratory, the custodian must check (and certify, by completing logbook entries) that seals on boxes and bottles are intact.

5.3.2 Chain-of-Custody Record

The chain-of-custody record must be fully completed in duplicate, using black carbon paper where possible, by the field technician who has been designated by the project manager as responsible for sample shipment to the appropriate laboratory for analysis. In addition, if samples are known to require rapid turnaround in the laboratory because of project time constraints or analytical concerns (i.e., extraction time or sample retention period limitations, etc.), the person completing the chain-of-custody record should note these constraints in the "Remarks" section of the custody record.

5.4 Sample Handling, Packaging and Shipping

The transportation and handling of samples must be accomplished in a manner that not only protects the integrity of the sample but also prevents any detrimental effects due to the possible hazardous nature of samples. Regulations for packaging, marking, labeling, and shipping hazardous materials are promulgated by the United States Department of Transportation (DOT) in the Code of Federal Regulations, 49 CFR 171 through 177.

5.4.1 Sample Packaging

Samples must be packaged carefully to avoid breakage or contamination and must be shipped to the laboratory at proper temperatures. The following sample packaging requirements will be followed:

- Sample bottle lids must never be mixed.
- The sample bottle should never be completely filled except for VOA bottles. At a minimum, a 10% void space should be left in the bottle to allow for expansion. The sample volume level should be marked with a grease pencil or by placing the top of the label at the appropriate sample height.
- Foam inserts should be used as inert packing material when shipping low hazard water samples via a common carrier to the laboratory.
- Low-hazard environmental samples are to be cooled. "Blue ice" or some other artificial

icing material, or ice placed in plastic bags, may be used. Ice will not be used as a substitute for packing material.

- A duplicate custody record must be placed in a plastic bag and taped to the inside of the cooler lid. Custody seals are affixed to the sample cooler.
- The cooler will be labeled as containing a hazardous material if it contains medium or high-hazard samples. Labeling requirements differ depending on the type of material being shipped; the majority of soil samples may be shipped as a class "9" hazardous material with the proper shipping name "OTHER REGULATED SUBSTANCES (ENVIRONMENTAL SAMPLES)."
- A hazardous material shipping manifest will be completed for each cooler of medium to high-hazard samples and affixed to the lid of the cooler.
- Low-hazard environmental samples do not require a hazardous material shipping manifest. The words "LABORATORY SAMPLES" should be printed on the top of the cooler for low-hazard samples.
- Samples packaged and shipped as limited-quantity radioactive material must comply with NYSDOT and shipper regulations for package contamination limits, surface exposure rate, and air bill completion.

5.4.2 Shipping Containers

Environmental samples will be properly packaged and labeled for transport and dispatched for analysis to the appropriate subcontracted laboratory for geotechnical analyses. A separate chain-of-custody record must be prepared for each container. The following requirements for marking and labeling of shipping containers will be observed:

- Use abbreviations only where specified;
- The words "This End Up" or "This Side Up" must be clearly printed on the top of the outer package. Upward-pointing arrows should be placed on the sides of the package. The words "Laboratory Samples" should also be printed on the top of the package; and
- After a container has been closed, two custody seals are placed on the container—one on the front and one on the back. The seals are protected from accidental damage by placing strapping tape over them.
- Field personnel will make timely arrangements for transportation of samples to the laboratory. When custody is relinquished to a shipper, field personnel will telephone the laboratory custodian to inform him of the expected time of arrival of the sample shipment and to advise him of any time constraints on sample analysis.

5.4.3 Shipping Procedures

- The coolers in which the samples are packed must be accompanied by a chain- of-custody record. When transferring samples, the individuals relinquishing and receiving them must sign, date, and note the time on the record. This record documents sample custody transfer.

- Samples must be dispatched to the laboratory for analysis with a separate chain- of-

custody record accompanying each shipment. Shipping containers must be sealed with custody seals for shipment to the laboratory. The method of shipment, name of courier, and other pertinent information are entered in the "Remarks" section of the chain-of-custody record.

- All shipments must be accompanied by the chain-of-custody record identifying their contents. The original record accompanies the shipment, and the yellow copy is retained by the Field Team Leader.
- If sent by mail, the package is registered with return receipt requested. If sent by common carrier, a bill of lading is used. Freight bills, Postal Service receipts, and bills of lading are retained as part of the permanent documentation.
- Samples must be shipped to the analytical laboratory within 24 to 48-hours from the time of collection.

5.5 Laboratory Custody Procedures

The designated sample custodian at the laboratory will be responsible for maintaining the chain-of-custody for samples received at the lab. Among other things, the custodian must adhere to the following basic requirements:

- When the sample arrives at the lab, the custodian will complete a Cooler Receipt & Preservation Form for each cooler/package container.
- Upon receipt, the coolers are examined for the presence and condition of custody seals, locks, shipping papers, etc. Shipping labels are removed and placed on scrap paper and added to the receiving paper work. The custodian then completes the chain-of-custody record by signing and recording the date and time the package is opened.
- Acceptance criteria for cooler temperature is 0-6^{o}C. If a cooler exhibits a temperature outside this range, the anomalies are noted on the Cooler Receipt & Preservation Form.
- The custodian will then unload the samples from the cooler(s)/container(s), assign an identification number to each sample container, and affix a barcode label to each sample container for logging in and out of the Laboratory Information Management System (LIMS) system.

Adherence to this procedure will ensure that all samples can be referenced in the computer tracking system. All sample control and chain-of-custody procedures applicable to the analytical laboratory are presented in laboratory SOPs available for review.

6.1 Analytical Methods

All laboratory analyses will be performed by an accredited and appropriately (NYSDEC ELAP CLP) certified analytical laboratory. Inorganic, general analytical and organic methods to be performed by the laboratory for this project are listed in Table 1 of this QAPP.

6.2 Analytical Capabilities

The analytical laboratory is fully equipped for analysis of all types of water, air, and soil samples for chemical contaminants, bacteriological quality, and general characterization. Proven and

approved analytical techniques are used, backed up by a rigorous system of QC and QA checks to ensure reliable and defensible data. All laboratory work is performed in accordance with guidelines established by USEPA, the NYSDOH, and the National Institute of Occupational Safety and Health (NIOSH).

Organic analysis is accomplished by gas chromatography (GC), high performance liquid chromatography (HPLC), and or GC/mass spectrometry (MS). Liquid, soil, and air samples are analyzed routinely for pesticides, polychlorinated biphenyls (PCBs), volatile organics, extractable organics, and other groups of compounds, as necessary. The laboratory uses two types of instruments for analysis of metals in various matrices: Atomic Absorption Spectrometry (AAS) and Inductively Coupled Plasma (ICP).

Laboratory procedures to be utilized for sample preparation and analysis are referenced in the NYSDEC ASP.

Method Detection Limits

Method detection limits are determined according to procedures outlined in 40 CFR Part 136, Appendix B or USEPA CLP. General analytical detection limits are usually determined by the lowest point on the curve. Detection limits are determined at least annually for all appropriate analytical methods and for purposes of this investigation, the detection and reporting limits for all analytes will be below applicable Standards, Criteria and Guidance values. A listing of the laboratory's method detection limits is available upon request.

6.3 Quality Control Samples

Laboratory QC consists of analysis of laboratory blanks, duplicates, spikes, standards, and QC check samples as appropriate to the methodology. These laboratory QC samples are described below.

6.3.1 Laboratory Blanks

Three types of laboratory blanks, one or more of which will be utilized depending on the analysis are described below:

- Method blanks consist of analyte-free water and are subjected to every step of the analytical procedure to determine possible contamination.
- Reagent blanks are similar to method blanks but incorporate only one of the preparation reagents in the analysis. When a method blank indicates significant contamination, one or more reagent blanks are analyzed to determine the source.
- Calibration blanks consist of pure reagent matrix and are used to zero an instrument's response, thus establishing the baseline.

6.3.2 Calibration Standards

A calibration standard may be prepared in the laboratory by dissolving a known amount of a pure compound in an appropriate matrix. The final concentration calculated from the known quantities is the true value of the standard. The results obtained from these standards are used to generate a standard curve and thereby quantitative the compound in the environmental sample. A minimum of three (3) calibration standards will be used to generate a standard curve for all analyses.

6.3.3 Reference Standard

A reference standard is prepared in the same manner as a calibration standard but from a different source. Reference standards may be obtained from the USEPA. The final concentration calculated from the known quantities is the "true" value of the standard. The important difference in a reference standard is that it is not carried through the same process used for the environmental samples, but is analyzed without digestion or extraction. A reference standard result is used to validate an existing concentration calibration standard file or calibration curve.

6.3.4 Spike Sample

A sample spike is prepared by adding to an environmental sample (before extraction or digestion) a known amount of pure compound of the same type that is to be assayed for in the environmental sample. Spikes are added at 1 to 10 times the expected sample concentration or approximately 10 times the method detection limit. These spikes simulate the background and interferences found in the actual samples, and the calculated percent recovery of the spike is taken as a measure of the accuracy of the total analytical method.

A blank spike is the same as a spike sample except the spike is added to analyte-free water. The blank spike is used to determine whether the sample preparation and analysis are under control.

6.3.5 Surrogate Standard

A surrogate is prepared by adding a known amount of pure compound to the environmental sample; the compound selected is not one expected to be found in the sample, but is similar in nature to the compound of interest. Surrogate compounds are added to the sample prior to extraction or digestion. Surrogate spike concentrations indicate the percent recovery of the analytes and, therefore, the efficiency of the methodology.

6.3.6 Internal Standard

Internal standards are similar to surrogate standards in chemical composition but are used to quantify the concentration of analytes sampled based on the relative response factor. Internal

standards are added to the environmental sample just prior to instrumental analysis.

6.3.7 Laboratory Duplicate or Matrix Spike Duplicate

Laboratory duplicates are aliquots of the same sample that are split prior to analysis and treated exactly the same throughout the analytical method. Spikes and duplicates for the batch are normally aliquots of the same sample. For organics, spikes are added at approximately 10 times the method detection limit. The relative percent difference (RPD) between the values of the matrix spike and matrix spike duplicate for organics or between the original and the duplicate for inorganics is taken as a measure of the precision of the analytical method. In general, the tolerance limit for RPDs between laboratory duplicates should not exceed 20% for validation in homogeneous samples.

6.3.8 Check Standard/Samples

Inorganic and organic check standards or samples are prepared with reference standards or are available from the USEPA. They are used as a means of evaluating analytical techniques of the analyst. Check standards or samples are subjected to the entire sample procedure, including extraction, digestion, etc., as appropriate for the analytical method utilized. The check standard or sample can provide information on the accuracy of the analytical method independent of various sample matrices.

6.4 Laboratory Instrumentation

Laboratory capabilities will be demonstrated initially for instrument and reagent/ standards performance as well as accuracy and precision of analytical methodology. A discussion of reagent/standard procedures and brief descriptions of calibration procedures for major instrument types follow.

All standards are obtained directly from USEPA or through a reliable commercial supplier with a proven record for quality standards. All commercially supplied standards will be traceable to USEPA or National Institute of Standards and Technology (NIST) reference standards and appropriate documentation will be obtained from the supplier. In cases where documentation is not available, the laboratory will analyze the standard and compare the results to a known USEPA-supplied or previous NIST-traceable standard.

All sections of the laboratory will have SOP for standard and reagent procedures to document specific standard receipt, documentation, and preparation activities. In general, the individual SOPs incorporate the following items:

- Documentation and labeling of date received, lot number, date opened, and expiration date;
- Documentation of traceability;
- Preparation, storage, and labeling of stock and working solutions; and
- Establishing and documenting expiration dates and disposal of unusable standards.

Each laboratory instrument will be labeled clearly with a unique identifier that relates to all laboratory calibration documentation. Laboratory SOPs and calibration procedures are detailed in the laboratory's Quality Assurance Manual, available upon request.

7.0 Data Reporting and Validation

7.1 Deliverables

Once the contract laboratory has provided all analytical data, a report can be developed to summarize the sample results. The report will be prepared as indicated by the following outline:

1.0 INTRODUCTION
2.0 SAMPLING ACTIVITIES
3.0 SUMMARY AND CONCLUSIONS

The report will carefully document all findings of the investigation and will be supplemented as appropriate with photographic documentation, subsurface soil logs, cross sections, and study area plans indicating groundwater flow direction and subaerial contaminant distribution.

7.1.1 Category B Data Package

All analytical data will be reported by the laboratory with NYSDEC ASP Category B deliverables. The Category B data package includes:

1. A detailed summary of the report contents and any quality control outliers or corrective actions taken.
2. Chain of Custody documentation
3. Sample Information including: date collected, date extracted, date analyzed, and analytical methods.
4. Data (including raw data) for:
   - samples
   - laboratory duplicates
   - method blanks
   - spikes and spike duplicates
   - surrogate recoveries
   - internal standard recoveries
   - calibrations
   - any other applicable QC data
5. Method detection limits and/or instrument detection limits
6. Run logs, standard preparation logs, and sample preparation logs
7. Percent solids (where applicable).

7.1.2 Quality Assurance Reports

For the laboratory, a general QA report summarizing problems encountered throughout the laboratory effort, including sample custody, analyses, and reporting. This report identifies areas of concern and possible resolutions in an effort to ensure data quality.

Upon completion of a project sampling effort, analytical and QC data will be included in a comprehensive report that summarizes the work and provides a data evaluation. A discussion of the validity of the results in the context of QA/QC procedures will be made, as well as a summation of all QA/QC activity.

Serious analytical or sampling problems will be reported to NYSDEC. Time and type of corrective action, if needed, will depend on the severity of the problem and relative overall project importance. Corrective actions may include altering procedures in the field, conducting an audit, or modifying laboratory protocol. All corrective actions will be implemented after notification and approval of NYSDEC.

In addition to the laboratory report narrative, QA data validation reports that include any contractual requirements will also be provided to NYSDEC. These QA reports will be submitted with the analytical data, on a monthly basis, or at the conclusion of the project.

7.2 Data Validation and Usability

Prior to the submission of the report to NYSDEC, all data will be evaluated for precision, accuracy, and completeness.

QA/QC requirements from both methodology and company protocols will be strictly adhered to during sampling and analytical work. All data generated will be reviewed by comparing and interpreting results from instrumental responses, retention time, determination of percent recovery of spiked samples or blanks, and reproducibility of duplicate sample results. All calculations and data manipulations are included in the appropriate methodology references.
Control charts and calibration curves will be used to review the data and identify outlying results.

7.2.1 Data Validation

If necessary, a third-party validator will be responsible for an independent review of all analytical work performed under the NYSDEC ASP-CLP protocol. The functions will be to assess and summarize the quality and reliability of the data for the purpose of determining its usability and to document for the historical record of each Site any factors affecting data usability, such as discrepancies, poor laboratory practices, and Site locations that are difficult to analyze. The data validator will be responsible for determining completeness and compliance. The Project QAO will be responsible for determining data usability and overseeing the work of the data validator.

Information available to the data validator and the QAO for performance of these functions include the NYSDEC ASP Category B data package, information from the sampling team regarding field conditions and field QA samples, chain-of-custody and shipping forms. The data package is designed to provide all necessary documentation to verify compliance with NYSDEC ASP CLP protocol and the accuracy and reliability of the reported results.

The laboratory will deliver the data package to the project QA coordinator for processing prior to submission to the data validator. The project QA coordinator will review the report for immediate problems, summarize the data for in-house use, and process the work order for the third-party data-validation subcontract within five working days.

In order to effectively review the data package, the data validator will obtain a general overview of each case. This includes the exact number of samples, their assigned numbers, and their matrix. The data validator will deliver the data validation report within 30 days of receipt of the data package.

If a problem arises between the data validator and the laboratory, the data validator must submit written questions to the laboratory. The laboratory will be required to respond in writing within 10 working days to correct any deficiencies. If the data validator does not receive a written response from the laboratory within the specified time period, the data in question shall be considered noncompliant.

Sampling locations will be obtained from the sampling records, such as the chain-of- custody forms. This information is necessary for preparation of the data summary, evaluation of adherence to sample holding times, discussion of matrix problems, and discussion of contaminants detected in the samples.

The following is a brief outline of the data validation process:

- Compilation of all samples with the dates of sampling, laboratory receipt, and analysis;
- Compilation of all QC samples, such as field blanks, field duplicates, MS/MSD samples, laboratory blanks, and laboratory replicates;
- Review of chain-of-custody documents for completeness and correctness;
- Review of laboratory analytical procedure and instrument performance criteria;
- Qualification of data outside acceptable QC criteria ranges; and
- Preparation of a memorandum summarizing any problems encountered and the potential effects on data usability;
- Preparation of a data summary, including validated results, with sample matrix, location, and identification; and
- Tabulation of field duplicates, laboratory replicate, and blank results.

Copies of all data validation and usability reports, as well as all data summary packages, will be provided to the NYSDEC project manager. In addition, copies of all analytical raw data will be provided to NYSDEC upon request.

7.2.2 Data Usability

A Data Usability Summary Report (DUSR) will be provided after review and evaluation of the analytical data package. The DUSR will contain required elements listed in Appendix 2B of *Department of Environmental Remediation (DER)-10 Technical Guidance for Site Investigation and Remediation*.

The DUSR will include a description of the samples and analytical procedures used. Any data deficiencies, protocol deviations, or quality control problems will be discussed as to their effect on data results. The report will also include any suggestions for resampling or reanalysis.

Tables

Table 1
Proposed Sampling and Analysis Summary

Analyte	Location	Media	Number	QA/QC	Total
Part 375 TCL VOCs (Method 8260)	Surface Locations & Borings	Soil	TBD		
TCL SVOCs	Surface Locations & Borings	Soil	TBD		
TCL VOCs (Method 8260)	Wells	Groundwater	3	1	4

Table 2
Sample Preservation and Holding Times

Parameter	Method Number	Container Type and Size	Preservation	Holding Time*
Soil Samples				
VOCs	8260C	2 x 4 oz. wide mouth glass jar with Teflon-lined cap	Cool to 4°C; minimize headspace	14 days
SVOCs	8270C	2 x 4 oz. amber wide mouth glass jar with Teflon-lined cap	Cool to 4°C	12 days to extract; analyze 40 days from extraction
Groundwater				
VOCs	8260C	3 x 40-ml. glass VOA vial with Teflon-lined cap	Cool to 4°C; minimize headspace; HCl to pH<2	5 days unpreserved / 12 days preserved

* Holding times are based on verified time of sample receipt (VTSR) at the laboratory

APPENDIX J

SITE MANAGEMENT FORMS

Summary of Green Remediation Metrics for Site Management

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: _____

Contact Information
Preparer's Name: _____ Phone No.: _____
Preparer's Affiliation: _____

I. Energy Usage: Quantify the amount of energy used directly on-site and the portion of that derived from renewable energy sources.

	Current Reporting Period	**Total to Date**
Fuel Type 1 (e.g. natural gas (cf))		
Fuel Type 2 (e.g. fuel oil, propane (gals))		
Electricity (kWh)		
Of that Electric usage, provide quantity:		
Derived from renewable sources (e.g. solar, wind)		
Other energy sources (e.g. geothermal, solar thermal (Btu))		

Provide a description of all energy usage reduction programs for the site in the space provided on Page 3.

II. Solid Waste Generation: Quantify the management of solid waste generated on-site.

	Current Reporting Period (tons)	**Total to Date (tons)**
Total waste generated on-site		
OM&M generated waste		
Of that total amount, provide quantity:		
Transported off-site to landfills		
Transported off-site to other disposal facilities		

Transported off-site for recycling/reuse		
Reused on-site		

Provide a description of any implemented waste reduction programs for the site in the space provided on Page 3.

III. Transportation/Shipping: Quantify the distances travelled for delivery of supplies, shipping of laboratory samples, and the removal of waste.

	Current Reporting Period (miles)	**Total to Date (miles)**
Standby Engineer/Contractor		
Laboratory Courier/Delivery Service		
Waste Removal/Hauling		

Provide a description of all mileage reduction programs for the site in the space provided on Page 3. Include specifically any local vendor/services utilized that are within 50 miles of the site.

IV. Water Usage: Quantify the volume of water used on-site from various sources.

	Current Reporting Period (gallons)	**Total to Date (gallons)**
Total quantity of water used on-site		
Of that total amount, provide quantity:		
Public potable water supply usage		
Surface water usage		
On-site groundwater usage		
Collected or diverted storm water usage		

Provide a description of any implemented water consumption reduction programs for the site in the space provided on Page 3.

V. Land Use and Ecosystems: Quantify the amount of land and/or ecosystems disturbed and the area of land and/or ecosystems restored to a pre-development condition (i.e. Green Infrastructure).

	Current Reporting Period (acres)	**Total to Date (acres)**
Land disturbed		
Land restored		

Provide a description of any implemented land restoration/green infrastructure programs for the site in the space provided on Page 3.

Description of green remediation programs reported above (Attach additional sheets if needed)
Energy Usage:
Waste Generation:
Transportation/Shipping:
Water usage:
Land Use and Ecosystems:
Other:

CERTIFICATION BY CONTRACTOR
I, _____ (**Name**) do hereby certify that I am _____ (**Title**) of the Company/Corporation herein referenced and contractor for the work described in the foregoing application for payment. According to my knowledge and belief, all items and amounts shown on the face of this application for payment are correct, all work has been performed and/or materials supplied, the foregoing is a true and correct statement of the contract account up to and including that last day of the period covered by this application. _____ **Date** **Contractor**

APPENDIX K – FIELD SAMPLING PLAN

Soil sampling and analytical methodologies are summarized in the Quality Assurance Project Plan QAPP (Appendix I).

Groundwater gauging will be completed using a water level indicator, and referenced to the specific monitoring well casing top. Well purging will be completed using "low flow" methods to minimize the disturbance OC concentrations. Groundwater sampling and analytical methodologies are also summarized in the QAPP. Well development and sampling water will be treated with activated carbon and the discharged to the ground surface.

APPENDIX L

SUB-SLAB DEPRESSURIZATION SYSTEM FINAL CONSTRUCTION REPORT

HIGHLAND PLAZA
BROWNFIELD SITE # C915293

215 HIGHLAND PARKWAY
TONAWANDA, NEW YORK

CONSTRUCTION COMPLETION REPORT

INTERIM REMEDIAL MEASURE

SUB-SLAB DEPRESSURIZATION SYSTEM

235 – 237 HIGHLAND PARKWAY

PREPARED FOR:

NYSDEC REGION 9
&
NYSDOH

PREPARED BY:

HIGHLAND PLAZA
&
ENVIRONMENTAL & GEOLOGIC MANAGEMENTS SERVICES, LLC

September 2017

Revision 1

FIGURES

TABLES

APPENDIX

1. INTRODUCTION

The installation of a Sub-Slab Depressurization System (SSDS) at the Highland Plaza Brownfield Site C915293 (Site) was completed as an interim remedial measure (IRM) in accordance with the New York State Department of Environmental Conservation (NYSDEC)/New York Department of Health (NYSDOH) approved work plan dated January, 2016. The following document provides a summary of the work elements that were completed as part of this IRM.

2. SITE DESCRIPTION

The Site is located in Tonawanda, New York at the intersection of Highland Parkway and Colvin Boulevard. It is approximately 297 feet in length (east – west) and approximately 100 feet wide in the north – south direction. Approximately 50% of the Site is occupied by a slab on grade strip plaza building, which is approximately 297 feet in length and approximately 50 feet wide. The northern half of the Site is an asphalt parking lot (Figure 1).

The strip plaza consists of three attached buildings that are separated by a common firewall, a foundation break and different roof lines. The easternmost building (Building #1) was once occupied by the High Park Dry Cleaner and then subsequently a thrift shop, whereas the central and western buildings are subdivided into small commercial tenant spaces. The addresses for the easternmost building (Building #1) are 235 and 237 Highland Parkway (Figure 2).

3. SITE USE & HISTORY

Sanborn Maps of the Site from 1928 to 1964 were reviewed as part of a Preliminary Phase II Investigation that was completed in 2014. The review showed that the property was undeveloped in 1928, but by 1950 had been developed into the present plaza. There was no indication from available public information that the property was used for industrial or manufacturing purposes.

4. PUBLIC AND PRIVATE INFORMATION ON PREVIOUS SITE INVESTIGATIONS

Review of publicly available records for the former dry cleaner provided no information on spills or environmental investigations for the former dry cleaner. There is no record of previous site investigations at the Site except the Preliminary Phase II Site Investigation that was completed by Environmental & Geologic Management Services, LLC (EGMS) in 2014.

The site is bounded to the west by a former Getty Service Station. Review of NYSDEC records for the former service station indicates it has undergone two subsurface investigations/remedial actions: one in 1999 (Spill #889-75108) and a second in 2008 (Spill #06-06779). NYSDEC concluded from the results of the investigations that “No Further Action” was required at this location.

5. PRELIMINARY PHASE II INVESTIGATION

A Preliminary Phase II Investigation and Soil Vapor Intrusion Study were completed at the Site in 2014. Twelve soil borings ranging in depths from 8 to 12 feet were completed. Three groundwater sampling points (12 feet BGS) were planned; however, groundwater was only encountered at one location.

A soil vapor intrusion (SVI) Investigation was also completed at the former dry cleaner located in Building #1. Three sub-slab vapor samples were collected near boring locations with the highest PID readings. One indoor air and two outdoor air samples were also collected. Samples were analyzed for USEPA Method TO – 15 for VOCs.

5.1 Preliminary Phase II Investigation Conclusions

The Preliminary Phase II Investigation and SVI Investigation concluded that there were no apparent environmental impacts from the former Getty Station.

Low levels of soil contamination are present under the floor of the building where the former dry cleaner was located as documented from seven soil samples collected from seven different soil borings completed inside of Building #1 within the area of the former dry cleaner. Soil samples were collected for laboratory analysis based on PID readings from 0 inches below the concrete floor to 8 feet below the concrete floor.

Soil contamination is also present in the service alley directly south of the former dry cleaner from spills or disposal of cleaning solvents from the former dry cleaner. The concentration of these compounds is below the NYSDEC Part 375 Commercial Soil Cleanup Objectives (SCO), but are above the restricted residential SCO for tetrachloroethene.

VOCs associated with dry cleaning operations are present in the soil vapor under the concrete floor slab of Building #1 and have impacted indoor air quality in the eastern end of Building #1 (Table 1).

Additional investigative work was recommended to determine the nature and extent of the soil contamination from the former dry cleaner and to characterize impacts to groundwater.

Remediation of indoor air was recommended by installing a sub-slab depressurization system (SSDS) in Building #1 where the former dry cleaner was located. Details of the sub-slab depressurization system are provided below under the section of this report titled Interim Remedial Measures Work Plan Scope of Work.

6. INTERIM REMEDIAL MEASURE

Highland Plaza received approval in February of 2016 from the NYSDEC and NYSDOH to construct and operate an interim remedial measure (IRM) consisting of a SSDS.

Implementation of the IRM started in March and was completed the third week of April, 2016.

6.1 General Area Condition

The area of Building #1 where the former dry cleaner was located is approximately 120 feet wide by 50 feet deep. Highland Plaza built this area out as two tenant spaces each approximately 60 feet wide by 49 feet deep. The floor over approximately 80% of Building #1 where the former dry cleaner office space and clothes racks were located was primarily wood floor underlain by concrete. The underlying concrete in this area was in variable condition: in some areas it appeared to be in good condition; while in other areas the underlying concrete appeared to be heavily broken or absent. In the eastern portion of Building #1, the concrete was stained in places where the dry cleaning equipment was located, but was generally in good condition.

6.2 Interim Remedial Measures Scope of Work

The SSDS is designed to depressurize the entire concrete slab of the easternmost plaza building (Building #1) where the former dry cleaner was located. The IRM consisted of the following work elements:

- Removal of the concrete floor where it was covered with a wooden lattice (approximately 80% of the tenant space);
- Removal of all floor drains;
- Placement of four to six inches of a crushed stone substrate in the area where the concrete was removed;
- Placement of four inch perforated horizontal PVC pipe vapor collection runs within the crushed stone for the SSDS that connected to solid vertical PVC piping to the blower units mounted on the roof of the building;
- Placement of a plastic membrane over the crushed stone substrate and pipe runs; and
- Placement of new concrete in the area of the tenant spaces where the old concrete was removed.

Approximately 32 feet by approximately 50 feet of existing concrete floor was left in place in the easternmost part of Building #1 (237 Highland Parkway). In order to install the SSDS perforated PVC pipe vapor collection run in this area, the existing concrete floor was saw-cut. The soils were excavated out of the saw-cut area to a depth of approximately 18 inches. Four-inch perforated PVC vapor collection pipe was then placed in the trench and covered with crushed stone in the saw cut area and associated excavation. The perforated pipe was attached to the solid vertical PVC pipe to connect to the roof top mounted blower. The saw-cut area was ten covered with a plastic membrane and concrete was placed into the saw-cut space of the existing concrete floor.

6.3 Placement of Sub-Slab Vapor Collection Points

The SSDS has four sub-slab vapor collection points for this area as follows (Figure 3):

- The four sub-slab collection points are located approximately 25 feet from the front of the building and approximately 25 feet from the back of the building;
- The easternmost vapor collection pipe run (designated as EP-1) is located approximately 25 feet west of the east wall of Building #1 and is approximately 5 feet 9 inches in length east-west (Figures 3, 4 and 5);
- The east central vapor collection point (designated as EP-2) is located approximately 50 west of the east wall of Building #1 and is approximately 10 feet in length east-west (Figures 3, 6 and 7);
- The west central vapor collection point (designated as EP-3) is located approximately 45 feet east of the west wall of Building #1 and is approximately 15 feet in length east-west (Figures 3, 6 and 7); and
- The westernmost vapor collection point (designated as EP-4) is located approximately 25 feet east of the west wall of Building #1 and is approximately 25 feet 6 inches in length east-west (Figures 3, 8 and 9).

All sub-slab piping for the SSDS consists of four-inch schedule 40 perforated PVC pipe and was wrapped with a permeable sleeve to prevent small rock chips from entering the piping.

6.4 Vertical Pipe Runs

The sub-slab four-inch perforated schedule 40 PVC pipe for EP-1 is connected to solid four-inch schedule 40 PVC pipe that goes vertically to the roof mounted blower (Figures 4 and 5).

The sub-slab four-inch perforated schedule 40 PVC pipe for EP-2 is connected to solid to solid six-inch schedule 40 PVC pipe common to EP-2 and EP-3 that goes vertically to the roof mounted blower (Figures 6 and 7).

The sub-slab four-inch perforated schedule 40 PVC pipe for EP-3 is connected to solid to solid six-inch schedule 40 PVC pipe common to EP-2 and EP-3 that goes vertically to the roof mounted blower (Figures 6 and 7).

The sub-slab four-inch perforated schedule 40 PVC pipe for EP-4 is connected to solid four-inch schedule 40 PVC pipe that goes vertically to the roof mounted blower (Figures 8 and 9).

6.5 Placement of Blowers

The SSDS has three blowers and four sub-slab vapor collection pipe runs. The three blowers are located on the roof of the building and are designated as follows:

- The easternmost blower is designated as BL-1;
- The central blower is designated as BL-2; and
- The westernmost blower is designated as BL-3.

Solid PVC piping runs vertically from the concrete floor through the drop ceiling and roof to roof mounted blowers.

Tjernlund R5HF (R-Series Radon Mitigation Fans) are mounted on the roof for vapor extraction. The Tjernlund R5HF is a moderate to high flow blower used for commercial areas (up to 2500 square feet). It has a maximum flow rate of 353 cubic feet per minute. The Tjernlund R5HF blower specifications are attached to this work plan as Appendix A.

6.6 System Start Up

The SSDS became operational the third week of April, 2016. The three fans were installed one at a time, tested and put into operation. This process took approximately one week to complete. The SSDS has been in continuous operation since that time.

6.7 Confirmation Indoor Air Sampling

Highland Plaza evaluated the effectiveness of the existing SSDS by collecting a confirmation indoor air sample in the former dry cleaner tenant space on February 16, 2017. Since the former dry cleaner tenant space has been subdivided into two tenant spaces, the confirmation indoor air sample was collected in the tenant space that is presently occupied (Buffalo Ergonomics at 235 Highland Parkway). The indoor air sample was collected using the same sample collection methods described in the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (2006) with updates. Sampling interval was 24 hours and the air sample was analyzed for USEPA Method TO-15 VOCs. The confirmation indoor air sampling location is shown on Figure 10.

There were no VOCs detected at concentrations above applicable NYSDOH guidance values in the indoor air sample collected to confirm the effectiveness of the SSDS to capture vapors emanating from soils under the building (Table 2).

6.8 Pressure Testing

In April, 2017, pressure differential between the indoor air and sub-slab space was measured to confirm the presence of negative pressure under the concrete floor slab and the effectiveness of the SSDS to intercept and control soil vapors from entering the tenant space. Six small diameter holes (1/2 inch in diameter) were drilled through the concrete floor slab at a distance of 18 inches to three feet from the north and south exterior walls of the building to measure the pressure differential between the sub-slab and indoor air (Figure 3).

These results confirm that the SSDS is maintaining negative pressure under the concrete slab where the former dry cleaner was located (Table 3).

6.9 Operation and Maintenance of System

The SSDS will remain in continuous operation until the NYSDEC or NYSDOH approves a proposal to turn off the mitigation system. NYSDEC and NYSDOH will collectively determine when/if the SSDS will be turned off.

Warning devices were installed on each vertical pipe run as part of the SSDS to signal when the system is not operational. A test port is present on each vertical pipe run. A failure indicator is in place over each the test port openings and is attached by a downward hinge to signal if the system is running. When the system is running, the suction created from the system holds the failure indicator (painted black) in place. During a system failure or decrease in suction, the failure indicator falls away from the test port opening exposing the back part of the indicator (painted yellow) and a significant "hissing noise" occurs which is audible throughout the tenant space.

Routine maintenance of the SSDS will be completed within 18 months after the system becomes operational and will occur every 12 to 18 months thereafter. Routine maintenance will also include evaluation of the slab condition, especially in the locations that were previously sealed or at areas where floor drains were decommissioned. Any new floor cracks that are observed during routine maintenance will be sealed with non-VOC caulking.

7. MANAGEMENT OF WASTES

Concrete and soil waste were generated during completion of the IRM. Concrete waste was generated during replacement of the concrete floor; and, soil waste was generated during installation of the horizontal vapor collection piping. These wastes were segregated and stockpiled onsite.

A composite sample was collected from the stockpiled concrete waste and from the stockpiled soil for chemical analysis to determine the appropriate methods of disposal for these wastes. The composite concrete sample was analyzed for the following parameters:

- TCLP semi-volatile organic compounds (SVOCs) using USEPA Method 8270:
- TCLP volatile organic compounds (VOCs) using USEPA Method 8260:
- TCLP RCRA metals using USEPA Method 6010; and
- TCLP mercury using USEPA Method 7470.

The results of these analyses are attached as Appendix B.

The composite soil sample was analyzed for the following parameters:

- Flash point using USEPA Method 1010;
- pH using USEPA Method 9045;
- Reactive cyanide using USEPA Method 7.3.3.2;
- Reactive Sulfide using USEPA Method 7.3.4.2;
- SVOCs using USEPA Method 8270; and
- VOCs using USEPA Method 8260.

The results of these analyses are attached as Appendix B.

The analytical results were forwarded to NYSDEC for review. The NYSDEC subsequently approved disposal of the concrete by recycling and re-use of the soil onsite for a cap over potentially contaminated soil in the 2.5 feet wide strip of soil directly behind the Site building. The NYSDEC approval correspondence is attached as Appendix C.

8. CERTIFICATION

This report summarizes the remedial action that was completed at 235 – 237 Highland Parkway in Highland Plaza in March, 2016.

I, Andrew Terragnoli, certify that I am currently a NYS Registered Professional Engineer, and that this Interim Remedial Measures Construction Completion Report provides an accurate summary of work activities that were completed in conformance with the NYSDEC/NYSDOH approved work plan.

Name: Andrew Terragnoli, PE

Position: Managing Member
Studio Engineering, PLLC
Tri-Main Center
2495 Main Street, Suite 301
Buffalo, New York 14214

Date 11/22/17

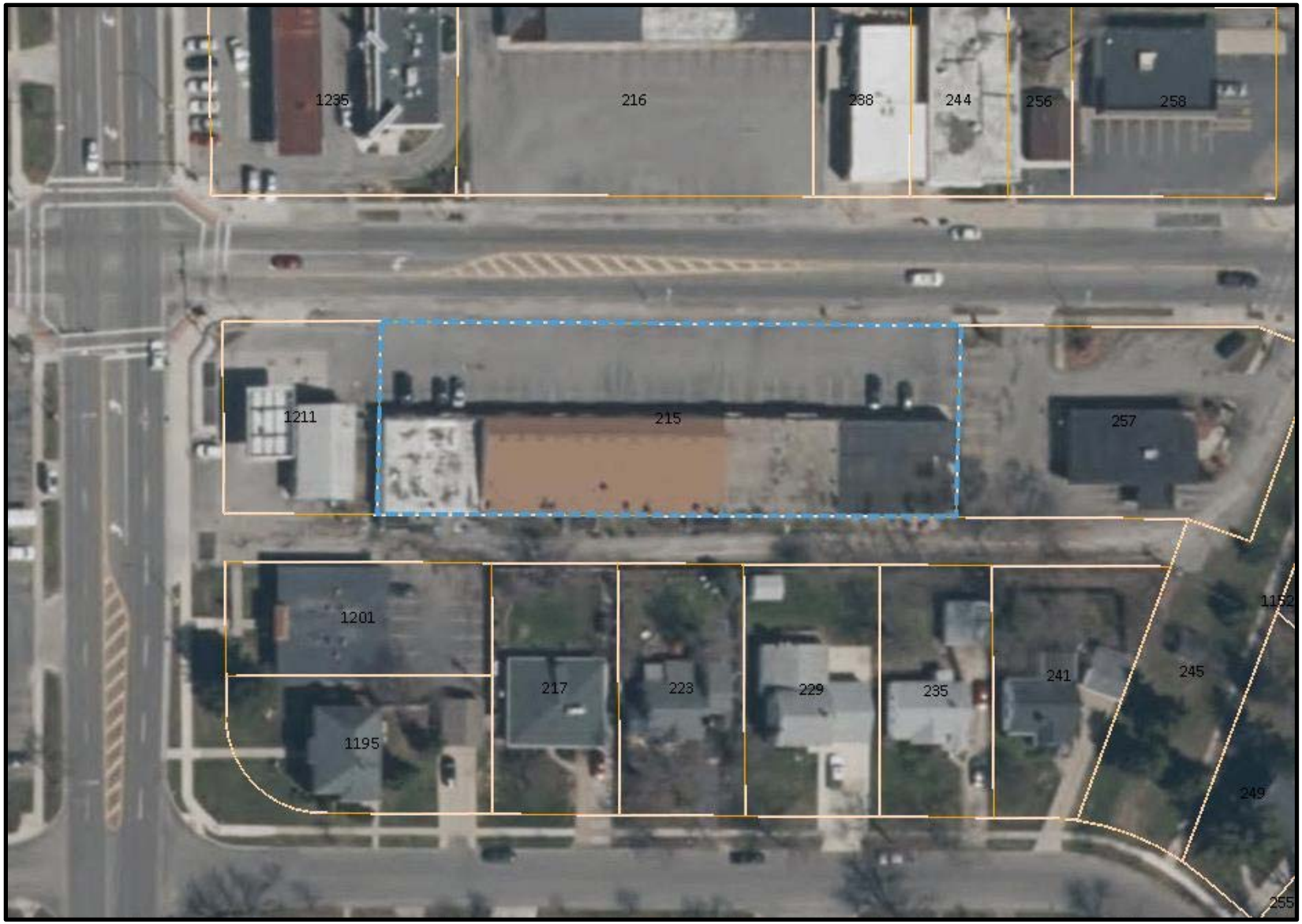
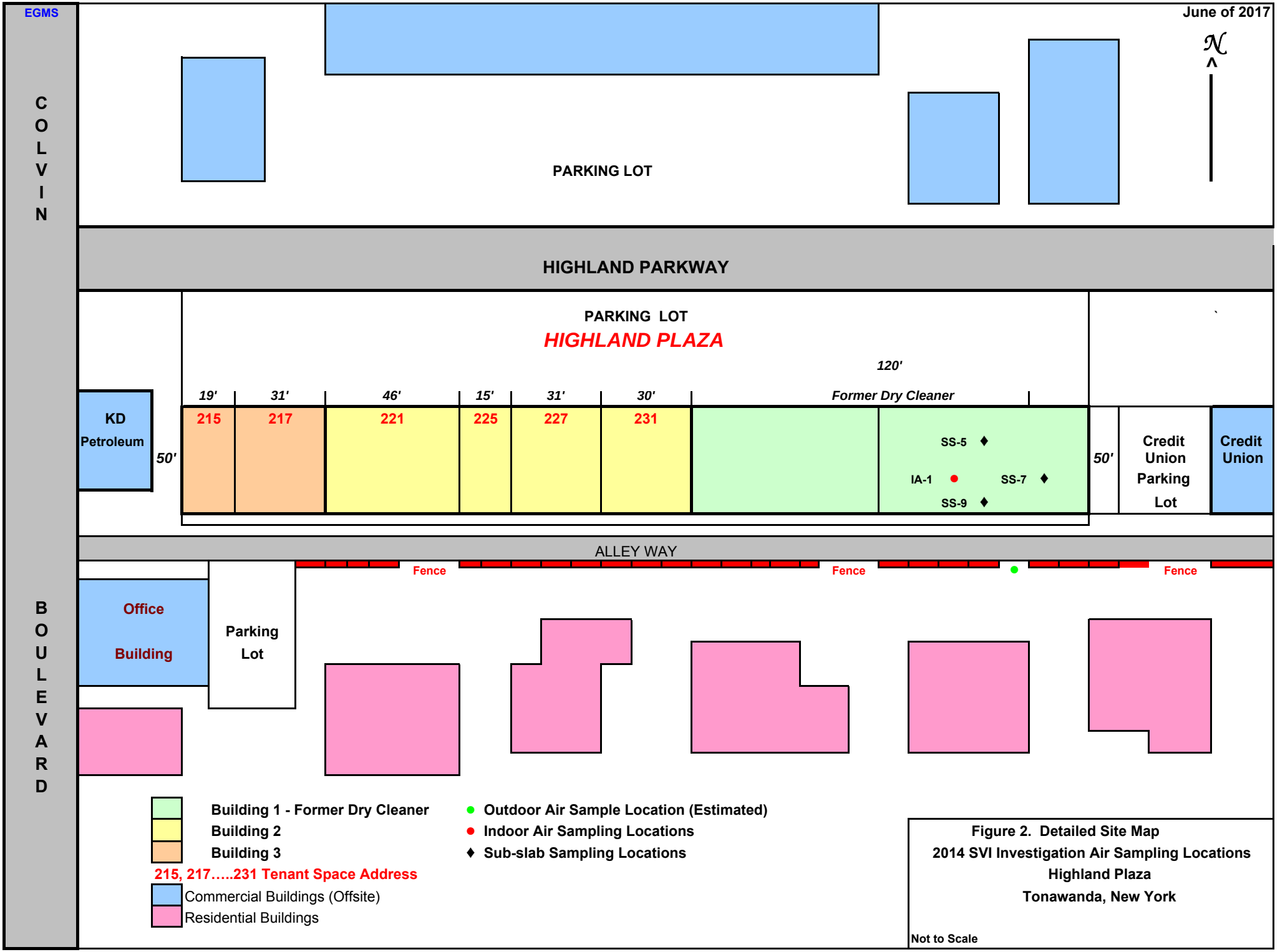
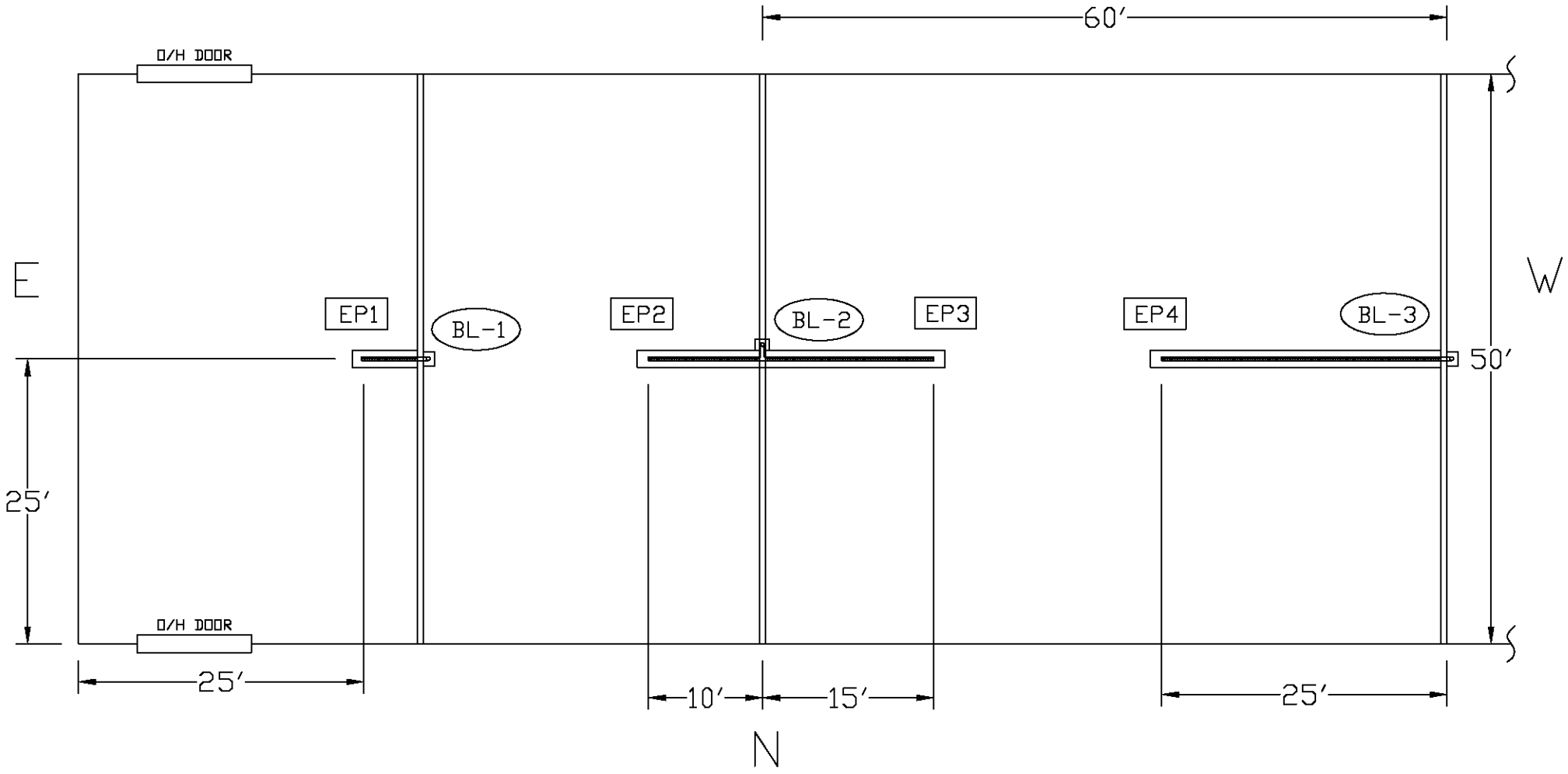


Figure 1. Location of the Highland Plaza BCP Site (Site No. C915293) in Tonawanda, Erie County, New York.

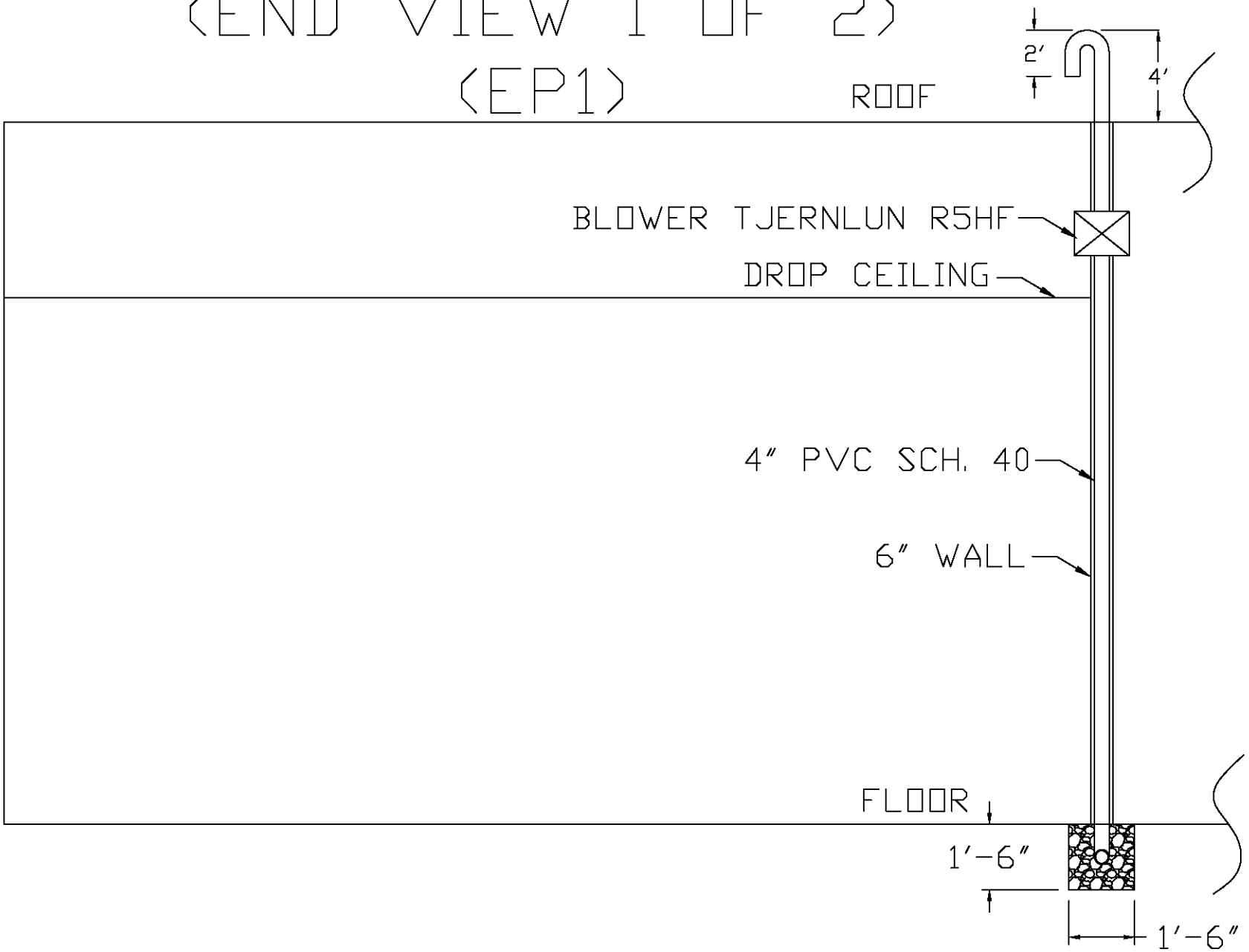

EGMS
June of 2017
N
COLVIN
BOULEVARD
PARKING LOT
HIGHLAND PARKWAY
PARKING LOT
HIGHLAND PLAZA
120'
19'
31'
46'
15'
31'
30'
Former Dry Cleaner
KD Petroleum
50'
215
217
221
225
227
231
SS-5
IA-1
SS-7
SS-9
50'
Credit Union Parking Lot
Credit Union
ALLEY WAY
Fence
Fence
Fence
Office Building
Parking Lot
Building 1 - Former Dry Cleaner
Building 2
Building 3
215, 217…..231 Tenant Space Address
Commercial Buildings (Offsite)
Residential Buildings
Outdoor Air Sample Location (Estimated)
Indoor Air Sampling Locations
Sub-slab Sampling Locations
Figure 2. Detailed Site Map
2014 SVI Investigation Air Sampling Locations
Highland Plaza
Tonawanda, New York
Not to Scale

235-237 HIGHLAND PLAZA (PLAN VIEW)



JULY 2017	FIG. 3 NOT TO SCALE

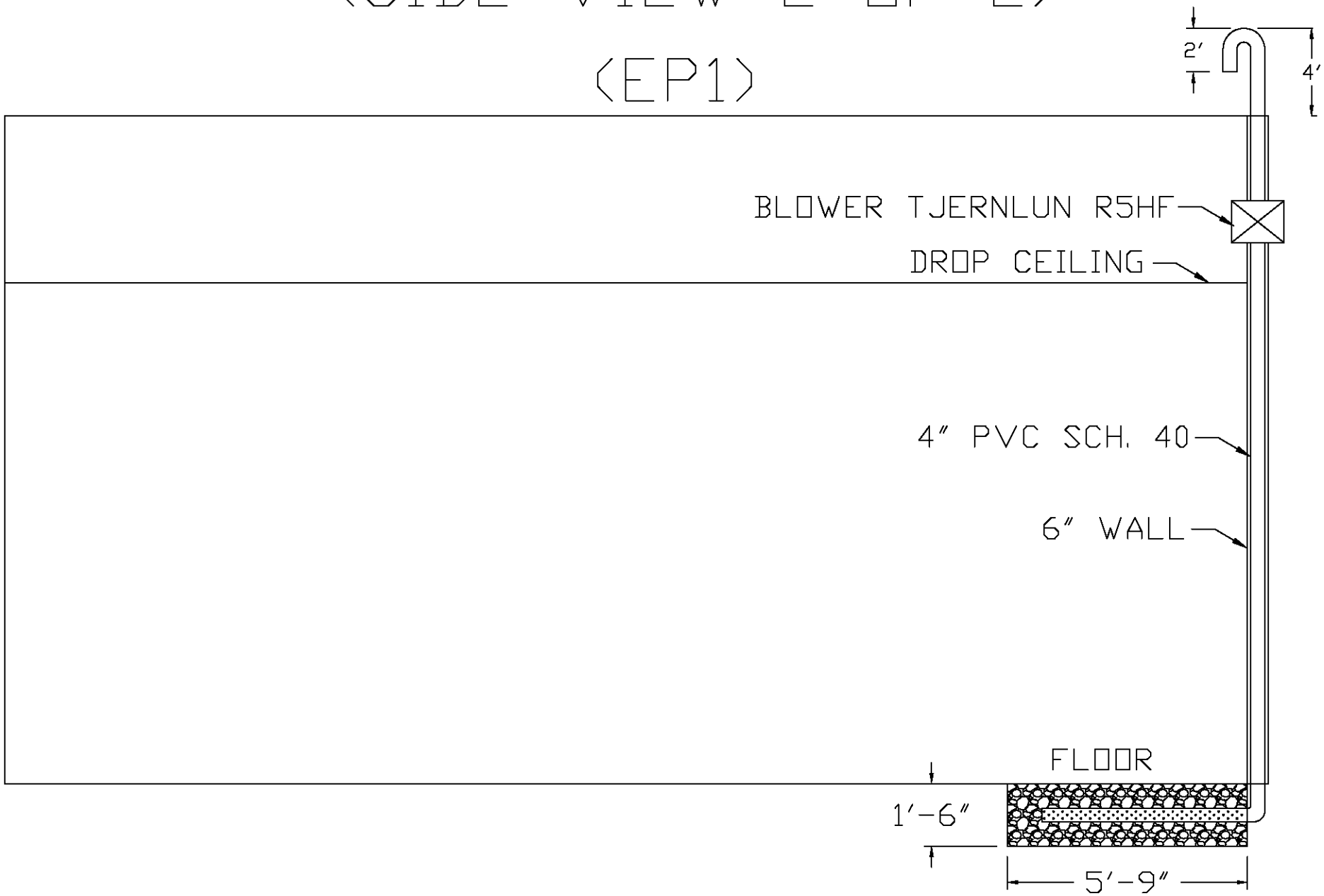
237 HIGHLAND PLAZA
(END VIEW 1 OF 2)
(EP1)



JULY 2017	FIG. 4 NOT TO SCALE

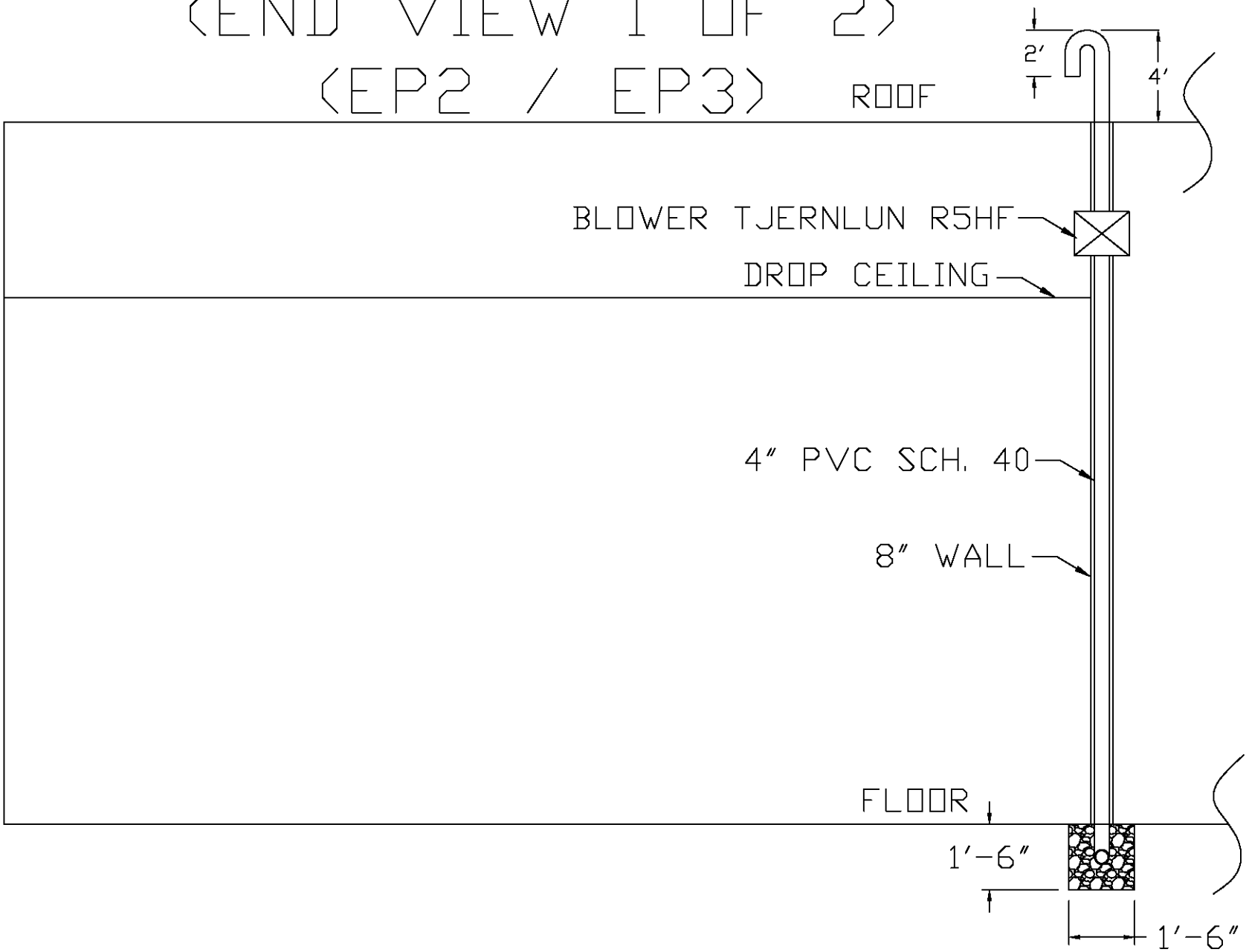
237 HIGHLAND PLAZA
(SIDE VIEW 2 OF 2)

(EP1)



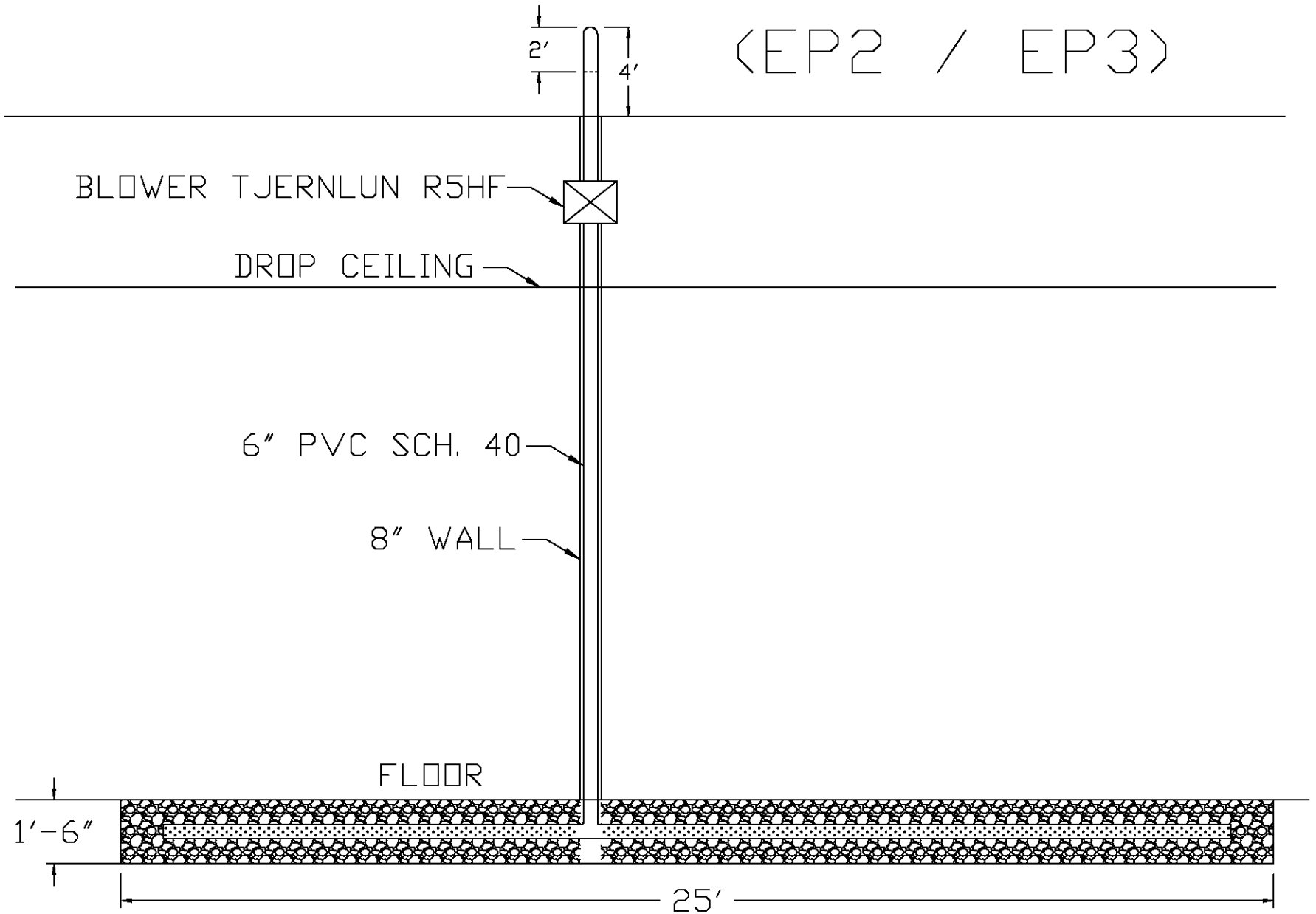
JULY 2017	FIG. 5 NOT TO SCALE

235-237 HIGHLAND PLAZA
(END VIEW 1 OF 2)
(EP2 / EP3)



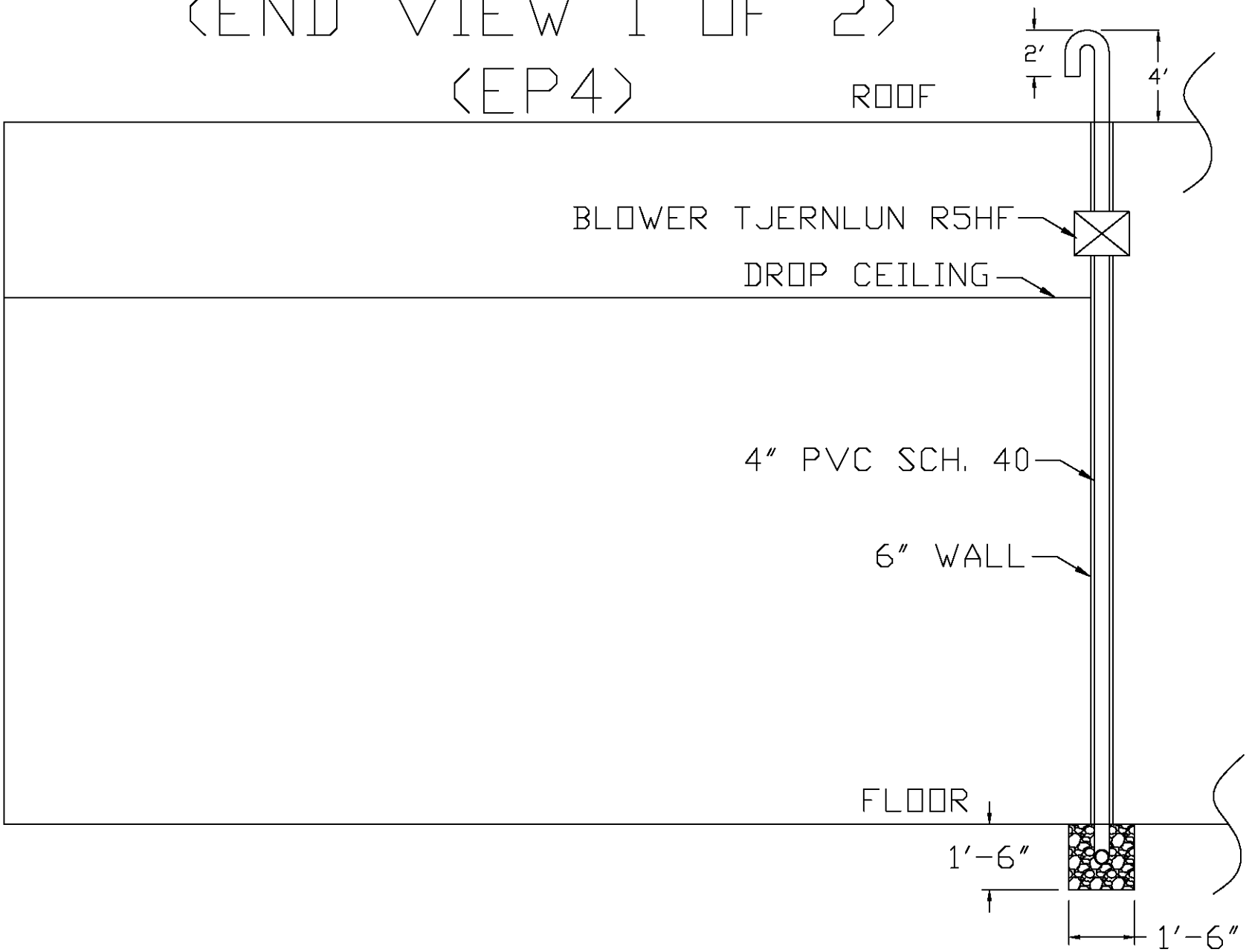
JULY 2017	FIG. 6 NOT TO SCALE

235-237 HIGHLAND PLAZA
(SIDE VIEW 2 OF 2)
(EP2 / EP3)



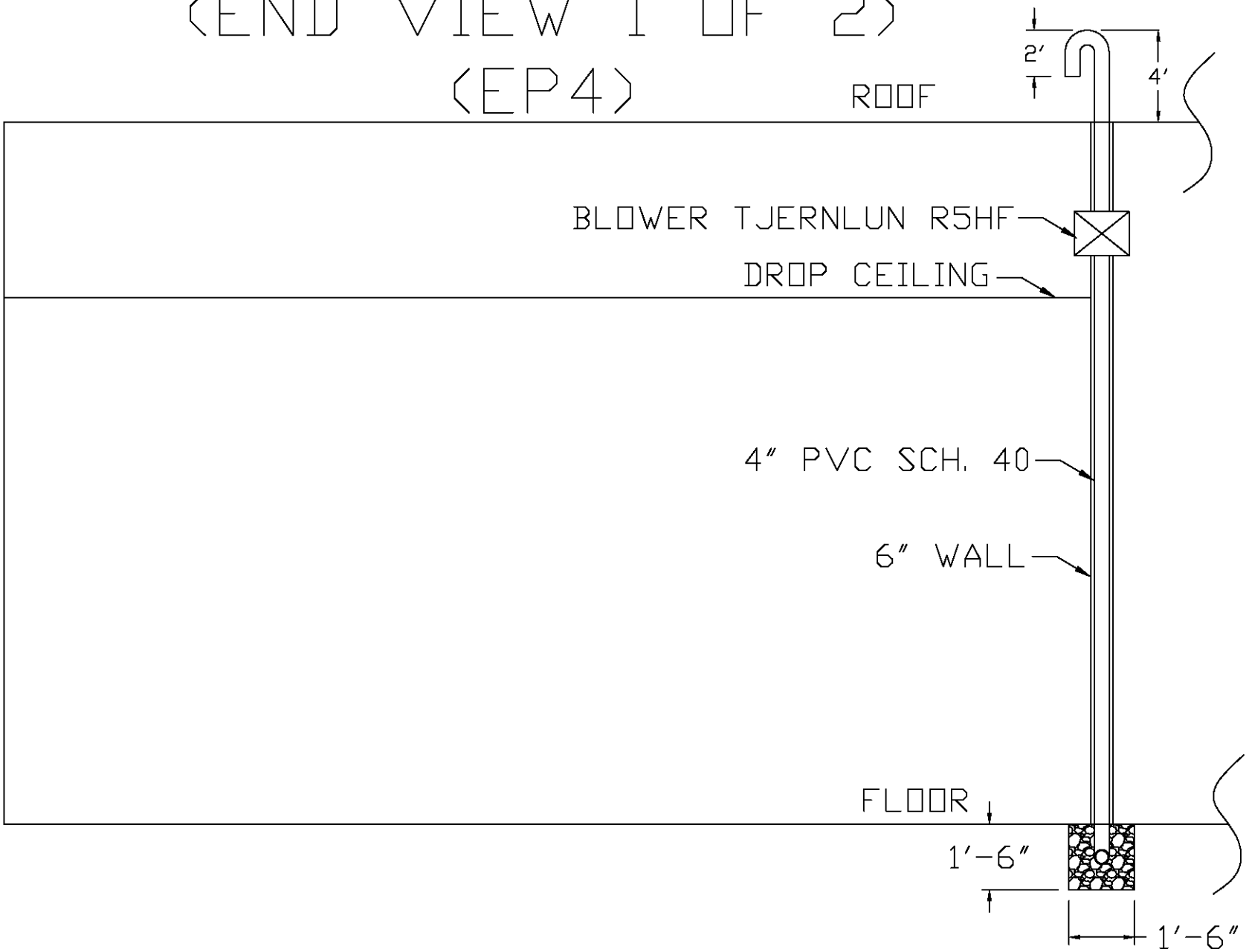
JULY 2017	FIG. 7 NOT TO SCALE

235 HIGHLAND PLAZA
(END VIEW 1 OF 2)
(EP4)



JULY 2017	FIG. 8 NOT TO SCALE

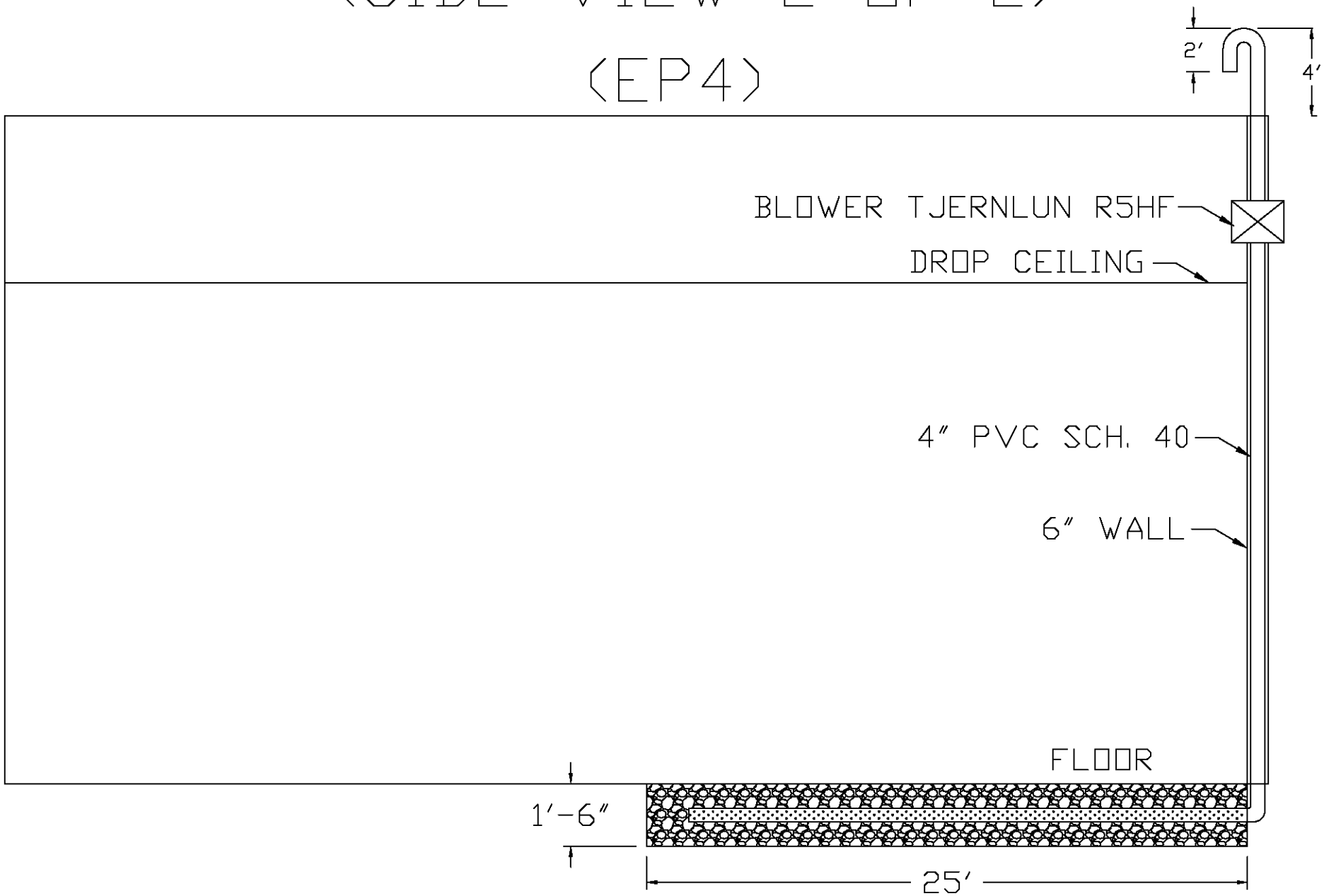
235 HIGHLAND PLAZA
(END VIEW 1 OF 2)
(EP4)



JULY 2017	FIG. 8 NOT TO SCALE

235 HIGHLAND PLAZA
(SIDE VIEW 2 OF 2)

(EP4)



JULY 2017	FIG. 9 NOT TO SCALE

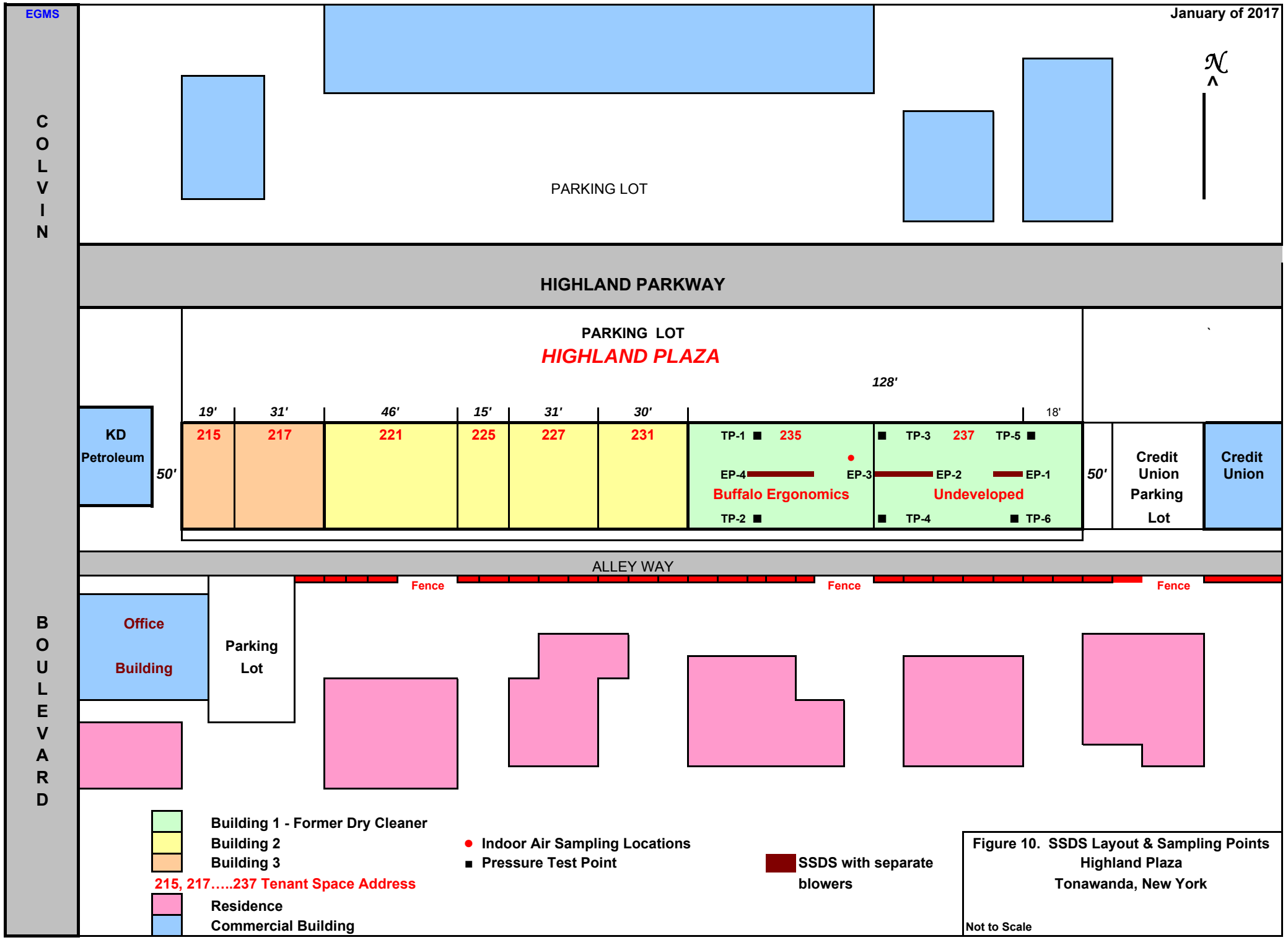


Figure 10. SSDS Layout & Sampling Points
Highland Plaza
Tonawanda, New York

Not to Scale

EGMS 7/21/2017'

TABLE 1: VOLATILE ORGANIC COMPOUNDS
2014 SOIL VAPOR INTRUSION INVESTIGATION
HIGHLAND PLAZA IN TONAWANDA, NEW YORK
OCTOBER, 2015

Analyte (ug/m3)	SS-5	SS-7	SS-9	INDOOR AIR	OUTDOOR AIR #1
1,1-Dichloroethene	1.7	<0.59	<0.59	<0.59	0.44
1,2,4-Trimethylbenzene	6.8	6.3	8.4	4.7	0.84
1,2-Dichloroethane	7.8	8.4	7.9	<0.61	<0.61
1,3,5-Trimethylbenzene	3.3	3	3.6	2.4	<0.74
2,2,4-trimethylpentane	0.98	1.8	<0.70	<0.70	<0.70
4-ethyltoluene	2.7	2.2	2.9	0.96	<0.74
Acetone	56	250	120	31	23
Benzene	2.5	2.7	2.8	0.51	0.35
Carbon disulfide	2.3	38	12	0.47	1.1
Carbon tetrachloride	0.75	0.75	<0.94	0.75	0.63
Chloroform	12	5.2	2.1	0.68	<0.73
Chloromethane	<0.40	<0.31	<0.31	1.4	1.3
cis-1,2-Dichloroethene	520	31	2.1	0.95	54
Cyclohexane	4.3	9.3	11	<0.52	<0.52
Ethyl acetate	<0.90	7.9	8.6	1.3	<0.90
Ethylbenzene	2.6	3.1	2.6	1.3	<0.65
Freon 11	1.7	2	1.8	2	1.8
Freon 113	<1.1	<1.1	<1.1	0.77	<1.1
Freon 12	3	2.9	3.2	3.7	3.5
Heptane	<0.61	9.8	12	<0.61	<0.61
Hexane	<0.53	16	20	<0.53	0.63
Isopropyl alcohol	<0.37	<0.37	<0.37	9.3	7.9
m&p-Xylene	5.5	6.9	6	3.5	1.4
Methyl Ethyl Ketone	8.6	14	14	4.4	<0.88
Methylene chloride	9.4	8.7	11	1.6	0.83
o-Xylene	2.5	2.8	2.6	1.7	0.82
Tetrachloroethylene	1600	550	74	**180***	2900
Toluene	34	38	30	5.8	2.0
trans-1,2-Dichloroethene	260	41	<0.59	<0.59	<0.59
Trichloroethene	1200	87	11	1.8	43
Vinyl chloride	12	<0.38	<0.38	<0.10	<0.10

*** 180** Exceeds ambient air standard

Sub-slab elevated concentrations

EGMS 7/21/2017'

Table 2: VOLATILE ORGANIC COMPOUNDS DETECTED IN INDOOR & OUTDOOR AIR
2017 SSDS CONFIRMATION INDOOR AIR SAMPLING AT HIGHLAND PLAZA
FEBRUARY, 2017

Compound	NYSDOH Guidance ug/m3	IndoorAir 235 Bflo Ergonomics 2/16/2017 ug/m3	Outdoor Air #1 W End of Bldg 3/9/2017 ug/m3
1,1,1-Trichloroethane		<0.82	<0.82
1,2,4-Trimethylbenzene		<0.74	<0.74
1,3,5-Trimethylbenzene		<0.74	<0.74
2,2,4-trimethylpentane		<0.70	<0.70
4-ethyltoluene		<0.74	<0.74
Acetone		**30.0**	**13.0**
Benzene		**1.3**	**0.61**
Carbon disulfide		**0.53**	**0.34J**
Carbon tetrachloride		<0.94	**0.38**
Chloroform		<0.73	<0.73
Chloromethane		<0.31	**1.9**
Cyclohexane		**0.34J**	<0.52
Ethyl acetate		<0.54	<0.54
Ethylbenzene		**0.52J**	<0.65
Freon 11		**1.1**	**1.5**
Freon 12		**2.2**	**2.2**
Heptane		**0.61**	<0.61
Hexane		**1.4**	**0.49J**
Isopropyl Alcohol		**83.0**	**0.86**
m&p Xylene		**1.7**	**0.52J**
Methyl Butyl Ketone		<1.2	<1.2
Methyl Ethyl Ketone		**1.4**	**0.62J**
Methyl Isobutyl Ketone		**0.49J**	<1.2
Methylene chloride	60	**1.1**	**0.73**
0-Xylene		**0.61J**	<0.65
Styrene		<0.64	<0.64
Tetrachloroethylene	30	<1.0	<1.0
Tetrahyrdofuran		**0.74**	<0.44
Toluene		**4.7**	**0.87**
Trichloroethene	2	<0.21	<0.81

J: Analyte detected at or below quantitation limit
0.0 Bold is a detection of specified volatile organic compound
< Not detected at or below specified quantitation limit
NYSDOH (2006) Table 3.1 and 3.2 Guidance

EGMS 7/21/2017'

TABLE 3: IRM SUB-SLAB DEPRESSURIZATION SYSTEM PRESSURE TEST POINT SUMMARY
HIGHLAND PLAZA IN TONAWANDA, NEW YORK
MARCH, 2017

Test Point	Distance from North Wall	Distance from South Wall	Distance from East Wall of Bldg	Distance from West Wall of Bflo Ergonomics	Pressure
TP-1	~3.0'			~22'	(-) 0.005
TP-2		~1.5'		~24'	(-) 0.004
TP-3	~1.5'		~61'		(-) 0.007
TP-4		~1.5'	~59'		(-) 0.012
TP-5	~1.5'		~18'		(-) 0.007
TP-6		~1.5'	~23'		(-) 0.018

APPENDIX A

SPECIFICATIONS FOR TJERLUND R5HF BLOWER

R-Series Radon Mitigation Fans

Product & System Overview

Description:
The R-Series Radon Fans span a wide range of both pressure and flow performance. All feature waterproof electrical junction box covers and high quality, maintenance-free motors made by ebm-papst.

The R4B & R4BC Commercial wall hugging low profile designs are the choice for discrete, architecturally sensitive, exterior wall installations.

Housing Construction:
The R-Series housings are constructed of non-yellowing, UV resistant, fiberglass reinforced polyester with a light gray finish.

The R4B & R4BC are constructed of heavy duty 20 gauge steel with white powder coat finish and stainless steel hardware.

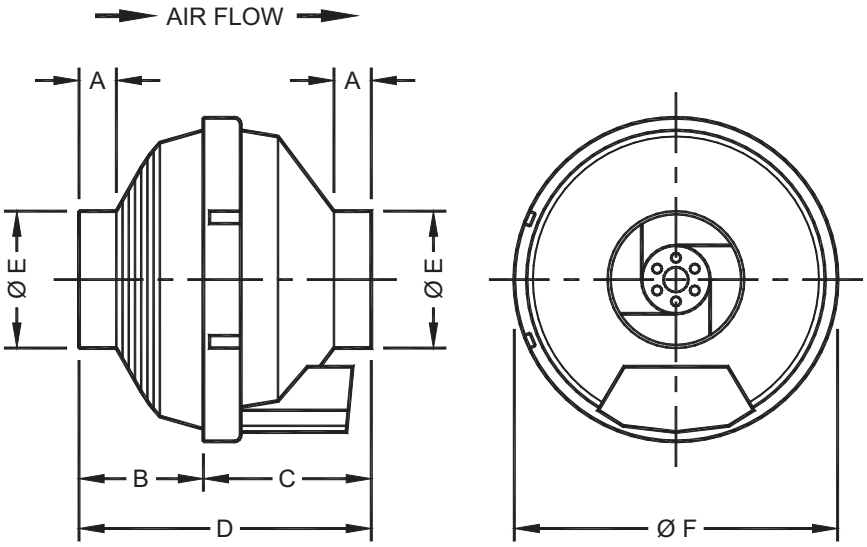
Motor:
German made ebm-papst motors for quiet, efficient and high performance operation.

Listings:
UL # E364664

Warranty:
5 year full replacement

Optional Equipment:
- Rubber Couplers: RC3X3", RC4X3", RC4X4", RC6X4"
- Power Cord
- Mounting Bracket

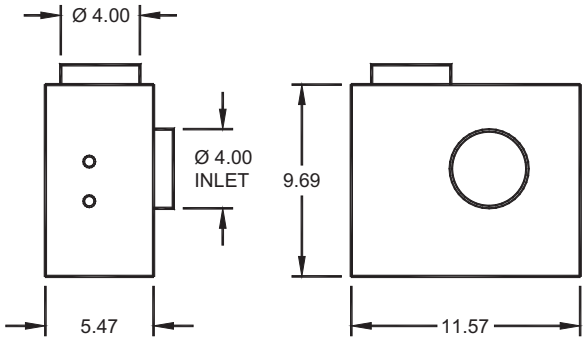
R-Series Dimensional Data



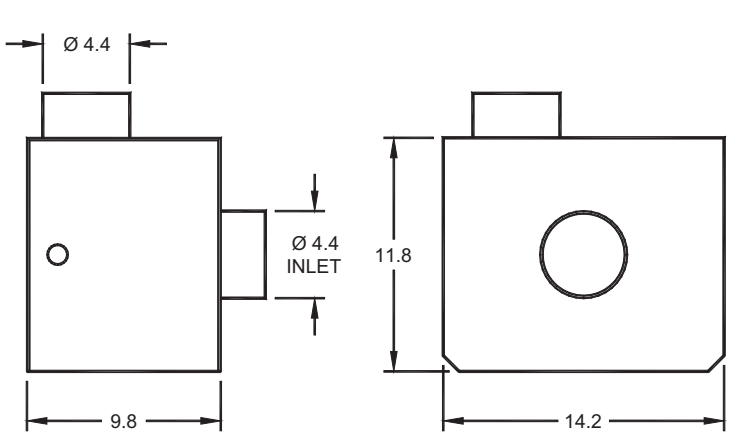
DIMENSIONS IN INCHES

	A	B	C	D	Ø E	Ø F
R3HF	1.25	3.56	5.69	9.25	3.40	12.06
R4HF	1.25	3.56	5.69	9.25	4.40	12.06
R5HF	1.25	3.56	5.69	9.25	5.88	12.06
R3LW	1.25	3.81	5.69	9.50	5.00	8.00
R5LW	1.25	3.56	5.69	9.25	5.88	12.06
R3HS	1.25	3.56	5.69	9.25	3.40	12.06
R8C	1.25	3.74	5.83	9.57	7.87	13.86

R4B DIMENSIONS IN INCHES



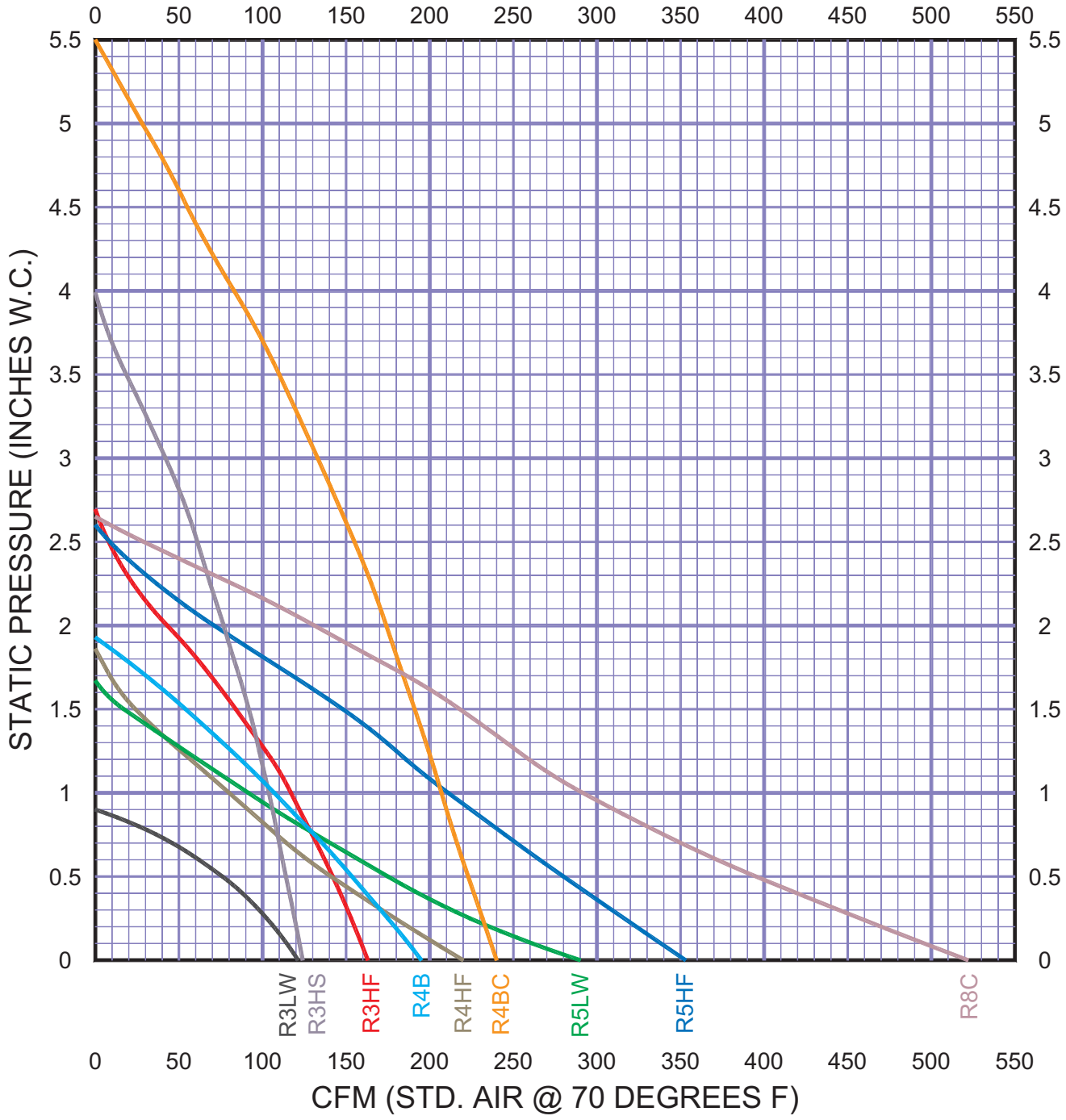
R4BC DIMENSIONS IN INCHES



Tjernlund Products, Inc. • 1601 Ninth Street • White Bear Lake, MN 55110 • (651) 426-2993 • (800) 255-4208 • FAX (651) 426-9547 • www.tjernlund.com

P/N 8513044

R-Series Fan Curves



R-Series Comparison

MODEL	MAX. FLOW CU. FT. / MIN.	STATIC PRESSURE	RESULTS
R3HF	163	2.71"	Moderate Suction, Low Flow
R4HF	220	1.88"	Low Suction, Moderate Flow
R5HF	353	2.60"	Moderate Suction, Very High Flow
R3LW	121	0.90"	Low Suction, Low Flow
R5LW	294	1.75"	Low Suction, High Flow
R3HS	124	3.99"	High Suction, Low Flow
R4B	195	1.90"	Low Suction, Low to Moderate Flow
R4BC	240	5.51"	Very High Suction, Moderate Flow
R8C	520	2.65"	Moderate Suction, Extremely High Flow

R-Series Cross Reference

MODEL	MAX. FLOW CU. FT. / MIN.	STATIC PRESSURE	COMPETITORS	MAX. FLOW CU. FT. / MIN.	STATIC PRESSURE
R3HF	163	2.71"	RadonAway GP201	100	2.00"
			RadonAway GP301	110	2.60"
R4HF	220	1.88"	RadonAway XP151	170	1.60"
			RadonAway XP201	150	2.00"
			RadonAway XP145	173	1.70"
			Fantech FR100	108	0.86"
			Fantech HP190	173	1.99"
			Fantech HP2190	163	1.93"
R5HF	353	2.60"	RadonAway RP265	327	2.20"
			Fantech FR160	289	2.32"
			Fantech HP220	345	2.46"
R3LW	121	0.90"	RadonAway RP140	134	0.80"
			Fantech HP2133	134	0.84"
R5LW	294	1.75"	RadonAway RP260	275	1.50"
			RadonAway XR261	250	1.90"
			Fantech FR150	243	1.56"
R3HS	124	3.99"	RadonAway GP401	86	3.40"
			RadonAway GP501	120	4.20"
R4B	195	1.90"	Fantech HP190SL	158	2.14"
R4BC	240	5.51"	NO COMPARISON		
R8C	520	2.65"	Fantech FR225	429	2.48"
			Fantech FR250	563	2.95"

R-Series Application Guide

CONDITIONS	REQUIREMENTS	RECOMMENDATION
Small Footprint Very Porous Subslab	Low Suction, Low Flow	R3LW
Small Footprint Porous Subslab Submembrane	Low Suction, Low to Moderate Flow	R4HF
Small Footprint Porous Subslab Submembrane	Low Suction, Low to Moderate Flow	R4B
Medium Footprint Porous Subslab	Low Suction, Moderate to High Flow	R5LW
Medium-Large Footprint Porous Subslab	Low Suction, Moderate to High Flow	R5LW
Small-Medium Footprint Moderately Compacted Subslab	Moderate Suction, Low Flow	R3HF
Very Large Footprint Porous-SemiPorous Subslab	Moderate Suction, Very High Flow	R5HF
Very Large Footprint Porous Subslab	Moderate Suction, Extremely High Flow	R8C
Large Footprint NonPorous Subslab	High Suction, Low Flow	R3HS
Very Large Footprint Moderately Compacted Subslab	High Suction, Moderate Flow	R4BC

APPENDIX B

CONCRETE AND SOIL ANALYTICAL RESULTS

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

EGMS

For Lab Project ID

160856

Referencing

N/A

Prepared

Wednesday, March 09, 2016

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160856

Client: **EGMS**

Project Reference: N/A

Sample Identifier: HP Concrete
Lab Sample ID: 160856-01 **Date Sampled:** 3/1/2016
Matrix: TCLP Extract **Date Received:** 3/2/2016

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		3/4/2016 13:51
2,4,5-Trichlorophenol	< 80.0	ug/L	400000		3/4/2016 13:51
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		3/4/2016 13:51
2,4-Dinitrotoluene	< 40.0	ug/L	130		3/4/2016 13:51
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		3/4/2016 13:51
Hexachlorobenzene	< 40.0	ug/L	130		3/4/2016 13:51
Hexachlorobutadiene	< 40.0	ug/L	500		3/4/2016 13:51
Hexachloroethane	< 40.0	ug/L	3000		3/4/2016 13:51
Nitrobenzene	< 40.0	ug/L	2000		3/4/2016 13:51
Pentachlorophenol	< 80.0	ug/L	100000		3/4/2016 13:51
Pyridine	< 40.0	ug/L	5000		3/4/2016 13:51

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**83.0**	36.8 - 127		3/4/2016 13:51
2-Fluorobiphenyl	**60.7**	20.3 - 108		3/4/2016 13:51
2-Fluorophenol	**68.8**	6.08 - 107		3/4/2016 13:51
Nitrobenzene-d5	**75.1**	48 - 101		3/4/2016 13:51
Phenol-d5	**63.8**	0 - 106		3/4/2016 13:51
Terphenyl-d14	**86.5**	52.7 - 113		3/4/2016 13:51

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 3/4/2016
Data File: B10513.D

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		3/4/2016 15:02

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 3/4/2016
Data File: Hg160304A

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160856

Client: **EGMS**

Project Reference: N/A

Sample Identifier: HP Concrete
Lab Sample ID: 160856-01 **Date Sampled:** 3/1/2016
Matrix: TCLP Extract **Date Received:** 3/2/2016

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5		3/7/2016 12:59
Barium	**0.622**	mg/L	100		3/7/2016 12:59
Cadmium	< 0.0250	mg/L	1		3/7/2016 12:59
Chromium	< 0.0500	mg/L	5		3/7/2016 12:59
Lead	< 0.100	mg/L	5		3/7/2016 12:59
Selenium	< 0.100	mg/L	1		3/7/2016 12:59
Silver	< 0.0500	mg/L	5		3/7/2016 12:59

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 3/5/2016
Data File: 030716a

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		3/7/2016 12:56
1,2-Dichloroethane	< 20.0	ug/L	500		3/7/2016 12:56
2-Butanone	< 100	ug/L	200000		3/7/2016 12:56
Benzene	< 20.0	ug/L	500		3/7/2016 12:56
Carbon Tetrachloride	< 20.0	ug/L	500		3/7/2016 12:56
Chlorobenzene	< 20.0	ug/L	100000		3/7/2016 12:56
Chloroform	< 20.0	ug/L	6000		3/7/2016 12:56
Tetrachloroethene	< 20.0	ug/L	700		3/7/2016 12:56
Trichloroethene	< 20.0	ug/L	500		3/7/2016 12:56
Vinyl chloride	< 20.0	ug/L	200		3/7/2016 12:56

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160856

Client: **EGMS**

Project Reference: N/A

Sample Identifier: HP Concrete
Lab Sample ID: 160856-01 **Date Sampled:** 3/1/2016
Matrix: TCLP Extract **Date Received:** 3/2/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**100**	81.6 - 118		3/7/2016	12:56
4-Bromofluorobenzene	**89.0**	79.5 - 115		3/7/2016	12:56
Pentafluorobenzene	**93.5**	91.4 - 111		3/7/2016	12:56
Toluene-D8	**95.1**	89.8 - 108		3/7/2016	12:56

Method Reference(s): EPA 8260C
EPA 1311 / 5030C
Data File: x29978.D

Report Prepared Wednesday, March 09, 2016

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160856

Client: **EGMS**

Project Reference: N/A

Sample Identifier:	HP Soil		
Lab Sample ID:	160856-02	**Date Sampled:**	3/1/2016
Matrix:	Soil	**Date Received:**	3/2/2016

Flash Point

Analyte	Result	Units	Qualifier	Date Analyzed
Flash Point, Celsius	>70.0	C		3/8/2016

Method Reference(s): EPA 1010A

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.22 @ 19.5 C	S.U.		3/4/2016 16:20

Method Reference(s): EPA 9045D

Reactive Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Reactivity, Cyanide	<100	mg/Kg		3/8/2016

Method Reference(s): EPA 7.3.3.2
Subcontractor ELAP ID: 11148
ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

Analyte	Result	Units	Qualifier	Date Analyzed
Reactivity, Sulfide	<100	mg/Kg		3/8/2016

Method Reference(s): EPA 7.3.4.2
Subcontractor ELAP ID: 11148
ELAP does not offer this test for approval as part of their laboratory certification program.

Semi-Volatile Organics (Acid/Base Neutrals)

Analyte	Result	Units	Qualifier	Date Analyzed
1,1-Biphenyl	< 336	ug/Kg		3/7/2016 14:05
1,2,4,5-Tetrachlorobenzene	< 336	ug/Kg		3/7/2016 14:05
1,2,4-Trichlorobenzene	< 336	ug/Kg		3/7/2016 14:05
1,2-Dichlorobenzene	< 336	ug/Kg		3/7/2016 14:05
1,3-Dichlorobenzene	< 336	ug/Kg		3/7/2016 14:05
1,4-Dichlorobenzene	< 336	ug/Kg		3/7/2016 14:05
2,3,4,6-Tetrachlorophenol	< 336	ug/Kg		3/7/2016 14:05

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160856

Client: **EGMS**

Project Reference: N/A

Sample Identifier:	HP Soil		
Lab Sample ID:	160856-02	**Date Sampled:**	3/1/2016
Matrix:	Soil	**Date Received:**	3/2/2016

2,4,5-Trichlorophenol	< 672	ug/Kg	3/7/2016	14:05
2,4,6-Trichlorophenol	< 336	ug/Kg	3/7/2016	14:05
2,4-Dichlorophenol	< 336	ug/Kg	3/7/2016	14:05
2,4-Dimethylphenol	< 336	ug/Kg	3/7/2016	14:05
2,4-Dinitrophenol	< 672	ug/Kg	3/7/2016	14:05
2,4-Dinitrotoluene	< 336	ug/Kg	3/7/2016	14:05
2,6-Dinitrotoluene	< 336	ug/Kg	3/7/2016	14:05
2-Chloronaphthalene	< 336	ug/Kg	3/7/2016	14:05
2-Chlorophenol	< 336	ug/Kg	3/7/2016	14:05
2-Methylnapthalene	< 336	ug/Kg	3/7/2016	14:05
2-Methylphenol	< 336	ug/Kg	3/7/2016	14:05
2-Nitroaniline	< 672	ug/Kg	3/7/2016	14:05
2-Nitrophenol	< 336	ug/Kg	3/7/2016	14:05
3&4-Methylphenol	< 336	ug/Kg	3/7/2016	14:05
3,3'-Dichlorobenzidine	< 336	ug/Kg	3/7/2016	14:05
3-Nitroaniline	< 672	ug/Kg	3/7/2016	14:05
4,6-Dinitro-2-methylphenol	< 672	ug/Kg	3/7/2016	14:05
4-Bromophenyl phenyl ether	< 336	ug/Kg	3/7/2016	14:05
4-Chloro-3-methylphenol	< 336	ug/Kg	3/7/2016	14:05
4-Chloroaniline	< 336	ug/Kg	3/7/2016	14:05
4-Chlorophenyl phenyl ether	< 336	ug/Kg	3/7/2016	14:05
4-Nitroaniline	< 672	ug/Kg	3/7/2016	14:05
4-Nitrophenol	< 672	ug/Kg	3/7/2016	14:05
Acenaphthene	< 336	ug/Kg	3/7/2016	14:05
Acenaphthylene	< 336	ug/Kg	3/7/2016	14:05
Acetophenone	< 336	ug/Kg	3/7/2016	14:05
Anthracene	**488**	ug/Kg	3/7/2016	14:05
Atrazine	< 336	ug/Kg	3/7/2016	14:05
Benzaldehyde	< 336	ug/Kg	3/7/2016	14:05
Benzo (a) anthracene	**1210**	ug/Kg	3/7/2016	14:05
Benzo (a) pyrene	**1000**	ug/Kg	3/7/2016	14:05
Benzo (b) fluoranthene	**947**	ug/Kg	3/7/2016	14:05

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160856

Client: **EGMS**

Project Reference: N/A

Sample Identifier:	HP Soil		
Lab Sample ID:	160856-02	**Date Sampled:**	3/1/2016
Matrix:	Soil	**Date Received:**	3/2/2016

Benzo (g,h,i) perylene	**593**	ug/Kg	3/7/2016	14:05
Benzo (k) fluoranthene	**901**	ug/Kg	3/7/2016	14:05
Bis (2-chloroethoxy) methane	< 336	ug/Kg	3/7/2016	14:05
Bis (2-chloroethyl) ether	< 336	ug/Kg	3/7/2016	14:05
Bis (2-chloroisopropyl) ether	< 336	ug/Kg	3/7/2016	14:05
Bis (2-ethylhexyl) phthalate	< 336	ug/Kg	3/7/2016	14:05
Butylbenzylphthalate	< 336	ug/Kg	3/7/2016	14:05
Caprolactam	< 336	ug/Kg	3/7/2016	14:05
Carbazole	< 336	ug/Kg	3/7/2016	14:05
Chrysene	**1190**	ug/Kg	3/7/2016	14:05
Dibenz (a,h) anthracene	< 336	ug/Kg	3/7/2016	14:05
Dibenzofuran	< 336	ug/Kg	3/7/2016	14:05
Diethyl phthalate	< 336	ug/Kg	3/7/2016	14:05
Dimethyl phthalate	< 672	ug/Kg	3/7/2016	14:05
Di-n-butyl phthalate	< 336	ug/Kg	3/7/2016	14:05
Di-n-octylphthalate	< 336	ug/Kg	3/7/2016	14:05
Fluoranthene	**2890**	ug/Kg	3/7/2016	14:05
Fluorene	< 336	ug/Kg	3/7/2016	14:05
Hexachlorobenzene	< 336	ug/Kg	3/7/2016	14:05
Hexachlorobutadiene	< 336	ug/Kg	3/7/2016	14:05
Hexachlorocyclopentadiene	< 336	ug/Kg	3/7/2016	14:05
Hexachloroethane	< 336	ug/Kg	3/7/2016	14:05
Indeno (1,2,3-cd) pyrene	**755**	ug/Kg	3/7/2016	14:05
Isophorone	< 336	ug/Kg	3/7/2016	14:05
Naphthalene	< 336	ug/Kg	3/7/2016	14:05
Nitrobenzene	< 336	ug/Kg	3/7/2016	14:05
N-Nitroso-di-n-propylamine	< 336	ug/Kg	3/7/2016	14:05
N-Nitrosodiphenylamine	< 336	ug/Kg	3/7/2016	14:05
Pentachlorophenol	< 672	ug/Kg	3/7/2016	14:05
Phenanthrene	**2150**	ug/Kg	3/7/2016	14:05
Phenol	< 336	ug/Kg	3/7/2016	14:05
Pyrene	**2180**	ug/Kg	3/7/2016	14:05

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160856

Client: **EGMS**

Project Reference: N/A

Sample Identifier: HP Soil
Lab Sample ID: 160856-02 **Date Sampled:** 3/1/2016
Matrix: Soil **Date Received:** 3/2/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**69.3**	36.2 - 107		3/7/2016 14:05
2-Fluorobiphenyl	**58.2**	22 - 96.1		3/7/2016 14:05
2-Fluorophenol	**52.4**	14.2 - 89.8		3/7/2016 14:05
Nitrobenzene-d5	**49.0**	11.6 - 83.3		3/7/2016 14:05
Phenol-d5	**56.0**	19.4 - 102		3/7/2016 14:05
Terphenyl-d14	**70.9**	60.4 - 114		3/7/2016 14:05

Method Reference(s): EPA 8270D
EPA 3550C
Preparation Date: 3/7/2016
Data File: B10521.D

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 8.74	ug/Kg		3/4/2016 13:07
1,1,2,2-Tetrachloroethane	< 8.74	ug/Kg		3/4/2016 13:07
1,1,2-Trichloroethane	< 8.74	ug/Kg		3/4/2016 13:07
1,1-Dichloroethane	< 8.74	ug/Kg		3/4/2016 13:07
1,1-Dichloroethene	< 8.74	ug/Kg		3/4/2016 13:07
1,2,3-Trichlorobenzene	< 21.8	ug/Kg		3/4/2016 13:07
1,2,4-Trichlorobenzene	< 21.8	ug/Kg		3/4/2016 13:07
1,2-Dibromo-3-Chloropropane	< 43.7	ug/Kg		3/4/2016 13:07
1,2-Dibromoethane	< 8.74	ug/Kg		3/4/2016 13:07
1,2-Dichlorobenzene	< 8.74	ug/Kg		3/4/2016 13:07
1,2-Dichloroethane	< 8.74	ug/Kg		3/4/2016 13:07
1,2-Dichloropropane	< 8.74	ug/Kg		3/4/2016 13:07
1,3-Dichlorobenzene	< 8.74	ug/Kg		3/4/2016 13:07
1,4-Dichlorobenzene	< 8.74	ug/Kg		3/4/2016 13:07
1,4-dioxane	< 87.4	ug/Kg		3/4/2016 13:07
2-Butanone	< 43.7	ug/Kg		3/4/2016 13:07
2-Hexanone	< 21.8	ug/Kg		3/4/2016 13:07
4-Methyl-2-pentanone	< 21.8	ug/Kg		3/4/2016 13:07
Acetone	< 43.7	ug/Kg		3/4/2016 13:07

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160856

Client: **EGMS**

Project Reference: N/A

Sample Identifier: HP Soil
Lab Sample ID: 160856-02 **Date Sampled:** 3/1/2016
Matrix: Soil **Date Received:** 3/2/2016

Benzene	< 8.74	ug/Kg	3/4/2016	13:07
Bromochloromethane	< 21.8	ug/Kg	3/4/2016	13:07
Bromodichloromethane	< 8.74	ug/Kg	3/4/2016	13:07
Bromoform	< 21.8	ug/Kg	3/4/2016	13:07
Bromomethane	< 8.74	ug/Kg	3/4/2016	13:07
Carbon disulfide	< 8.74	ug/Kg	3/4/2016	13:07
Carbon Tetrachloride	< 8.74	ug/Kg	3/4/2016	13:07
Chlorobenzene	< 8.74	ug/Kg	3/4/2016	13:07
Chloroethane	< 8.74	ug/Kg	3/4/2016	13:07
Chloroform	< 8.74	ug/Kg	3/4/2016	13:07
Chloromethane	< 8.74	ug/Kg	3/4/2016	13:07
cis-1,2-Dichloroethene	< 8.74	ug/Kg	3/4/2016	13:07
cis-1,3-Dichloropropene	< 8.74	ug/Kg	3/4/2016	13:07
Cyclohexane	< 43.7	ug/Kg	3/4/2016	13:07
Dibromochloromethane	< 8.74	ug/Kg	3/4/2016	13:07
Dichlorodifluoromethane	< 8.74	ug/Kg	3/4/2016	13:07
Ethylbenzene	< 8.74	ug/Kg	3/4/2016	13:07
Freon 113	< 8.74	ug/Kg	3/4/2016	13:07
Isopropylbenzene	< 8.74	ug/Kg	3/4/2016	13:07
m,p-Xylene	< 8.74	ug/Kg	3/4/2016	13:07
Methyl acetate	< 8.74	ug/Kg	3/4/2016	13:07
Methyl tert-butyl Ether	< 8.74	ug/Kg	3/4/2016	13:07
Methylcyclohexane	< 8.74	ug/Kg	3/4/2016	13:07
Methylene chloride	< 21.8	ug/Kg	3/4/2016	13:07
o-Xylene	< 8.74	ug/Kg	3/4/2016	13:07
Styrene	< 21.8	ug/Kg	3/4/2016	13:07
Tetrachloroethene	**9.72**	ug/Kg	3/4/2016	13:07
Toluene	< 8.74	ug/Kg	3/4/2016	13:07
trans-1,2-Dichloroethene	< 8.74	ug/Kg	3/4/2016	13:07
trans-1,3-Dichloropropene	< 8.74	ug/Kg	3/4/2016	13:07
Trichloroethene	< 8.74	ug/Kg	3/4/2016	13:07
Trichlorofluoromethane	< 8.74	ug/Kg	3/4/2016	13:07

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160856

Client: **EGMS**

Project Reference: N/A

Sample Identifier: HP Soil
Lab Sample ID: 160856-02 **Date Sampled:** 3/1/2016
Matrix: Soil **Date Received:** 3/2/2016

Vinyl chloride	< 8.74	ug/Kg			3/4/2016	13:07

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed	
1,2-Dichloroethane-d4	**110**	83 - 126		3/4/2016	13:07
4-Bromofluorobenzene	**86.1**	80.8 - 115		3/4/2016	13:07
Pentafluorobenzene	**93.1**	90.6 - 111		3/4/2016	13:07
Toluene-D8	**92.1**	89.2 - 109		3/4/2016	13:07

Method Reference(s): EPA 8260C
EPA 5035A
Data File: x29963.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 160856

Client: **EGMS**

Project Reference: N/A

Sample Identifier: HP Soil
Lab Sample ID: 160856-02A **Date Sampled:** 3/1/2016
Matrix: TCLP Extract **Date Received:** 3/2/2016

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		3/4/2016 15:05

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 3/4/2016
Data File: Hg160304A

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5		3/7/2016 13:04
Barium	**1.82**	mg/L	100		3/7/2016 13:04
Cadmium	< 0.0250	mg/L	1		3/7/2016 13:04
Chromium	< 0.0500	mg/L	5		3/7/2016 13:04
Lead	< 0.100	mg/L	5		3/7/2016 13:04
Selenium	< 0.100	mg/L	1		3/7/2016 13:04
Silver	< 0.0500	mg/L	5		3/7/2016 13:04

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 3/5/2016
Data File: 030716a

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

PARADIGM ENVIRONMENTAL SERVICES, INC.

REPORT TO:		INVOICE TO:		
CLIENT:	EQMS	CLIENT:	Same	LAB PROJECT ID: 160856
ADDRESS:	15 Druar Hill Rd	ADDRESS:		
CITY:	Orchard Park STATE: NY ZIP: 14127	CITY:	STATE: ZIP:	Quotation #: JH021116
PHONE:	716-445-2105	PHONE:		Email:
ATTN:	Norm WcMahaugh	ATTN:		

PROJECT REFERENCE

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	TCLP Metals	TCLP Volatiles	TCLP Semi-volatiles	Volatiles	Semi-volatiles	Reactivity	PH	Ignitability	REMARKS	PARADIGM LAB SAMPLE NUMBER
3/1	10:10	✓		HP Concrete	SD	2	✓	✓	✓							01
3/1	10:40	✓		HP Soil	SO	2	✓			✓	✓	✓	✓	✓		02A
															After TCLP ~~melt~~ extract received 3/2/16 3/2/16 mw	
															8°C iced 3/2/16 1520hrs	

Turnaround Time		Report Supplements		
Availability contingent upon lab approval; additional fees may apply.				
Standard 5 day	☒	None Required	☐	None Required ☐
10 day	☐	Batch QC	☐	Basic EDD ☐
Rush 3 day	☐	Category A	☐	NYSDEC EDD ☐
Rush 2 day	☐	Category B	☐	
Rush 1 day	☐			
Other (please indicate date needed: ____)	☐	Other (please indicate package needed: ____)	☐	Other EDD (please indicate EDD needed: ____) ☐

Sampled By: Norm WcMahaugh	Date/Time: 3/1/16	Total Cost:
Relinquished By: Scene	Date/Time: 3/1/16	
Received By: [signature]	Date/Time: 3/1/16	P.I.F. ☐
Received @ Lab By: Molly Vail	Date/Time: 3/2/16 1538	

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

Chain of Custody Supplement

Client: EGMS **Completed by:** Molly Vail

Lab Project ID: 160856 **Date:** 3/2/16

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt Yes	No	N/A
Container Type	X	X 5035 -02	
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)			X
Comments			
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature			X mt
Comments	6°C iced 3/2/16 1520		
Sufficient Sample Quantity	X		
Comments			

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM ENVIRONMENTAL SERVICES, INC.

CHAIN OF CUSTODY

C1605911 11148

REPORT TO:		INVOICE TO:			
COMPANY:	Paradigm Environmental	COMPANY:	Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS:	179 Lake Avenue	ADDRESS:			
CITY:	Rochester STATE: NY ZIP: 14608	CITY:	STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE:	FAX:	PHONE:	FAX:	STD	OTHER
PROJECT NAME/SITE NAME:		ATTN:	Kate Hansen	ATTN: Meridith Dillman	☐ 1 ☐ 2 ☐ 3 ☒ 5
		COMMENTS:	Please email results to khansen@paradigmenv.com and reporting@paradigmenv.com	Date Due:	3/10/16

REQUESTED ANALYSIS

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	reactivity	REMARKS	PARADIGM LAB SAMPLE NUMBER
3/1/16	1040			160856-02A	Soil	1	X		
0									

LAB USE ONLY BELOW THIS LINE**

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☐	N ☐
Comments:		
Preservation:	Y ☐	N ☐
Comments:		
Holding Time:	Y ☐	N ☐
Comments:		
Temperature: 2.0° C per Sub lab	Y ☐	N ☐
Comments:		

JSD 3/9/2016

Client

Sampled By	Michael Vail	Date/Time 3/2/16 1600
Relinquished By	[signature]	Date/Time 3.2.16 1730
Received By	[signature]	Date/Time 3/2/16 0045
Received By		Date/Time
Received @ Lab By		Date/Time

Total Cost:

P.I.F.

APPENDIX C

NYSDEC CONCRETE DISPOSAL & SOIL RE-USE APPROVAL CORRESPONDENCE

From: May, Glenn (DEC) [glenn.may@dec.ny.gov]
Sent: Tuesday, March 15, 2016 3:25 PM
To: nwohlabaugh@verizon.net
Subject: RE: Highland Plaza TCLP Results for the Waste Concrete and Soil Pile

Norm,

I have reviewed the analytical results from the soil that was excavated during installation of the sub-slab depressurization system. This soil is acceptable for reuse at the site. If possible, in the short term I would keep the soil in a pile. I envision the Decision Document containing some type of action for the areas behind the building that exceed SCOs for SVOCs, especially the AWSS-7 and AWSS-9 locations. The stockpiled soil could be used as backfill or cover over the contaminated soil.

Glenn

From: Norm Wolhabaugh [mailto:nwohlabaugh@verizon.net]
Sent: Tuesday, March 15, 2016 12:53 PM
To: May, Glenn (DEC)
Cc: gcrewson@aol.com; nwohlabaugh@verizon.net
Subject: Highland Plaza TCLP Results for the Waste Concrete and Soil Pile

Glenn:

As discussed this morning, attached are the analytical results that were completed on the concrete pile and soil pile at Highland Plaza. Each is a composite sample, where I used six discrete sampling locations for the concrete pile that were mixed together; and 6 discrete sampling locations for the soil pile that were mixed together. The analyses that were completed for the concrete were recommended by Swift River Concrete Recycling. I believe Highland Plaza plans to send the concrete offsite to them or another recycler since there were no significant contaminant hits.

The analyses run on the soils are typically what are completed for landfill disposal of soils. Highland would like to keep the soils that were dug up at the site (onsite) since the only compounds that appear to be present are SVOCs in low concentrations and the VOC tetrachloroethene at a very low concentration. The soils are presently in a pile behind the building covered with plastic.

Please advise whether Highland Plaza can keep the soils onsite and how they can be used. I believe they would like to use these soils for backfill in excavated areas and to bring the property behind the building up to grade.

Thanks Glenn.

Norman K. Wohlabaugh, PG, CPG
Geologist/President

EGMS

(716) 445-2105
nwohlabaugh@verizon.net

APPENDIX M

REMEDIAL SYSTEM OPTIMIZATION TABLE OF CONTENTS

REMEDIAL SYSTEM OPTIMIZATION FOR [Site Name]

TABLE OF CONTENTS