129 Holden Street Redevelopment

ERIE COUNTY

BUFFALO, NEW YORK

SITE MANAGEMENT PLAN

NYSDEC Site Number: C915261

Prepared for:

Highland Park Village, LLC

2421 Main Street

Buffalo, New York 14214

Prepared by:

GZA GeoEnvironmental of New York

Buffalo, New York

(716) 685-2300

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date
1	April 26, 2016	Additional approved hardscape structure (Figure 9, Section 3.3.1, Section 6.1)	May 2, 2016

SEPTEMBER 2015

CERTIFICATION STATEMENT

I, BART A. KLETTKE, P.E. certify that I am currently a NYS registered professional engineer 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).

BART A. KLETTKE P.E.

9-2-15 DATE

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ERIE COUNTY

BUFFALO, NEW YORK

SITE MANAGEMENT PLAN

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AS	Air Sparging
ASP	Analytical Services Protocol
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CAMP	Community Air Monitoring Plan
C/D	Construction and Demolition
CFR	Code of Federal Regulation
CLP	Contract Laboratory Program
COC	Certificate of Completion
CO2	Carbon Dioxide
CP	Commissioner Policy
DER	Division of Environmental Remediation
EC	Engineering Control
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
ERP	Environmental Restoration Program
GHG	Green House Gas
GWE&T	Groundwater Extraction and Treatment
HASP	Health and Safety Plan
IC	Institutional Control
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYCRR	New York Codes, Rules and Regulations
O&M	Operations and Maintenance
OM&M	Operation, Maintenance and Monitoring
OSHA	Occupational Safety and Health Administration
OU	Operable Unit
PELT	Proposed Excavation Limit Threshold
PID	Photoionization Detector
PRP	Potentially Responsible Party
PRR	Periodic Review Report
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RP	Remedial Party
RSO	Remedial System Optimization
SAC	State Assistance Contract
SCG	Standards, Criteria and Guidelines
SCO	Soil Cleanup Objective

SMP	Soil Management Plan
SOP	Standard Operating Procedures
SOW	Statement of Work
SPDES	State Pollutant Discharge Elimination System
SSD	Sub-slab Depressurization
SVE	Soil Vapor Extraction
SVI	Soil Vapor Intrusion
SVMS	Soil Vapor Mitigation System
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VCA	Voluntary Cleanup Agreement
VCP	Voluntary Cleanup Program

ES EXECUTIVE SUMMARY

The 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: Site No. C915261 129 Holden Street, Buffalo, NY

Institutional Controls:	1. The controlled property may be used for: restricted residential; commercial; and industrial use. 2. All ECs must be maintained as specified in this SMP; 3. All ECs 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 Health monitoring must be performed as defined in the SMP 6. Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP; 7. All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP; 8. Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP; 9. Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this 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 the Environmental Easement; 11. Buildings will be built on slabs only.

Site Identification: Site No. C915261 129 Holden Street, Buffalo, NY

Engineering Controls:	1. Cover system	
Inspections:		Frequency
1. Cover system inspection		Annually
Reporting:		
1. 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 129 Holden Street Site located in Buffalo, 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. C915261) which is administered by New York State Department of Environmental Conservation (NYSDEC).

Highland Park Village, LLC (Highland), formerly Strickler Development Group, entered into a Brownfield Cleanup Agreement (BCA) on February 9, 2012 (amended October 31, 2013) 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 B.

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);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the BCA (Index #C915261-01-12; Site #C915261) 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 A of this SMP.

This SMP was prepared by GZA GeoEnvironmental of New York, on behalf of Highland Park Village, LLC (Highland), in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 2010, 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 BCA, 6NYCRR Part 375 and/or Environmental Conservation Law.

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

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

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

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

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

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

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

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

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

Table 1: Notifications*

Name	Contact Information
NYSDEC Site Control	(518) 402-9567
NYSDEC Regional Contact	(716) 851-7220

* 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 the City of Buffalo, Erie County, New York and is identified as Section 90.29 Block 2 and Lot 43.1 on the City of Buffalo Tax Map (see Figure 3). The site is an approximately 27.09-acre area and is bounded by residential properties to the north, Central Park Avenue to the south, Manhattan Avenue and residential, commercial, and community service properties to the east, and Holden Avenue to the west (see Figure 2 – Site Plan). The boundaries of the site are more fully described in Appendix B –Environmental Easement. The owner of the site parcel at the time of issuance of this SMP is Highland Park Village, LLC.

2.2 Physical Setting

2.2.1 Land Use

Prior to the redevelopment upon completion of the BCP, the Site consisted of the following: a soil-covered, vacant parcel graded for redevelopment with no structures. The Site is zoned commercial.

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

2.2.2 Geology

The overburden soils encountered at the Site consist primarily of various fill materials used to backfill a former quarry at the Site. The thickness of the overburden soils (native and fill materials)

ranged from approximately 5 feet to greater than 19 feet bgs. Bedrock was encountered beneath the overburden soils at some of the investigation locations. Site specific boring logs are provided in Appendix C.

Seven main fill types were generally encountered at various locations and depths throughout the site during the RI investigation activities, as described below:

1. Slag – This fill layer mainly consists of material that is a byproduct of the steel production process mixed with lesser and varying amounts of silt, sand, and gravel. It was generally encountered in the eastern and central portion of the Site and the layer ranged in thickness from around 6 inches to 3 feet.

2. Non-Native Silty Clay – This fill layer is a non-native brown silty clay unit with varying amounts of sand, gravel and other materials (brick, metals, wood, etc.). At some locations it was encountered multiple times in the stratigraphic horizon. It ranged in thickness from 1 foot to 12 feet.

3. Black Sands – This fill unit consists of various types of black sand or black stained soils encountered throughout the Site. This unit was encountered in the northeastern, north-central and western portions of the Site. The thickness of the layers encountered ranged from around 6 inches to 7 feet.

4. Potential Ash – This fill unit consists of various types of light weight fine sands and silts of various mixed colors (black, orange, white, brown or black). This material may be the result of some sort of process or incineration. This unit was primarily encountered in the central and southeastern portions of the Site. The thickness of the layers encountered ranged from around 6 inches to greater than 14 feet.

5. Gravels & Sands – This fill layer consists mainly of brown and dark brown gravels with lesser and varying amounts of sands, silts, clays and other debris. This unit was encountered throughout the site, but was most commonly encountered in the central and eastern portions of the Site. The thickness of the layers encountered ranged from around 1 foot to 13 feet.

6. Sands & Gravels - This fill layer consists mainly of brown and dark brown sands with lesser and varying amounts of gravels, silts, clays and other debris. This unit was encountered in the central and eastern portions of the Site. The thickness of the layers encountered ranged from around 1 foot to 8 feet

7. Fractured Limestone- This fill layer appears to consist of limestone pieces, ranging in size from 4 inches to 4 feet, mixed with lesser and varying amounts of sand, silt and clay. The unit may represent limestone that was excavated from the quarry, but was not processed for reuse. This fill layer was encountered throughout the Site and ranged in thickness from 1 foot to 14 feet.

Bedrock underlying the Site is the Bertie Limestone Formation of the Salina Group. This group is from the Silurian Period (438 to 408 million years ago). Depth to bedrock at the Site varied due to historic quarry operations, ranging from 5 to 19 feet. The Bertie Limestone is a gray, aphanitic limestone, which is fine-grained, thinly bedded with close spaced horizontal to sub-horizontal fractures.

2.2.3 Hydrogeology

Depth to groundwater in the six monitoring wells installed on-site prior to remedial activities ranged from 13.2 feet bgs to 25.9 feet bgs. Groundwater flow direction on-site was determined to be in a northerly direction. Regional groundwater flow is expected to be to the southwest towards Lake Erie. Hydraulic conductivity in the overburden at the Site is expected to be variable due to the variable types and configurations of fill materials present. Regional hydraulic conductivity in the overburden soils, consisting primarily of lacustrine silts and clays, is expected to be relatively low. No private or public water supply wells are located proximate to the Site.

A groundwater contour map is provided as Figure 4. Wells utilized to create the groundwater contour map were screened over the lower fill materials and upper bedrock. Groundwater elevation data is provided on Figure 4. Groundwater monitoring well construction logs are provided in Appendix C. All of the monitoring wells have been abandoned in general conformance of NYSDEC guidance.

2.3 Investigation and Remedial History

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

According to "Phase I Environmental Site Assessment, Central Park Plaza, 129 Holden Street, Buffalo, New York," prepared by GZA for LP Ciminelli Construction, dated August 2011, the Site was originally developed for industrial use as early as 1874 for the mining industry and the production of limestone and natural rock cement. The property was owned and operated by the Buffalo Cement Co. Ltd. from 1877 to 1948. Approximately five to six feet of Bertie Limestone was quarried during this time for the production of natural cement. Historical aerial photographs indicate that these mining operations extended beyond the Site boundaries to the north and east.

The Site was first developed as the Central Park Plaza in 1958 with the construction of three Site buildings for commercial purposes. Two additional commercial buildings were constructed in 1967 and 1989. The Site operated as a shopping plaza from 1958 until the last of the tenants vacated the Site in July 2011, and has been vacant since that time. Various businesses occupied the Site throughout its history as a shopping center. Historic Site tenants of concern identified during GZA's Phase I ESA included a photo mart, laundromats, an automatic car wash, a dry cleaner, a chop shop, and an automotive service shop. In addition, the Site was listed twice on the NY Spills database. Based on the information obtained as part of the Phase I ESA, historic site usage represented recognized environmental concerns and additional investigation was warranted.

In October 2011, GZA completed a Phase II Environmental Site Assessment (Phase II ESA) at the Site, the results of which are summarized in GZA's report titled "Phase II Environmental Site Assessment, Central Park Plaza, 129 Holden Street, Buffalo, New York," dated November 2011. The results of the Phase II ESA identified volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and metals at concentrations in shallow fill soils (~0-4 ft. bgs) at the Site exceeding the NYSDEC Part

375 Soil Cleanup Objectives (SCOs) for unrestricted site use (USCOs); concentrations of several SVOCs and metals also exceeded the Part 375 SCOs for residential site use (RSCOs) In addition, petroleum-related VOCs detected underneath a building on the northwestern portion of the Site were characteristic of a petroleum release; as such, a petroleum release was reported to NYSDEC on October 28, 2011 and Spill No. 1109473 was assigned to the Site. This Spill was closed by the NYSDEC on December 27, 2011.

GZA conducted a Remedial Investigation (RI) at the Site between July 2012 and March 2013 to characterize the nature and extent of contamination at the Site. Generally, the RI identified that a significant amount of fill material had been placed at the Site after the quarry operations ceased in the 1950s, prior to construction of the Central Park Plaza. Fill was identified from the ground surface to depths ranging from 5 to 19 feet bgs. Fill materials consisted of granular soils (gravel and sand with lesser amounts of silt and clay) overlying cohesive fill soils (silt and clay) with various amounts of brick, glass, slag, wood, and limestone fragments. It was evident from the subsurface investigation that extensive excavation of bedrock had been previously conducted at the Site.

According to the analytical results generated during the RI, SVOCs and metals were detected in shallow soil/fill samples at concentrations above the Part 375 SCOs for restricted residential site use (RRSCOs) (Table 2); however, specific sources of the SVOCs and metals contamination were not identified. No VOCs, PCBs, herbicides, or pesticides were detected at concentrations above the RRSCOs in the fill/soil samples submitted for analysis (Table 2). Five SVOCs (benzo (a) anthracene, benzo (a) pyrene, benzo (b) fluoranthene, dibenz (a,h) anthracene, and indeno (1,2,3-cd) pyrene) and five metals (arsenic, chromium, copper, nickel, and zinc) had at least one exceedance of the Part 375 SCOs for industrial site use (ISCOs) in the shallow soil/fill samples and were considered the Significant Contaminants of Concern (SCOC). No specific contaminants of concern were identified in the groundwater samples submitted for analysis; therefore, no groundwater remediation was required as part of the remedial action.

Based on the results of the RI and previous Phase II ESA, it was determined that remedial measures would be required to address SVOC- and metal- impacted shallow soil/fill at the Site prior to the anticipated redevelopment. Specifically, 13 areas of concern (AOCs) were identified

during the RI where SVOC- and metal- contaminated soil/fill was identified in exceedance of the RRSCOs. Within four of the AOCs (Areas 3, 4, 5, and 11), five "hotspots" (TP-10, TP-70, TP-74, TP-75, and TP-77; Figure 5) were identified with contamination above the site-specific Proposed Excavation Limit Threshold (PELT) (Table 3), derived by a statistical analysis of the concentrations of the 10 above-listed SCOC. A Remedial Action (RA) consisting of excavation and proper off-site disposal of shallow soil/fill at the five hotspots followed by installation of a 2-foot thick cover system over the entire Site that met the RRSCOs was recommended in order to achieve the RRSCOs via a Track 4 (site-specific) cleanup. Figure 5 indicates the limits of the excavations of the materials within the hot spots.

Based on an analysis of chemical fate and transport conducted as part of the RI, the potential exposure pathways by which Site contaminants could have reached off-site receptors were fugitive dust migration and surface water migration. However, the remedial activities (removal of contaminated material from the Site, installation of a cover system, and design of a Site storm water collection and management system) and adherence to this site management plan have and will continue to eliminate or significantly minimize the potential that contaminated soil/fill particles could migrate from the Site in the form of fugitive dust and/or surface runoff.

Prior to the start of the RA, the Site had limited distinguishable features other than a small one-story building located along Holden Street on the western portion of the Site. The remainder of the Site was covered by asphalt and exposed soil/fill. The ground surface at the Site sloped downward towards the northern end of the Site, dropping off approximately 19 feet. The elevation at the southern end of the Site was approximately 670 feet above sea level, and the elevation at the northwestern end of the Site was approximately 650 feet above sea level.

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the Decision Document for the Site dated December 19, 2014 are as follows:

Soil

RAOs for Public Health and Environmental Protection

- Address soils with contaminants above the RRSCOs in the upper 2 feet, as required by a restricted residential Track 4 cleanup, to protect public health and the environment.
- Prevent ingestion or direct contact with soil contaminants exceeding the RRSCOs by developing a soil cover system.
- Implement and maintain engineering and institutional controls so that the Site is used in a manner consistent with the future anticipated use (restricted residential).

2.5 Remaining Contamination

2.5.1 Soil

Soil/fill in the five "hotspots" (TP-10, TP-70, TP-74, TP-75, and TP-77) (Figure 5) was excavated to a depth of approximately 4 ft. bgs; if the bottom sample did not contain concentrations of SVOCs and/or metals above the PELT, excavation was deemed complete. If a bottom sample contained concentrations of SVOCs and/or metals above the PELT, or if a fill unit typically associated with elevated concentrations of SVOCs and/or metals was identified (i.e., foundry sand), at the request of the NYSDEC, excavation continued until the NYSDEC was satisfied. Confirmatory samples were also collected from the sidewalls of the hot spot excavations. The bottoms of the final hot spot excavations ranged in depth from approximately 4 to 6 ft. bgs. All final confirmatory sidewall and bottom samples were below the PELT. Figure 5 illustrates the location and extent of the five hot spot excavations.

Following removal of approximately one foot of asphalt and sub-base from the entire Site, approximately two feet of soil/fill was excavated from the southern portion of the Site and relocated to the northern portion of the Site to backfill a former basement and to increase grades in select locations in anticipation of the planned redevelopment. A clean soil cover system of at least two feet in thickness was then placed over the entire Site.

As the site-specific derived PELT utilized to define the five “hotspots” in which excavation was required was higher than the ISCOs for seven of the 10 SCOC (Table 3), soil/fill remains on-site, beneath the cover system (which includes hardscape in areas as part of the redevelopment), in which contaminants exceed RRSCOs through ISCOs. Concentrations of SVOCs and metals for soil/fill samples collected during the RI (Table 2), which are below the PELT, are representative of concentrations of SVOCs and metals remaining on-site underneath the cover system. It should be assumed that these concentrations may present in shallow soil/fill under the cover system anywhere on Site. A high visibility orange mesh demarcation layer was placed over the entire Site at the interface between the remaining soil/fill and the overlying cover system, with the exception of three areas depicted on Figure 6. These three areas do not include a demarcation layer. This demarcation layer is present at a depth of approximately 2 ft. bgs over the majority of the Site and at depths ranging between approximately 4 and 8 ft. bgs in the remediated hotspot areas and utility corridors which parallel the major roadways on Site.

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 D) 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 (dated December 19, 2014) to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the site to restricted residential (or more restricted, i.e. 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 the same as the parcel boundaries as shown on Figures 2 and 3. These ICs are:

- The property may be used for : restricted residential; commercial; and industrial use;
- 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 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.

- Groundwater and other environmental Health monitoring must be performed as defined in the 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;
- Buildings will be built on slabs only.

3.3 Engineering Controls

3.3.1 Cover

Exposure to remaining contamination at the site is prevented by a cover system placed over the site. During the Remedial Action, a minimum of 24 inches of clean soil was placed over the entire Site. The clean soil, consisting primarily of sand, was imported from sources chemically

characterized by GZA and approved by the NYSDEC for use as clean soil cover at the Site. The imported soil met the Part 375 SCOs for Restricted Residential site use. The imported clean soil is separated from the underlying potentially contaminated soil/fill by a high visibility orange mesh demarcation layer with the exception of three areas depicted on Figure 6. These three areas do not include a demarcation layer. This demarcation layer is present at a depth of approximately 2 ft. bgs over the majority of the Site and at depths ranging between approximately 4 and 8 ft. bgs in the remediated hotspot areas and utility corridors which parallel the major roadways on Site.

Upon redevelopment of the Site, the cover system will include asphalt pavement, concrete-covered sidewalks, concrete building slabs, etc. Appendix D outlines the procedures required to be implemented during development of the Site and thereafter. Thickness of the imported clean soil may be less than 24 inches in areas with such hardscape structures; however, exposure to underlying potentially contaminated soil/fill will be prevented by the presence of such hard surfaces. Typical hardscape structures which are anticipated to be incorporated in the cover system as part of the redevelopment are shown in Figures 7, 8, and 9. Components of the hardscape features may include concrete, asphalt, brick pavers, and aggregate sub-base materials. Material type and thicknesses used vary depending on the site feature. Figure 7 provides details for several site features including asphalt pavement (detail 1) and concrete sidewalks (detail 4). Figure 8 provides details of a typical slab on grade building foundation as Detail #1. Figure 9 provides details of a crawlspace that will be paved with a 2-inch thick concrete “mud slab” over a vapor barrier. As illustrated on the design drawing, a soil stabilization fabric will be placed above the graded on-site soil/fill below the slab-on-grade foundations prior to construction. Structural fill, minimum 8 inches thick, will be placed onto the soil stabilization fabric. A 10 mil polyethylene vapor retarder will be placed on top of the structural fill prior to concrete placement. A minimum 4-inch concrete slab foundation will be placed on top of the vapor retarder.

Asphalt-covered areas will generally include roadways and turnarounds. These standard duty asphalt areas may include graded and compacted sub-grade, geotextile fabric/demarcation fabric, 10 inches of sub-base course material (Type 1), a 2.5-inch asphalt binder course, and a 1-inch asphalt top course. Concrete sidewalks and driveways may include graded and compacted subgrade, demarcation fabric, minimum 4-inch thick (sidewalk)/5-inch thick (driveway) sub-base course material, and minimum 4-inch thick (sidewalk)/5-inch thick (driveway) concrete (4,000

psi). Brick-paver walkways may consist of graded and compacted subgrade, demarcation fabric, 6 inches of crushed stone sub-base course material, a 2-inch thick layer of homogeneous fine sand, and brick pavers.

The Excavation Work Plan (EWP) provided in Appendix D 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. When and where the cover is removed and the demarcation penetrated, it will be replaced per the requirements of this SMP. 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 Appendix E.

3.3.2 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.

3.3.2.1 Cover

The 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.

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 F.

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

- Sampling and analysis of all appropriate media (e.g., soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance (SCGs), particularly 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;
- Analytical sampling program requirements; 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 at a minimum of once per year. 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 G – 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; and

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.

4.2.1 Monitoring and Sampling Protocol

All sampling activities will be recorded in a field book and associated sampling log as provided in Appendix G - Site Management Forms. Other observations will be noted on the sampling log. The sampling log will serve as the inspection form for the monitoring network. Additional detail regarding monitoring and sampling protocols are provided in the site-specific Field Activities Plan provided as Appendix H of this document.

5.0 OPERATION AND MAINTENANCE PLAN

5.1 General

The site remedy does not rely on any mechanical systems, such as groundwater treatment systems, sub-slab depressurization systems or air sparge/soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP.

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.

The Site includes a site-wide cover system, consisting of either at least two feet of clean soil cover or hardscape (i.e. concrete sidewalks, concrete building foundations, paved crawlspace over vapor barrier). The majority of the Site will be paved and/or covered by buildings as part of the redevelopment. Areas of the cover system that will not include hardscape will be vulnerable to erosion. Although expected to be minimal, specific features of the Site which would increase the vulnerability of the cover system to erosion have not been identified. The cover system will be evaluated for evidence of erosion during annual inspections and on an as-needed basis (i.e., after severe storm events).

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 required in the Periodic Review Report (PRR). The primary green remediation element that will be implemented during maintenance of the remedy is re-use of soil/fill encountered during Site redevelopment (and therefore decreasing waste generation).

To reduce the need for off-site disposal of potentially contaminated soil/fill materials encountered during Site redevelopment, soil/fill materials will be evaluated by a qualified environmental professional for re-use on-site in accordance with Appendix D. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer and site cover system. An elevation management area (EMA) will be created during continued redevelopment to manage soil/fill excavated for building foundation footers, utility poles, conduits, etc. As soil/fill is generated from each phase of the construction build-out, the EMA consisting of an area of relatively lower elevation will be temporarily uncovered in accordance with this SMP, the acceptable soil/fill material placed into the EMA, and the EMA re-covered in accordance with the SMP. Refer to Section D-9, "Cover System Restoration."

6.2.1 Frequency of Sampling and Other Periodic Activities

Transportation to and from the Site and use of consumables in relation to visiting the Site in order to perform inspections 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 will be prepared so that these tasks can be accomplished in a manner that reduces expenditure of energy or resources. If feasible and appropriate, such periodic activities will be performed simultaneously to minimize the frequency of site visits.

6.2.2 Metrics and Reporting

As discussed in Section 7.0, information on green remediation elements (i.e. waste generation, transportation and shipping) will be recorded on the Site Management Form (Appendix G) to facilitate and document consistent implementation of green remediation during site management and to identify corresponding benefits.

6.3 Remedial System Optimization

The Site remedy is limited to removal of soil/fill hot spots and a site cover system to prevent and manage direct contact with remaining soil/fill. Because of the remedial actions completed at

the site, the cover system engineering control, no Remedial Site Optimization (RSO) study is anticipated.

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 G. These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including media sampling data, generated for the site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of Table 4 and summarized in the Periodic Review Report.

Table 4: Schedule of Interim Monitoring/Inspection Reports

Task/Report	**Reporting Frequency***
Inspection Report	As-Needed
Monthly Report**	As-Needed
Periodic Review Report	Annually, or as otherwise determined by the Department

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

** It is anticipated that during Site redevelopment, there will be excavations below the cover system. During such activities, the Department may require monthly reports pertaining to the handling of the excavated fill.

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., soil);
- Copies of all field forms completed (e.g., 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 found at this link http://www.dec.ny.gov/chemical/62440.html.

7.2 Periodic Review Report

A Periodic Review Report (PRR) will be submitted to the Department beginning 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 C -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 information generated during the reporting period, with comments and conclusions.

- Data summary tables and graphical representations of contaminants of concern by media (soil, 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^{TM} 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 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.

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 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.*

Every five years the following certification will be added:

- *The assumptions made in the qualitative exposure assessment remain valid.*

For BCP projects which the Department has determined do not represent a significant threat to public health or the environment, but where contaminants in groundwater exceed drinking water standards, the following should also be included:

- *No new information has come to my attention, including groundwater monitoring data from wells located at the site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid.*

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 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 I. 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).

"Phase I Environmental Site Assessment, Central Park Plaza, 129 Holden Street, Buffalo, New York," prepared by GZA GeoEnvironmental of New York for LP Ciminelli Construction, dated August 2011.

"Phase II Environmental Site Assessment, Central Park Plaza, 129 Holden Street, Buffalo, New York," prepared by GZA GeoEnvironmental of New York for Harter Secrest & Emery LLP, dated November 2011.

"Final Remedial Investigation Alternatives Analysis Report, 129 Holden Street, Buffalo, New York, Brownfield Cleanup Program Site No. C915261," prepared by GZA GeoEnvironmental of New York for NYSDEC, dated August 2014.

"Final Remedial Action Work Plan, 129 Holden Street, Buffalo, New York, Brownfield Cleanup Program Site No. C915261," prepared by GZA GeoEnvironmental of New York for NYSDEC, dated November 2014.

TABLES

Table 2
Summary of Soil Sample Analytical Results
(Remedial Investigation)
Brownfield Cleanup Site
129 Holden Street
Buffalo, New York

Sample Location Sample Depth (ft bgs) Sample Date	Part 375 Unrestricted SCO	Part 375 Restricted Residential SCO	TP-1 2-4 7/10/2012	Q	TP-2 Slag @ 2 ft 7/10/2012	Q	TP-2 12-14 7/10/2012	Q	TP-3 6-8 7/10/2012	Q	TP-3 8-10.5 7/10/2012	Q	TP-4 6-8 7/10/2012	Q	TP-5 12-15 7/10/2012	Q	TP-6 6-8 7/11/2012	Q	TP-7 Slag @ 2 ft 7/11/2012	Q	TP-7 4-6 7/11/2012	Q	TP-8 10-12 7/11/2012	Q	TP-9 6-8 7/11/2012	Q	TP-10 0-2 7/11/2012	Q	TP-10 14-17 7/11/2012	Q	TP-11 4-6 7/11/2012	Q	TP-11 14-16 7/11/2012	Q	TP-12 3-5 7/11/2012	Q	TP-13 6-8 7/12/2012	Q	TP-14 0-2 7/12/2012	Q	TP-15 0-2 7/12/2012	Q	TP-15 6-8 7/12/2012	Q	TP-16 10-12 7/12/2012	Q	TP-17 2-4 7/12/2012	Q	TP-18 14-16 7/12/2012	Q
Volatile Organics (ug/kg)																																																		
Acetone	**50**	**100,000**	21.4	J	NT		23.9	J	12.6	J	12.6	J	20.2	J	27.3	J	**124**	J	NT		39.9	J	28.8	J	35.2	J	**108**	J	22.9	J	**160**	J	19.8	J	**136**	J	**214**	B	**181**	B	**191**	B	**242**	B	**221**	B	**198**	B	**398**	J
Benzene	**60**	**4,800**			NT														NT																															
2-Butanone	**120**	**100,000**			NT												27.9		NT								25				37.2				27.6															
Carbon disulfide	**NV**	**NV**			NT														NT												2.68	J																		
Cyclohexane	**NV**	**NV**			NT														NT																															
cis-1,2-Dichloroethene	**250**	**100,000**			NT														NT																															
Ethylbenzene	**1,000**	**41,000**			NT														NT						3.88	J																								
Isopropylbenzene	**NV**	**NV**			NT														NT																															
Methylcyclohexane	**NV**	**NV**			NT														NT																															
Methylene Chloride	**50**	**100,000**			NT														NT																		8.33	J	10	J	9.1	J	11.6		9.71	J	12.1		10.4	J
Tetrachloroethene	**1,300**	**19,000**			NT														NT										5.61																			
Toluene	**700**	**100,000**	2.28	J	NT				2.33	J	2.49	J							NT		3.56	J			6.83	J	1.55	J			2.14	J							2.3	J					2.39	J		
Trichloroethene	**470**	**21,000**			NT														NT																															
m,p-Xylene	**260 ****	**100,000 ****	3.54	J	NT				5.16		4.13	J	2.46	J					NT		6.12				16.8	J	2.82	J			3.52	J					3.1	J	2.82	J	4.18		25.2				4.55			
o-Xylene	**260 ****	**100,000 ****			NT														NT						5.41	J															27							
Semi-Volatile Organics (ug/kg)																																																	
Acenaphthene	**20,000**	**100,000**			NT														NT						265	J	7,440		289	J	205	J									13,100	J					209	J
Acenaphthylene	**100,000**	**100,000**			NT						737								NT										589						344													
Anthracene	**100,000**	**100,000**			NT						759								NT						1,040		23,400		874		466				242	J					35,300				1,600	J	401	
Benzo (a) anthracene	**1,000**	**1,000**			NT				362		**2,420**				375				NT		231	J			**1,070**		**30,600**		**2,390**		916		219	J	801						**47,800**				**3,220**		614	
Benzo (a) pyrene	**1,000**	**1,000**			NT				305	J	**2,190**				305	J			NT		309	J			686		**26,500**		**2,340**		761		213	J	892						**41,400**				**2,680**	J	518	
Benzo (b) fluoranthene	**1,000**	**1,000**			NT				338	J	**2,350**				407				NT		334	J			761		**25,900**		**2,420**		761		249	J	917						**42,300**				**2,860**	J	549	
Benzo (g,h,i) perylene	**100,000**	**100,000**			NT				201	J	1,420				211	J			NT								13,300		785						180	J					25,100						325	J
Benzo (k) fluoranthene	**800**	**3,900**			NT				219	J	**1,450**				264	J			NT		189	J			516		**17,300**		**1,560**		480				661						**27,300**				**2,360**	J	361	
Bis (2-ethylhexyl) phthalate	**NV**	**NV**			NT														NT																															
Carbazole	**NV**	**NV**			NT														NT						433		7,230		366		192	J																		
Chrysene	**1,000**	**3,900**			NT				370		**2,430**				417				NT		226	J			961		**27,600**		**2,430**		876		249	J	878						**46,300**				**3,080**		670	
Dibenz (a,h) anthracene	**330**	**330**			NT						330	J							NT								**4,870**	J	**519**																			
Dibenzofuran	**7,000**	**14,000**			NT														NT						452		5,250	J													**10,300**	J						
Di-n-butyl phthalate	**NV**	**NV**			NT														NT																															
Fluoranthene	**100,000**	**100,000**			NT				736		4,290				736				NT		335	J			2,480		74,300		3,990		1,870		402		1,480						218	J	**130,000**				6,960		1,360	
Fluorene	**30,000**	**100,000**			NT														NT						445		7,760		185	J	199	J															216	J
Indeno (1,2,3-cd) pyrene	**500**	**500**			NT				225	J	**1,970**				255	J			NT		283	J			**549**		**19,300**		**2,500**		**658**		208	J	**808**						**34,900**				**2,430**	J	388	
2-Methylnaphthalene	**NV**	**NV**			NT														NT						187	J																							
Naphthalene	**12,000**	**100,000**			NT														NT						244	J																							
Phenanthrene	**100,000**	**100,000**			NT				513		2,170				348				NT						3,270		56,900		2,250		1,460		292	J	514						**112,000**				4,600		1,470	
Pyrene	**100,000**	**100,000**			NT				665		3,880				622				NT		260	J			1,800		58,100		3,460		1,620		340	J	1,280				196	J	99,600				5,310		1,130	

NOTES:
1. Only compounds detected in one or more soil samples are presented in this table.
2. Blank Table cell indicates compound was not detected above reporting limit.
3. NT indicates compound was not tested.
4. Analytical testing completed by Paradigm Environmental Services.
5. Results presented for TP-17, 2-4 ft; TP-23, 8-10 ft; TP-65 6 to 8 ft; TP-67, 0 to 2 ft; TP-71, 8 to 10 ft; TP-76, 13 to 15 ft; and TP-80, 2 to 4 ft are the higher of these sample and their respective duplicates.
6. Q = laboratory qualifier; J = analyte was detected but at an estimated concentration; UJ = analyte was not detected; NJ = analyte detection is tentative; R = data are unusable.
7. ug/kg = parts per billion, mg/kg = parts per million.
8. Part 375 Residential Soil Cleanup Objectives (SCOs) are from NYCRR Subpart 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006.
9. NV = no value; NS = not specified; NT = not tested; ND = non detect.
10. Concentrations that are bolded exceed the Part 375 Unrestricted SCOs and the & shaded exceed their respective Part 375 Residential SCOs.
11. ** = Cleanup criteria applies to the sum of total xylene compounds.
12. The reporting limit for these SVOCs, <3,300 ug/kg were elevated likely due to a matrix interference in the material analyzed. Reporting limit exceeds some of the SVOCs RRSCOs.

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(Remedial Investigation)
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129 Holden Street
Buffalo, New York

Sample Location Sample Depth (ft bgs) Sample Date	Part 375 Unrestricted SCO	Part 375 Restricted Residential SCO	TP-19 8-10 7/12/2012	Q	TP-19 15 7/12/2012	Q	TP-20 4-6 7/13/2012	Q	TP-20 14-16 7/13/2012	Q	TP-21 2-4 7/13/2012	Q	TP-22 8-10 7/13/2012	Q	TP-23 8-10 7/13/2012	Q	TP-24 2-4 7/13/2012	Q	TP-25 4-6 7/13/2012	Q	TP-26 12-14 7/13/2012	Q	TP-27 0-2 7/13/2012	Q	TP-27 10-12 7/13/2012	Q	TP-28 4-6 10/22/2012	Q	TP-29 6-8 10/22/2012	Q	TP-30 0-2 10/22/2012	Q	TP-30 10-12 10/22/2012	Q	TP-31 4-6 10/22/2012	Q	TP-31 8-10 10/22/2012	Q	TP-32 10-12 10/22/2012	Q	TP-33 2-4 10/22/2012	Q	TP-33 10-12 10/22/2012	Q	TP-34 13-15 10/23/2012	Q	TP-35 10-12 10/23/2012	Q	TP-36 4-6 10/23/2012	Q
Volatile Organics (ug/kg)																																																	
Acetone	**50**	**100,000**	**312**	B	**262**	B																					NT								NT				NT				NT				NT			
Benzene	**60**	**4,800**																									NT								NT				NT				NT				NT			
2-Butanone	**120**	**100,000**	23.9		10.6	J					13.4	J															NT						26.2	J	NT		28.2	J	NT		65.2	J	9.81	J	NT		NT		NT		
Carbon disulfide	**NV**	**NV**																									NT						2.9	J	NT		38.8	J	NT						NT		NT		NT		
Cyclohexane	**NV**	**NV**																									NT								NT		17	J	NT						NT		NT		NT		
cis-1,2-Dichloroethene	**250**	**100,000**																									NT								NT		3.27	J	NT						NT		NT		NT		
Ethylbenzene	**1,000**	**41,000**	3.15	J											2.49	J											NT								NT		33.2	J	NT		5.92	J			NT		NT		NT		
Isopropylbenzene	**NV**	**NV**	2.52	J																							NT								NT		26.9	J	NT		3.43	J			NT		NT		NT		
Methylcyclohexane	**NV**	**NV**																									NT								NT		11.5	J	NT		95.8	J			NT		NT		NT		
Methylene Chloride	**50**	**100,000**	7.82	J	7.21	J	**81.2**		**124**		30.4		**119**		**235**		**379**	J	**81.1**	J	**74.4**		**90.4**		**91.7**		NT								NT				NT						NT		NT		NT		
Tetrachloroethene	**1,300**	**19,000**																			3.08	J					NT								NT				NT		6.46	J			NT		NT		NT		
Toluene	**700**	**100,000**					2.67	J							4.52	J			2.86	J							NT								NT		5.88	J	NT						NT		NT		NT		
Trichloroethene	**470**	**21,000**																									NT								NT		3.53	J	NT						NT		NT		NT		
m,p-Xylene	**260 ****	**100,000 ****	12.4				5.83		3.78	J			4.31	J	10.5				5.99	J			2.06	J			NT								NT		33.9	J	NT		16.5	J			NT		NT		NT		
o-Xylene	**260 ****	**100,000 ****	2.08	J			1.82	J							3.03	J											NT								NT		27.5	J	NT		12.1	J			NT		NT		NT		
Semi-Volatile Organics (ug/kg)																																																		
Acenaphthene	**20,000**	**100,000**																													NT				7,680		**33,200**						NT						231	J
Acenaphthylene	**100,000**	**100,000**													253	J							4,570								NT												NT							
Anthracene	**100,000**	**100,000**							240	J	262	J			602				161	J			7,530								NT				16,700		42,700						NT						924	
Benzo (a) anthracene	**1,000**	**1,000**			295	J	168	J	547	J	977				**2,170**				508		450		**10,900**		252	J	180	J			NT				**20,100**		**59,400**		325	J			NT						**4,020**	
Benzo (a) pyrene	**1,000**	**1,000**			260	J	244	J	520	J	937				**1,680**				497		490		**8,690**				189	J			NT				**15,700**		**45,800**		329	J			NT						**3,390**	
Benzo (b) fluoranthene	**1,000**	**1,000**			265	J	281	J	475	J	**1,030**				**1,740**				585		510		**8,640**				228	J			NT				**13,700**		**45,500**		357				NT						**3,570**	
Benzo (g,h,i) perylene	**100,000**	**100,000**					237	J	360	J	616				946				330		358		8,340								NT				6,920		20,400		505				NT						1,770	
Benzo (k) fluoranthene	**800**	**3,900**							444	J	638				**1,460**				323		352		**5,930**								NT				**11,200**		**35,400**		179	J			NT						**2,440**	
Bis (2-ethylhexyl) phthalate	**NV**	**NV**																	226	J							NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Carbazole	**NV**	**NV**																					2,900	J			NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Chrysene	**1,000**	**3,900**			274	J	195	J	553	J	**1,230**				**2,000**				536		463		**8,210**		272	J	233	J			NT				**18,200**		**60,300**		344				NT						**3,810**	
Dibenz (a,h) anthracene	**330**	**330**													301	J															NT						**6,280**	J					NT						**486**	
Dibenzofuran	**7,000**	**14,000**																					2,050	J			NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Di-n-butyl phthalate	**NV**	**NV**							267	J					571												NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Fluoranthene	**100,000**	**100,000**	194	J	760		191	J	994	J	1,700				3,850				1,140		828		30,400		296	J	389		206	J	NT				46,900		**139,000**		658		946	J	NT				271	J	6,270	
Fluorene	**30,000**	**100,000**																					4,310								NT				8,620		**44,100**						NT							
Indeno (1,2,3-cd) pyrene	**500**	**500**			211	J	283	J	454	J	**767**				**1,260**				428		**506**		**7,120**				177	J			NT				**9,740**		**25,800**		380				NT						**2,340**	
2-Methylnaphthalene	**NV**	**NV**																									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Naphthalene	**12,000**	**100,000**																													NT						7,840	J					NT							
Phenanthrene	**100,000**	**100,000**			570				830	J	941				1,570				706		558		30,200				227	J			NT				56,500		**117,000**		364				NT				245	J	3,180	
Pyrene	**100,000**	**100,000**	161	J	599		178	J	804	J	1,480	J			2,950	J			934		719		22,000		496		329	J	181	J	NT				35,700		**116,000**		586		945	J	NT				229	J	5,630	

NOTES:
1. Only compounds detected in one or more soil samples are presented in this table.
2. Blank Table cell indicates compound was not detected above reporting limit.
3. NT indicates compound was not tested.
4. Analytical testing completed by Paradigm Environmental Services.
5. Results presented for TP-17, 2-4 ft; TP-23, 8-10 ft; TP-65 6 to 8 ft; TP-67, 0 to 2 ft; TP-71, 8 to 10 ft; TP-76, 13 to 15 ft; and TP-80, 2 to 4 ft are the higher of these sample and their respective duplicates.
6. Q = laboratory qualifier; J = analyte was detected but at an estimated concentration; UJ = analyte was not detected; NJ = analyte detection is tentative; R = data are unusable.
7. ug/kg = parts per billion, mg/kg = parts per million.
8. Part 375 Residential Soil Cleanup Objectives (SCOs) are from NYCRR Subpart 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006.
9. NV = no value; NS = not specified; NT = not tested; ND = non detect.
10. Concentrations that are bolded exceed the Part 375 Unrestricted SCOs and the & shaded exceed their respective Part 375 Residential SCOs.
11. ** = Cleanup criteria applies to the sum of total xylene compounds.
12. The reporting limit for these SVOCs, <3,300 ug/kg were elevated likely due to a matrix interference in the material analyzed. Reporting limit exceeds some of the SVOCs RRSCOs.

Table 2
Summary of Soil Sample Analytical Results
(Remedial Investigation)
Brownfield Cleanup Site
129 Holden Street
Buffalo, New York

Sample Location	Part 375 Unrestricted SCO	Part 375 Restricted Residential SCO	TP-37		TP-37		TP-38		TP-39		TP-40		TP-40		TP-41		TP-42		TP-43		TP-44		TP-45		TP-46		TP-47		TP-48		TP-49		TP-50		TP-50		TP-51		TP-51		TP-52		TP-53		TP-53		TP-54		TP-55	
Sample Depth (ft bgs)			2-4		4-6		10-12		10-12		6-8		10-12		13-15		6-8		4-6		8-10		6-8		8-10		2-4		8-8.5		2-4		4-6		13-15		8-10		13-15		2-4		4-6		8-10		2-4		10-12	
Sample Date			10/23/2012		10/23/2012		10/23/2012		10/23/2012		10/23/2012		10/23/2012		10/24/2012		10/24/2012		10/24/2012		10/24/2012		10/24/2012		10/24/2012		10/24/2012		10/25/2012		10/25/2012		10/25/2012		10/25/2012		10/25/2012		10/25/2012		10/25/2012		10/25/2012		10/25/2012		10/26/2012		10/26/2012	
				Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q	
Volatile Organics (ug/kg)																																																
Acetone	**50**	**100,000**			NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
Benzene	**60**	**4,800**			NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
2-Butanone	**120**	**100,000**	17.4	J	NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
Carbon disulfide	**NV**	**NV**	8.16	J	NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
Cyclohexane	**NV**	**NV**			NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
cis-1,2-Dichloroethene	**250**	**100,000**			NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
Ethylbenzene	**1,000**	**41,000**			NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
Isopropylbenzene	**NV**	**NV**			NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
Methylcyclohexane	**NV**	**NV**			NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
Methylene Chloride	**50**	**100,000**			NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
Tetrachloroethene	**1,300**	**19,000**			NT		NT		63.8	J	NT		23.6	J	NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
Toluene	**700**	**100,000**			NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
Trichloroethene	**470**	**21,000**			NT		NT				NT		7.93	J	NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
m,p-Xylene	**260 ****	**100,000 ****	3.52	J	NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
o-Xylene	**260 ****	**100,000 ****	2.23	J	NT		NT				NT				NT		NT		NT		NT		NT		NT		NT		NT				NT				NT		NT		NT				NT		NT	
Semi-Volatile Organics (ug/kg)																																																
Acenaphthene	**20,000**	**100,000**	NT		1,000	J							NT																		NT				NT				NT		NT							
Acenaphthylene	**100,000**	**100,000**	NT										NT																		NT				NT				NT		NT							
Anthracene	**100,000**	**100,000**	NT		4,350						3,100		NT						219	J											211	J	NT		224	J	NT				NT		NT							
Benzo (a) anthracene	**1,000**	**1,000**	NT		**7,170**		463				**5,200**		NT		344	J			**1,110**		468		218	J					**3,240**		659		NT		394		NT		273	J	NT		NT		224	J				
Benzo (a) pyrene	**1,000**	**1,000**	NT		**5,660**		673				**4,110**		NT		282	J			**1,590**		436		201	J					**6,670**		736		NT		593		NT		317	J	NT		NT		263	J				
Benzo (b) fluoranthene	**1,000**	**1,000**	NT		**5,330**		699				**4,170**		NT		311	J			**1,970**		452		181	J					**5,880**		717		NT		512		NT		342		NT		NT		258	J				
Benzo (g,h,i) perylene	**100,000**	**100,000**	NT		2,590		744				2,030		NT						1,440		351						179	J	5,750		479		NT		833		NT		257	J	NT		NT		185	J				
Benzo (k) fluoranthene	**800**	**3,900**	NT		**3,950**		430				**3,190**		NT		210	J			**1,140**		236	J							**3,470**		490		NT		256	J	NT		164	J	NT		NT		182	J				
Bis (2-ethylhexyl) phthalate	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Carbazole	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Chrysene	**1,000**	**3,900**	NT		**6,810**		585				**4,850**		NT		344	J			**1,320**		509		251	J					**3,560**		730		NT		453		NT		287	J	NT		NT		236	J				
Dibenz (a,h) anthracene	**330**	**330**	NT										NT						**371**										**2,770**				NT				NT				NT		NT							
Dibenzofuran	**7,000**	**14,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Di-n-butyl phthalate	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Fluoranthene	**100,000**	**100,000**	NT		14,200		722				12,200		NT		640				1,570		1,020		484				238	J	2,600		1,360		NT		875		NT		388		NT		NT		345		345	J		
Fluorene	**30,000**	**100,000**	NT		2,100								NT																		NT				NT				NT		NT							
Indeno (1,2,3-cd) pyrene	**500**	**500**	NT		**3,360**		**841**				**2,880**		NT						**1,570**		347		160	J					**7,790**		**644**		NT		781		NT		250	J	NT		NT		229	J				
2-Methylnaphthalene	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Naphthalene	**12,000**	**100,000**	NT										NT																		166	J	NT				NT				NT		NT							
Phenanthrene	**100,000**	**100,000**	NT		11,800		446				6,230		NT		329	J			837		694		484						703		970		NT		840		NT				NT		NT							
Pyrene	**100,000**	**100,000**	NT		10,800		714				9,990		NT		517				1,280		892		481				220	J	2,370		1,110		NT		740		NT		350		NT		NT		358		272	J		

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Table 2
Summary of Soil Sample Analytical Results
(Remedial Investigation)
Brownfield Cleanup Site
129 Holden Street
Buffalo, New York

Sample Location Sample Depth (ft bgs) Sample Date	Part 375 Unrestricted SCO	Part 375 Restricted Residential SCO	TP-56 8-10 10/26/2012	Q	TP-57 4-6 10/26/2012	Q	TP-57 12-14 10/26/2012	Q	TP-58 13-15 10/26/2012	Q	TP-59 14.5-15 10/26/2012	Q	TP-60 4-6 10/26/2012	Q	TP-61 9-11 12/4/2012	Q	TP-62 9-10 12/4/2012	Q	TP-63 10-12 12/18/2012		TP-64 4-6 12/18/2012		TP-65 6-8 12/18/2012		TP-66 12-14 12/18/2012		TP-67 0-2 12/18/2012		TP-68 4-6 12/18/2012		TP-69 0-2 12/18/2012		TP-70 0-2 12/18/2012		TP-70 7-9 12/18/2012		TP-71 0-2 12/18/2012		TP-71 8-10 12/18/2012		TP-72 10-12 12/19/2012		TP-73 6-8 12/19/2012		TP-74 13-15 12/19/2012		TP-75 2-4 12/19/2012		TP-76 13-15 12/19/2012	
Volatile Organics (ug/kg)																																																				
Acetone	**50**	**100,000**	NT				NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Benzene	**60**	**4,800**	NT		3.06	J	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
2-Butanone	**120**	**100,000**	NT		5.88	J	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Carbon disulfide	**NV**	**NV**	NT		46.1	J	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Cyclohexane	**NV**	**NV**	NT		21.4	J	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
cis-1,2-Dichloroethene	**250**	**100,000**	NT				NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Ethylbenzene	**1,000**	**41,000**	NT		1.09	J	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Isopropylbenzene	**NV**	**NV**	NT				NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Methylcyclohexane	**NV**	**NV**	NT		20.9	J	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Methylene Chloride	**50**	**100,000**	NT				NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Tetrachloroethene	**1,300**	**19,000**	NT		2.72	J	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Toluene	**700**	**100,000**	NT		8.49	J	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Trichloroethene	**470**	**21,000**	NT				NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
m,p-Xylene	**260 ****	**100,000 ****	NT		8.43	J	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
o-Xylene	**260 ****	**100,000 ****	NT		2.55	J	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Semi-Volatile Organics (ug/kg)																																																				
Acenaphthene	**20,000**	**100,000**			NT												667	J													263	J			868	J											927						7,170	J
Acenaphthylene	**100,000**	**100,000**			NT										394																																255	J			J
Anthracene	**100,000**	**100,000**			NT						298	J			735		2,070												646				2,020		281	J	181	J	223	J	1410						15,200	J
Benzo (a) anthracene	**1,000**	**1,000**	249	J	NT						985				**2,080**		**3,210**						303	J			237	J	339		**1,040**		**7,370**		**8,270**		687		**1,320**	J	851		**4,050**				533		**34,100**	J
Benzo (a) pyrene	**1,000**	**1,000**	290	J	NT						**1,080**				**2,110**		**2,850**						277	J			205	J	324	J	806		**12,200**		**8,020**		686		**1,150**	J	859		**3,700**				572		**28,000**	J
Benzo (b) fluoranthene	**1,000**	**1,000**	334	J	NT						1,000				**1,990**		**2,860**				174	J	253	J			216	J	471		874		**17,100**		**9,280**		803		**1,050**	J	856		**4,590**				597		**30,700**	J
Benzo (g,h,i) perylene	**100,000**	**100,000**	262	J	NT						812				1,320		1,600						210	J					320	J	437		13700		5,770		558		603		608		3,580				454		18,300	J
Benzo (k) fluoranthene	**800**	**3,900**			NT						640				**1,470**		**1,760**						187	J					308	J	524		**9,200**		**5,910**		461		794	J	675		**2,520**				466		**19,500**	J
Bis (2-ethylhexyl) phthalate	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Carbazole	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Chrysene	**1,000**	**3,900**	276	J	NT						**1,040**				**2,070**		**3,240**				172	J	316	J			234	J	386		1,000		**11,100**		**9,890**		761		**1,310**	J	913		**4,590**				525		**34,500**	J
Dibenz (a,h) anthracene	**330**	**330**			NT										306	J													177	J	**3,890**		**1,990**		190	J	264	J	207	J	**1,030**						**4,650**	J
Dibenzofuran	**7,000**	**14,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Di-n-butyl phthalate	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Fluoranthene	**100,000**	**100,000**	454		NT				201	J	1,270				3,570		8,160				268	J	603	J			454		622		2,270		**8,920**		16,900		1,260		2,620	J	1370		10,700		266	J	870		81,600	J
Fluorene	**30,000**	**100,000**			NT										177	J													326	J																			8,450	J
Indeno (1,2,3-cd) pyrene	**500**	**500**	248	J	NT						**931**				**1,420**		**2,200**						251	J			215	J	399		**587**		**14,400**		**6,750**		**653**		**809**	J	**891**		**3,710**				**562**		**22,800**	J
2-Methylnaphthalene	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Naphthalene	**12,000**	**100,000**			NT																																				313	J							6,540	J
Phenanthrene	**100,000**	**100,000**	204	J	NT						744				1,810		7,330						550	J			287	J	460		2,320		2,090		8,710		808	NJ	1,780	J	830		7,630				373		81,500	J
Pyrene	**100,000**	**100,000**	419		NT				176	J	1,100				3,260		6,410				246	J	572	J			404		557		1,880		9,290		14,200		1,110		2,260	J	1,230		8,150		231	J	784	J	65,300	J

NOTES:
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5. Results presented for TP-17, 2-4 ft; TP-23, 8-10 ft; TP-65 6 to 8 ft; TP-67, 0 to 2 ft; TP-71, 8 to 10 ft; TP-76, 13 to 15 ft; and TP-80, 2 to 4 ft are the higher of these sample and their respective duplicates.
6. Q = laboratory qualifier; J = analyte was detected but at an estimated concentration; UJ = analyte was not detected; NJ = analyte detection is tentative; R = data are unusable.
7. ug/kg = parts per billion, mg/kg = parts per million.
8. Part 375 Residential Soil Cleanup Objectives (SCOs) are from NYCRR Subpart 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006.
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10. Concentrations that are bolded exceed the Part 375 Unrestricted SCOs and the & shaded exceed their respective Part 375 Residential SCOs.
11. ** = Cleanup criteria applies to the sum of total xylene compounds.
12. The reporting limit for these SVOCs, <3,300 ug/kg were elevated likely due to a matrix interference in the material analyzed. Reporting limit exceeds some of the SVOCs RRSCOs.

Table 2
Summary of Soil Sample Analytical Results
(Remedial Investigation)
Brownfield Cleanup Site
129 Holden Street
Buffalo, New York

Sample Location Sample Depth (ft bgs) Sample Date	Part 375 Unrestricted SCO	Part 375 Restricted Residential SCO	TP-77 4-6 12/19/2012		TP-78 6-8 12/19/2012		TP-79 0-2 12/19/2012		TP-80 2-4 12/20/2012		TP-81 2-4 12/20/2012		MW-1 2-4 2/6/2013		MW-2 2-4 2/6/2013		MW-3 2-4 2/7/2013		MW-3 12-14 2/7/2013		MW-4 2 - 4 2/12/2013		MW-5 13 - 15 2/15/2013		MW-6 10 - 12 2/18/2013	
Volatile Organics (ug/kg)																										
Acetone	**50**	**100,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Benzene	**60**	**4,800**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
2-Butanone	**120**	**100,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Carbon disulfide	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Cyclohexane	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
cis-1,2-Dichloroethene	**250**	**100,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Ethylbenzene	**1,000**	**41,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Isopropylbenzene	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Methylcyclohexane	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Methylene Chloride	**50**	**100,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Tetrachloroethene	**1,300**	**19,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Toluene	**700**	**100,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Trichloroethene	**470**	**21,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
m,p-Xylene	**260 ****	**100,000 ****	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
o-Xylene	**260 ****	**100,000 ****	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Semi-Volatile Organics (ug/kg)																										
Acenaphthene	**20,000**	**100,000**	1,010														220	J					See Note 12.			
Acenaphthylene	**100,000**	**100,000**					417	J																		
Anthracene	**100,000**	**100,000**	2,130				1,260	J	177	J					280	J	310	J	270	J	510				2,700	
Benzo (a) anthracene	**1,000**	**1,000**	**3,950**				**3,710**	J	354						380		990	J	550		910				**6,400**	
Benzo (a) pyrene	**1,000**	**1,000**	**3,310**				**3,390**	J	279	J					290	J	970	J	510		730				**5,900**	
Benzo (b) fluoranthene	**1,000**	**1,000**	**3,350**		162	J	**3,730**	J	352						230	J	910	J	570		690				**5,800**	
Benzo (g,h,i) perylene	**100,000**	**100,000**	2,140		161	J	2,740	J									660	J	340	J	420				3,800	
Benzo (k) fluoranthene	**800**	**3,900**	**2,180**				**2,840**	J	199	J					280		900	J	370		590				**4,500**	
Bis (2-ethylhexyl) phthalate	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT				NT	
Carbazole	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT				NT	
Chrysene	**1,000**	**3,900**	**4,040**		170	J	**3,810**	J	421						360		**1,200**	J	610		900				**6,800**	
Dibenz (a,h) anthracene	**330**	**330**	**481**	J			**691**	J																	**1,200**	
Dibenzofuran	**7,000**	**14,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT				NT	
Di-n-butyl phthalate	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT				NT	
Fluoranthene	**100,000**	**100,000**	9,570		229	J	7,140	J	811	J					980		2,400	J	1,200		2,200				12,000	
Fluorene	**30,000**	**100,000**	953				466	J													190	J			1,700	
Indeno (1,2,3-cd) pyrene	**500**	**500**	**2,660**				**3,240**	J	247	J					210	J	880	J	380		620				**5,000**	
2-Methylnaphthalene	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT				NT	
Naphthalene	**12,000**	**100,000**	1,050																							
Phenanthrene	**100,000**	**100,000**	,9970				4,170	J	813	J					990		1,700	J	1,100		2,000				7,100	
Pyrene	**100,000**	**100,000**	8,040		213	J	5,630	J	668						790		2,200	J	1,000		1,900				9,800	

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(Remedial Investigation)
Brownfield Cleanup Site
129 Holden Street
Buffalo, New York

Sample Location Sample Depth (ft bgs) Sample Date	Part 375 Unrestricted SCO	Part 375 Restricted Residential SCO	TP-1 2-4 7/10/2012	Q	TP-2 Slag @ 2 ft 7/10/2012	Q	TP-2 12-14 7/10/2012	Q	TP-3 6-8 7/10/2012	Q	TP-3 8-10.5 7/10/2012	Q	TP-4 6-8 7/10/2012	Q	TP-5 12-15 7/10/2012	Q	TP-6 6-8 7/11/2012	Q	TP-7 Slag @ 2 ft 7/11/2012	Q	TP-7 4-6 7/11/2012	Q	TP-8 10-12 7/11/2012	Q	TP-9 6-8 7/11/2012	Q	TP-10 0-2 7/11/2012	Q	TP-10 14-17 7/11/2012	Q	TP-11 4-6 7/11/2012	Q	TP-11 14-16 7/11/2012	Q	TP-12 3-5 7/11/2012	Q	TP-13 6-8 7/12/2012	Q	TP-14 0-2 7/12/2012	Q	TP-15 0-2 7/12/2012	Q	TP-15 6-8 7/12/2012	Q	TP-16 10-12 7/12/2012	Q	TP-17 2-4 7/12/2012	Q	TP-18 14-16 7/12/2012	Q
PCB (ug/kg)																																																	
Aroclor-1260					NT														NT																															
Total PCBs	**100**	**1,000**																																														
Herbicides (ug/kg)																																																
2,4-D	**NV**	**NV**			NT														NT																															
2,4,5-T	**NV**	**NV**			NT														NT								R				R																	
2,4,5-TP (silvex)	**3,800**	**100,000**			NT														NT																															
Pesticides (ug/kg)																																																
alpha-BHC	**20**	**480**			NT														NT																										15.7	J			4.49	J	
delta-BHC	**40**	**100,000**			NT														NT		3.07	J																										
gamma-BHC	**NV**	**NV**			NT														NT																															
gamma-Chlordane	**NV**	**NV**			NT		2.73	J											NT																															
alpha-Chlordane	**94**	**4,200**			NT						24.6	NJ							NT																															
4,4'-DDD	**3.3**	**13,000**			NT		**6.15**	NJ											NT																												**16**	NJ		
4,4'-DDE	**3.3**	**8,900**			NT														NT																										**3.65**	J			**5.16**	J	
4,4'-DDT	**3.3**	**7,900**			NT														NT																												**6.79**	J	
Dieldrin	**5**	**200**			NT		4.04	J											NT																															
Endodulfan I	**2,400**	**24,000**			NT		3.2												NT																															
Endodulfan II	**2,400**	**24,000**			NT														NT																															
Endosulfan Sulfate	**2,400**	**24,000**			NT														NT								4.96	J																				
Endrin	**14**	**11,000**			NT														NT																															
Endrin Aldehyde	**NV**	**NV**			NT		17	J											NT										5.74	NJ	2.95	J																	
Endrin Ketone	**NV**	**NV**			NT		3.11	NJ			6.19	J			3.12	J			NT																															
Heptachlor	**42**	**2,100**			NT														NT																												2.82	J	
Heptachlor Epoxide	**NV**	**NV**			NT		2.19	NJ											NT																															
Inorganics (mg/kg)																																																
Cyanide	**27**	**27**			NT		0.45												NT										0.71				1.4						0.68		0.85							
Aluminum	**NV**	**NV**	12,900		21,900		5,700		10,100		5,920		14,200		9,010		18,100		32,000		17,500		15,700		6,130		8,150		13,000		8,000		17,700		11,600		16,100		15,600		31,900		8,800		12,300		5,010		12,600	
Antimony	**NV**	**NV**																											5.89	J																		
Arsenic	**13**	**16**	5.16		2.25		10.9		7.03		**19.2**		6.36		9.4		3.54		5.62		4.42		5.71		2.89		5.01		10.8		10.2		11.6		7.03		4.31		5.09		2.18		6.92		3.4		7.21	J	9.3
Barium	**350**	**400**	96.4		211		64.1		136		89.6		57.4		52.1		107		286		99		82		49.6		147		**732**		151		229		101		89.4		157		336		68.8		89.8		59		89.5
Beryllium	**7.2**	**72**	0.733		4.14				0.641		0.542	J	1.65		0.586		0.853		6.28		1		0.771		0.432	J	0.526		0.876		0.482	J	1.7		0.724		0.837		2.28		6.26		0.677		0.786		0.477	J	0.718
Cadmium	**2.5**	**4.3**	0.282	J			**9.28**		0.484	J	0.654				0.317	J			0.508								0.461	J	1.37		0.903		0.557	J	0.339	J	0.359	J	0.301	J			0.306	J			0.26	J	0.594
Calcium	**NV**	**NV**	38,900	J	205,000	J	25,900	J	77,800	J	79,300	J	117,000	J	32,400	J	27,600	J	190,000	J	76,600	J	20,900	J	91,200	J	79,200	J	44,000	J	18,600	J	50,200	J	72,900	J	10,000	J	158,000	J	197,000		63,600		56,000		67,600		9,860
Chromium	**30**	**180**	16.2	J	7.69	J	9.95	J	14.5	J	10.2	J	20.6	J	16.2	J	21.4	J	**45.7**	J	22.1	J	19.3	J	7.82	J	14.8	J	**35.6**	J	12.4	J	21.8	J	14.7	J	19.5	J	10.3	J	19		15.5		17.5		**43.5**	J	17.8
Cobalt	**NV**	**NV**	5.89				4.46	J	4.79	J	4.5		9.53		6.99		8.34		4.87		10.3		7.85		2.87	J	4.26	J	10.9		5.68	J	6.48		6.8		10.8		2.89	J			5.06		7.65		4.39	J	8.99
Copper	**50**	**270**	15.6	J	3.29	J	**2,720**	J	34.3	J	**76.4**	J	15.3	J	26	J	15.8	J	8.36	J	21.5	J	16.6	J	31.2	J	28.3	J	**177**	J	28.2	J	**119**	J	**51.3**	J	14.9	J	13	J	8.09		27.9		18.7		31.6		**65.9**
Iron	**NV**	**NV**	18,100		5,300		30,800		16,100		19,000		13,300		18,300		21,900		87,400		25,200		21,200		10,200		15,000		38,400		15,900		27,900		20,100		24,700		34,500		7,880		16,500		22,800		16,500	J	25,000
Lead	**63**	**400**	23.6	J	7.5	J	**954**	J	**168**	J	**379**	J	18	J	62.5	J	13.6	J		J	10.8	J	16.1	J	31	J	**341**	J	**556**	J	**295**	J	**168**	J	**159**	J	14.9	J	25.6	J	18.1		**63.5**		14.3		**119**		**147**
Magnesium	**NV**	**NV**	10,500	J	13,500	J	4,520	J	19,500	J	18,800	J	46,700	J	6,970	J	10,100	J	22,800	J	16,200	J	8,550	J	17,000	J	14,200	J	13,700	J	7,210	J	6,840	J	8,390	J	6,310	J	18,500	J	23,200		23,100		15,600		12,600	J	5,180
Manganese	**1,600**	**2,000**	570	J	**4,890**	J	384	J	375	J	285	J	512	J	469	J	304	J	**5,370**	J	498	J	502	J	206	J	326	J	628	J	195	J	**2,200**	J	314	J	444	J	1,600	J	**4,300**		400		441		295		150
Mercury	**0.18**	**0.81**	0.0396	J			0.12	J	**0.258**	J	**0.282**	J		J	0.0058	J	0.0429	J			0.0152	J	0.0546	J	0.039	J	0.121	J	0.0079	J	**0.386**	J	0.01333	J	0.0628	J	0.0348	J					0.0675		0.0094		0.0653		**0.234**
Nickel	**30**	**310**	17.2		3.39	J	14.1		17.1		14.4		23.2		18.4		20.3		7.36		24.5		19.9		9.49		**33.7**		**87**		14.6		**34.5**		16.6		19.7		9.54		6.31		15.8		20.3		**112**	J	18.3
Potassium	**NV**	**NV**	2140		1240		825		1,750		937		4770		1,820		2,700		1,880		4,200		2,170		1,150		1,430		2,610		1,240		1,830		1,850		1,810		1,370		2,340		1950		3,120		841		1,780
Selenium	**3.9**	**180**	1.92		0.77	J	0.628	J			0.586	J							2.87										0.714	J	1.33				0.838	J			2.8		1.13								2.02
Silver	**2**	**180**					0.837	J																									0.694	J															
Sodium	**NV**	**NV**			796								250	J	184	J			1,810		209	J	265	J	299		400		160	J	362		648						471		1,500		180	J						
Thallium	**NV**	**NV**																																															
Vanadium	**NV**	**NV**	26.7		6.37		23		21.5		18.8		18.8		28		33.2		15		34.2		30.5		17.8		21.4		30.4		19		23.5		24.1		31.3		15.4		10.2		93.3		27.9		13.8		29.1
Zinc	**109**	**10,000**	78.4		15.4		**12,600**		**177**		**243**		24.9		97.5		69.2		3.68	J	64.4		72.3		45.8		**141**		**743**		**217**		**166**		**146**		71.7		42.9		109		93.3		73		**122**		**111**

NOTES: 1. Only compounds detected in one or more soil samples are presented in this table.
2. Blank Table cell indicates compound was not detected above reporting limit.
3. NT indicates compound was not tested.
4. Analytical testing completed by Paradigm Environmental Services.
5. Results presented for TP-17, 2-4 ft; TP-23, 8-10 ft; TP-65 6 to 8 ft; TP-67, 0 to 2 ft; TP-71, 8 to 10 ft; TP-76, 13 to 15 ft; and TP-80, 2 to 4 ft are the higher of these sample and their respective duplicates.
6. Q = laboratory qualifier; J = analyte was detected but at an estimated concentration; UJ = analyte was not detected; NJ = analyte detection is tentative; R = data are unusable.
7. ug/kg = parts per billion, mg/kg = parts per million.
8. Part 375 Residential Soil Cleanup Objectives (SCOs) are from NYCRR Subpart 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006.
9. NV = no value; NS = not specified; NT = not tested; ND = non detect.
10. Concentrations that are bolded exceed the Part 375 Unrestricted SCOs and the & shaded exceed their respective Part 375 Residential SCOs.
11. ** = Cleanup criteria applies to the sum of total xylene compounds.
12. The reporting limit for these SVOCs, <3,300 ug/kg were elevated likely due to a matrix interference in the material analyzed. Reporting limit exceeds some of the SVOCs RRSCOs.

Table 2
Summary of Soil Sample Analytical Results
(Remedial Investigation)
Brownfield Cleanup Site
129 Holden Street
Buffalo, New York

Sample Location Sample Depth (ft bgs) Sample Date	Part 375 Unrestricted SCO	Part 375 Restricted Residential SCO	TP-19 8-10 7/12/2012	Q	TP-19 15 7/12/2012	Q	TP-20 4-6 7/13/2012	Q	TP-20 14-16 7/13/2012	Q	TP-21 2-4 7/13/2012	Q	TP-22 8-10 7/13/2012	Q	TP-23 8-10 7/13/2012	Q	TP-24 2-4 7/13/2012	Q	TP-25 4-6 7/13/2012	Q	TP-26 12-14 7/13/2012	Q	TP-27 0-2 7/13/2012	Q	TP-27 10-12 7/13/2012	Q	TP-28 4-6 10/22/2012	Q	TP-29 6-8 10/22/2012	Q	TP-30 0-2 10/22/2012	Q	TP-30 10-12 10/22/2012	Q	TP-31 4-6 10/22/2012	Q	TP-31 8-10 10/22/2012	Q	TP-32 10-12 10/22/2012	Q	TP-33 2-4 10/22/2012	Q	TP-33 10-12 10/22/2012	Q	TP-34 13-15 10/23/2012	Q	TP-35 10-12 10/23/2012	Q	TP-36 4-6 10/23/2012	Q
PCB (ug/kg)																																																		
Aroclor-1260																			0.0414								NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Total PCBs	**100**	**1,000**																	0.0414																															
Herbicides (ug/kg)																																																		
2,4-D	**NV**	**NV**																									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
2,4,5-T	**NV**	**NV**										R															NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
2,4,5-TP (silvex)	**3,800**	**100,000**																									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Pesticides (ug/kg)																																																	
alpha-BHC	**20**	**480**							6.88	J							3.26	UJ									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
delta-BHC	**40**	**100,000**							4.33	J																	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
gamma-BHC	**NV**	**NV**																									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
gamma-Chlordane	**NV**	**NV**													2.95	J	2.49	NJ									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
alpha-Chlordane	**94**	**4,200**																									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDD	**3.3**	**13,000**																									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDE	**3.3**	**8,900**																					**3.4**	NJ			NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDT	**3.3**	**7,900**															2.7	J									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Dieldrin	**5**	**200**																	**5.68**	J							NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endodulfan I	**2,400**	**24,000**																									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endodulfan II	**2,400**	**24,000**															2.94	J									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endosulfan Sulfate	**2,400**	**24,000**																									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin	**14**	**11,000**																									NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin Aldehyde	**NV**	**NV**															1.68	J	2.2	J							NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin Ketone	**NV**	**NV**													7.12	J			2.99	NJ							NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Heptachlor	**42**	**2,100**							6.71	J																	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Heptachlor Epoxide	**NV**	**NV**							2.14	J																	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Inorganics (mg/kg)																																																	
Cyanide	**27**	**27**							1																		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Aluminum	**NV**	**NV**	7,420		15,300		4,810		7,830		11,200	D	12,000		13,500		3,080		8,580		8,470		10,300		17,400		9,210	J	8,920	J	NT		18,600	J	5,190	J	17,400	J	8,990	J	10,700	J	NT		16,800	J	2,530	J	3,660	J
Antimony	**NV**	**NV**																													NT						12.7						NT					
Arsenic	**13**	**16**	4.01		5.27		3.87		**18.5**		9.88	D	**14.6**		**20.5**		1.55		3.72		**14.8**		8.55		9.52		10.7		**18.9**		NT		5.06		3.73		9.71		4.93		5.5		NT		6.11		1.42		5.69	
Barium	**350**	**400**	98		99.5		35.1		314		139		**565**		**541**		22.4		49		70.6		85.6		103		164	J	**606**	J	NT		121	J	61.5	J	190	J	91.7	J	105	J	NT		112	J	9.86	J	34.4	J
Beryllium	**7.2**	**72**	0.421	J	0.783		0.383	J	0.993		0.919	D	1.24		1.33				0.604		0.671		0.723		0.843		1.04		0.593		NT		0.814				0.751		0.633		0.493	J	NT		0.76				0.308	J
Cadmium	**2.5**	**4.3**	0.296	J	0.311	J			**2.65**		0.594		0.497	J	**12.1**				0.322	J			0.418	J	0.281	J	0.549	J	**2.87**		NT						0.448						NT							
Calcium	**NV**	**NV**	22,500		25,600		73,000		11,100		47,400	J	4,440		56,900		2,240	DM	59,700		51,000		44,000		22,600		30,000	J	46,300	J	NT		23,100	J	10,500	J	42,900	J	60,000	J	22,900	J	NT		28,000	J	7,440	J	188,000	J
Chromium	**30**	**180**	10.8		21.6		10.5		23.4		**35.7**	J	14.9		21.4		4.49		12.8		16.4		16		21.1		16.6	J	**57**	J	NT		24.9	J	7.72	J	**44.8**	J	19.2	J	16.7	J	NT		22.2	J	3.79	J	4.05	J
Cobalt	**NV**	**NV**	4.85	J	8		2.81	J	9.88		6.88		8.57		7.69				5.45		5.85		6.96		8.32		7.46		7.1		NT		10.5				9.73		3.9	J	5.5		NT		9.22					
Copper	**50**	**270**	15.3		23.9		12.8		**285**		**186**	DM	**76**		**1,130**	J	10.9		15.7		38.8		26.7		19.8		**56.7**		**308**		NT		23.3		16		**163**		22.6		33.2		NT		17.7		12.3		15.8	
Iron	**NV**	**NV**	12,300		23,400		12,900		120,000		31,200	D	13,000		41,100		5,450		34,900		17,300		20,000		22,200		21,900		52,200		NT		25,700		10,500		36,600		14,100		16,200		NT		23,600		4,050		7,930	
Lead	**63**	**400**	**152**		**108**		28.5		**881**		**314**	J	**503**		**996**	J	17.2		21		**98.9**		**72.1**		**65.4**		**254**		**2,390**		NT		40.4		33.3		**3,580**		**116**		**152**		NT		13.9		20.3		41.1	
Magnesium	**NV**	**NV**	10,200		8,280		2,310		1,400		15,600	J	1,160		14,800	J	650		7,450		11,000		14,900		10,500		5,110	J	13,800	J	NT		8,870	J	1,920	J	12,500	J	9,680	J	9,110	J	NT	J	10,900	J	1,450	J	47,500	J
Manganese	**1,600**	**2,000**	220		395		241		512		563	J	158		253		92.8		334		286		351		447		353	J	651	J	NT		525	J	176	J	599	J	445	J	252	J	NT	J	368	J	88.5	J	254	J
Mercury	**0.18**	**0.81**	0.147		**0.2455**	J			**4.47**		0.116	J	**2.18**		**0.613**		0.0122		0.101		**0.185**		0.0656		0.0355				**3.03**		NT		0.0196		0.0334		0.0263				0.139		NT		0.0161				**0.531**	
Nickel	**30**	**310**	10.1		21.3		8.04		**32.3**		**36.1**	D	21.1		**53.2**		3.95	J	14.1		22.7		20		20.5		21.7	J	**46**	J	NT		23.3	J	10.4	J	**32.8**	J	10.9	J	15.5	J	NT		22	J	2.51	J	6.79	J
Potassium	**NV**	**NV**	1,160		2,600		726		1,320		1,870	D	1,110		970		600		1,320		1,830		1,990		2,520		974		1,540		NT		2,780		654		3,770		1,470		1,630		NT		2,560		349		925	
Selenium	**3.9**	**180**											0.831	J													1.91		1.37		NT		2.07		0.612		2.37						NT		1.17	J				
Silver	**2**	**180**																													NT														NT					
Sodium	**NV**	**NV**											233	J	244	J											294		310		NT		146				208		178	J			NT		220	J			465	
Thallium	**NV**	**NV**																													NT														NT					
Vanadium	**NV**	**NV**	19.6		27.7		12.2		27.9		25.9		39.1		29.4		4.63		19.9		23.3		25.1		31.2		25.2		33.3		NT		34.4		12.3		31.7		16.1		24.5		NT		35		5.7		11.5	
Zinc	**109**	**10,000**	**148**		**118**		36.8		**981**		**201**		**342**		**824**		16.2		53		92.8		**114**		106		**321**		**3,620**		NT		87.3		49.9		**299**		**111**		**146**		NT		62.6		12.8		49.6	

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12. The reporting limit for these SVOCs, <3,300 ug/kg were elevated likely due to a matrix interference in the material analyzed. Reporting limit exceeds some of the SVOCs RRSCOs.

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(Remedial Investigation)
Brownfield Cleanup Site
129 Holden Street
Buffalo, New York

Sample Location Sample Depth (ft bgs) Sample Date	Part 375 Unrestricted SCO	Part 375 Restricted Residential SCO	TP-37 2-4 10/23/2012	Q	TP-37 4-6 10/23/2012	Q	TP-38 10-12 10/23/2012	Q	TP-39 10-12 10/23/2012	Q	TP-40 6-8 10/23/2012	Q	TP-40 10-12 10/23/2012	Q	TP-41 13-15 10/24/2012	Q	TP-42 6-8 10/24/2012	Q	TP-43 4-6 10/24/2012	Q	TP-44 8-10 10/24/2012	Q	TP-45 6-8 10/24/2012	Q	TP-46 8-10 10/24/2012	Q	TP-47 2-4 10/24/2012	Q	TP-48 8-8.5 10/25/2012	Q	TP-49 2-4 10/25/2012	Q	TP-50 4-6 10/25/2012	Q	TP-50 13-15 10/25/2012	Q	TP-51 8-10 10/25/2012	Q	TP-51 13-15 10/25/2012	Q	TP-52 2-4 10/25/2012	Q	TP-53 4-6 10/25/2012	Q	TP-53 8-10 10/25/2012	Q	TP-54 2-4 10/26/2012	Q	TP-55 10-12 10/26/2012	Q
PCB (ug/kg)																																																		
Aroclor-1260			NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Total PCBs	**100**	**1,000**																																															
Herbicides (ug/kg)																																																		
2,4-D	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
2,4,5-T	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
2,4,5-TP (silvex)	**3,800**	**100,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Pesticides (ug/kg)																																																	
alpha-BHC	**20**	**480**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
delta-BHC	**40**	**100,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
gamma-BHC	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
gamma-Chlordane	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
alpha-Chlordane	**94**	**4,200**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDD	**3.3**	**13,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDE	**3.3**	**8,900**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDT	**3.3**	**7,900**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Dieldrin	**5**	**200**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endodulfan I	**2,400**	**24,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endodulfan II	**2,400**	**24,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endosulfan Sulfate	**2,400**	**24,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin	**14**	**11,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin Aldehyde	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin Ketone	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Heptachlor	**42**	**2,100**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Heptachlor Epoxide	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Inorganics (mg/kg)																																																	
Cyanide	**27**	**27**	NT		NT		NT		NT		NT		6.59		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Aluminum	**NV**	**NV**	NT		5,980		5,920		5,480		4,640		279,000		6,270		7,040		8,450		7,910		11,300		7,930		8,890		3,760		7,920		NT		6,880		NT		7,030		NT		NT		3,860		13,800		12,600	
Antimony	**NV**	**NV**	NT		23.4								14.9																				NT				NT				NT									
Arsenic	**13**	**16**	NT		**17**		10.5		**65.3**		3.01		**22.8**		9.08	J	4.4	J	**14.4**	J	9.14	J	4.86	J	4.27	J	**13.1**	J	4.51	J	6.12	J	NT		5.99	J	NT		2.89	J	NT		NT		3.63	J	11.6	J	4.49	J
Barium	**350**	**400**	NT		153	J	95.6	J	149	J	21.9	J	**1,070**	J	244		36.9		148		32.5		125		53.4		121		31.3		68.9		NT		48.3		NT		37		NT		NT		21.8		140		51.1	
Beryllium	**7.2**	**72**	NT		0.412	J	0.447	J	0.985								0.349	J	0.7		0.413	J	1.65		0.335	J	1.14		0.533		0.417	J	NT		0.324	J	NT		0.307	J	NT		NT		0.264	J	0.676		0.452	J
Cadmium	**2.5**	**4.3**	NT		0.573				0.619				**3.94**		0.614				0.493	J													NT				NT				NT				0.862		0.349	J
Calcium	**NV**	**NV**	NT		19,500	J	21,100	J	10,000	J	42,600	J	19,900	J	87,700	J	100,000	J	37,300	J	57,000	J	205,000	J	101,000	J	25,100	J	9,190	J	106,000	J	NT		69,100	J	NT		87,600	J	NT		NT		163,000	J	29,900	J	8,680	J
Chromium	**30**	**180**	NT		**31.9**	J	26.9	J	17	J	6.93	J	20.2	J	9.55		9.52		**71.5**		13.9		18.8		10.6		12.9		**219**		13.1		NT		9.01		NT		8.12		NT		NT		4.98		22.2		14.3	
Cobalt	**NV**	**NV**	NT		5.91		4.42	J	4.23		2.77	J			3.3	J			6.35		4.96	J			3.27	J	7.1		4.01	J	4.88	J	NT		3.01	J	NT		2.89	J	NT		NT				6.64		4.43	J
Copper	**50**	**270**	NT		**783**		**384**		33.9	J	11.1		**19,900**		13	J	9.15	J	41	J	20.1	J	18.2	J	19.9	J	**92.3**	J	30.7	J	29.7	J	NT		14.9	J	NT		29	J	NT		NT		5.39	J	46.8	J	8.91	J
Iron	**NV**	**NV**	NT		27,700		31,500		17,400		9,460		52,900		10,200		11,800		18,200		17,300		14,400		11,700		23,600		32,100		14,000		NT		10,400		NT		11,000		NT		NT		7,700		22,600		14,100	
Lead	**63**	**400**	NT		**270**		**282**		**145**		39.4		**2,940**		**244**		40.9		**232**		31.2		27.8		20.7		**249**		21.5		**246**		NT		38.8		NT		26.9		NT		NT		16.9		**409**		16.6	
Magnesium	**NV**	**NV**	NT		2,950	J	2,840	J	3,040	J	19,500	J	1,220	J	20,200	J	46,700	J	6,320	J	27,200	J	12,500	J	11,400	J	3,750	J	3,470	J	15,600	J	NT		11,600	J	NT		29,000	J	NT		NT		84,600	J	11,000	J	2,370	J
Manganese	**1,600**	**2,000**	NT		518	J	585	J	121	J	260	J	409	J	380		373		321		483		**1,900**		267		563		358		354		NT		218		NT		257		NT		NT		281		504		459	
Mercury	**0.18**	**0.81**	NT		**0.61**				0.112		0.158		0.0782		0.102		0.151		0.0926		0.124				0.169				0.0315		**0.214**		NT		0.0687		NT		0.0994		NT		NT		**0.385**		0.147	J		
Nickel	**30**	**310**	NT		**54.9**	J	57.4	J	10.4	J	7.29	J	**286**	J	7.75		8.55		18.9		13.7		7.66		9.28		17.6		20.8		14.3		NT		9.32		NT		8.01		NT		NT		5.85		26.2		10.7	
Potassium	**NV**	**NV**	NT		1,090		731		611		1,160		923		1,020		1,590		1,090		1,460		1,230		1,560		908		599		1,870		NT		1,160		NT		1,490		NT		NT		1,290		2,190		747	
Selenium	**3.9**	**180**	NT		2.28		1.4		1.31				**13.1**		0.983	J			1.81				1	J			0.618	J					NT		0.893	J	NT				NT		NT						0.897	J
Silver	**2**	**180**	NT													R		R		R		R	0.711	J	0.496	J		R		R		R	NT		R	R	NT			R	NT		NT		0.494	J		R		R
Sodium	**NV**	**NV**	NT		333		266	J	171	J	224	J	1,100		647	J	382	J	356	J	479	J	753	J	615	J	548	J	134	J	374	J	NT		225	J	NT		313	J	NT		NT		457	J	435	J		
Thallium	**NV**	**NV**	NT						2.21	J																					NT				NT				NT		NT							
Vanadium	**NV**	**NV**	NT		17.5		14.4		18.9		17.3		13.2		21.1		17.6		22.4		22.4		16.6		18.4		26.6		8.75		20.1		NT		14.9		NT		17.1		NT		NT		11.8		29.7		22.7	
Zinc	**109**	**10,000**	NT		**281**		**144**		**113**		61.2		**5,010**		**295**		64.8		**331**		71.6		56		58.4		**133**		23.9		**153**		NT		43.8		NT		60		NT		NT		26.4		**217**		58.7	

NOTES:
1. Only compounds detected in one or more soil samples are presented in this table.
2. Blank Table cell indicates compound was not detected above reporting limit.
3. NT indicates compound was not tested.
4. Analytical testing completed by Paradigm Environmental Services.
5. Results presented for TP-17, 2-4 ft; TP-23, 8-10 ft; TP-65 6 to 8 ft; TP-67, 0 to 2 ft; TP-71, 8 to 10 ft; TP-76, 13 to 15 ft; and TP-80, 2 to 4 ft are the higher of these sample and their respective duplicates.
6. Q = laboratory qualifier; J = analyte was detected but at an estimated concentration; UJ = analyte was not detected; NJ = analyte detection is tentative; R = data are unusable.
7. ug/kg = parts per billion, mg/kg = parts per million.
8. Part 375 Residential Soil Cleanup Objectives (SCOs) are from NYCRR Subpart 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006.
9. NV = no value; NS = not specified; NT = not tested; ND = non detect.
10. Concentrations that are bolded exceed the Part 375 Unrestricted SCOs and the & shaded exceed their respective Part 375 Residential SCOs.
11. ** = Cleanup criteria applies to the sum of total xylene compounds.
12. The reporting limit for these SVOCs, <3,300 ug/kg were elevated likely due to a matrix interference in the material analyzed. Reporting limit exceeds some of the SVOCs RRSCOs.

Table 2
Summary of Soil Sample Analytical Results
(Remedial Investigation)
Brownfield Cleanup Site
129 Holden Street
Buffalo, New York

Sample Location Sample Depth (ft bgs) Sample Date	Part 375 Unrestricted SCO	Part 375 Restricted Residential SCO	TP-56 8-10 10/26/2012	Q	TP-57 4-6 10/26/2012	Q	TP-57 12-14 10/26/2012	Q	TP-58 13-15 10/26/2012	Q	TP-59 14.5-15 10/26/2012	Q	TP-60 4-6 10/26/2012	Q	TP-61 9-11 12/4/2012	Q	TP-62 9-10 12/4/2012	Q	TP-63 10-12 12/18/2012		TP-64 4-6 12/18/2012		TP-65 6-8 12/18/2012		TP-66 12-14 12/18/2012		TP-67 0-2 12/18/2012		TP-68 4-6 12/18/2012		TP-69 0-2 12/18/2012		TP-70 0-2 12/18/2012		TP-70 7-9 12/18/2012		TP-71 0-2 12/18/2012		TP-71 8-10 12/18/2012		TP-72 10-12 12/19/2012		TP-73 6-8 12/19/2012		TP-74 13-15 12/19/2012		TP-75 2-4 12/19/2012		TP-76 13-15 12/19/2012	
PCB (ug/kg)																																																					
Aroclor-1260			NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Total PCBs	**100**	**1,000**																																																		
Herbicides (ug/kg)																																																					
2,4-D	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
2,4,5-T	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
2,4,5-TP (silvex)	**3,800**	**100,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Pesticides (ug/kg)																																																				
alpha-BHC	**20**	**480**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
delta-BHC	**40**	**100,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
gamma-BHC	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
gamma-Chlordane	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
alpha-Chlordane	**94**	**4,200**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDD	**3.3**	**13,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDE	**3.3**	**8,900**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDT	**3.3**	**7,900**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Dieldrin	**5**	**200**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endodulfan I	**2,400**	**24,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endodulfan II	**2,400**	**24,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endosulfan Sulfate	**2,400**	**24,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin	**14**	**11,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin Aldehyde	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin Ketone	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Heptachlor	**42**	**2,100**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Heptachlor Epoxide	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Inorganics (mg/kg)																																																				
Cyanide	**27**	**27**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Aluminum	**NV**	**NV**	7,160		NT		12,000		12,800		5,640		9,860		6,250		9,000		198,000	J	22,200	J	6,870	J	15,800	J	10,700	J	15,400	J	7,580	J	6,730	J	27,900	J	10,500	J	12,000	J	4,630		10,000		5,920		7,280		7,000	
Antimony	**NV**	**NV**			NT																										5.59	J	4.26	J			6.37				8.02				130			
Arsenic	**13**	**16**	8.84	J	NT		5.39	J	5.26	J	7.64	J	3.16	J	7.68	J	8.12	J	5.41		5.2	M	4.3		5.45		10.9		7.22		5.38		11.3		9.42		7.01		6.5		11.3		**13.2**		**25.5**		**36.3**		**14.4**	
Barium	**350**	**400**	88.5		NT		52.3		110		86.3		78.3		43.8		76.2		117	J	125	J	41.5	J	94.7	J	115	J	85	J	59.4	J	48.7	J	267	J	81.3	J	88.4	J	36.6		171		79.7		113		68.3	J
Beryllium	**7.2**	**72**	0.59		NT		0.445	J	0.922		0.391		0.422	J	0.342	J	0.463	J	0.779		0.824	D	0.301	J	0.611	J	0.456	J	0.561						1.08		0.471	J	0.476	J	0.323	J	0.643	J	0.445	J			0.532	J
Cadmium	**2.5**	**4.3**			NT		0.442	J	0.364	J									0.325												1.87		0.538	J			0.531				0.504	J			2.03		0.806	
Calcium	**NV**	**NV**	78,200	J	NT		9,600	J	47,900	J	10,300	J	90,900	J	79,300	J	80,800	J	16,500	J	5,280	J	152,000	J	39,400	J	38,100	J	12,200	J	46,200	J	10,800	J	59,300	J	69,500	J	144,000	J	89,900	J	60,200	J	7,350	J	30,700	J	13,100	J
Chromium	**30**	**180**	10.5		NT		16		15.9		11.4		14.1		10.3		16.6		21.3	J	23.2	J	8.3	J	20	J	12.6	J	20.8	J	11.4	J	**31.1**	J	**31.4**	J	19.7	J	17.5	J	8.82		19.8		11.5		**43,700**		26	J
Cobalt	**NV**	**NV**	5.13	J	NT		3.9	J	5.48	J	7.31		6.31		3.77	J	5.86	J	7.25		7.46	D			6.75		4.96	J	7.83		4.87	J	3.84	J	6.38		5.59		6.07	J	4.02	J	8.16		5.47	J	102		6.42	
Copper	**50**	**270**	30.4	J	NT		10.6	J	18.8	J	31.3	J	16.4	J	18.6	J	31.3	J	22.2		23.2		15.9		17.9		**354**	J	**87.4**		23.3		**121**		19		33.6		26.6		26.3	J	24.1	J	45	J	**95**	J	**79.8**	J
Iron	**NV**	**NV**	12,200		NT		14,100		17,200		10,600		16,700		11,400		17,700		20,100		20,900	D	10,700		20,500		14,100		22,800		14,200		42,100		44,800		17,800		19,700		11,000		20,600		7,870		164,000		46,100	
Lead	**63**	**400**	58.7		NT		13.6		**111**		**88.1**		13.1		56.2		**68.8**	D	18		19.4	D	55.1		14.3		93.9	J	50.8		28.4		**76.7**		39.4		**91.4**		**89.5**		40.6	D	**73.9**		**195**		**137**		**93.9**	
Magnesium	**NV**	**NV**	13,200	J	NT		2,020	J	11,200	J	2,500	J	20,800	J	28,100	J	22,800	J	4,910	J	4,860	J	60,700	J	12,000	J	12,200	J	6,800	J	11,300	J	1970	J	20,200	J	18,400	J	23,500	J	15,700	J	19,800	J	1,430	J	9,400	J	4,700	J
Manganese	**1,600**	**2,000**	329		NT		4		963		100		420		324	J	438	J	142	J	136	J	293	J	460	J	280	J	394	J	290	J	325	J	**5,079**	J	425	J	402	J	180		530		114		**2,075**		1070	
Mercury	**0.18**	**0.81**	0.13	J	NT		0.0583	J	**0.339**	J	**0.477**	J	0.0144	J	0.133		0.0264		0.0263		0.0041	DM	0.0697	J	0.0496		0.0771		0.0396		0.0387		0.027				0.0225		0.12		0.0938	J	0.156	J	**0.198**	J				
Nickel	**30**	**310**	14.3		NT		14.1		12.6		17.8		14.3		11.6		16		18.1	J	18.6	J	7.86	J	17.9	J	11.6	J	23.7	J	15.8	J	**48.5**	J	15.3	J	17.1	J	18	J	12.5		21.5		13.8		**20,000**		16	J
Potassium	**NV**	**NV**	1,430		NT		877		2,180		460		2,630		1,360	J	2,080	J	1,830	J	2,350	J	2,160	J	2,420	J	1,460	J	2,110	J	2,180	J	805	J	4,970	J	2,860	J	3,090	J	1,240	J	2,020	J	740	J	1,090	J	706	J
Selenium	**3.9**	**180**			NT																								1.5		1.55		**4.06**				1.06						3.53				1.78			
Silver	**2**	**180**		R	NT			R		R		R		R		R		R															0.727	J			1.06													
Sodium	**NV**	**NV**	783	J	NT		461	J	499	J	211	J	359	J	232	J	235	J	187	J	189	J	518		271	J	325		853		253	J	454		1,020		765		753		213	J	262	J	513	J	695	J	336	J
Thallium	**NV**	**NV**			NT																																2.66								6.1			
Vanadium	**NV**	**NV**	20.7		NT		22.3		23.2		19.4		22.3		17.6		24.6		31.1		34.8	D	17.8		30		23.7		28.3		16.2		22.2		45.5		26.1		27.7		15.7		40.3		21.2		63.3		25.1	
Zinc	**109**	**10,000**	80.1		NT		63.6		103		101		66.9		**112**		99.1		79.2		85.1	D	53.9		71.8		89.1		**174**		55.5		102		106		**120**		**125**		66.2		**266**		80.4		84.9		**167**	

NOTES: 1. Only compounds detected in one or more soil samples are presented in this table.
2. Blank Table cell indicates compound was not detected above reporting limit.
3. NT indicates compound was not tested.
4. Analytical testing completed by Paradigm Environmental Services.
5. Results presented for TP-17, 2-4 ft; TP-23, 8-10 ft; TP-65 6 to 8 ft; TP-67, 0 to 2 ft; TP-71, 8 to 10 ft; TP-76, 13 to 15 ft; and TP-80, 2 to 4 ft are the higher of these sample and their respective duplicates.
6. Q = laboratory qualifier; J = analyte was detected but at an estimated concentration; UJ = analyte was not detected; NJ = analyte detection is tentative; R = data are unusable.
7. ug/kg = parts per billion, mg/kg = parts per million.
8. Part 375 Residential Soil Cleanup Objectives (SCOs) are from NYCRR Subpart 375-6, Remedial Program Soil Cleanup Objectives, dated December 14, 2006.
9. NV = no value; NS = not specified; NT = not tested; ND = non detect.
10. Concentrations that are bolded exceed the Part 375 Unrestricted SCOs and the & shaded exceed their respective Part 375 Residential SCOs.
11. ** = Cleanup criteria applies to the sum of total xylene compounds.
12. The reporting limit for these SVOCs, <3,300 ug/kg were elevated likely due to a matrix interference in the material analyzed. Reporting limit exceeds some of the SVOCs RRSCOs.

Table 2
Summary of Soil Sample Analytical Results
(Remedial Investigation)
Brownfield Cleanup Site
129 Holden Street
Buffalo, New York

Sample Location Sample Depth (ft bgs) Sample Date	Part 375 Unrestricted SCO	Part 375 Restricted Residential SCO	TP-77 4-6 12/19/2012		TP-78 6-8 12/19/2012		TP-79 0-2 12/19/2012		TP-80 2-4 12/20/2012		TP-81 2-4 12/20/2012		MW-1 2-4 2/6/2013		MW-2 2-4 2/6/2013		MW-3 2-4 2/7/2013		MW-3 12-14 2/7/2013		MW-4 2 - 4 2/12/2013		MW-5 13 - 15 2/15/2013		MW-6 10 - 12 2/18/2013	
PCB (ug/kg)																										
Aroclor-1260			NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Total PCBs	**100**	**1,000**																								
Herbicides (ug/kg)																										
2,4-D	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
2,4,5-T	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
2,4,5-TP (silvex)	**3,800**	**100,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Pesticides (ug/kg)																										
alpha-BHC	**20**	**480**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
delta-BHC	**40**	**100,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
gamma-BHC	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
gamma-Chlordane	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
alpha-Chlordane	**94**	**4,200**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDD	**3.3**	**13,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDE	**3.3**	**8,900**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
4,4'-DDT	**3.3**	**7,900**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Dieldrin	**5**	**200**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endodulfan I	**2,400**	**24,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endodulfan II	**2,400**	**24,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endosulfan Sulfate	**2,400**	**24,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin	**14**	**11,000**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin Aldehyde	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Endrin Ketone	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Heptachlor	**42**	**2,100**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Heptachlor Epoxide	**NV**	**NV**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Inorganics (mg/kg)																										
Cyanide	**27**	**27**	NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT		NT	
Aluminum	**NV**	**NV**	10,300	D	5,660		9,390		4,740		13,300	D	20,000		11,000		15,000		26,000	D	6,700		11,000		8,100	
Antimony	**NV**	**NV**			6.12																		8.2			
Arsenic	**13**	**16**	**72.2**		11.9		8.36		7.6		5.4	D	6.5		5.9		3.4		6.9	D	9.8		4.7		10	
Barium	**350**	**400**	**2,890**	DM	49.8		100		52		61.8	D	120	J	79	J	140	J	**420**	DM	47	J	**2,100**	J	**460**	J
Beryllium	**7.2**	**72**	0.473	J	0.45	J	0.468	J			0.435	J	0.92	J	0.74	J	2	J	2.2	DJ	0.49	J	0.44	J	0.41	J
Cadmium	**2.5**	**4.3**	**15.1**				0.429	J	0.723	J			0.29	J	0.41	J			0.36	J	0.38	J	**4.9**		1.5	
Calcium	**NV**	**NV**	29,800	J	152,000	J	91,300	J	27,800		4,420	DM	14,000	J	56,000	J	130,000	J	92,000	DJ	140,000	J	80,000	J	54,000	J
Chromium	**30**	**180**	27.2		23.2		17.3		16.9	J	15.8	D	25		**35**		15		23		20		17		13	
Cobalt	**NV**	**NV**	3.82	J	6.81		4.58	J	3.96	J	6.91	D	10		7		4.8	J	8.1		7.6		6.7		4.7	J
Copper	**50**	**270**	**242**	J	25	J	**63.1**	J	34.3		13.9	D	20		27		15		170	D	49		**88**		**150**	
Iron	**NV**	**NV**	19,900		14,100		17,200		17,000		17,800	D	26,000		18,000		12,000		27,000		19,000		24,000		16,000	
Lead	**63**	**400**	**2,010**	M	37.5		**168**		**255**	J	15.7	D	42		**73**		45		210		**68**		**1,500**		**330**	
Magnesium	**NV**	**NV**	7,190	J	29,000	J	15,600	J	9,540	J	4,200	DM	7,000		22,000		20,000		10,000	D	21,000		13,000		11,000	
Manganese	**1,600**	**2,000**	295	D	244		489		254		411	D	340	J	140	J	**2,900**	J	2,900	DJ	320	J	340	J	660	J
Mercury	**0.18**	**0.81**	0.106	J	0.0442	J	0.0343	J	0.0737		0.0555		0.063	J	0.075	J		R		R	**0.27**		0.014		0.12	
Nickel	**30**	**310**	19.8		24.1		24.3		15.2	J	13.2	D	24		35		8.9		26	D	22		25		12	
Potassium	**NV**	**NV**	1,220	J	2,360	J	1,840	J	815	J	1,190	DM	2,700		2,300		2,100		2,400		2600		2,500		1,300	
Selenium	**3.9**	**180**		D			0.627	J	1.04				0.54	J			1.1	J	1.5	D	1.6		**4.5**		0.69	J
Silver	**2**	**180**															0.83	J	0.66	J	1	J	1.3		0.88	J
Sodium	**NV**	**NV**	556	J	317	J	354	J	334				440	J	230	J	740	J	500	DJ		UJ	470	J	530	J
Thallium	**NV**	**NV**															2	J			4.4		1.7	J		
Vanadium	**NV**	**NV**	24.9		47.8		21.6		12.8		24.7	D	34		21		18		27		28		25		20	
Zinc	**109**	**10,000**	**15,800**		69		**176**		88.2		51.2	D	100	J	**130**	J	77	J	**310**	DM	88	J	**13,000**	J	**720**	J

NOTES:
1. Only compounds detected in one or more soil samples are presented in this table.
2. Blank Microsoft Excel spreadsheet cell indicates compound was not detected.
3. NT indicates compound was not tested.
4. Analytical testing completed by Paradigm Environmental Services.
5. Results presented for TP-17, 2-4 ft; TP-23, 8-10 ft; TP-65 6 to 8 ft; TP-67, 0 to 2 ft; TP-71, 8 to 10 ft; TP-76, 13 to 15 ft; and TP-80, 2 to 4 ft are the higher of these sample and their respective duplicates.
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7. ug/kg = parts per billion, mg/kg = parts per million.
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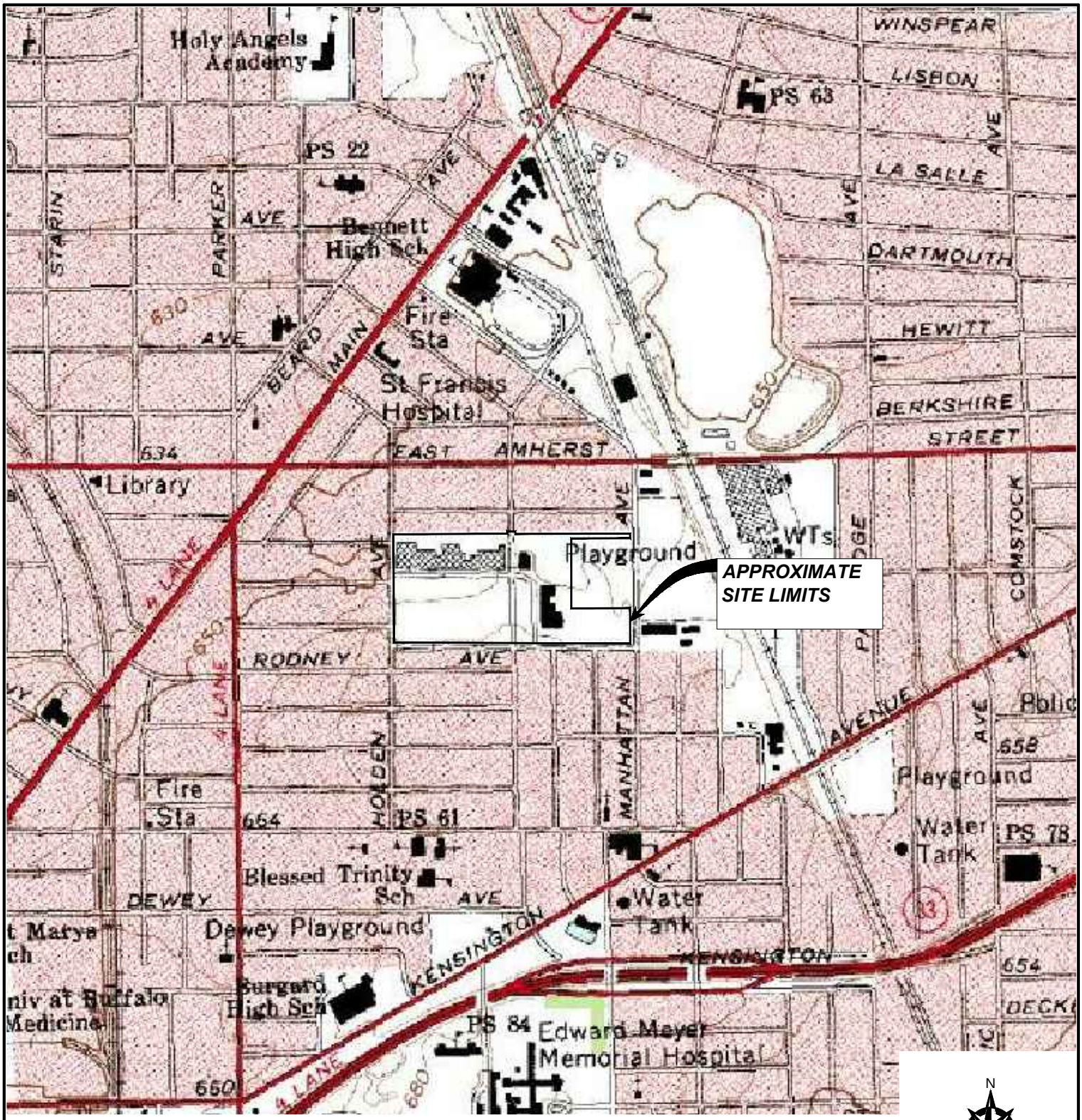
9. NV = no value; NS = not specified; NT = not tested; ND = non detect.
10. Concentrations that are bolded exceed the Part 375 Unrestricted SCOs and the & shaded exceed their respective Part 375 Residential SCOs.
11. ** = Cleanup criteria applies to the sum of total xylene compounds.
12. The reporting limit for these SVOCs, <3,300 ug/kg were elevated likely due to a matrix interference in the material analyzed. Reporting limit exceeds some of the SVOCs RRSCOs.

TABLE 3
Soil/Fill Exceedances of ISCOs and PELT
(Remedial Investigation)
Brownfield Cleanup Site
129 Holden Street
Buffalo, New York

Parameter	Part 375 ISCO (ppm)	Number of Exceedances above ISCO	Proposed Excavation Limit Thresholds (ppm)	Number of Exceedances of PELT
Arsenic	16	10	29.6	4
Chromium	6,800	1	9,145	1
Copper	10,000	1	10,000	1
Nickel	10,000	1	10,000	1
Zinc	10,000	3	10,000	3
Benzo (a) anthracene	11.0	5	21.173	4
Benzo (a) pyrene	1.1	26	17.615	4
Benzo (b) fluoranthene	11.0	6	18.022	4
Dibenz (a,h) anthracene	1.1	12	3.24	6
Indeno (1,2,3-cd) pyrene	11.0	5	13.149	5

FIGURES



NEW YORK

NOTE:
BASE MAP ADAPTED FROM U.S.G.S. TOPOGRAPHIC MAPS DOWNLOADED FROM TERRASERVER.MICROSOFT.COM

0 500 1000 2000
SCALE IN FEET

N
W E
S

NO.	ISSUE/DESCRIPTION	BY	DATE

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
535 WASHINGTON STREET 11th FLOOR
BUFFALO, NEW YORK 14203
(716) 685-2300

PREPARED FOR:
HIGHLAND PARK VILLAGE, LLC

129 HOLDEN STREET
BUFFALO, NEW YORK
BROWNFIELD CLEANUP PROGRAM
SITE NO. C915261

SITE MANAGEMENT PLAN
LOCUS PLAN

FIGURE
1

PROJ MGR: CZB	REVIEWED BY:	CHECKED BY:	DATE	PROJECT NO.	REVISION NO.
DESIGNED BY:	DRAWN BY: DEW	SCALE: AS SHOWN	JULY 2015	21.0056642.10	

NOTES:

1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.nysgis.state.ny.us/gateway/mg/index.html AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

0 100 200 400

SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

129 HOLDEN STREET
BUFFALO, NEW YORK
BROWNFIELD CLEANUP PROGRAM SITE NO. C915261

SITE MANAGEMENT PLAN

SITE PLAN

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
535 WASHINGTON STREET 11th FLOOR
BUFFALO, NEW YORK 14203
(716) 685-2300

PREPARED FOR:
HIGHLAND PARK VILLAGE, LLC

PROJ MGR: CZB	REVIEWED BY:	CHECKED BY:	FIGURE 2
DESIGNED BY:	DRAWN BY: DEW	SCALE: AS SHOWN	
DATE JULY 2015	PROJECT NO. 21.0056642.10	REVISION NO.	

APPROXIMATE BROWNFIELD CLEANUP PROGRAM SITE

129 HOLDEN STREET

SEE FIGURE A-2b FOR REMAINDER OF PROPERTY

FOR REMAINING PROTION SEE MAP 090.30

HILL ST

HOLDEN ST

CENTRAL PARK AVE

(60' WIDE)

(30' WIDE)

MC 479

BLOCK J

N

W E

S

0 50 100 200

SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

129 HOLDEN STREET
BUFFALO, NEW YORK

SITE MANAGEMENT PLAN
TAX MAP 1 of 2

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
535 WASHINGTON STREET 11th FLOOR
BUFFALO, NEW YORK 14203
(716) 685-2300

PREPARED FOR:
HIGHLAND PARK VILLAGE, LLC

PROJ MGR: CZB	REVIEWED BY:	CHECKED BY:	FIGURE
DESIGNED BY:	DRAWN BY: DEW	SCALE: AS SHOWN	3a
DATE JULY 2015	PROJECT NO. 21.0056642.10	REVISION NO.	

APPROXIMATE BROWNFIELD CLEANUP PROGRAM SITE

129 HOLDEN STREET

SEE FIGURE A-2a FOR REMAINDER OF PROPERTY
FOR REMAINING PROTION SEE MAP 090.30

FOR PARCEL NUMBER AND ACREAGE SEE MAP 090.29-2-44

HILL ST

MANHATTAN AVE (66' WIDE)

CENTRAL PARK AVE (30' WIDE)

(60' WIDE)

2.15 A(C)
18.1

2.89 A(C)
18.2

N
W
E
S

0 50 100 200
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

129 HOLDEN STREET
BUFFALO, NEW YORK

SITE MANAGEMENT PLAN
TAX MAP 2 of 2

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
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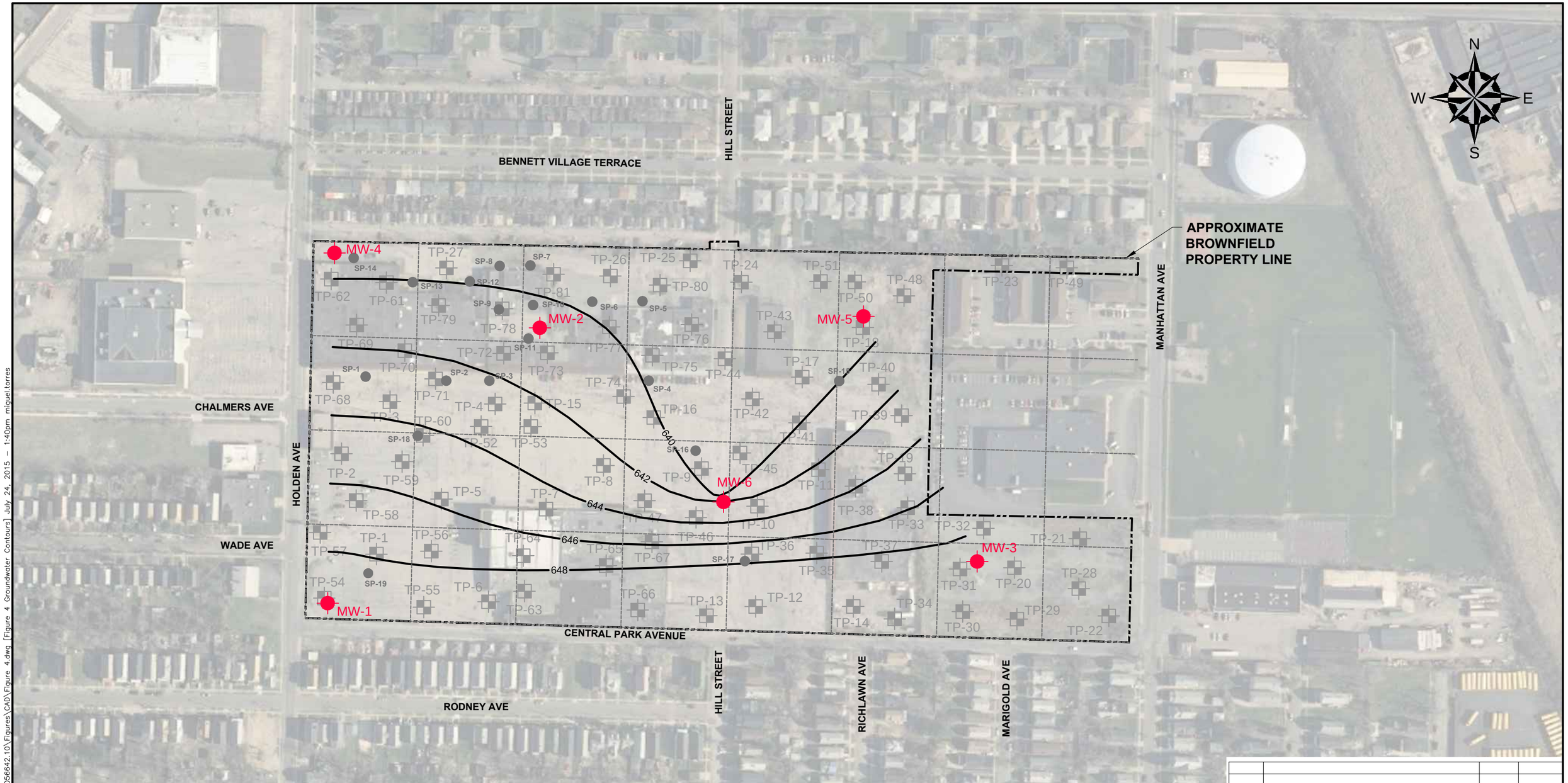
BUFFALO, NEW YORK 14203
(716) 685-2300

PREPARED FOR:
HIGHLAND PARK VILLAGE, LLC

PROJ MGR: CZB	REVIEWED BY:	CHECKED BY:	FIGURE
DESIGNED BY:	DRAWN BY: DEW	SCALE: AS SHOWN	3b
DATE JULY 2015	PROJECT NO. 21.0056642.10	REVISION NO.	



LEGEND:

- TP-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST PITS COMPLETED BY NATURE'S WAY ENVIRONMENTAL
- MW-1 — APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELLS COMPLETED BY NATURE'S WAY ENVIRONMENTAL
- SP-3 — APPROXIMATE LOCATION AND DESIGNATION OF SOIL PROBES COMPLETED BY TREC ENVIRONMENTAL, INC. ON OCTOBER 11, 2011
- 648 — GROUNDWATER CONTOUR LINES WITH ELEVATIONS
- ---------- GRID SHOWN IS 1 ACRE INTERVALS

NOTES:

1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.nysgis.state.ny.us/gateway/mg/index.html AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

0 100 200 400
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

129 HOLDEN STREET
BUFFALO, NEW YORK

SITE MANAGEMENT PLAN

GROUNDWATER CONTOUR MAP

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
535 WASHINGTON STREET 11th FLOOR
BUFFALO, NEW YORK 14203
(716) 685-2300

PREPARED FOR:
HIGHLAND PARK VILLAGE, LLC

PROJ MGR: CZB	REVIEWED BY:	CHECKED BY:	FIGURE 4
DESIGNED BY:	DRAWN BY: DEW	SCALE: AS SHOWN	
DATE JULY 2015	PROJECT NO. 21.0056642.10	REVISION NO.	

LEGEND:

- TP-1 — APPROXIMATE LOCATION AND DESIGNATION OF TEST PITS COMPLETED BY NATURE'S WAY ENVIRONMENTAL
- BEDROCK WELL
- SOIL/ FILL EXCAVATION AROUND HOT SPOTS
- GRID SHOWN IS 1 ACRE INTERVALS

NOTES:

1. BASE MAP ADAPTED FROM A 2008 AERIAL PHOTO AND PROPERTY LINE DOWNLOADED FROM http://www.nysgis.state.ny.us/gateway/mg/index.html AND FIELD OBSERVATIONS.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

0 100 200 400
SCALE IN FEET

NO.	ISSUE/DESCRIPTION	BY	DATE

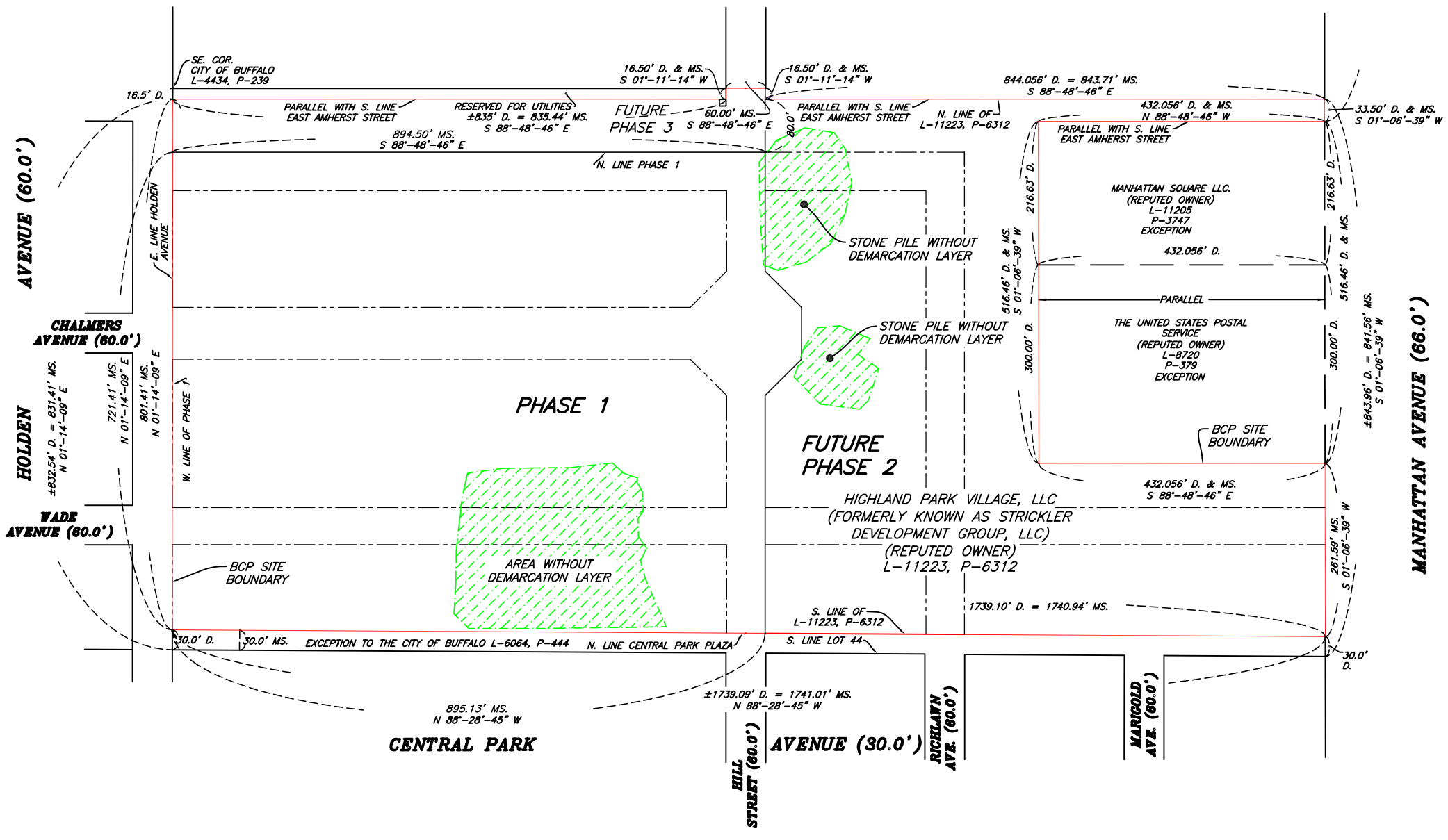
129 HOLDEN STREET
BUFFALO, NEW YORK

SITE MANAGEMENT PLAN
HOT SPOT EXCAVATIONS

PREPARED BY:
GZA GeoEnvironmental of N.Y.
Engineers and Scientists
535 WASHINGTON STREET 11th FLOOR
BUFFALO, NEW YORK 14203
(716) 685-2300

PREPARED FOR:
HIGHLAND PARK VILLAGE, LLC

PROJ MGR: CZB	REVIEWED BY:	CHECKED BY:	FIGURE 5
DESIGNED BY:	DRAWN BY: DEW	SCALE: AS SHOWN	
DATE JULY 2015	PROJECT NO. 21.0056642.10	REVISION NO.	



NOTES:
-ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MAP MARKED WITH THE SIGNATURE AND AN ORIGINAL OF THE LAND SURVEYOR'S SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

-UNAUTHORIZED ALTERATION OR ADDITION TO ANY SURVEY DRAWING, DESIGN, SPECIFICATION, PLAN OR REPORT IS A VIOLATION OF SECTION 7209, PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

LEGEND:

AC.	= ACRES	N	= NORTH
AVE.	= AVENUE	POB	= POINT OF BEGINNING
COR.	= CORNER	N.	= SOUTH
D.	= DEED	W.	= WEST
E.	= EAST	W/	= WITH
EX.	= EXISTING		
IP.	= IRON PIPE/PIN	(#)	= REPUTED OWNER TABLE REFERENCE No.
L/-	= LIBER		
MP.	= MAP		
MS.	= MEASURED		
P/-	= PAGE		

LP Ciminelli
Integrity and ingenuity at work
2421 MAIN ST.
BUFFALO, NY 14214
ERIE COUNTY

SUBDIVISION PLAT MAP OF "HIGHLAND PARK" PHASE 1 129 HOLDEN STREET

BEING PART OF LOT 44
TOWNSHIP 11
RANGE 8
OF THE HOLLAND LAND COMPANY'S SURVEY
TAX MAP NUMBER
90.29-2-43.1

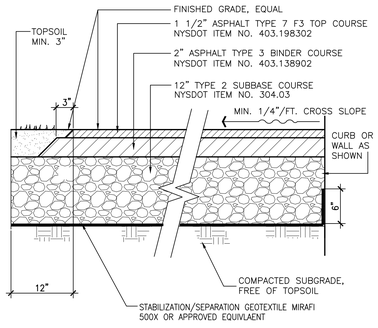
wendel
Centerpointe Corporate Park
375 Essjay Road, Suite 200
Williamsville, NY 14221
www.wendelcompanies.com
p:716.688.0766 f:716.625.0825
Wendel WD Architecture, Engineering, Surveying and Landscape Architecture P.C.

NO.	BY	REVISIONS	DATE

DWG. TITLE

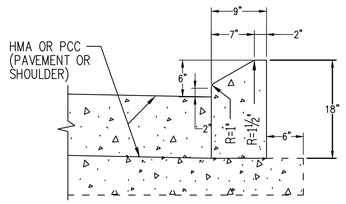
AREAS WITHOUT DEMARCATION LAYER

DATE	7/23/2015
SCALE	AS NOTED
DWN.	BSS CHK. CJS
PROJ. No.	324720
DWG. No.	FIG 6

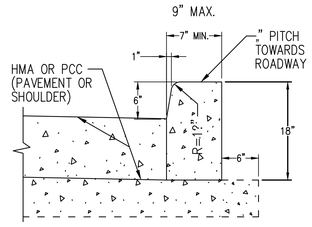


NOTE:
1. DIMENSIONS GIVEN ON PLAN ARE TAKEN FROM EDGE OF ASPHALT TOP COURSE.
2. PAVEMENT SECTION MAY CHANGE BASED ON RESULTS OF GEOTECHINCAL REPORT.

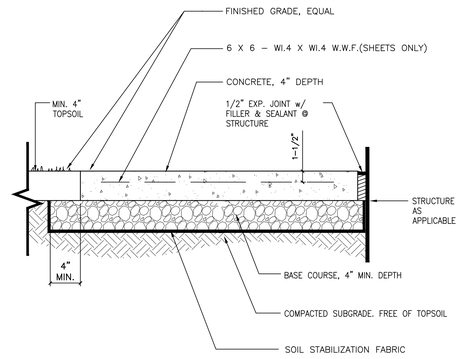
1 ASPHALT PAVEMENT - STANDARD DUTY
NTS



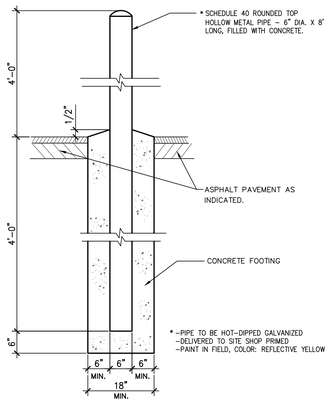
2 CONCRETE MOUNTABLE CURB
NTS



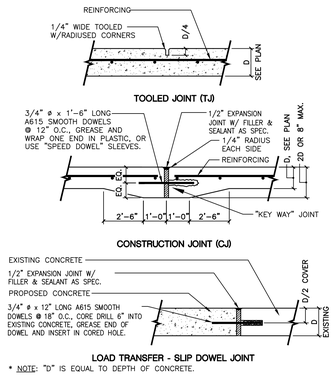
3 CONCRETE VERTICAL CURB
NTS



4 CONCRETE SIDEWALK
NTS

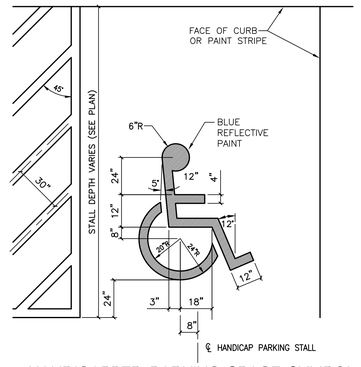


5 BOLLARD (filled w/ concrete)
NTS

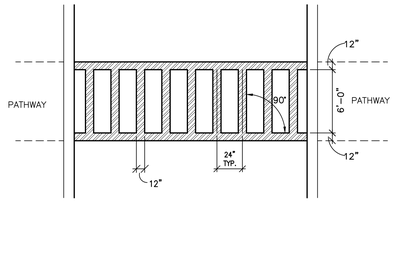


* NOTE: "D" IS EQUAL TO DEPTH OF CONCRETE.

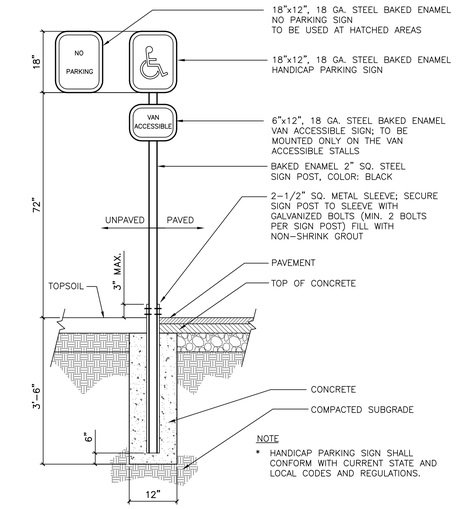
6 TYPICAL CONCRETE JOINTS
NTS



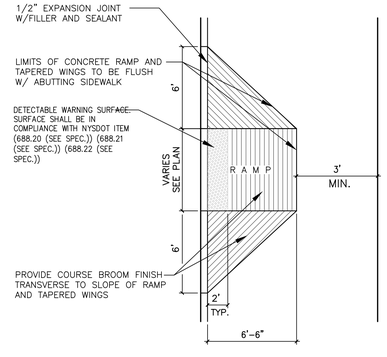
7 HANDICAPPED PARKING SPACE SYMBOL
NTS



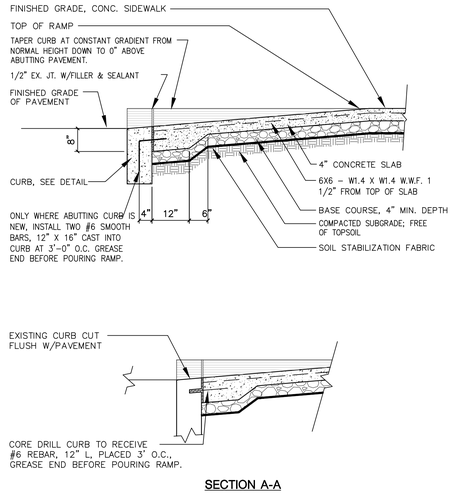
8 PAINTED CROSSWALK
NTS



9 HANDICAPPED PARKING / NO PARKING SIGN
NTS

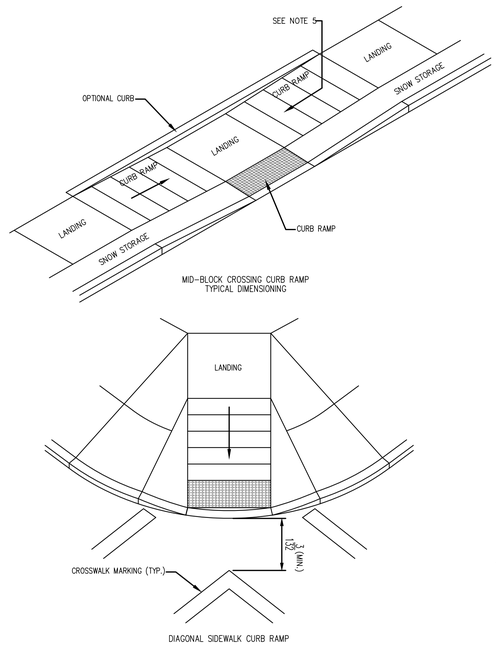


PLAN



SECTION A-A

NOTE:
* ALL SLOPES TO BE OF CONSTANT GRADIENT



1. GENERAL NOTES:

   THE DIMENSIONS AND SLOPES PRESENTED IN THE DETAILS ARE THE MINIMUM NECESSARY TO COMPLY WITH THE ADA AND DOT STANDARDS. ANY DEVIATION LESS THAN THE MINIMUM WIDTH OR GREATER THAN THE MAXIMUM SLOPE FROM THESE STANDARDS MUST BE DOCUMENTED WITH THE STANDARDS BEING MET TO THE GREATEST EXTENT PRACTICABLE AND CONSISTENT WITH THE MOST CURRENT ADAAG.

2. CURB RAMPS, LANDINGS AND BLENDED TRANSITIONS MAY REQUIRE THE USE OF DETECTABLE WARNINGS. DETECTABLE WARNINGS ON THIS SHEET ARE SHOWN FOR ILLUSTRATION ONLY. REFER TO THE DETECTABLE WARNING DETAILS ON SHEET 4 OF 4 FOR DETAILS ON PLACEMENT, ORIENTATION & DIMENSIONS. REFER TO CHAPTER 18 OF THE HIGHWAY DESIGN MANUAL FOR MORE INFORMATION.

3. CURB RAMP NOTES:

4. THE MINIMUM WIDTH FOR SIDEWALK CURB RAMPS IS 5'–0".

5. THE RUNNING SLOPE OF A CURB RAMP SHALL BE 1:20 (5%) MINIMUM (PREFERRED) AND 1:12 (8.33%) MAXIMUM.

6. WHERE THE SLOPE OF THE ROADWAY EXCEEDS 8.33% THE CURB RAMP LENGTH IS THE LENGTH NECESSARY TO MEET THE EXISTING SIDEWALK. IT IS NOT NECESSARY THAT THE RAMP LENGTH EXCEED 15'–0".

7. THE CROSS SLOPE OF CURB RAMPS SHOULD BE AS FLAT AS POSSIBLE, NOT TO EXCEED 1:50 (2%). THE CROSS SLOPE AT MIDBLOCK CROSSINGS MAY BE WARPED TO MEET STREET OR HIGHWAY GRADE.

8. THE VERTICAL ALIGNMENT OF A CURB RAMP, EXCLUDING THE FLARES, SHALL BE PLANAR. GRADE BREAKS SHALL BE FLUSH AND PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN.

9. RAMP TRANSITIONS BETWEEN WALKS, LANDINGS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES (1/4" MAX).

   WHERE A PEDESTRIAN CIRCULATION PATH CROSSES THE CURB RAMP, FLARED SIDES WITH A SLOPE OF 10% MAXIMUM, MEASURED PARALLEL TO THE CURB LINE, SHALL BE PROVIDED.

10. LANDING NOTES:

11. LANDINGS SHALL HAVE A MINIMUM CLEAR DIMENSION OF A 5'–0" BY 5'–0" EXCEPT AT THE BOTTOM OF RAMPS TYPE 1 & 2 ON SHEET 2 OF 4.

    THE RUNNING AND CROSS SLOPES ON LANDINGS AT INTERSECTIONS IS 1:50 (2%) MAXIMUM. THE RUNNING AND CROSS SLOPES AT MIDBLOCK CROSSINGS MAY BE WARPED TO MEET STREET OR HIGHWAY GRADE.

NOTE: THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, LANDING, OR BLENDED TRANSITION SHALL BE 5% MAXIMUM

COUNTER SLOPE CONDITIONS

10 HANDICAP CURB-CUTS
NTS

CITY OF BUFFALO

HIGHLAND PARK

HIGHLAND PARK
PHASE 1

CITY OF BUFFALO
SITE PLAN
APPROVAL SET

wendel
535 Washington Street, Suite 603
Buffalo, NY 14203
www.wendelcompanies.com
p:716.688.0766 f:716.625.6825
Wendel WD Architecture, Engineering, Surveying and Landscape Architecture P.C.

CONSTRUCTION MANAGER
LPCiminelli
Integrity and ingenuity at work

PROGRESS PRINT
4/15/2015
NOT FOR CONSTRUCTION

Figure 7

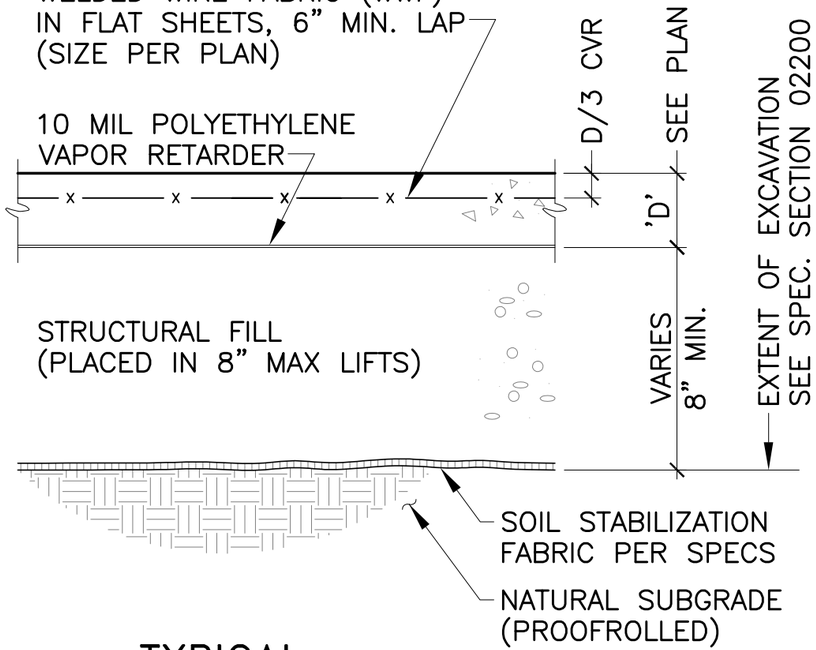
Typical Hardscape Structures

NO.	BY	REVISIONS	DATE
DWG. TITLE			

SITE DETAILS

DATE	MAY 1, 2015		
SCALE	AS SHOWN		
DWN.	CC1	CHK.	TJZ
PROJ. No.	324715		
DWG. No.	C500		

NOTE: USE OF VAPOR RETARDER REQUIRES WRITTEN ASSURANCE FROM FLATWORK CONTRACTOR THAT CURLING OR CUPPED SLAB WILL BE GROUND SMOOTH AND LEVEL IF REQUIRED



1 TYPICAL SLAB ON GRADE DETAIL

FOR AREAS WITH VCT, TILE OR CARPET COORDINATE WITH ARCH DRAWINGS

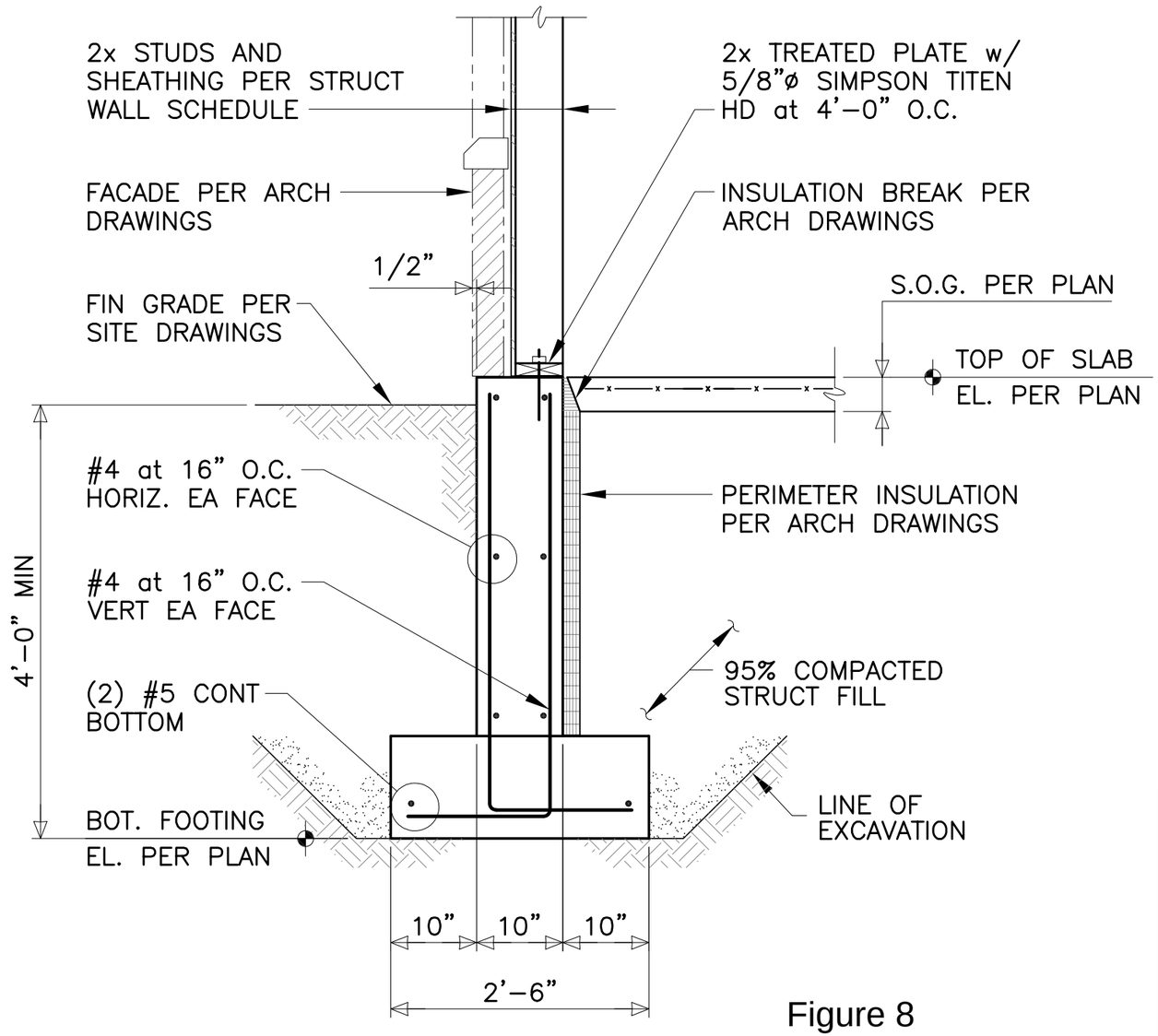


Figure 8
Typical Slab on Grade

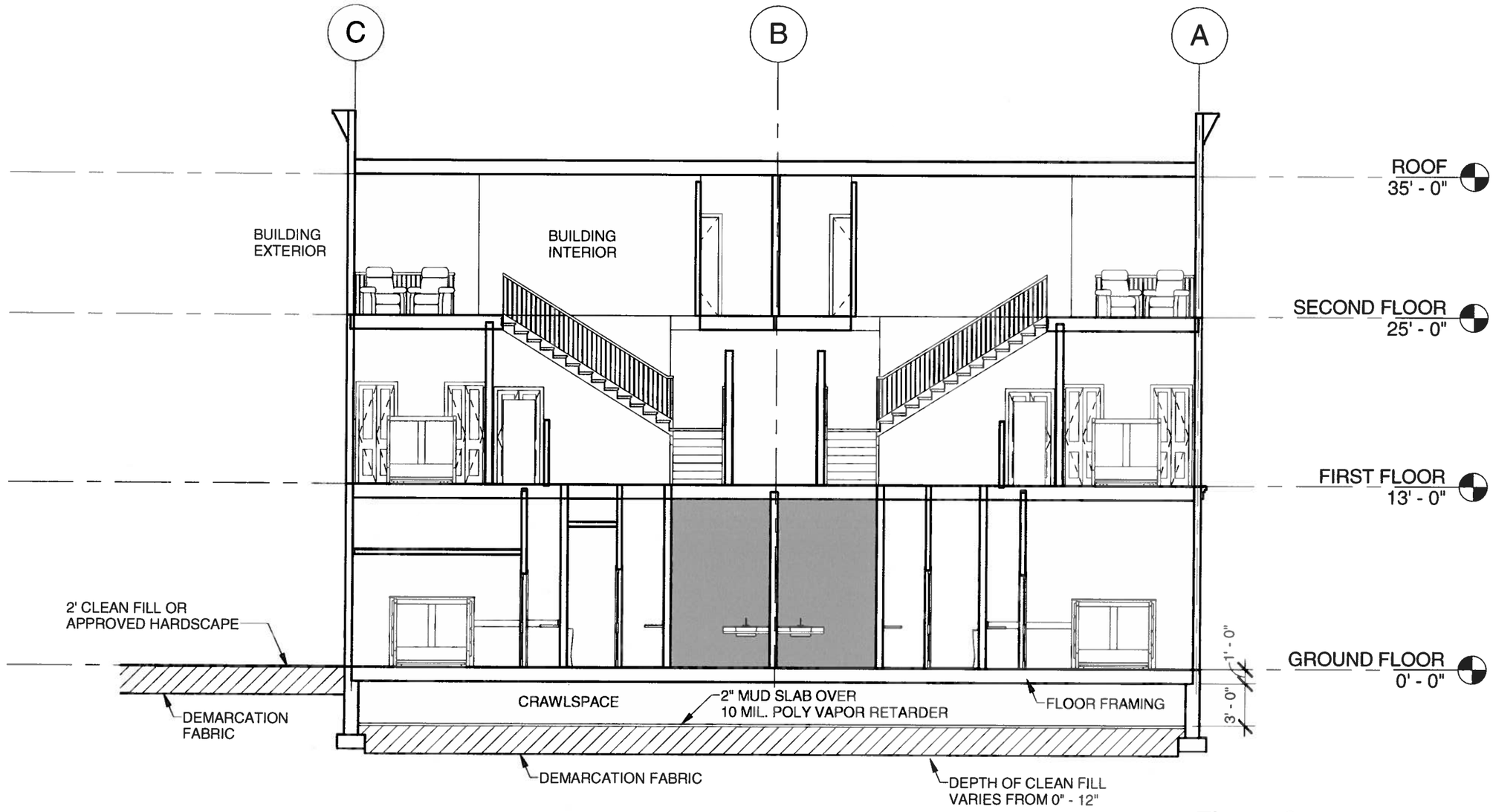
tredo
ENGINEERS
755 Seneca Street
Suite 202
Buffalo, New York 14210
716.876.7147 ph
716.876.0667 fax

HIGHLAND PARK
PHASE 1
BUFFALO, NEW YORK

TITLE
TYPICAL DETAIL

△

DATE
4-28-15
JOB No
15-36
SKETCH No
SKS-1



NOTE:
1. IF EXCAVATION PENETRATES EXISTING DEMARCATION FABRIC NEW DEMARCATION WILL BE INSTALLED AT BOTTOM OF MUD SLAB.

Figure 9
Typical Paved Crawlspace Over Vapor Barrier

1 BUILDING SECTION
1/8" = 1'-0"

wendel
www.wendelcompanies.com

LP CIMINELLI
LOFTS at HIGHLAND PARK
BUILDING SECTION

Proj. No.:	324720
Date:	04-20-2016
Ref. DWG.:	
Sheet No.:	100

APPENDIX A – LIST OF SITE CONTACTS

Name	Phone/Email Address
Highland Park Village LLC	(716) 855-1200 jciminelli@lpciminelli.com
Mr. Bart A. Klettke	(716) 844-7035 bart.klettke@gza.com
Mr. Jaspal Walia	(716) 851-7220 jaspal.walia@dec.ny.gov (716)851-7220
Mr. Chad Staniszewski	(716) 851-7220 Chad.Staniszewski@dec.ny.gov
NYSDEC Site Control	(518) 402-9567 derweb@dec.ny.gov
Mr. Craig Slater	(716) 845-6760 cslater@cslaterlaw.com

APPENDIX B – ENVIRONMENTAL EASEMENT

CHRISTOPHER L. JACOBS, ERIE COUNTY CLERK
REF:

DATE:10/5/2015
TIME:11:00:50 AM
RECEIPT: 15161190

PARALEGAL SERVICES OF BUFFALO
ACCOUNT #: 9273

ITEM - 01 785
RECD: 10/5/2015 11:05:18 AM
FILE: 2015203065 BK/PG D 11286/1863
Deed Sequence: TT2015004964
HIGHLAND PARK VILLAGE LLC

Recording Fees	95.50
TP584	10.00

Subtotal 105.50

TOTAL DUE	$105.50
PAID TOTAL	$105.50
PAID ESCROW	$105.50

REC BY: Faith
COUNTY RECORDER

Box 140 Slater

FILED

County: Erie Site No: C915261 Brownfield Cleanup Agreement Index : C915261-01-12 as amended October 31, 2013

OCT - 5 2015

ERIE COUNTY
CLERK'S OFFICE

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36

OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 23RD day of SEPTEMBER, 2015 between Owner(s) Highland Park Village, LLC, having an office at 2421 Main Street, Buffalo, NY 14214, 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 129 Holden Street in the City of Buffalo, 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 90.29 Block 2 Lot 43.1, being the same as that property conveyed to Grantor by deed dated May 22, 2012 and recorded in the Erie County Clerk's Office in Liber and Page 11223/6302. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 27.1 +/- acres, and is hereinafter more fully described in the Land Title Survey dated July 17, 2015 prepared by Christopher J. Scott, Land Surveyor of Wendel WD Architecture, Engineering, Surveying and Landscape Architecture, P.C., 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: C915261-01-12 as amended October 31, 2013, 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:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), 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 purposes as defined in 6NYCRR 375-1.8(g)(2)(i), 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: C915261
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.

Highland Park Village, LLC:

By: _____

Print Name: Louis Ciminelli

Title: Authorized Member Date: 9/9/15

Grantor's Acknowledgment

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

On the 9th day of Sept, in the year 20 15, before me, the undersigned, personally appeared Louis Ciminelli, 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.

Carol E Brauer
Notary Public - State of New York

CAROL E. BRAUER
Notary Public, State of New York
Qualified in Erie County
My Commission Expires July 25, 2018

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 23rd day of September, in the year 2015, 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

Environmental Easement Description
For 129 Holden Street Redevelopment Site
BCP Site No. C915261

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Lot 44, Township 11, Range 8 of the Holland Land Company's Survey, and more particularly bounded and described as follows:

Beginning at a point on the westerly line of Manhattan Avenue, being 66.0 feet wide, 504.50 feet south of the southerly line of East Amherst Street, being 60.0 feet wide;

Thence southerly along the westerly line of said Manhattan Avenue, a distance of 33.50 feet to northeast corner of lands conveyed to Manhattan Square LLC., by deed recorded in Erie County Clerk's Office in Liber 11205 of Deeds at Page 3747;

Thence westerly along the northerly line of said lands conveyed to Manhattan Square LLC., a distance of 432.056 feet to the northwest corner of said lands;

Thence southerly along the westerly line of said lands conveyed to Manhattan Square LLC., and lands conveyed to The United States Postal Service by deed recorded in Erie County Clerk's Office in Liber 8720 of Deeds at Page 379, a distance of 516.46 feet, to the southwest corner of said lands conveyed to The United States Postal Service;

Thence easterly along the south line of said lands conveyed to The United States Postal Service, a distance of 432.056 feet, to a point in the westerly line of said Manhattan Avenue;

Thence southerly along the westerly line of said Manhattan Avenue, a distance of 261.59 feet, to a point on the northerly line of lands conveyed to the City of Buffalo by a deed recorded in Erie County Clerk's Office in Liber 6064 of deeds at Page 444, (also known as Central Park Avenue, being 30.0 feet wide);

Thence westerly along the northerly line of said lands conveyed to the City of Buffalo by Liber 6064 of deeds at Page 444, a distance of 1740.94 feet, to a point on the easterly line of Holden Avenue, being 66.0 feet wide;

Thence northerly along the easterly line of said Holden Avenue, a distance of 801.41 feet, to a point that is 504.50 feet south of the southerly line of said East Amherst Street;

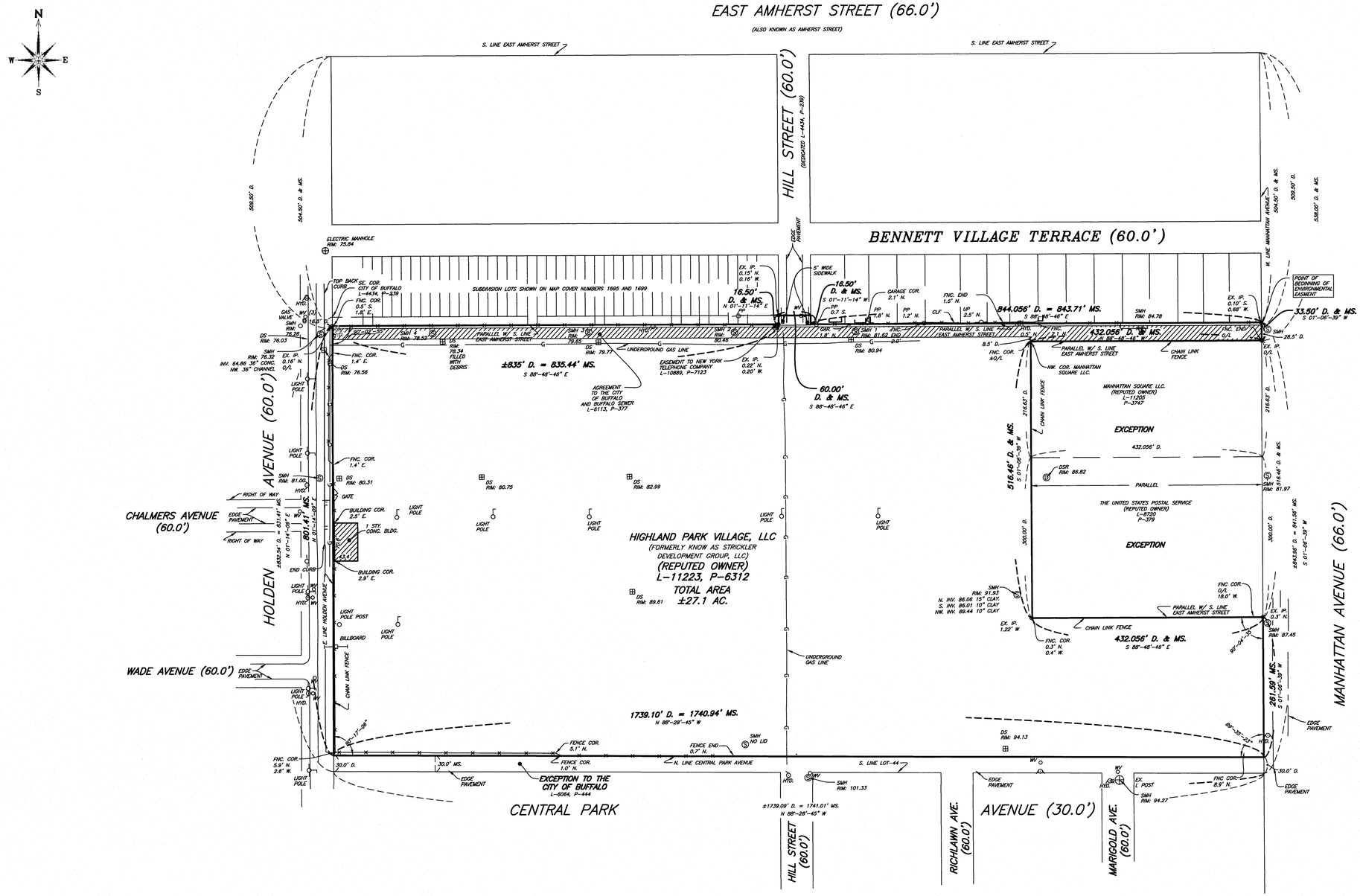
Thence easterly parallel with the southerly line of said East Amherst Street, a distance of 835.44 feet, to the southwest corner of Hill Street, being 60.0 feet wide;

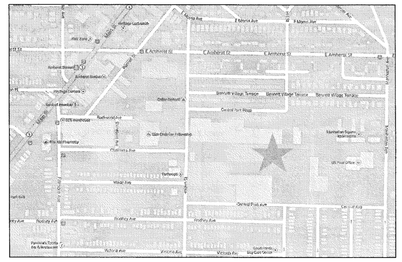
Thence northerly along the west line of said Hill Street, a distance of 16.5 feet to a point;

Thence westerly at right angles to the last described line, a distance of 60.00 feet to a point on the easterly line of said Hill Street;

Thence southerly along the easterly line of said Hill Street, a distance of 16.50 feet, to the southeast corner of said Hill Street;

Thence easterly parallel with the southerly line of said East Amherst Street, a distance of 843.71 feet to the Point of beginning. Containing 27.1 acres of land, more or less.





PROJECT LOCATION SKETCH
NOT TO SCALE

ENVIRONMENTAL EASEMENT AREA DESCRPTION FOR 129 HOLDEN STREET DEVELOPMENT, CENTRAL PARK PLAZA TITLE No.1213-40443

ALL THAT TRACT OR PARCEL OF LAND SITUATED IN THE CITY OF BUFFALO, COUNTY OF ERIE AND STATE OF NEW YORK, BEING PART OF LOT FORTY-FOUR (44), TOWNSHIP ELEVEN (11), RANGE EIGHT (8) OF THE HOLLAND LAND COMPANY'S SURVEY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WESTERLY LINE OF MANHATTAN AVENUE FIVE HUNDRED FOUR AND FIVE TENTHS (504.5) FEET SOUTH OF THE SOUTHERLY LINE OF EAST AMHERST STREET; THENCE SOUTHERLY ALONG THE WESTERLY LINE OF MANHATTAN AVENUE ABOUT EIGHT HUNDRED FORTY-THREE AND NINETY-SIX HUNDREDTHS (843.96) FEET TO THE SOUTHERLY LINE OF SAID LOT NUMBER FORTY-FOUR (44); THENCE WESTERLY ALONG SAID SOUTHERLY LINE OF LOT NUMBER FORTY-FOUR (44) ABOUT ONE THOUSAND SEVEN HUNDRED THIRTY-NINE AND SEVEN HUNDREDTHS (1739.07) FEET TO THE EASTERLY LINE OF HOLDEN AVENUE AS EXTENDED SOUTHERLY; THENCE NORTHERLY ON SAID EASTERLY LINE OF HOLDEN AVENUE, AS EXTENDED SOUTHERLY, EIGHT HUNDRED THIRTY-TWO AND FIFTY-FOUR HUNDREDTHS (832.54) FEET MORE OR LESS TO A POINT IN SAID EASTERLY LINE OF HOLDEN AVENUE FIVE HUNDRED FOUR AND FIVE TENTHS (504.5) FEET SOUTH OF THE INTERSECTION OF SAID EASTERLY LINE OF HOLDEN AVENUE WITH THE SOUTH LINE EAST AMHERST STREET, SAID POINT BEING SIXTEEN AND FIVE TENTHS (16.5) FEET SOUTH OF THE SOUTHEAST CORNER OF LANDS CONVEYED FOR THE EXTENSION OF HOLDEN AVENUE SOUTHERLY AS CONVEYED TO BUFFALO CEMENT COMPANY LTD. TO THE CITY OF BUFFALO BY DEED RECORDED IN ERIE COUNTY CLERKS OFFICE IN LIBER 4434 OF DEED AT PAGE 239; THENCE EASTERLY ALONG A LINE PARALLEL WITH THE SOUTHERLY LINE OF EAST AMHERST STREET ABOUT EIGHT HUNDRED THIRTY-FIVE (835) FEET TO THE WESTERLY LINE OF HILL STREET AS EXTENDED SOUTHERLY; THENCE NORTHERLY ALONG THE WESTERLY LINE OF HILL STREET, AS EXTENDED SOUTHERLY, SIXTEEN AND FIVE TENTHS (16.5) FEET TO THE SOUTHWESTERLY CORNER OF LAND CONVEYED TO THE CITY OF BUFFALO FOR HILL STREET, AS DESCRIBED IN DEED DATED SEPTEMBER 27, 1948 AND RECORDED NOVEMBER 18, 1948 IN ERIE COUNTY CLERKS OFFICE IN LIBER 4434 OF DEEDS AT PAGE 239; THENCE EASTERLY ALONG THE SOUTHERLY LINE OF LANDS SO CONVEYED TO THE CITY OF BUFFALO FOR HILL STREET, AS AFORESAID SIXTY (60) FEET TO THE SOUTHWESTERLY CORNER THEREOF; THENCE SOUTHERLY ALONG THE EASTERLY LINE OF HILL STREET, AS EXTENDED SOUTHERLY SIXTEEN AND FIVE TENTHS (16.5) FEET TO A LINE PARALLEL WITH THE SOUTH LINE OF EAST AMHERST STREET AND DISTANT SOUTHERLY THEREFROM FIVE HUNDRED FOUR AND FIVE TENTHS (504.5) FEET; THENCE EASTERLY ALONG SAID LAST MENTIONED PARALLEL LINE ABOUT EIGHT HUNDRED FORTY-FOUR AND FIFTY-SIX THOUSANDTHS (844.056) FEET TO THE WESTERLY LINE OF MANHATTAN AVENUE AT THE POINT OR PLACE OF BEGINNING.

BEGINNING AT A POINT IN THE WESTERLY LINE OF MANHATTAN AVENUE FIVE HUNDRED THIRTY EIGHT (538) FEET SOUTH OF AMHERST STREET; THENCE SOUTHERLY ALONG THE WESTERLY LINE OF MANHATTAN AVENUE FIVE HUNDRED SIXTEEN AND FORTY-SIX HUNDREDTHS (516.46) FEET; THENCE WESTERLY PARALLEL WITH THE AMHERST STREET FOUR HUNDRED THIRTY-TWO AND FIFTY-SIX THOUSANDTHS (432.056) FEET; THENCE NORTHERLY PARALLEL WITH MANHATTAN AVENUE FIVE HUNDRED SIXTEEN AND FORTY-SIX HUNDREDTHS (516.46) FEET; THENCE EASTERLY PARALLEL WITH AMHERST STREET FOUR HUNDRED THIRTY-TWO AND FIFTY-SIX THOUSANDTHS (432.056) FEET TO THE WESTERLY LINE OF MANHATTAN AVENUE AT THE POINT OF PLACE OF BEGINNING.

ALSO EXCEPTING AND RESERVING THEREFROM THE FOLLOWING DESCRIBED LANDS CONVEYED BY CENTRAL PARK SHOPPING CENTER, INC. TO THE CITY IF BUFFALO BY DEED DATED AUGUST 3, 1956 AND RECORDED OCTOBER 1, 1956 IN ERIE COUNTY CLERK'S OFFICE IN LIBER 8064 OF DEEDS AT PAGE 444, BOUNDED AND DESCRIBED AS FOLLOWS:

CITY OF BUFFALO, COUNTY OF ERIE AND STATE OF NEW YORK, BEING PART OF LOT NUMBER FORTY-FOUR (44) TOWNSHIP ELEVEN (11), RANGE EIGHT (8) OF THE HOLLAND LAND COMPANY'S SURVEY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT THE POINT OF INTERSECTION OF THE EASTERLY LINE OF HOLDEN AVENUE (AS A SIXTY (60) FOOT STREET) WITH THE SOUTHERLY LINE OF LOT NUMBER FOTY-FOUR (44), AS AFORESAID; RUNNING THENCE NORTHERLY ALONG THE EASTERLY LINE OF HOLDEN AVENUE FOR A DISTANCE OF THIRTY (30) FEET TO POINT; THENCE EASTERLY ALONG A LINE PARALLEL WITH THE SOUTHERLY LINE OF LOT NUMBER FORTY-FOUR (44), AS AFORESAID AND THIRTY (30) FEET NORTHERLY MEASURED AT RIGHT ANGLES THEREFROM FOR A DISTANCE OF ONE THOUSAND SEVEN HUNDRED THIRTY-NINE AND TEN HUNDREDTHS (1739.10) FEET TO THE WESTERLY LINE OF MANHATTAN AVENUE (AS A SIXTY-SIX (66) FOOT STREET); THENCE SOUTHERLY ALONG THE WESTERLY LINE OF MANHATTAN AVENUE FOR A DISTANCE OF THIRTY (30) FEET TO THE SOUTHERLY LINE OF LOT NUMBER FORTY-FOUR (44) AS AFORESAID; THENCE WESTERLY ALONG THE SOUTHERLY LINE OF LOT NUMBER FORTY FOUR (44) AS AFORESAID FOR A DISTANCE OF ONE THOUSAND SEVEN HUNDRED THIRTY-NINE AND TEN HUNDREDTHS (1739.10) FEET TO THE POINT OR PLACE OF BEGINNING. CONTAINING 27.1 ACRES OF LAND, MORE OR LESS.

GENERAL NOTES:

1. HORIZONTAL DATUM IS REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD 83), NEW YORK STATE PLANE, WESTERN ZONE COORDINATE SYSTEM, U.S. SURVEY FEET, ESTABLISHED WITH GPS USING THE NYSDOT REAL TIME NETWORK (NYSNET RTN).
2. UNDERGROUND UTILITIES ARE SHOWN IN THERE APPROXIMATE LOCATION FROM PLANS PROVIDED BY OTHERS.
3. THE SURVEY HAS BEEN UPDATED WITH THE BENEFIT OF THE TITLE REPORT NO. 1213-4044, AS PREPARED BY CHICAGO TITLE INSURANCE COMPANY DATED FEBRUARY 16, 2012.

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 THE NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY, ALBANY, NY 12233 OR AT DERWEB@GW.DEC.STATE.NY.US.

Legend:

WENDEL JOB NO.: 324720

AC. = ACRES; APPROX. = APPROXIMATE; AVE. = AVENUE; BIT. = BITUMINOUS; CB = CATCH BASIN; CH. = CHAIN; CONC. = CONCRETE; COR. = CORNER; C.T.V. = CABLE TV BOX; ℄ = CENTERLINE; D. = DEED; DIA. = DIAMETER; DIST. = DISTANCE; ⊞ DS = DRAINAGE STRUCTURE SQUARE; E = EAST; ELEV. = ELEVATION; E@ = ELECTRICAL JUNCTION BOX; ESMT. = EASEMENT; EX. = EXISTING; FNC. = FENCE; GLM = GAS LINE MARKER; HYD. = HYDRANT; IP. = IRON PIPE; L = LIBER; LS = LIFT STATION; MH = MANHOLE; MP. = MAP; P = PAGE; MS. = MEASURED; MW = MONITORING WELL; N = NORTH; NO. = NUMBER; O/H = OVERHEAD; O/L = ON LINE; ℄ = PROPERTY LINE; ⚡ = POWER POLE; R = RADIUS; RD. = ROAD; S = SOUTH; ST. = STREET; STA. = STATION; Ⓢ SMH = SANITARY MANHOLE; T.M.# = TAX MAP NO.; T@ = TELEPHONE JUNCTION BOX; TYP. = TYPICAL; W = WEST; W/ = WITH; WD. = WOOD; W.F. = WOODFRAME; WV = WATER VALVE

GAS LINE —G—
PROPERTY LINES
SUB-PARCELS
FENCE (TYPE NOTED) —×—×—
SANITARY SEWER LINE —SA—

NOTES:
-ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MAP MARKED WITH THE SIGNATURE AND AN ORIGINAL OF THE LAND SURVEYOR'S SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.

-UNAUTHORIZED ALTERATION OR ADDITION TO ANY SURVEY DRAWING, DESIGN, SPECIFICATION, PLAN OR REPORT IS A VIOLATION OF SECTION 7209, PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

STATE OF NEW YORK * CHRISTOPHER JOSH SCOTT * No. 050708 * LICENSED LAND SURVEYOR

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PREPARED BY THE CONSULTANT

wendel

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p:716.688.0766 f:716.625.6825

Wendel WD Architecture, Engineering, Surveying and Landscape Architecture P.C.

MAP OF
129 HOLDEN STREET
BUFFALO, NEW YORK
SITE NAME: 129 HOLDEN STREET REDEVELOPMENT
TO
THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SITUATE IN PARTS OF
LOT 44, TOWNSHIP 11, RANGE 8
OF THE THE HOLLAND LAND COMPANY'S SURVEY
CITY OF BUFFALO, COUNTY OF ERIE
STATE OF NEW YORK
T.M.# PART OF 90.29-2-43.1

100' 50' 25' 0' 100' 200'
30.48 15.24 0 30.48 60.96
METERS

1 INCH = 100 FEET
1:1200

I HEREBY CERTIFY TO (1) THE PEOPLE OF THE STATE OF NEW YORK ACTING THROUGH THEIR COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, (2) CHICAGO TITLE INSURANCE COMPANY, THAT THIS IS AN ACCURATE SURVEY MAP UNDER MY DIRECTION, OF AN ACTUAL SURVEY, AND THAT THE SURVEY WAS PERFORMED IN ACCORDANCE TO THE STANDARDS AND PROCEDURES ADOPTED BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NOVEMBER 2014. FIELD SURVEY COMPLETED FEBRUARY 26, 2015

Christopher J. Scott — 3/10/15
CHRISTOPHER J. SCOTT, LAND SURVEYOR #050708 — DATE

Brian S. Smith — 3/15/15
BRIAN S. SMITH, CST 3, SURVEY DRAFTER — DATE

APPENDIX C – SUBSURFACE LOGS

Note, the locations of the monitoring wells and soil probes are shown on Figure 4.

The locations of the test pits are shown on Figure 5.

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-1
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/10/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and subbase (~10-inches).	0
1				
1.5			Dark Brown GRAVEL and Sand, some Silt, some Slag, little Clay, trace Brick, moist (Fill).	
2				
2.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, moist (Fill).	0
3				
3.5				
4				
4.5				0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5				0
9				
9.5			Grades to: slight increase in moisture.	
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-1
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/10/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, moist (Fill). 	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				
15			Excavator refusal at 14.5' below ground surface (presumed top of bedrock).	
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-2
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/10/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~8-inches to 1-foot)	0
1				
1.5			Dark Brown GRAVEL and Sand, some Slag, little brick, moist (Fill).	
2				
2.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, moist (Fill).	0
3				
3.5				
4				
4.5				0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-2
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/10/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, moist (Fill).	0
11				
11.5				
12				
12.5				0
13			Grades to: wet.	
13.5				
14			Black SAND and Silt, some Gravel, trace Clay, trace tile, trace glass, trace metal, trace wire, wet (Fill).	0.4 ppm
14.5			Excavator refusal at 14.2' below ground surface (presumed top of bedrock).	
15				
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-3
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/10/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Coarse to Fine SLAG, sulfur odor observed, difficult excavation, moist (Fill).	
2				
2.5			Dark Brown GRAVEL and Sand, some Silt, little Clay, little Brick, trace Glass, moist, (Fill).	0
3				
3.5				
4				
4.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, moist (Fill).	0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5				
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-3
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/10/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Black SAND and Silt, some Gravel, trace Clay, trace Brick, moist (Fill).	0
11			Excavator refusal at 10.5' below ground surface (presumed top of bedrock).	
11.5				
12				
12.5				
13				
13.5				
14				
14.5				
15				
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-4
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/10/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Coarse to Fine SLAG, sulfur odor observed, difficult excavation, moist (~10-inches, Fill).	
2				
2.5				0
3				
3.5				
4				
4.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, moist (Fill).	0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS: Three orangeburg-type pipes observed in southern portion of excavation from ~2-3 bgs.

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-4
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/10/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, moist (Fill). 	0
11				
11.5				
12				
12.5				0
13				
13.5			Excavator refusal at 13.0' below ground surface (presumed top of bedrock). 	
14				
14.5				
15				
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-5
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/10/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Coarse to Fine SLAG, sulfur odor observed, difficult excavation, moist (~10-inches, Fill).	
2				
2.5			Dark Brown GRAVEL and Sand, some Silt, some Brick, trace Clay, Glass, moist, (Fill).	0
3				
3.5				
4				
4.5				0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-5
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/10/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Dark Brown GRAVEL and Sand, some Silt, some Brick, trace Clay, Glass, moist, (Fill).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5			Excavator refusal at 15.0' below ground surface (presumed top of bedrock).	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-6
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Brown Silty CLAY, little Sand, trace Gravel, moist, (native).	
2				
2.5				0
3				
3.5				
4				
4.5				0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-6
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, little Sand, trace Gravel, moist, (native).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5				
16			Excavator refusal at 15.5' below ground surface (presumed top of bedrock).	
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-7
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Coarse to Fine SLAG, sulfur odor observed, difficult excavation, moist (Fill).	
2				
2.5			Brown Silty CLAY, little Sand, trace Gravel, moist (Fill).	0
3				
3.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, trace Tile, trace Glass, moist (Fill).	
4				
4.5				0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-7
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, trace Tile, trace Glass, moist (Fill).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5			Dark Brown and White SAND, trace Silt, trace Clay, trace Brick, moist (potential incinerator ash, Fill).	
16				
16.5				0
17				
17.5				
18			End of Excavation at 17.5' below ground surface.	
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-8
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Excavation Vertically Split Between Two Fill Units: North: Gray Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, trace Glass, moist (Fill).	
2				
2.5			South: Dark Brown GRAVEL and Sand, some Silt, little Clay, trace Brick, trace Glass, moist (Fill).	0
3				
3.5				
4				
4.5				0
5				
5.5			Grades to: North: ~3' - 6' Limestone Boulders observed.	
6				
6.5				0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-8
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Excavation Vertically Split Between Two Fill Units: North: Gray Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, trace Glass, moist (Fill). South: Dark Brown GRAVEL and Sand, some Silt, little Clay, trace Brick, trace Glass, moist (Fill).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5				
16			Excavator refusal at 15.5' below ground surface (presumed top of bedrock).	
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-9
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Brown GRAVEL and Sand, some Silt, little Clay, little Brick, little Asphalt, trace Concrete, trace Slag, moist (Fill).	
2				
2.5				0
3				
3.5				
4				
4.5				0
5			Grades to: ~4' Limestone Boulders observed.	
5.5				
6				
6.5				11 ppm
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-9
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown GRAVEL and Sand, some Silt, little Clay, little Brick, little Asphalt, trace Concrete, trace Slag, moist (Fill).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5				
16				
16.5				0
17				
17.5			End of Excavation at 17.0' below ground surface.	
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-10
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Dark Brown SAND, some Gravel, little Silt, little Brick, trace Clay, trace Steel, trace Concrete, trace Tile, moist (Fill).	
2				
2.5				0
3				
3.5				
4				
4.5				0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-10
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Dark Brown SAND, some Gravel, little Silt, little Brick, trace Clay, trace Steel, trace Concrete, trace Tile, moist (Fill).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5				
16				
16.5				0
17				
17.5			End of Excavation at 17.0' below ground surface.	
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	Former Central Park Plaza	Test Pit No:	TP-10A
Project location:	129 Holden Street	Location:	Buffalo, NY
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10 Task 20
Contractor:	LPCiminelli	Date:	4/10/2014
		Weather:	Sunny, windy, 40-60 degrees F
Operator:	Matt Hillman	Ground elev.:	
Make: Deere	Model: 135D		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
1			Asphat (4-inches) and Subbase (6-inches).	0
2			FILL: Brown SAND and GRAVEL, trace Silt, trace Clay, trace Brick, trace Metal, moist.	
3			Brown Silty CLAY, little Gravel, trace Sand, trace Glass, trace Brick, moist.	0
4			Grades to:….some Brick.	
5			Brown/Orange/White/Black SAND, some Brick, trace Metal, trace Glass, trace Tile, moist.	0
6			Dark Brown SAND and GRAVEL, trace Silt, trace Clay, trace Tile, moist.	
7				0
8				
9				0
10				
11				0
12				
13			Grades to:….little Gravel.	0
14				
15				0
16			End of test pit at 15 feet below ground surface.	
17				
18				
19				
20				

REMARKS: 15 feet west of TP-10.

TEST PIT FIELD LOG

Project Description: Former Central Park Plaza
Project location: 129 Holden Street
GZA Representative: Thomas Bohlen
Contractor: LPCiminelli
Operator: Matt Hillman
Make: Deere Model: 135D

Test Pit No: TP-10B
Location: Buffalo, NY
File No: 21.0056642.10 Task 20
Date: 4/10/2014
Weather: Sunny, windy, 40-60 degrees F
Ground elev.:

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
1			Asphalt (4-inches) and Subbase (6-inches).	0
2			FILL: Brown SAND and GRAVEL, trace Silt, trace Clay, trace Brick, trace Metal, moist.	
3			Brown Silty CLAY, little Gravel, trace Sand, trace Glass, trace Brick, trace Metal, trace Tile, trace Concrete, moist.	0
4				
5				0
6			Brown fine to coarse SAND, little Gravel, little Silt, little Clay, trace Brick, trace Metal, moist.	
7				0
8			Dark Brown SAND and GRAVEL, trace Silt, trace Clay, trace Metal, trace Brick, trace Tile, moist.	
9				0
10				
11			Brown Fractured Limestone and Various Soils (Sand, Silt, Clay) moist.	0
12				
13				0
14				
15				0
16			End of test pit at 15 feet below ground surface.	
17				
18				
19				
20				

REMARKS: 15 feet south of TP-10.

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-11
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~8-inches).	0
1				
1.5			Brown SAND and Gravel, little Silt, little Clay, trace Asphalt, trace Brick, trace Concrete, moist (Fill).	
2				
2.5				0
3				
3.5			Brown and Black SAND and Gravel, trace Silt, trace Clay, moist (Fill).	
4				
4.5				0
5			Grades to: wet.	
5.5				
6				
6.5				0
7				
7.5				
8			Grades to moist.	
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-11
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown and Black SAND and Gravel, trace Silt, trace Clay, moist (Fill).	0
11			Grades to: ~3'-6' reinforced concrete fragments	
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5			Grades to: trace Slag.	
16				
16.5			End of Excavation at 16.0' below ground surface.	
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-12
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Brown Silty CLAY, some Sand, some Gravel, trace Brick, trace Concrete, moist (Fill).	
2				
2.5				0
3				
3.5			Dark Brown SAND and Gravel, some Silt, little Clay, trace Slag, trace Brick, trace Concrete, moist (Fill).	
4				
4.5				0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5				0
9				
9.5			Brown Silty CLAY, little Sand, trace Gravel, moist (native).	
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-12
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/11/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, little Sand, trace Gravel, moist (native).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5				
16				
16.5				0
17				
17.5			End of Excavation at 17.0' below ground surface.	
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-13
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Brown SAND and Gravel, little Silt, little Clay, trace Slag, trace Brick, moist (Fill).	
2				
2.5				0
3				
3.5			Brown Silty CLAY, little Gravel, little Sand, moist (native).	
4				
4.5				0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-13
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, little Gravel, little Sand, moist (native).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5				
16				
16.5			End of Excavation at 16.0' below ground surface.	
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-14
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~8-inches).	2 ppm
1				
1.5			Coarse to Fine SLAG, moist (Fill).	
2			Brown SAND and Gravel, some Slag, little Silt, little Clay, trace Brick, moist (Fill).	
2.5			Brown Silty CLAY, little Gravel, little Sand, moist (native).	0
3				
3.5				
4				
4.5				0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-14
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, little Gravel, little Sand, moist (native).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5				
16			End of Excavation at 15.5' below ground surface.	
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-15
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make:	CAT	Model:	315 CL

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~8-inches).	0
1				
1.5			Brown SAND and Gravel, some Slag, little Silt, little Clay, moist (Fill).	
2				
2.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), moist (Fill).	0
3			Black SAND and Gravel - located in pocket in south-east corner of excavation from 2'-5' - chemical odor observed.	
3.5				
4				
4.5				0
5				
5.5				
6				
6.5				0
7				
7.5				
8				
8.5			PID Stockpile = 2.7 ppm.	15 ppm
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-15
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), moist (Fill). 	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5			End of Excavation at 15.0' below ground surface (difficult to keep excavating due to extensive hole collapse).	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-16
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Brown SAND and Gravel, little Silt, little Clay, moist (Fill).	
2			Coarse and Fine SLAG, moist (Fill).	
2.5				0
3			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, trace Asphalt, moist (Fill).	
3.5				
4				
4.5				0
5				
5.5				
6				
6.5			Brown Silty CLAY, little Gravel, little Sand, trace Brick, moist (Fill).	0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-16
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make:	CAT	Model:	315 CL

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, little Gravel, little Sand, trace Brick, moist (Fill).	0
11				
11.5				
12				
12.5			Grades to: ~2' concrete fragements (12'-13').	0
13				
13.5				
14				
14.5				0
15				
15.5				
16			End of Excavation at 15.5 feet below ground surface.	
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-17
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~6-inches).	0
1			Brown SAND and Gravel, little Silt, little Clay, trace Brick, trace Glass, moist, (Fill).	
1.5				
2				
2.5				0
3				
3.5			Grades to: Dark Brown.	
4				
4.5				0
5				
5.5				
6				
6.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), little Brick, little Concrete, trace Asphalt, moist (Fill).	0
7				
7.5				
8				
8.5				0
9				
9.5			Grades to: some Brick, some Concrete, trace Metal.	
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-17
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), some Brick, some Concrete, trace Asphalt, trace Metal, moist (Fill).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5				
16				
16.5			End of Excavation at 16.0 feet below ground surface.	
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-18
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown SAND and Gravel, trace Silt, trace Clay, trace Brick, trace Slag, moist (Fill).	0
1				
1.5				
2			Grades to: Dark Brown.	0
2.5				
3			Assumed electrical conduit pipe observed between light pole foudations. Bent vertically by excavator, PID = 17 ppm at top of pipe.	
3.5				
4				
4.5				0
5				
5.5			Brown Silty CLAY, little Gravel, little Sand, trace Concrete, moist (Fill).	
6				
6.5				0
7			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), moist (Fill).	
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-18
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, little Gravel, little Sand, moist (Fill).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5			Black SAND and Gravel - located in pocket in north corner of excavation from 12'-16' - no odor observed.	0
15				
15.5				
16				
16.5			End of Excavation at 16.0 feet below ground surface.	
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-19
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown SAND and Gravel, trace Silt, trace Clay, trace Brick, moist, (Fill).	0.8 ppm
1				
1.5				
2			Dark Brown Silty CLAY, little Gravel, little Sand, little Brick, trace Concrete, moist (Fill).	
2.5				0
3				
3.5				
4				
4.5				0
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5				17.1 ppm
9			Excavation Vertically Split Between Two Fill Units: East: Dark Brown Silty CLAY, little Gravel, little Sand, little Brick, trace Concrete, moist (Fill).	
9.5			West (9'-11'): Brown fine to coarse SAND, trace Silt, trace Clay, moist (Fill). PID Excavator Bucket = 0.6 ppm.	
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-19
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Excavation Vertically Split Between Two Fill Units:	1.3 ppm
11			East: Dark Brown Silty CLAY, little Gravel, little Sand, little Brick, trace Concrete, moist (Fill).	
11.5			West (9'-11'): Brown fine to coarse SAND, trace Silt, trace Clay, moist (Fill). PID Excavator Bucket = 0.6 ppm.	
12				
12.5			Grades to: some Gravel with ~2' fragments of Concrete.	1.7 ppm
13				
13.5				
14				
14.5				0
15				
15.5			End of Excavation at 15.0 feet below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-20
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make:	CAT	Model:	315 CL

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Degraded Asphalt and Subbase (~10-inches).	0
1				
1.5			Brown SAND and Gravel, some Brick, some Concrete, little Silt, little Clay, trace Glass, trace Asphalt, trace Slag, moist, (Fill).	
2				
2.5				0
3				
3.5				
4				
4.5				0
5			Brown Silty CLAY, little Gravel, little Sand, trace Brick, trace Concrete, moist (Fill).	
5.5				
6			Brown SAND and Gravel, little Silt, little Clay, trace Brick, trace Concrete, trace Glass, moist, (Fill).	
6.5				0
7			Brown Silty CLAY, little Gravel, little Sand, trace Brick, trace Concrete, moist (Fill).	
7.5				
8			Brown SAND and Gravel, little Silt, little Clay, trace Brick, trace Concrete, trace Glass, moist, (Fill).	
8.5			Brown Silty CLAY, little Gravel, little Sand, trace Brick, trace Concrete, moist (Fill).	0
9			Brown SAND and Gravel, little Silt, little Clay, trace Brick, trace Concrete, trace Glass, moist, (Fill).	
9.5				
10			Brown Silty CLAY, little Gravel, little Sand, trace Brick, trace Asphalt, moist, (Fill).	

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-20
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, little Gravel, little Sand, trace Brick, trace Asphalt, moist, (Fill).	0
11				
11.5				
12				
12.5				0
13			Brown, Dark Brown, Orange, White, Black SAND, little Gravel, trace Silt, trace Clay, trace Slag, trace Glass, trace Brick, trace Metal, trace Tile, moist (Fill).	
13.5				
14				
14.5				0
15				
15.5				
16				
16.5			End of Excavation at 16.0 feet below ground surface.	
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-21
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Black SAND and Gravel, little Silt, little Clay, trace Brick, trace Slag, trace Concrete, (Fill).	0
1				
1.5				
2				
2.5				0
3				
3.5				
4				
4.5			Brown Silty CLAY, little Gravel, little Sand, moist (Fill).	0
5				
5.5			Brown SAND, little Gravel, little Silt, little Clay, trace Brick, trace Asphalt, moist (Fill).	
6				
6.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, trace Asphalt, trace Glass, moist (Fill).	0
7				
7.5				
8				
8.5				0
9			~2'-4' fragments of limestone	
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-21
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, trace Asphalt, trace Glass, moist (Fill).	0
11				
11.5			~4'-5' fragments of limestone	
12				
12.5				0
13				
13.5			Brown, Dark Brown, Orange, White, Black SAND, little Gravel, trace Silt, trace Clay, trace Slag, trace Glass, trace Brick, trace Metal, trace Tile, moist (Fill).	
14				
14.5				0
15				
15.5				
16				
16.5			End of Excavation at 16.0 feet below ground surface.	
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-22
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Degraded Asphalt and Subbase (~6-inches).	0
1			Brown SAND and Gravel, little Silt, little Clay, moist (Fill). Coarse Gravel (~8-inches) observed.	
1.5				
2				
2.5			Grades to light Brown, Very Coarse Gravel (~4' maximum) observed.	0
3				
3.5				
4				
4.5				0
5				
5.5				
6				
6.5				0
7				
7.5			Brown, Dark Brown, Orange, White, Black SAND, little Gravel, trace Silt, trace Clay, trace Slag, trace Glass, trace Brick, trace Metal, trace Tile, moist (Fill).	
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-22
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown, Dark Brown, Orange, White, Black SAND, little Gravel, trace Silt, trace Clay, trace Slag, trace Glass, trace Brick, trace Metal, trace Tile, moist (Fill).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5				0
15				
15.5				
16				
16.5				0
17				
17.5				
18				
18.5				0
19				
19.5			End of Excavation at 19.0 feet below ground surface.	
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-23
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/12/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Topsoil (~8-inches).	0
1				
1.5			Brown SAND and Gravel, trace Silt, trace Clay, trace Metal, trace Slag, moist, (Fill).	
2				
2.5				0
3				
3.5				
4				
4.5			Grades to: coarse Gravel (~3' maximum) observed.	0
5				
5.5				
6				
6.5			Brown, Dark Brown, Orange, White, Black SAND, little Gravel, trace Silt, trace Clay, trace Slag, trace Glass, trace Brick, trace Metal, trace Tile, moist (Fill).	0
7				
7.5				
8				
8.5				0
9				
9.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), moist (Fill).	
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-23
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), moist (Fill).	0
11				
11.5				
12				
12.5				0
13				
13.5				
14			Excavator refusal at 13.5' below ground surface (presumed top of bedrock). 	
14.5				
15				
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-24
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Dark Brown SAND and Gravel, trace Silt, trace Clay, trace Slag, moist (Fill).	
2				
2.5				0
3				
3.5			Brown Silty CLAY, some Brick, little Sand, little Gravel, moist (Fill).	
4				
4.5				0
5				
5.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), moist (Fill).	
6				
6.5				0
7				
7.5			Brown SAND and Gravel, trace Silt, trace Clay, trace Brick, trace Tile, moist (Fill).	
8				
8.5				0
9				
9.5				
10			Grades to: little Silt, little Clay.	

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-24
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown SAND and Gravel, little Silt, little Clay, trace Brick, trace Tile, moist (Fill).	0
11				
11.5				
12				
12.5				0
13				
13.5			Brown Silty CLAY, little Gravel, little Sand, moist (Fill).	
14				
14.5				0
15				
15.5				
16			Excavator refusal at 15.5' below ground surface (presumed top of bedrock). 	
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-25
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown SAND and Gravel, trace Silt, trace Clay, moist (Fill).	0
1				
1.5				
2			Brown Silty CLAY, little Gravel, little Sand, moist (Fill).	
2.5				0
3				
3.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), moist (Fill). ~2' maximum limestone fragments observed. Very difficult excavation.	
4				
4.5				0
5			~4' limestone fragments observed. Very difficult excavation.	
5.5				
6				
6.5				0
7				
7.5				
8			~1'-6' limestone fragments observed, few fines. Very difficult excavation.	
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-25
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), moist (Fill). Very difficult excavation.	0
11				
11.5			End of excavation at 11.0 feet below ground surface. Excavation stopped due to difficulty and extensive collapse.	
12				
12.5				
13				
13.5				
14				
14.5				
15				
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-26
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown SAND and Gravel, trace Silt, trace Clay, trace Brick, trace Slag, moist (Fill).	0
1				
1.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, moist (Fill).	
2				
2.5				0
3				
3.5				
4				
4.5				0
5				
5.5				
6				
6.5			Grades to: ~3' maximum limestone fragments observed.	0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-26
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), trace Brick, moist (Fill). ~3' maximum limestone fragments observed.	0
11				
11.5				
12				
12.5				0
13				
13.5				
14				
14.5			Excavator refusal at 14.0' below ground surface (presumed top of bedrock).	
15				
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

PROJECT NAME

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-27
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt and Subbase (~10-inches).	0
1				
1.5			Dark Brown Silty CLAY, little Sand, little Gravel, little Brick, moist (Fill).	
2				
2.5				0
3				
3.5			Grades to: Brown, trace Brick.	
4				
4.5				0
5			Brown SAND and Gravel, some Concrete, little Silt, little Clay, trace Brick,	
5.5			trace Glass, trace Tile, moist (Fill).	
6				
6.5			Brown Silty CLAY, some Gravel, some Concrete, trace Glass, trace Tile, moist (Fill).	0
7				
7.5				
8				
8.5				0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-27
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	7/13/2012
		Weather:	Sunny, humid, 90°F (~maximum)
Operator:	Tony Kaminski	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, some Gravel, some Concrete, trace Glass, trace Tile, moist (Fill).	0
11				
11.5			Grades to: little Concrete.	
12				
12.5				0
13				
13.5				
14				
14.5			Excavator refusal at 14.0' below ground surface (presumed top of bedrock).	
15				
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description: BCP Site C915261
Project location: 129 Holden Street
GZA Representative: Thomas Bohlen
Contractor: Nature's Way
Operator: Corey Haaf
Make: CAT Model: 315 CL

Test Pit No: TP-28
Location:
File No: 21.0056642.10
Date: 10/22/2012
Weather: Partly Cloudy, 60°F (~maximum)
Ground elev.:

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown GRAVEL and SAND, trace Silt, trace Clay, trace Slag, moist (Fill) (8-inches).	0
1			Brown Silty CLAY, trace Gravel, trace Silt, moist (Fill).	
1.5				
2				
2.5				0
3				
3.5				
4				
4.5			Brown GRAVEL and SAND, trace Silt, trace Clay, trace Brick, moist (Fill).	0
5				
5.5				
6				
6.5			Excavator refusal at 6.0' below ground surface (presumed top of bedrock).	
7				
7.5				
8				
8.5				
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-29
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/22/2012
		Weather:	Partly Cloudy, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown GRAVEL and SAND, little Silt, little Clay, trace Brick, trace Ash, moist (Fill). Large limestone fragments (~3' maximum) observed.	1.0
1				
1.5				
2				
2.5				0.0
3				
3.5				
4				
4.5			Brown, Dark Brown, Orange, White, Black SAND, trace Silt, trace Clay, trace Glass, trace Brick, trace Metal, trace Tile, moist (Fill).	1.2
5				
5.5				
6				
6.5				5.4
7				
7.5				
8				
8.5				1.4
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-29
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/22/2012
		Weather:	Partly Cloudy, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown, Dark Brown, Orange, White, Black SAND, trace Silt, trace Clay, trace Glass, trace Brick, trace Metal, trace Tile, moist (Fill).	1.2
11				
11.5				
12				
12.5				1.2
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-30
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/22/2012
		Weather:	Partly Cloudy, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Dark Brown GRAVEL and SAND, trace Silt, trace Clay, trace Slag, trace Brick moist, (Fill). Large Gravel (~2' maximum) observed.	5.2
1				
1.5				
2				
2.5				1.2
3				
3.5				
4			Brown Silty CLAY, little Gravel, trace Sand, trace Glass, trace Roofing Shingle, trace Brick, moist (Fill).	
4.5				1.7
5				
5.5				
6				
6.5				1.6
7				
7.5				
8				
8.5				1.8
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-30
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/22/2012
		Weather:	Partly Cloudy, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, little Gravel, trace Sand, trace Glass, trace Roofing Shingle, trace Brick, moist (Fill).	4.3
11				
11.5				
12				
12.5				1.4
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-31
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/22/2012
		Weather:	Partly Cloudy, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown GRAVEL and SAND, trace Silt, trace Clay, trace Glass, trace Brick, trace Clay Tile, moist (Fill).	1.7
1				
1.5			Brown Silty CLAY, trace Gravel, trace Sand, trace Brick, trace Glass, moist (Fill).	
2				
2.5				1.3
3				
3.5				
4				
4.5			Grades to: some Brick, Some Concrete, some Black Sand, moist (Fill). Large Concrete (~2' maximum) observed.	1.8
5				
5.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	
6				
6.5				4.0
7				
7.5				
8				
8.5			Pocket of impacted soil - black stained, sheen - observed in southern portion of excavation from 8' to 10'. Petroleum odor observed.	6.1
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-31
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/22/2012
		Weather:	Partly Cloudy, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	0.9
11				
11.5				
12				
12.5				1.5
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-32
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/22/2012
		Weather:	Partly Cloudy, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Weathered Asphalt (3") and Subbase to ~8".	1.7
1			Brown GRAVEL and SAND, some Slag, trace Brick, trace Silt, trace Clay, moist (Fill). Large gravel (~2' maximum) observed.	
1.5				
2				
2.5			Brown Silty CLAY, trace Gravel, trace Sand, wet (Fill).	1.8
3			Grades to: moist.	
3.5				
4				
4.5				0.8
5				
5.5			~4' fragment of Concrete fell out of sidewall during excavation.	
6				
6.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill). Frequent large Gravel (~3' maximum) observed.	0.5
7				
7.5				
8				
8.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	0.5
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-32
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/22/2012
		Weather:	Partly Cloudy, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	0.4
11				
11.5				
12				
12.5			Large Concrete (~7' maximum) observed. Very difficult excavation.	1.1
13				
13.5				
14				
14.5				
15			Base of a Tree and Roots observed. Very difficult excavation.	
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-33
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/22/2012
		Weather:	Partly Cloudy, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown GRAVEL and SAND, trace Silt, trace Clay, trace Brick, trace Concrete, moist (Fill).	45.0
1				
1.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	
2				
2.5				341.0
3				
3.5				
4				
4.5				8.1
5				
5.5				
6				
6.5			Large Concrete (~2' maximum) observed.	26.0
7				
7.5				
8				
8.5				18.2
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-33
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/22/2012
		Weather:	Partly Cloudy, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	6.1
11				
11.5				
12				
12.5			Brown, Dark Brown, Orange, White, Black SAND, trace Silt, trace Clay, trace Glass, trace Brick, trace Metal, trace Tile, moist (4" - Fill).	2.5
13			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-34
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (3") and Subbase to 8". Brown GRAVEL and SAND, trace Silt, trace Clay, trace Brick, moist (Fill).	0.8
1				
1.5				
2				
2.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Native).	1.4
3				
3.5				
4				
4.5				1.0
5				
5.5				
6				
6.5				0.8
7				
7.5				
8				
8.5				1.2
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-34
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Native).	0.7
11				
11.5				
12				
12.5				0.9
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-35
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (3") and Subbase to 6".	1.7
1			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill).	
1.5				
2				
2.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	1.4
3				
3.5				
4				
4.5			Large Gravel (~4' maximum) observed.	1.8
5				
5.5			Grades to: some Sand, trace Brick, trace Concrete.	
6				
6.5				1.3
7				
7.5				
8			Brown fine SAND, trace Gravel, moist (Fill).	
8.5				1.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-35
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown fine SAND, trace Gravel, moist (Fill).	0.9
11			Grades to: Black.	
11.5				
12				
12.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Native).	1.3
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-36
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (3") and Subbase to ~6".	0.8
1			Brown GRAVEL and SAND, trace Silt, trace Clay, trace Brick, moist (Fill).	
1.5				
2			Brown Large Fractured Limestone and various soils (Sand, Silt, Clay), moist (Fill).	
2.5				1.3
3				
3.5				
4				
4.5				1.7
5				
5.5				
6				
6.5				1.8
7				
7.5				
8				
8.5				0.9
9				
9.5				
10				
			End of Excavation at 10' below ground surface - stopped due to extensive collapse.	

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-37
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Concrete and Subbase (6"). Vapor barrier observed under concrete.	1.7
1			Brown Silty CLAY, trace Gravel, trace Silt, moist (Fill).	
1.5				
2				
2.5				5.3
3				
3.5			Black fine to coarse SAND, some Gravel, little Concrete, trace Metal, trace Brick, trace Wood, trace Glass, moist (Fill).	
4				
4.5				1.6
5				
5.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Native).	
6				
6.5				0.8
7				
7.5				
8				
8.5				1.2
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-37
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Native).	1.3
11				
11.5				
12				
12.5				1.7
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-38
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (3") and Subbase to 1'.	0.7
1				
1.5			Brown Silty CLAY, trace Gravel, trace Sand, trace Brick, trace Metal, moist (Fill).	
2				
2.5				1.8
3				
3.5				
4				
4.5				1.0
5				
5.5				
6				
6.5				1.3
7				
7.5				
8				
8.5			Black fine to coarse SAND, some Gravel, trace Silt, trace Clay, moist (Fill).	1.2
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-38
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Black fine to coarse SAND, some Gravel, trace Silt, trace Clay, moist (Fill).	1.6
11				
11.5				
12				
12.5			Grades to: some Slag.	1.8
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-39
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (3") and Subbase to 6".	1.3
1			Brown GRAVEL and SAND, trace Silt, trace Clay, trace Brick, trace Slag, moist (Fill).	
1.5				
2				
2.5			Brown Silty CLAY, some large Gravel (~1'-2' maximum), trace Sand, trace Brick, moist (Fill).	1.7
3				
3.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	
4				
4.5				1.5
5				
5.5				
6				
6.5				1.3
7				
7.5				
8				
8.5				2.1
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-39
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Yellowish Brown fine to coarse SAND, little Gravel, trace Silt, trace Clay, moist (Fill).	3.0
11				
11.5				
12			Grades to: Black.	
12.5				1.8
13				
13.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill). Large Gravel (~1 to 2' maximum) observed.	
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-40
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill).	1.7
1				
1.5				
2				
2.5				0.8
3				
3.5				
4				
4.5			Brown Silty CLAY, trace Gravel, trace Sand, moist, (Fill).	1.5
5				
5.5				
6				
6.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill). Large Gravel (~4' maximum) observed.	1.6
7				
7.5				
8				
8.5			Large Concrete (~5' maximum) observed.	1.6
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-40
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/23/2012
		Weather:	Cloudy, Rain, 65°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Black fine to coarse SAND, some Gravel, trace Silt, trace Clay, moist (Fill).	1.4
11			- Bluish Green GRAVEL and SAND observed sparcely from 10' to 12'. Material segregated into a zip lock bag, then transferred to sample jars. Analyzed for VOCs, Metals, and Cyanide.	
11.5				
12				
12.5				1.8
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description: BCP Site C915261
Project location: 129 Holden Street
GZA Representative: Thomas Bohlen
Contractor: Nature's Way
Operator: Corey Haaf
Make: CAT Model: 315 CL

Test Pit No: TP-41
Location:
File No: 21.0056642.10
Date: 10/24/2012
Weather: Cloudy, Rain, 60°F (~maximum)
Ground elev.:

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (3") and Subbase to 8".	0.7
1			White fine to coarse SLAG observed in eastern portion of excavation - 0.5' to 1'.	
1.5			Brown Silty CLAY, little Gravel, trace Sand, moist (Fill).	
2				
2.5				0.5
3				
3.5			Dark Brown SAND and GRAVEL, some Brick, trace Silt, trace Clay, moist (Fill).	
4				
4.5			Brown Silty CLAY, little Gravel, little Sand, moist, (Fill).	0.6
5				
5.5				
6				
6.5				1.1
7				
7.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay), moist, (Fill).	
8				
8.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	1.3
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-41
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	1.5
11				
11.5				
12				
12.5			Brown GRAVEL and SAND, some Brick, trace Silt, trace Clay, moist (Fill).	1.7
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-42
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (3") and Subbase to 1'.	1.5
1				
1.5			Brown GRAVEL and SAND, some Brick, trace Silt, trace Clay, moist (Fill).	
2				
2.5				0.5
3				
3.5				
4			Grades to: trace Brick.	
4.5				0.0
5				
5.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay), moist, (Fill).	
6				
6.5				1.6
7				
7.5				
8				
8.5			Large Limestone fragements (~4' maximum) observed.	1.7
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-42
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay), moist, (Fill).	1.2
11				
11.5				
12				
12.5			End of Excavation at 12' below ground surface due to extensive collapse.	
13				
13.5				
14				
14.5				
15				
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-43
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Concrete (4") and Subbase to 8".	0.0
1			Brown GRAVEL and SAND, trace Brick, trace Silt, trace Clay, moist (Fill).	
1.5				
2				
2.5				0.0
3				
3.5			Brown, Dark Brown, Orange, White, Black SAND, trace Silt, trace Clay, trace Glass, trace Brick, trace Metal, trace Tile, moist (Fill).	
4				
4.5				0.0
5				
5.5				
6				
6.5			Brown GRAVEL and SAND, little Asphalt, trace Silt, trace Clay, moist (Fill).	0.0
7				
7.5				
8				
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-43
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown GRAVEL and SAND, little Asphalt, trace Silt, trace Clay, moist (Fill).	0.0
11				
11.5				
12				
12.5				0.0
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-44
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (3") and Subbase to 1'.	0.0
1				
1.5			Dark Brown SAND, little Gravel, little Asphalt, trace Silt, trace Clay, moist (Fill).	
2				
2.5				0.0
3				
3.5			Brown GRAVEL and SAND, little Brick, little Asphalt, trace Silt, trace Clay, moist (Fill).	
4				
4.5			Grades to: no Asphalt.	0.0
5				
5.5				
6				
6.5				0.0
7				
7.5				
8				
8.5			Grades to: some Brick.	0.0
9				
9.5			Grades to: no Brick.	
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-44
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown GRAVEL and SAND, little Brick, trace Silt, trace Clay, moist (Fill).	0.0
11				
11.5				
12				
12.5				0.0
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-45
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (2") and Subbase to 1'.	0.0
1				
1.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	
2				
2.5			Brown GRAVEL and SAND, little Silt, little Clay, moist (Fill).	0.0
3				
3.5				
4				
4.5				0.0
5				
5.5			Grades to: trace Silt, trace Clay. Large Gravel (~2' maximum) observed.	
6				
6.5				0.0
7				
7.5			Grades to: some Brick, little Asphalt.	
8				
8.5				0.0
9			Grades to: trace Brick, trace Asphalt.	
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-45
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown GRAVEL and SAND, trace Brick, trace Asphalt, trace Silt, trace Clay, moist, (Fill).	0.0
11				
11.5				
12				
12.5				0.0
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-46
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (3") and Subbase to 7".	0.0
1			White fine to coarse SLAG, moist (Fill).	
1.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill).	
2				
2.5				0.0
3			Brown Silty CLAY, trace Gravel, trace Black Sand, moist (Fill).	
3.5				
4				
4.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill).	0.0
5				
5.5				
6				
6.5				0.0
7				
7.5				
8				
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-46
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill). Large Gravel (~3' maximum) observed.	0.0
11				
11.5				
12				
12.5				0.0
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-47
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (5") and Subbase to 1'.	0.0
1				
1.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill).	
2			Brown, Dark Brown, Orange, White, Black SAND, trace Gravel, trace Silt, trace Clay, trace Glass, trace Brick, trace Metal, moist (Fill).	
2.5				0.0
3				
3.5				
4				
4.5				0.0
5				
5.5			Brown Silty CLAY, trace Sand, trace Gravel, moist (Fill).	
6				
6.5			8" diameter green PVC storm sewer line hit in northern portion of excavation. Water	0.0
7				
7.5				
8				
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-47
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/24/2012
		Weather:	Cloudy, Rain, 60°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown, Dark Brown, Orange, White, Black SAND, some Gravel, trace Silt, trace Clay Tile, trace Glass, trace Brick, trace Metal, moist (Fill).	0.0
11				
11.5				
12				
12.5				0.0
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description: BCP Site C915261
Project location: 129 Holden Street
GZA Representative: Thomas Bohlen
Contractor: Nature's Way
Operator: Corey Haaf
Make: CAT Model: 315 CL

Test Pit No: TP-48
Location:
File No: 21.0056642.10
Date: 10/25/2012
Weather: Sunny, 75°F (~maximum)
Ground elev.:

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown GRAVEL and SAND, trace Silt, trace Clay, trace Brick, moist (Fill). Large Gravel (~2' maximum) observed.	0.0
1				
1.5				
2				
2.5				0.0
3				
3.5			Dark Brown Silty CLAY, little Gravel, little Sand, trace Brick, moist (Fill).	
4				
4.5			Grades to: no Brick.	0.0
5				
5.5				
6				
6.5			Grades to: Brown	0.0
7				
7.5				
8				
8.5			Black fine to coarse SAND, little Gravel, moist (Fill).	0.0
9			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-48
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/25/2012
		Weather:	Sunny, 75°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	0.0
11				
11.5				
12				
12.5				0.0
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-49
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/25/2012
		Weather:	Sunny, 75°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Topsoil (6").	0.0
1			Brown GRAVEL and SAND, little Silt, little Clay, trace Brick, moist. Large Gravel (~ 2' maximum) observed.	
1.5				
2				
2.5				0.0
3				
3.5				
4				
4.5				0.0
5				
5.5				
6				
6.5				0.0
7			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill).	
7.5			Western Portion of Excavation: Bedrock at 7' below ground surface (shelf).	
8				
8.5			Large limestone fragments (~ 5' maximum) observed.	0.0
9				
9.5				
10			Eastern Portion of Excavation: Bedrock at 10' below ground surface.	

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-50
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/25/2012
		Weather:	Sunny, 75°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Weathered Asphalt (3") and Subbase to 1'.	0.7
1				
1.5			Brown GRAVEL and SAND, little Silt, little Clay, trace Brick, moist (Fill).	
2				
2.5				3.9
3				
3.5				
4				
4.5			Brown Silty CLAY, some Gravel, little Sand, moist (Fill).	6.7
5			Large Gravel (~ 2' maximum) observed.	
5.5				
6				
6.5				6.0
7				
7.5				
8				
8.5				3.3
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-50
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/25/2012
		Weather:	Sunny, 75°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, some Gravel, little Sand, moist (Fill).	1.8
11				
11.5				
12				
12.5			Brown GRAVEL and SAND, little Silt, little Clay, moist (Fill). Large Gravel (~ 1' maximum) observed.	3.2
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-51
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/25/2012
		Weather:	Sunny, 75°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Weathered Asphalt (3") and Subbase to 8".	1.6
1			Brown GRAVEL and SAND, little Silt, little Clay, trace Brick, moist (Fill).	
1.5				
2				
2.5			Brown Silty CLAY, some Gravel, little Sand, trace Brick, moist (Fill).	1.8
3				
3.5			Large Gravel (~1' maximum) observed.	
4				
4.5				3.9
5				
5.5				
6				
6.5			Brown GRAVEL and SAND, little Silt, little Clay, moist (Fill).	6.2
7				
7.5			Large Concrete (~3' maximum) observed.	
8				
8.5				6.9
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-51
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/25/2012
		Weather:	Sunny, 75°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown GRAVEL and SAND, little Silt, little Clay, moist (Fill).	3.2
11			Grades to: trace Silt, trace Clay.	
11.5				
12				
12.5				3.2
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-52
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/25/2012
		Weather:	Sunny, 75°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (4") and Subbase to 1'.	1.8
1				
1.5			White fine to coarse SLAG, moist (Fill).	
2			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist, (Fill).	
2.5				4.1
3				
3.5				
4				
4.5				3.2
5				
5.5				
6				
6.5				1.6
7				
7.5				
8				
8.5				1.7
9				
9.5				
10			End of Excavation at 10' below ground surface due to extensive collapse.	

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-53
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/25/2012
		Weather:	Sunny, 75°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (4") and Subbase to 1'.	1.7
1				
1.5			White fine to coarse SLAG (8") moist (Fill).	
2				
2.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist, (Fill).	1.0
3				
3.5				
4				
4.5				3.0
5				
5.5				
6				
6.5				1.8
7				
7.5				
8				
8.5				0.8
9				
9.5				
10				
			End of Excavation at 10' below ground surface due to extensive collapse.	

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-54
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (4") and Subbase to 9".	0.0
1				
1.5			White fine to coarse SLAG, moist (Fill).	
2				
2.5			Brown Silty CLAY, little Gravel, little Sand, moist.	1.3
3				
3.5				
4			Grades to: some Brick, trace Glass.	
4.5				0.0
5				
5.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill).	
6				
6.5				0.0
7				
7.5			Excavator refusal at 7' below ground surface (presumed top of bedrock).	
8				
8.5				
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-55
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (5") and Subbase to 1'.	0.0
1				
1.5			White fine to coarse SLAG, moist (Fill).	
2				
2.5			Brown Silty CLAY, some Sand, little Gravel, moist (Native).	0.0
3				
3.5				
4				
4.5			Grades to: trace Gravel, trace Sand.	0.0
5				
5.5				
6				
6.5				0.0
7				
7.5				
8				
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-55
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, trace Sand, trace Gravel, moist (Native).	0.0
11				
11.5				
12				
12.5			Excavator refusal at 12' below ground surface (presumed top of bedrock).	
13				
13.5				
14				
14.5				
15				
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-56
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (3") and Subbase to 8".	1.7
1			White fine to coarse SLAG (4") moist (Fill).	
1.5			Brown Silty CLAY, little Gravel, little Sand, trace Brick, moist (Fill).	
2				
2.5				0.8
3				
3.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill).	
4				
4.5				0.7
5				
5.5				
6				
6.5				0.5
7				
7.5				
8				
8.5				1.2
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-56
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill).	0.3
11				
11.5			Brown Silty CLAY, little Gravel, trace Sand, moist (Fill).	
12				
12.5				0.9
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-57
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (4") and Subbase to 1'.	0.7
1				
1.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay) trace Slag, moist (Fill).	
2				
2.5				1.2
3				
3.5				
4				
4.5			Brown Silty CLAY, some Gravel, little Sand, moist (Fill).	2.9
5				
5.5				
6				
6.5				2.6
7				
7.5				
8				
8.5				0.5
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-57
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, some Gravel, little Sand, moist (Fill).	0.0
11			Brown GRAVEL and SAND, little Silt, little Clay, moist (Fill).	
11.5				
12				
12.5				0.0
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-58
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (4") and Subbase to 1'.	0.0
1				
1.5			White fine to coarse SLAG, moist (Fill).	
2			Brown GRAVEL and SAND, trace Silt, trace Clay, trace Slag, moist (Fill).	
2.5				0.0
3			Brown Silty CLAY, little Gravel, little Sand, trace Brick, moist (Fill).	
3.5			Brown Silty CLAY and CONCRETE, little Gravel, little Sand, trace Brick, moist (Fill).	
4				
4.5				0.0
5			Large Concrete (~ 2' maximum) observed.	
5.5				
6				
6.5				0.0
7				
7.5				
8				
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-58
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY and CONCRETE, little Gravel, little Sand, trace Brick, moist (Fill).	0.0
11				
11.5				
12				
12.5			Brown Fractured Limestone and Silty CLAY, moist (Fill).	0.0
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-59
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (4") and Subbase to 1'.	0.0
1				
1.5			Brown Silty CLAY, some Large Concrete (~4' maximum), little Gravel, little Silt, trace Brick, moist (Fill).	
2				
2.5				0.0
3				
3.5				
4				
4.5				0.0
5				
5.5			Brown Silty CLAY and Brown Fractured Limestone, moist (Fill). Large limestone (~6' maximum) observed.	
6				
6.5				0.0
7				
7.5				
8				
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-59
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY and Brown Fractured Limestone, moist (Fill). Large limestone (~6' maximum) observed.	0.0
11				
11.5				
12				
12.5				0.0
13				
13.5				
14				
14.5			Black fine to coarse SAND, little Gravel, moist (Fill).	
15			Brown, White, Black, Orange SAND, trace Brick, trace Glass, moist (Fill).	
15.5			End of Excavation at 15' below ground surface due to extensive collapse.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-60
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (6") and Subbase to 1'.	0.0
1				
1.5			Brown Silty CLAY, some Gravel, little Sand, trace Brick, trace Glass, moist (Fill).	
2				
2.5			Large Concrete (~2' maximum) observed 2' to 4'.	0.0
3				
3.5				
4				
4.5				0.0
5				
5.5				
6			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill).	
6.5				0.0
7				
7.5				
8				
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-60
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	10/26/2012
		Weather:	Sunny, 70°F (~maximum)
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill).	0.0
11				
11.5				
12				
12.5			Excavator refusal at 12' below ground surface (presumed top of bedrock).	
13				
13.5				
14				
14.5				
15				
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-61
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Mark Cerrone	Date:	12/4/2012
		Weather:	Overcast, Rain, 50°F
Operator:	Rich	Ground elev.:	
Make: Komatsu	Model: PC400 LC		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Test pit located on northwestern portion of Site, in basement. Test pit completed after building demolition. Excavation was open basement to approximately 9' below ground surface.	
1				
1.5				
2				
2.5				
3				
3.5				
4				
4.5				
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5				
9				
9.5			Brown Silty CLAY, some Gravel, trace Sand, moist.	0.0
10				

REMARKS: Test pit located approximately 38'S, 25' W of northwest building corner (see Figure).

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-62
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Mark Cerrone	Date:	12/4/2012
		Weather:	Overcast, Rain, 50°F
Operator:	Rich	Ground elev.:	
Make: Komatsu	Model: PC400 LC		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Test pit located on northwestern portion of Site, in basement. Test pit completed after building demolition. Excavation was open basement to approximately 9' below ground surface.	
1				
1.5				
2				
2.5				
3				
3.5				
4				
4.5				
5				
5.5				
6				
6.5				
7				
7.5				
8				
8.5				
9				
9.5			Brown Silty CLAY, some Gravel, trace Sand, moist.	0.0
10			Excavator refusal at 10' below ground surface (presumed top of bedrock).	

REMARKS: Test pit located approximately 34'S, 38' E of northeast building corner "jog" (see Figure).

TEST PIT FIELD LOG

Project Description: BCP Site C915261
Project location: 129 Holden Street
GZA Representative: Thomas Bohlen
Contractor: Nature's Way
Operator: Corey Haaf
Make: CAT Model: 315 CL

Test Pit No: TP-63
Location:
File No: 21.0056642.10
Date: 12/18/2012
Weather: Overcast, Rain, 40°F
Ground elev.:

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown Silty CLAY, trace Sand, trace Gravel, moist (Native).	0.7
1				
1.5				
2				
2.5				0.8
3				
3.5				
4				
4.5				0.5
5				
5.5				
6				
6.5				0.8
7				
7.5				
8				
8.5				0.7
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-63
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, trace Sand, trace Gravel, moist (Native).	0.5
11				
11.5				
12				
12.5			Excavator refusal at 12' below ground surface (presumed top of bedrock).	
13				
13.5				
14				
14.5				
15				
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-64
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown GRAVEL and SAND, little Silt, little Clay, trace Brick, trace Slag, moist, (Fill).	0.0
1				
1.5				
2				
2.5				0.4
3				
3.5				
4				
4.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill).	0.4
5				
5.5				
6				
6.5				0.5
7				
7.5				
8				
8.5				0.2
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-64
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill).	0.2
11				
11.5				
12				
12.5				0.2
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description: BCP Site C915261
Project location: 129 Holden Street
GZA Representative: Thomas Bohlen
Contractor: Nature's Way
Operator: Corey Haaf
Make: CAT Model: 315 CL

Test Pit No: TP-65
Location:
File No: 21.0056642.10
Date: 12/18/2012
Weather: Overcast, Rain, 40°F
Ground elev.:

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown GRAVEL and SAND, little Asphalt, little Concrete, trace Silt, trace Clay, trace Brick, moist (Fill). Large concrete and asphalt (~3' maximum) observed.	0.0
1				
1.5				
2				
2.5				0.3
3				
3.5				
4				
4.5				0.3
5				
5.5				
6				
6.5				0.3
7				
7.5				
8				
8.5				0.3
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-65
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown GRAVEL and SAND, little Asphalt, little Concrete, trace Silt, trace Clay, trace Brick, moist (Fill). Large concrete and asphalt (~3' maximum) observed.	0.2
11				
11.5				
12				
12.5				0.3
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-66
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown Silty CLAY, some large Gravel (~1' maximum), trace Sand, moist (Fill).	0.4
1				
1.5				
2			Grades to: trace Gravel.	
2.5				0.6
3				
3.5				
4				
4.5				0.5
5				
5.5				
6				
6.5				0.5
7				
7.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill).	
8				
8.5				0.3
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-66
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill).	0.2
11				
11.5			Large limestone (~2' maximum) observed.	
12				
12.5				0.3
13				
13.5				
14				
14.5			Grades to: wet.	
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-67
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown GRAVEL and SAND, trace Silt, trace Clay, trace Concrete, trace Slag, moist (Fill).	0.2
1			Brown Silty CLAY, trace Sand, trace Gravel, moist (Fill).	
1.5			Brown, Dark Brown, Orange, White, Black SAND, trace Silt, trace Clay, trace Glass, trace Brick, trace Metal, trace Tile, moist (Fill).	
2			Gray Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill).	
2.5			observed at northwest corner of excavation from 1' to 6' below ground surface.	0.8
3				
3.5				
4				
4.5				0.5
5				
5.5				
6				
6.5				0.4
7				
7.5				
8				
8.5				0.2
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-67
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown, Dark Brown, Orange, White, Black SAND, trace Silt, trace Clay, trace Glass, trace Brick, trace Metal, trace Tile, moist (Fill).	0.1
11				
11.5				
12				
12.5				0.4
13				
13.5				
14				
14.5				
15				
15.5			End of Excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-68
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (8-inches) and Subbase (4-inches)	0.0
1				
1.5			Gray GRAVEL, some Sand, trace Slag, trace Silt, trace Clay, moist (Fill).	
2				
2.5			Brown Silty CLAY, trace Sand, trace Gravel, moist.	0.3
3				
3.5				
4				
4.5				0.4
5				
5.5				
6				
6.5				0.4
7				
7.5				
8				
8.5				
9			Excavator refusal at 8.5' below ground surface (presumed top of bedrock).	
9.5				
10				

REMARKS: Potentially perched water observed flowing down the north excavation wall at 2' bgs. on top of silty clay.

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-69
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Black/Bluish Green fine to coarse SLAG, moist (Fill). Large Slag (~3' maximum) observed.	0.4
1			Black Silty CLAY, some Gravel, little Sand, moist (Fill).	
1.5				
2				
2.5			Brown Silty CLAY, some Gravel, little Sand, moist (Fill).	0.0
3			An approximate 2-inch thick layer of Black fine to coarse SAND observed on east excavation wall at 2.5'.	
3.5				
4				
4.5				0.0
5				
5.5				
6				
6.5				0.0
7				
7.5				
8				
8.5				
9			Excavator refusal at 8.5' below ground surface (presumed top of bedrock).	
9.5				
10				

REMARKS: Water observed flowing into bottom of excavation at 8.5' bgs. at the southern foot of excavation.

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-70
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown GRAVEL and SAND, trace Silt, trace Clay, moist (Fill).	0.4
1			Brown Silty CLAY, some Gravel, little Sand, moist (Fill).	
1.5			Black fine to coarse SAND observed at southeast corner of excavation - ~8-inches thick at 0.5' bgs.	
2				
2.5				0.2
3				
3.5				
4				
4.5				0.0
5				
5.5			Large limestone (~4' maximum) observed.	
6				
6.5				0.0
7				
7.5			Dark Brown fine to coarse SAND, little Silt, little Clay, trace Gravel, moist (Fill).	
8				
8.5				0.2
9				
9.5			Excavator refusal at 9' below ground surface (presumed top of bedrock).	
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	Former Central Park Plaza	Test Pit No:	TP-70A
Project location:	129 Holden Street	Location:	Buffalo, NY
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10 Task 20
Contractor:	LPCiminelli	Date:	4/10/2014
		Weather:	Sunny, windy, 40-60 degrees F
Operator:	Matt Hillman	Ground elev.:	
Make: Deere	Model: 135D		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
1			FILL: Brown Silty CLAY, some Gravel, little Sand, trace Brick, moist.	0
2				
3				0
4				
5				0
6				
7				0
8			Grades to:.....Coarse Limestone (1-foot maximum) observed, no Brick.	
9				0
10			End of test pit/top of bedrock at 9 feet below ground surface.	
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

REMARKS: 15 feet southeast of TP-70.

TEST PIT FIELD LOG

Project Description:	Former Central Park Plaza	Test Pit No:	TP-70B
Project location:	129 Holden Street	Location:	Buffalo, NY
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10 Task 20
Contractor:	LPCiminelli	Date:	4/10/2014
		Weather:	Sunny, windy, 40-60 degrees F
Operator:	Matt Hillman	Ground elev.:	
Make: Deere	Model: 135D		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
1			FILL: Brown Silty CLAY, some Gravel, little Black Sand (mixed), trace Brick, trace Concrete, trace Metal, moist.	0
2				
3				0
4				
5			Grades to:….no Brick, no Concrete, no Metal, trace Black Sand (mixed).	0
6				
7				0
8			Brown and Gray mottled Silty CLAY, little Gravel, trace Sand, moist.	
9				0
10			End of test pit/top of bedrock at 9.5 feet below ground surface.	
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

REMARKS: 15 feet north of TP-70.

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-71
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/18/2012
		Weather:	Overcast, Rain, 40°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (6-inches) and Subbase (5-inches).	0.0
1				
1.5			Black/Bluish Green fine to coarse SLAG, moist (Fill). Large Slag (~2' maximum) observed.	
2			Black fine to coarse SAND, trace Gravel, moist (Fill).	
2.5				0.0
3			Brown Silty CLAY, little Gravel, little Sand, trace Asphalt, trace Concrete, moist (Fill).	
3.5				
4				
4.5				0.0
5				
5.5				
6				
6.5				0.0
7				
7.5			Large Concrete (~3' maximum) observed.	
8				
8.5				0.0
9				
9.5				
10			Excavator refusal at 10' below ground surface (presumed top of bedrock).	

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-72
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Dark Brown GRAVEL and SAND, little Asphalt, trace Brick, trace Silt, trace Clay, moist (Fill).	0.0
1			Brown Silty CLAY, little Gravel ,trace Sand, trace Brick, moist (Fill).	
1.5				
2				
2.5				0.0
3				
3.5				
4				
4.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill). Large limestone (~3' maximum) observed.	0.0
5				
5.5				
6				
6.5				0.0
7				
7.5				
8				
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-72
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Grades to: Black Sand.	0.0
11				
11.5			Grades to: Brown Sand.	
12				
12.5				0.0
13				
13.5				
14				
14.5				
15			Excavator refusal at 14.5' below ground surface (presumed top of bedrock).	
15.5				
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-73
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown Silty CLAY, some large Gravel (~1' maximum), little Sand, trace Brick, trace Slag, moist (Fill).	0.0
1				
1.5				
2				
2.5				0.0
3				
3.5			Brown fine to coarse SAND, little Gravel, trace Silt, trace Clay, moist (Fill).	
4			Brown, Dark Brown, Orange, White, Black SAND, some Brick, trace Silt, trace Clay, moist (Fill) observed in southeast corner of excavation from 3' to 4' bgs.	
4.5				0.0
5				
5.5				
6				
6.5				0.0
7			Brown, Dark Brown, Orange, White, Black SAND, some Brick, trace Silt, trace Clay, moist (Fill).	
7.5				
8			Grades to: some large Limestone (~1' maximum), little Brick.	
8.5				0.0
9				
9.5			Brown Silty CLAY, little Gravel, little Silt, moist (Fill).	
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-73
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, little Gravel, little Silt, moist (Fill).	0.0
11				
11.5				
12				
12.5				0.0
13				
13.5				
14				
14.5				
15			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill). Grades to: wet. Water observed at bottom of excavation.	
15.5			End of excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-74
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Asphalt (4-inches) and Subbase (6-inches).	0.1
1				
1.5			Bluish Green fine to course SLAG, moist (Fill).	
2				
2.5			Brown, Dark Brown, Orange, White, Black SAND, trace Brick, trace Silt, trace Clay, trace Metal moist (Fill).	0.0
3			Brown coarse rounded GRAVEL, little Sand, moist (Fill) observed in southern portion of excavation from 2' to 4.5' bgs.	
3.5				
4				
4.5				0.0
5				
5.5				
6				
6.5				0.0
7				
7.5				
8				
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-74
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown, Dark Brown, Orange, White, Black SAND, trace Brick, trace Silt, trace Clay, trace Metal moist (Fill).	0.0
11				
11.5				
12				
12.5				0.0
13				
13.5				
14				
14.5				
15				
15.5			End of excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	Former Central Park Plaza	Test Pit No:	TP-74A
Project location:	129 Holden Street	Location:	Buffalo, NY
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10 Task 20
Contractor:	LPCiminelli	Date:	4/10/2014
		Weather:	Sunny, windy, 40-60 degrees F
Operator:	Matt Hillman	Ground elev.:	
Make: Deere	Model: 135D		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
1			Asphalt (4-inches) and Subbase (6-inches).	0
2			FILL: Bluish Green fine to coarse SLAG, moist.	
3				0
4			Dark Brown/Orange/White/Black SAND, trace Brick, trace Silt, trace Clay, trace Glass, trace Metal, moist.	
5			Brown coarse rounded GRAVEL, little Sand, moist, observed in the southern portion of excavation from 3 to 5 feet below ground surface.	0
6				
7				0
8				
9				0
10				
11				0
12				
13				0
14				
15				0
16			End of test pit at 15 feet below ground surface.	
17				
18				
19				
20				

REMARKS: 15 feet west of TP-74

TEST PIT FIELD LOG

Project Description:	Former Central Park Plaza	Test Pit No:	TP-74B
Project location:	129 Holden Street	Location:	Buffalo, NY
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10 Task 20
Contractor:	LPCiminelli	Date:	4/10/2014
		Weather:	Sunny, windy, 40-60 degrees F
Operator:	Matt Hillman	Ground elev.:	
Make: Deere	Model: 135D		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
1			Asphalt (4-inches) and Subbase (6-inches).	0
2			FILL: Bluish Green fine to coarse SLAG, moist.	
3			Brown Silty CLAY, little Gravel, trace Sand, trace Brick, moist.	0
4				
5			Dark Brown/Orange/White/Black SAND, trace Brick, trace Silt, trace Clay, Metal, moist.	0
6				
7				0
8				
9				0
10				
11				0
12				
13				0
14				
15				0
16			End of test pit at 15 feet below ground surface.	
17				
18				
19				
20				

REMARKS: 15 feet northeast of TP-74.

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-75
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown Silty CLAY, little Gravel, little Sand, trace Slag, trace Asphalt, moist (Fill).	0.0
1				
1.5			Dark Brown GRAVEL and Black SAND, some large Concrete (~3' maximum), little Brick, trace Silt, trace Clay, moist (Fill).	
2				
2.5				0.0
3				
3.5				
4				
4.5				0.0
5				
5.5			Brown Silty CLAY, little Gravel, little Sand, moist (Fill).	
6				
6.5				0.0
7				
7.5				
8			Brown SAND and GRAVEL, some Brick, little Concrete, trace Silt, trace Clay, moist (Fill).	
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-75
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown SAND and GRAVEL, some Brick, little Concrete, trace Silt, trace Clay, moist (Fill).	0.0
11				
11.5			Black fine to coarse SAND (~6-inches) observed in southern wall of excavation.	
12				
12.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill).	0.0
13				
13.5				
14				
14.5				
15				
15.5			End of excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	Former Central Park Plaza	Test Pit No:	TP-75A
Project location:	129 Holden Street	Location:	Buffalo, NY
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10 Task 20
Contractor:	LPCiminelli	Date:	4/10/2014
		Weather:	Sunny, windy, 40-60 degrees F
Operator:	Matt Hillman	Ground elev.:	
Make: Deere	Model: 135D		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
1			FILL: Brown Silty CLAY, some coarse Gravel, little Sand, trace Brick, trace Asphalt.	0
2				
3				0
4				
5			Grades to:….some Black Sand.	0
6				
7			Grades to:….some little Black Sand.	0
8			Grades to:….no Black Sand.	
9				0
10				
11			Grades to:….little Black Sand, trace Ash.	0
12				
13			Grades to:…no Black Sand, no Ash.	0
14			Brown Fractured Limestone and Various Soils (Sand, Silt, Clay) moist.	
15				0
16			End of test pit at 15 feet below ground surface.	
17				
18				
19				
20				

REMARKS: 15 feet south of TP-75.

TEST PIT FIELD LOG

Project Description:	Former Central Park Plaza	Test Pit No:	TP-75B
Project location:	129 Holden Street	Location:	Buffalo, NY
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10 Task 20
Contractor:	LPCiminelli	Date:	4/10/2014
		Weather:	Sunny, windy, 40-60 degrees F
Operator:	Matt Hillman	Ground elev.:	
Make: Deere	Model: 135D		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
1			FILL: Brown Silty CLAY, little Gravel, little Sand, moist.	0
2				
3				0
4			Brown fine to coarse SAND and Black SAND, some coarse Gravel, little Ash, trace Silt, trace Clay, trace Brick, moist.	
5				0
6			Black fine to coarse SAND, some coarse Gravel, little Ash, trace Clay, trace Brick, trace Silt, moist.	
7			Brown Silty CLAY, little Gravel, trace Sand, moist.	0
8				
9				0
10				
11				0
12				
13				0
14			Brown Silty CLAY, some Gravel, little Black Sand, moist.	
15				0
16			End of test pit at 15 feet below ground surface.	
17				
18				
19				
20				

REMARKS: 15 feet northeast of TP-75.

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-76
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Gray #1 Stone (Crusher run limestone).	0.0
1			Brown SAND and GRAVEL, trace Silt, trace Clay, trace Brick, moist (Fill).	
1.5				
2				
2.5			Brown Silty CLAY, trace Gravel, trace Sand, moist (Fill).	0.0
3			Brown GRAVEL (~1' maximum limestone) and SAND (with suspect incinerator ash) moist (Fill).	
3.5				
4				
4.5				0.0
5				
5.5				
6				
6.5				0.0
7				
7.5			Brown fine to coarse SAND, some Gravel, trace Silt, trace Clay, trace Asphalt, moist (Fill).	
8				
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-76
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown fine to coarse SAND, some Gravel, trace Silt, trace Clay, trace Asphalt, moist (Fill).	0.0
11				
11.5				
12				
12.5				0.0
13				
13.5				
14				
14.5				
15			Grades to: Black and Brown SAND, some Brick.	
15.5			End of excavation at 15' below ground surface.	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-77
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown Silty CLAY, little Sand, trace Gravel, trace Brick, moist (Fill).	0.0
1				
1.5				
2				
2.5			Brown GRAVEL (~2' maximum) and SAND, trace Clay, trace Silt, trace Brick, moist (Fill).	0.0
3				
3.5			Brown, Dark Brown, Orange, White, Black SAND, trace Brick, trace Silt, trace Clay, trace Glass, trace Metal, moist (Fill).	
4				
4.5				0.0
5				
5.5				
6				
6.5			Brown GRAVEL and SAND, little Silt, little Clay, trace Brick, moist (Fill).	0.0
7				
7.5				
8				
8.5				0.0
9				
9.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill). large limestone (~3' maximum) observed.	
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-77
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make:	CAT Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill). large limestone (~3' maximum) observed.	0.0
11				
11.5				
12				
12.5				0.0
13				
13.5			Grades to: Black Sand.	
14				
14.5			Grades to: Brown Sand.	
15				
15.5				
16			End of excavation at 15.5' below ground surface.	
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description:	Former Central Park Plaza	Test Pit No:	TP-77A
Project location:	129 Holden Street	Location:	Buffalo, NY
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10 Task 20
Contractor:	LPCiminelli	Date:	4/10/2014
		Weather:	Sunny, windy, 40-60 degrees F
Operator:	Matt Hillman	Ground elev.:	
Make: Deere	Model: 135D		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
1			FILL: Brown Silty CLAY, little Sand, trace Gravel, trace Brick, moist.	0
2				
3				0
4				
5			Black fine to coarse SAND, moist.	0
6			Brown coarse GRAVEL (2-foot maximum) and Black SAND, trace Silt, trace Clay, trace Brick, moist.	
7				0
8				
9			Brown Silty CLAY, little Sand, trace Gravel, trace Brick. Grades to:….and Black Sand (mixed, 8-inches).	0
10				
11			Brown Fractured Limestone and Various Soils (Sand, Silt, Clay) and ASH (mixed).	0
12				
13			Grades to:….trace ASH.	0
14				
15				0
16			End of test pit at 15 feet below ground surface.	
17				
18				
19				
20				

REMARKS: 15 feet south of TP-77

TEST PIT FIELD LOG

Project Description:	Former Central Park Plaza	Test Pit No:	TP-77B
Project location:	129 Holden Street	Location:	Buffalo, NY
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10 Task 20
Contractor:	LPCiminelli	Date:	4/10/2014
		Weather:	Sunny, windy, 40-60 degrees F
Operator:	Matt Hillman	Ground elev.:	
Make: Deere	Model: 135D		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
1			FILL: Brown Silty CLAY, little Sand, trace Gravel, trace Brick, moist.	0
2				
3				0
4			Large Limestone (3-foot maximum) observed.	
5			Brown fine to coarse SAND, little Gravel, trace Silt, trace Clay, moist.	0
6				
7			Grades to: some large Limestone (2-foot maximum).	0
8				
9				0
10				
11				0
12			Brown Fractured Limestone and Various Soils (Sand, Silt, Clay) moist.	
13				0
14				
15				0
16			End of test pit at 15 feet below ground surface.	
17				
18				
19				
20				

REMARKS: 15 feet west of TP-77.

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-78
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown Silty CLAY, little Asphalt, little Gravel, trace Sand, moist (Fill).	0.0
1				
1.5				
2				
2.5				0.0
3			Brown SAND and GRAVEL (~1' maximum), little Silt, little Clay, trace Brick, moist, (Fill).	
3.5				
4				
4.5				0.0
5				
5.5			Brown Silty CLAY, little Gravel, trace Sand, moist (Fill). Large Gravel (~3' maximum) observed at northern portion of excavation.	
6				
6.5				0.0
7				
7.5				
8				
8.5			Excavator refusal at 8' below ground surface (presumed top of bedrock).	
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-79
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/19/2012
		Weather:	Overcast, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Brown Silty CLAY, some Gravel, little Black Sand, trace Brick, trace PVC, trace Concrete, moist (Fill).	0.0
1			Grades to: Brown Sand, no PVC.	
1.5				
2				
2.5				0.0
3				
3.5				
4				
4.5				0.0
5				
5.5				
6				
6.5				0.0
7				
7.5			An approximate 3' x 3' concrete block removed from excavation.	
8				
8.5				0.0
9				
9.5				
10			Excavator refusal at 10' below ground surface (presumed top of bedrock).	

REMARKS:

TEST PIT FIELD LOG

Project Description: BCP Site C915261
Project location: 129 Holden Street
GZA Representative: Thomas Bohlen
Contractor: Nature's Way
Operator: Corey Haaf
Make: CAT Model: 315 CL

Test Pit No: TP-80
Location:
File No: 21.0056642.10
Date: 12/20/2012
Weather: Partly Cloudy, windy, 30°F
Ground elev.:

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Gray GRAVEL (2" Crusher Run Limestone) moist (Fill, 8-inches).	0.0
1				
1.5			Brown Silty CLAY, trace Sand, trace Gravel, moist (Fill).	
2			Gray GRAVEL (2" Crusher Run Limestone) moist (Fill, 8-inches).	
2.5				0.0
3			Yellowish Brown/Black fine to coarse SAND, little Gravel, trace Silt, trace Clay,moist (Fill).	
3.5				
4			Brown, Dark Brown, Orange, White, Black SAND, some Brick, little Concrete, trace Silt, trace Clay, moist (Fill).	
4.5				0.0
5				
5.5				
6				
6.5				0.0
7				
7.5			Brown Silty CLAY, little Gravel, little Sand, moist (Fill).	
8				
8.5				0.0
9				
9.5				
10				

REMARKS:

TEST PIT FIELD LOG

Project Description:	BCP Site C915261	Test Pit No:	TP-80
Project location:	129 Holden Street	Location:	
GZA Representative:	Thomas Bohlen	File No:	21.0056642.10
Contractor:	Nature's Way	Date:	12/20/2012
		Weather:	Partly Cloudy, windy, 30°F
Operator:	Corey Haaf	Ground elev.:	
Make: CAT	Model: 315 CL		

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
10.5			Brown Silty CLAY, little Gravel, little Sand, moist (Fill).	0.0
11				
11.5			Brown GRAVEL and SAND, little Silt, trace Clay, moist (Fill).	
12				
12.5				0.0
13				
13.5				
14				
14.5				
15				
15.5			Excavator refusal at 15' below ground surface (presumed top of bedrock).	
16				
16.5				
17				
17.5				
18				
18.5				
19				
19.5				
20				

REMARKS:

TEST PIT FIELD LOG

Project Description: BCP Site C915261
Project location: 129 Holden Street
GZA Representative: Thomas Bohlen
Contractor: Nature's Way
Operator: Corey Haaf
Make: CAT Model: 315 CL

Test Pit No: TP-81
Location:
File No: 21.0056642.10
Date: 12/20/2012
Weather: Partly Cloudy, windy, 30°F
Ground elev.:

DEPTH (feet)	SAMPLE NO.	SAMPLE DEPTH	DESCRIPTION	PID
0.5			Gray GRAVEL (2" Crusher Run Limestone) moist (Fill).	0.0
1				
1.5			Brown GRAVEL and SAND, little Silt, trace Clay, trace Asphalt, trace Brick, moist (Fill).	
2				
2.5			2-inch diameter suspect electrical conduit line observed on western wall of excavation at 2' below ground surface.	0.0
3				
3.5			Brown Silty CLAY, little Black Sand, trace Gravel, moist (Fill).	
4				
4.5			Gray Fractured Limestone and various soils (Sand, Silt, Clay) moist (Fill). 2-inch diameter suspect electrical conduit line observed on eastern wall of excavation at 4' below ground surface.	0.0
5				
5.5				
6				
6.5				0.0
7				
7.5				
8				
8.5				0.0
9				
9.5				
10			End of excavation at 10' below ground surface due to extensive collapse.	

REMARKS:

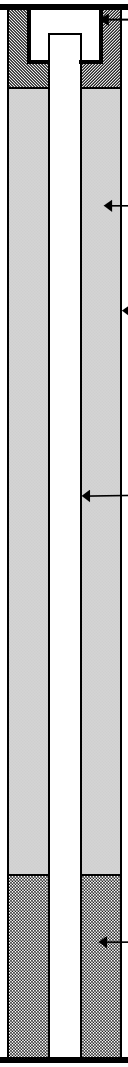
129 Holden Street
BCP Site C915261
Buffalo, New York

Boring No. MW-1
Flie No. 21.0056642.10
Checked By: CZB

CONTRACTOR	Nature's Way, Inc	BORING LOCATION	See location plan
DRILLER	Nate Gingrich	GROUND SURFACE ELEVATION	671.9 DATUM
START DATE: 2/8/2013	END DATE: 2/13/2013	GZA GEOENVIRONMENTAL REPRESENTATIVE	Thomas Bohlen

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	NOTES
2/8/13	15:40	18.4	Top of riser	
2/13/13	11:50	19.5	Top of riser	

TYPE OF DRILL RIG	Acker AD-2
CASING SIZE AND DIAMETER	4 1/4" I.D. HSA
OVERBURDEN SAMPLING METHOD	2" Diameter x 24" Long Split Spoon
ROCK DRILLING METHOD	H Size Bore (Air Rotary)

DEPTH	SAMPLE BLOWS (/6")	NO.	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	SAMPLE DESCRIPTION	WELL INSTALLATION DIAGRAM	WELL INSTALLATION DESCRIPTION	OVM (ppm)
	2	S-1	0 - 2	10	10	Asphalt to approx. 0.5' bgs.		Flush-mount protective casing with concrete seal to approx. 1.5 feet bgs.	0
1	5					(FILL) Loose, brown, GRAVEL & SAND,			
	5					trace Silt, trace Clay, moist.			
2	4								
	2	S-2	2 - 4	9	60	(FILL) Stiff, brown, Silty CLAY, trace			0
3	5					Sand, trace Gravel, moist.			
	4								
4	4							Cement/Bentonite Grout	
	5	S-3	4 - 6	7	5	(FILL) Loose, brown, GRAVEL & SAND,		from approx. 1.5' to 16.6'	0
5	4					some brick fragments, some asphalt		bgs.	
	3					fragments, moist.			
6	4							Approx. 10-inch borehole.	
	2	S-4	6 - 8	6	10	(FILL) Medium, brown, Silty CLAY, little			0
7	3					black Sand, trace Gravel, moist.			
	3								
8	4								
	6	S-5	8 - 10	103/9"	5	(FILL) Gray fractured Limestone.			0
9	53								
	50/3"							2-inch I.D. Schedule 40	
10	-							PVC well riser to approx.	
	13	S-6	10 - 12	14	0			24.5' bgs.	0
11	7								
	7								
12	5								
	3	S-7	12 - 14	4	0				0
13	2								
	2								
14	3								
	3	S-8	14 - 16	66/9"	5				0
15	16								
	50/3"								
16	-								
	4	S-9	16 - 18	32	10				0
17	3								
	29								
18	50/1"							Bentonite pellet seal from	
	50/3"	S-10	18 - 18.5	NV	0	Auger refusal at approx. 18.5' bgs.		approx. 16.6' to 22.5' bgs.	
19						Advanced contiuously through limestone			
						bedrock using air rotary techniques.			
20									

S - Split Spoon Sample
C - Rock Core Sample

NOTES:
1) MiniRae 2000 organic vapor meter (OVM) used to screen soil samples. Meter was calibrated using a 100 ppm isobutylene calibration gas standard.
2) OVM reading from headspace screening of soil samples.
3) NV = no value.

General Notes:
1) Stratification lines represent approximate boundary between soil types; transitions may be gradual.
2) Water level readings have been made at times and under conditions stated; fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

129 Holden Street
BCP Site C915261
Buffalo, New York

Boring No. MW-1
Flie No. 21.0056642.10
Checked By: CZB

CONTRACTOR	Nature's Way, Inc	BORING LOCATION	See location plan
DRILLER	Nate Gingrich	GROUND SURFACE ELEVATION	671.9 DATUM
START DATE: 2/8/2013	END DATE: 2/13/2013	GZA GEOENVIRONMENTAL REPRESENTATIVE	Thomas Bohlen

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	NOTES
2/8/13	15:40	18.4	Top of riser	
2/13/13	11:50	19.5	Top of riser	

TYPE OF DRILL RIG	Acker AD-2
CASING SIZE AND DIAMETER	4 1/4" I.D. HSA
OVERBURDEN SAMPLING METHOD	2" Diameter x 24" Long Split Spoon
ROCK DRILLING METHOD	H Size Bore (Air Rotary)

DEPTH	SAMPLE BLOWS (/6")	NO.	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	SAMPLE DESCRIPTION	WELL INSTALLATION DIAGRAM	WELL INSTALLATION DESCRIPTION	OVM (ppm)
21						Advanced contiuously through limestone bedrock using air rotary techniques.			
22									
23									
24								#0 Quartz Rock Sand from approx. 22.5' to 38.9' bgs.	
25									
26									
27									
28									
29								2-inch I.D. Schedule 40 PVC well screen from approx. 24.5' to 34.5' bgs.	
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40						End of MW-1 at approx. 38.9' bgs.			

S - Split Spoon Sample
C - Rock Core Sample

NOTES:
1) MiniRae 2000 organic vapor meter (OVM) used to screen soil samples. Meter was calibrated using a 100 ppm isobutylene calibration gas standard.
2) OVM reading from headspace screening of soil samples.
3) NV = no value.

General Notes:
1) Stratification lines represent approximate boundary between soil types; transitions may be gradual.
2) Water level readings have been made at times and under conditions stated; fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

129 Holden Street
BCP Site C915261
Buffalo, New York

Boring No. MW-2
Flie No. 21.0056642.10
Checked By: CZB

CONTRACTOR	Nature's Way, Inc	BORING LOCATION	See location plan
DRILLER	Nate Gingrich	GROUND SURFACE ELEVATION	658.5 DATUM
START DATE: 2/7/2013	END DATE: 2/8/2013	GZA GEOENVIRONMENTAL REPRESENTATIVE	Thomas Bohlen

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	NOTES
2/7/13	14:55	16.9	Top of riser	
2/8/13	8:12	17.0	Top of riser	

TYPE OF DRILL RIG	Dietrich D-50 Track Rig
CASING SIZE AND DIAMETER	4 1/4" I.D. HSA
OVERBURDEN SAMPLING METHOD	2" Diameter x 24" Long Split Spoon
ROCK DRILLING METHOD	HQ Size Rock Core

DEPTH	SAMPLE BLOWS (/6")	NO.	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	SAMPLE DESCRIPTION	WELL INSTALLATION DIAGRAM	WELL INSTALLATION DESCRIPTION	OVM (ppm)
	37	S-1	0 - 2	26	10	(FILL) Medium dense, gray, GRAVEL &		Flush-mount protective	0
1	19					SAND, moist.		casing with concrete seal	
	7							to approx. 1.5 feet bgs.	
2	4								
	2	S-2	2 - 4	4	10	(FILL) Soft, brown, Silty CLAY, trace			0
3	2					Sand, trace Gravel, moist.			
	2								
4	3							Cement/Bentonite Grout	
	2	S-3	4 - 6	4	10			from approx. 1.5' to 6.9'	0
5	2							bgs.	
	2								
6	3							Approx. 10-inch borehole.	
	9	S-4	6 - 8	26	30	(FILL) Medium dense, brown, GRAVEL,			0
7	14					some Sand, trace Silt, trace Clay, moist			
	12					(fractured limestone).			
8	13							Bentonite pellet seal from	
	19	S-5	8 - 10	12	0			approx. 6.9' to 10.6' bgs.	
9	9								
	3							2-inch I.D. Schedule 40	
10	5							PVC well riser to approx.	
	7	S-6	10 - 12	12	20			12.3' bgs.	0
11	6								
	6								
12	7								
	12	S-7	12 - 14	18	0				
13	9								
	9							2-inch I.D. Schedule 40	
14	4							PVC well screen from	
	7	S-8	14 - 16	13	0			approx. 12.3' to 22.3' bgs.	
15	6								
	7								
16	5							#0 Quartz Rock Sand from	
	18	S-9	16 - 17.5	50/5"	10			approx. 10.6' to 22.3' bgs.	0
17	50/5"					Grades to:..wet.			
	-								
18		C-1	17.5 - 22.3	74	100	(BEDROCK) Moderately hard to soft,			
						slightly weathered, aphanitic, gray,			
19						LIMESTONE, slightly fractured, thinly			
						bedded, very close to closely spaced			
20						sub-horizontal fractures, oxidation			

S - Split Spoon Sample
C - Rock Core Sample

NOTES:
1) MiniRae 2000 organic vapor meter (OVM) used to screen soil samples. Meter was calibrated using a 100 ppm isobutylene calibration gas standard.
2) OVM reading from headspace screening of soil samples.
3) NV = no value.

General Notes:
1) Stratification lines represent approximate boundary between soil types; transitions may be gradual.
2) Water level readings have been made at times and under conditions stated; fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

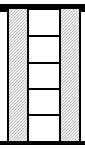
129 Holden Street
BCP Site C915261
Buffalo, New York

Boring No. MW-2
Flie No. 21.0056642.10
Checked By: CZB

CONTRACTOR	Nature's Way, Inc	BORING LOCATION	See location plan
DRILLER	Nate Gingrich	GROUND SURFACE ELEVATION	658.5 DATUM
START DATE: 2/7/2013	END DATE: 2/8/2013	GZA GEOENVIRONMENTAL REPRESENTATIVE	Thomas Bohlen

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	NOTES
2/7/13	14:55	16.9	Top of riser	
2/8/13	8:12	17.0	Top of riser	

TYPE OF DRILL RIG	Dietrich D-50 Track Rig
CASING SIZE AND DIAMETER	4 1/4" I.D. HSA
OVERBURDEN SAMPLING METHOD	2" Diameter x 24" Long Split Spoon
ROCK DRILLING METHOD	HQ Size Rock Core

DEPTH	SAMPLE BLOWS (/6")	NO.	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	SAMPLE DESCRIPTION	WELL INSTALLATION DIAGRAM	WELL INSTALLATION DESCRIPTION	OVM (ppm)
21						staining in matrix along bedding planes, clay deposits in some fractures.			
22									
23						End of MW-2 at approx. 22.3' bgs.			
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									

S - Split Spoon Sample
C - Rock Core Sample

NOTES:
1) MiniRae 2000 organic vapor meter (OVM) used to screen soil samples. Meter was calibrated using a 100 ppm isobutylene calibration gas standard.
2) OVM reading from headspace screening of soil samples.
3) NV = no value.

General Notes:
1) Stratification lines represent approximate boundary between soil types; transitions may be gradual.
2) Water level readings have been made at times and under conditions stated; fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

129 Holden Street
BCP Site C915261
Buffalo, New York

Boring No. MW-3
Flie No. 21.0056642.10
Checked By: CZB

CONTRACTOR	Nature's Way, Inc	BORING LOCATION	See location plan
DRILLER	Nate Gingrich	GROUND SURFACE ELEVATION	667.8 DATUM
START DATE: 2/7/2013	END DATE: 2/8/2013	GZA GEOENVIRONMENTAL REPRESENTATIVE	Thomas Bohlen

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	NOTES
2/8/13	15:27	17.4	Top of riser	

TYPE OF DRILL RIG	Dietrich D-50 Track Rig
CASING SIZE AND DIAMETER	4 1/4" I.D. HSA
OVERBURDEN SAMPLING METHOD	2" Diameter x 24" Long Split Spoon
ROCK DRILLING METHOD	HQ Size Rock Core

DEPTH	SAMPLE BLOWS (/6")	NO.	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	SAMPLE DESCRIPTION	WELL INSTALLATION DIAGRAM	WELL INSTALLATION DESCRIPTION	OVM (ppm)
	19	S-1	0 - 2	58	10	(FILL) Very dense, brown, GRAVEL &		Flush-mount protective	0
1	40					SAND, trace Silt, trace Clay, trace		casing with concrete seal	
	18					asphalt fragments, moist.		to approx. 1.5 feet bgs.	
2	9								
	7	S-2	2 - 4	38	70	(FILL) Hard, brown, Silty CLAY, little			0
3	13					Sand, trace Gravel, moist.			
	25								
4	7					(FILL) Concrete fragments.		Cement/Bentonite Grout	
	4	S-3	4 - 6	7	10	(FILL) Loose, brown, GRAVEL & SAND,		from approx. 1.5' to 9'	0
5	4					little Silt, little Clay, moist.		bgs.	
	3								
6	2							Approx. 10-inch borehole.	
	3	S-4	6 - 8	8	50	(FILL) Medium, brown, Silty CLAY, trace			0
7	4					Sand, trace Gravel, moist.			
	4							2-inch I.D. Schedule 40	
8	4							PVC well riser to approx.	
	2	S-5	8 - 10	5	50			13.8' bgs.	0
9	2								
	3								
10	2								
	2	S-6	10 - 12	7	40				0
11	2							Bentonite pellet seal from	
	5							approx. 9' to 12' bgs.	
12	12								
	2	S-7	12 - 14	5	5	Grades to:..some black Sand, little slag			0
13	3					fragments.			
	2								
14	4								
	2	S-8	14 - 16	10	10	(FILL) Medium dense, bluish gray,			0
15	4					fine to coarse SLAG fragments, moist.			
	6								
16	14							#0 Quartz Rock Sand from	
	6	S-9	16 - 18	11	30	(FILL) Medium dense, brown to black,		approx. 12' to 23.8' bgs.	0
17	5					fine SAND, trace Gravel, moist.			
	6								
18	11								
	45	S-10	18 - 19	50/2"	20	(FILL) Very dense, gray, LIMESTONE			0
19	50/2"					fragments, moist.			
		C-1	19 - 23.8	84	100	Auger refusal at approx. 19' bgs.			
20						See next page for bedrock description.			

S - Split Spoon Sample
C - Rock Core Sample

NOTES:
1) MiniRae 2000 organic vapor meter (OVM) used to screen soil samples. Meter was calibrated using a 100 ppm isobutylene calibration gas standard.
2) OVM reading from headspace screening of soil samples.
3) NV = no value.

General Notes:
1) Stratification lines represent approximate boundary between soil types; transitions may be gradual.
2) Water level readings have been made at times and under conditions stated; fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

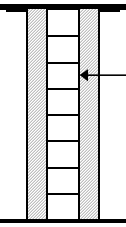
129 Holden Street
BCP Site C915261
Buffalo, New York

Boring No. MW-3
Flie No. 21.0056642.10
Checked By: CZB

CONTRACTOR	Nature's Way, Inc	BORING LOCATION	See location plan
DRILLER	Nate Gingrich	GROUND SURFACE ELEVATION	667.8 DATUM
START DATE: 2/7/2013	END DATE: 2/8/2013	GZA GEOENVIRONMENTAL REPRESENTATIVE	Thomas Bohlen

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	NOTES
2/8/13	15:27	17.4	Top of riser	

TYPE OF DRILL RIG	Dietrich D-50 Track Rig
CASING SIZE AND DIAMETER	4 1/4" I.D. HSA
OVERBURDEN SAMPLING METHOD	2" Diameter x 24" Long Split Spoon
ROCK DRILLING METHOD	HQ Size Rock Core

DEPTH	SAMPLE BLOWS (/6")	NO.	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	SAMPLE DESCRIPTION	WELL INSTALLATION DIAGRAM	WELL INSTALLATION DESCRIPTION	OVM (ppm)
21						(BEDROCK) Moderately hard to soft, slightly weathered, aphanitic, gray, LIMESTONE, slightly fractured, thinly bedded, very close to closely spaced sub-horizontal fractures, oxidation staining in matrix along bedding planes, clay deposits in some fractures.		2-inch I.D. Schedule 40 PVC well screen from approx. 13.8' to 23.8' bgs.	
22									
23									
24									
25						End of MW-3 at approx. 23.8' bgs.			
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									

S - Split Spoon Sample
C - Rock Core Sample

NOTES:
1) MiniRae 2000 organic vapor meter (OVM) used to screen soil samples. Meter was calibrated using a 100 ppm isobutylene calibration gas standard.
2) OVM reading from headspace screening of soil samples.
3) NV = no value.

General Notes:
1) Stratification lines represent approximate boundary between soil types; transitions may be gradual.
2) Water level readings have been made at times and under conditions stated; fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

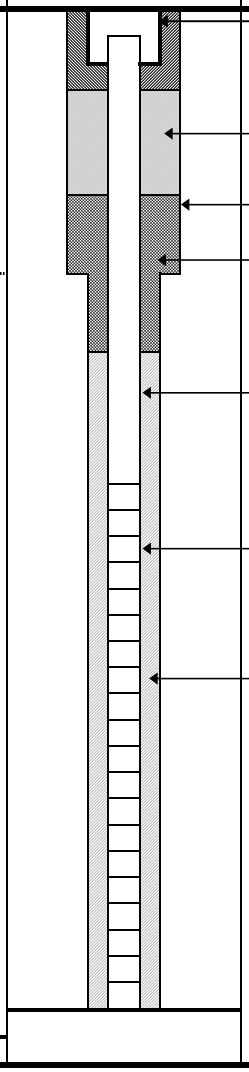
129 Holden Street
BCP Site C915261
Buffalo, New York

Boring No. MW-4
Flie No. 21.0056642.10
Checked By: CZB

CONTRACTOR	Nature's Way, Inc	BORING LOCATION	See location plan
DRILLER	Nate Gingrich	GROUND SURFACE ELEVATION	652.9 DATUM
START DATE: 2/12/2013	END DATE: 2/15/2013	GZA GEOENVIRONMENTAL REPRESENTATIVE	Thomas Bohlen/John Beninati

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	NOTES
2/14/13	8:10	7.5' bgs.		
2/14/13	13:10	13.5' bgs.		
2/15/13	7:40	13.3' bgs.		

TYPE OF DRILL RIG	Dietrich D-50 Track Rig/Mobile B-57 Truck Rig
CASING SIZE AND DIAMETER	4 1/4" I.D. HSA
OVERBURDEN SAMPLING METHOD	2" Diameter x 24" Long Split Spoon
ROCK DRILLING METHOD	HQ Size Rock Core

DEPTH	SAMPLE BLOWS (/6")	NO.	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	SAMPLE DESCRIPTION	WELL INSTALLATION DIAGRAM	WELL INSTALLATION DESCRIPTION	OVM (ppm)
	3	S-1	0 - 2	10	10	(FILL) Loose, gray, GRAVEL & SAND,		Flush-mount protective casing with concrete seal to approx. 1.5' bgs.	0
1	5					little Silt, little Clay, moist.			
	5								
2	7								
	20	S-2	2 - 4	30	10	(FILL) Very stiff, brown, Silty CLAY, little		Cement/Bentonite Grout from approx. 1.5' to 3.5' bgs.	0
3	5					Sand, trace Gravel, moist.			
	25								
4	33							Approx. 10-inch borehole.	
	50/3"	S-3	4 - 5.2	NV	5	(FILL) Pulverized concrete.			0
5						Auger refusal at approx. 5.2 feet bgs.		Bentonite pellet seal from approx. 3.5' to 6.5' bgs.	
		C-1	5.2 - 10.2	60	100	(BEDROCK) Soft, slightly weathered,			
6						aphanitic, gray, LIMESTONE, slightly to			
						moderately fractured, thinly bedded,			
7						horizontal to sub-horizontal fractures,			
						oxidation in matrix at bedding planes,		2-inch I.D. Schedule 40 PVC well riser to approx. 8.8' bgs.	
8						shaly partings.			
9									
10									
		C-2	10.2 - 14.7	71	100	(BEDROCK) Moderately hard, very		2-inch I.D. Schedule 40 PVC well screen from approx. 8.8' to 18.8' bgs.	
11						slightly weathered, aphanitic, gray,			
						LIMESTONE, extremely to moderately			
12						fractured, very thinly to thinly bedded,			
						very close to closely spaced horizontal			
13						to sub-horizontal fractures, shaly partings.		#0 Quartz Rock Sand from approx. 6.5' to 18.8' bgs.	
14									
15		C-3	14.7 - 19.7	84	100	(BEDROCK) Hard to medium, very			
						slightly to moderately weathered,			
16						aphanitic, gray, LIMESTONE, very thin			
						to thinly bedded, very close to moderately			
17						closely spaced horizontal to sub-			
						horizontal fractures, shaly partings.			
18									
19									
20						End of MW-4 at approx. 19.7' bgs.			

S - Split Spoon Sample
C - Rock Core Sample

NOTES:
1) MiniRae 2000 organic vapor meter (OVM) used to screen soil samples. Meter was calibrated using a 100 ppm isobutylene calibration gas standard.
2) OVM reading from headspace screening of soil samples.
3) NV = no value.

General Notes:
1) Stratification lines represent approximate boundary between soil types; transitions may be gradual.
2) Water level readings have been made at times and under conditions stated; fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

129 Holden Street
BCP Site C915261
Buffalo, New York

Boring No. MW-5
Flie No. 21.0056642.10
Checked By: CZB

CONTRACTOR	Nature's Way, Inc	BORING LOCATION	See location plan
DRILLER	Nate Gingrich	GROUND SURFACE ELEVATION	663.8 DATUM
START DATE: 2/14/2013	END DATE: 2/15/2013	GZA GEOENVIRONMENTAL REPRESENTATIVE	John Beninati

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	NOTES
2/15/13	12:00	24.7' bgs.		

TYPE OF DRILL RIG	Mobile B-57 Truck Rig
CASING SIZE AND DIAMETER	4 1/4" I.D. HSA
OVERBURDEN SAMPLING METHOD	2" Diameter x 24" Long Split Spoon
ROCK DRILLING METHOD	HQ Size Rock Core

DEPTH	SAMPLE BLOWS (/6")	NO.	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	SAMPLE DESCRIPTION	WELL INSTALLATION DIAGRAM	WELL INSTALLATION DESCRIPTION	OVM (ppm)
	5	S-1	0 - 2	18	70	(FILL) Very stiff, light yellowish brown,		Flush-mount protective	0
1	8					Silty CLAY, trace fine to coarse Sand,		casing with concrete seal	
	10					trace fine to coarse Gravel, trace brick		to approx. 1.5' bgs.	
2	11					fragments, moist.			
	6	S-2	2 - 4	28	40	Grades to:..brown, trace slag fragments.			0
3	17								
	11								
4	11							Cement/Bentonite Grout	
	6	S-3	4 - 6	13	40	Grades to:..stiff, trace organics.		from approx. 1.5' to 14.5'	0
5	7							bgs.	
	6								
6	19							Approx. 10-inch borehole.	
	15	S-4	6 - 8	33	15	(FILL) Dense, gray, fine to coarse SAND,			0
7	24					trace fine to medium Gravel, moist			
	19					(crushed stone fill).			
8	17								
	17	S-5	8 - 10	15	<5	(FILL) Medium dense, gray, fine to			0
9	7					medium GRAVEL, moist (crushed stone			
	8					fill).		2-inch I.D. Schedule 40	
10	7							PVC well riser to approx.	
	7	S-6	10 - 12	10	20	(FILL) Stiff, dark brown, Silty CLAY, trace		19.5' bgs.	0
11	5					fine to coarse Sand, trace fine to coarse			
	5					Gravel, trace slag fragments, moist.			
12	7								
	7	S-7	12 - 14	12	30	Grades to:..dark brown to dark grayish			0
13	7					brown, trace black cinders.			
	5								
14	6								
	6	S-8	14 - 16	19	30	Grades to:..very stiff, little black cinders.			0
15	6								
	13					Grades to:..dark gray, some black		Bentonite pellet seal from	
16	15					cinders.		approx. 14.5' to 17.5' bgs.	
	17	S-9	16 - 18	17	<5	(FILL) Medium dense, dark gray,			0
17	6					GRAVEL, trace slag fragments, moist.			
	11								
18	9								
	13	S-10	18 - 20	27	<5	(FILL) Brick fragments.		#0 Quartz Rock Sand from	0
19	15							approx. 17.5' to 29.5' bgs.	
	12								
20	11								

S - Split Spoon Sample
C - Rock Core Sample

NOTES:
1) MiniRae 2000 organic vapor meter (OVM) used to screen soil samples. Meter was calibrated using a 100 ppm isobutylene calibration gas standard.
2) OVM reading from headspace screening of soil samples.
3) NV = no value.

General Notes:
1) Stratification lines represent approximate boundary between soil types; transitions may be gradual.
2) Water level readings have been made at times and under conditions stated; fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

129 Holden Street
BCP Site C915261
Buffalo, New York

Boring No. MW-5
Flie No. 21.0056642.10
Checked By: CZB

CONTRACTOR	Nature's Way, Inc	BORING LOCATION	See location plan
DRILLER	Nate Gingrich	GROUND SURFACE ELEVATION	663.8 DATUM
START DATE: 2/14/2013	END DATE: 2/15/2013	GZA GEOENVIRONMENTAL REPRESENTATIVE	John Beninati

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	NOTES
2/15/13	12:00	24.7' bgs.		

TYPE OF DRILL RIG	Mobile B-57 Truck Rig
CASING SIZE AND DIAMETER	4 1/4" I.D. HSA
OVERBURDEN SAMPLING METHOD	2" Diameter x 24" Long Split Spoon
ROCK DRILLING METHOD	HQ Size Rock Core

DEPTH	SAMPLE BLOWS (/6")	NO.	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	SAMPLE DESCRIPTION	WELL INSTALLATION DIAGRAM	WELL INSTALLATION DESCRIPTION	OVM (ppm)
	4	S-11	20 - 22	21	<5	(FILL) Very stiff, brown, Silty CLAY, some			0
21	15					fine to coarse Sand, trace fine Gravel,			
	6					moist.			
22	15								
	50/0"	S-12	20 - 24	NV	0			2-inch I.D. Schedule 40 PVC well screen from approx. 19.5' to 29.5' bgs.	
23									
24									
	50/0"	S-13	24 - 24	NV	0	Auger refusal at approx. 24.7' bgs.			
25		C-1	24.7 - 29.7	40	98	(BEDROCK) Moderately hard, very slight			
						to slightly weathered, aphanitic, gray,			
26						LIMESTONE, moderately to extremely			
						fractured, very thin to thinly bedded, very			
27						close to closely spaced horizontal to			
						sub-horizontal fractures, shaly partings,			
28						clay deposits in some fractures.			
29									
30						End of MW-5 at approx. 29.7' bgs.			
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									

S - Split Spoon Sample
C - Rock Core Sample

NOTES:
1) MiniRae 2000 organic vapor meter (OVM) used to screen soil samples. Meter was calibrated using a 100 ppm isobutylene calibration gas standard.
2) OVM reading from headspace screening of soil samples.
3) NV = no value.

General Notes:
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129 Holden Street
BCP Site C915261
Buffalo, New York

Boring No. MW-6
Flie No. 21.0056642.10
Checked By: CZB

CONTRACTOR	Nature's Way, Inc	BORING LOCATION	See location plan
DRILLER	Nate Gingrich	GROUND SURFACE ELEVATION	666.0 DATUM
START DATE: 2/18/2013	END DATE: 2/20/2013	GZA GEOENVIRONMENTAL REPRESENTATIVE	John Beninati

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	NOTES
2/19/13	14:00	17' bgs.		
2/19/13	16:00	26.2' bgs.		
2/20/13	8:00	25.9' bgs		

TYPE OF DRILL RIG	Mobile B-57 Truck Rig/Dietrich D-50 Track Rig
CASING SIZE AND DIAMETER	4 1/4" I.D. HSA
OVERBURDEN SAMPLING METHOD	2" Diameter x 24" Long Split Spoon
ROCK DRILLING METHOD	HQ Size Rock Core

DEPTH	SAMPLE BLOWS (/6")	NO.	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	SAMPLE DESCRIPTION	WELL INSTALLATION DIAGRAM	WELL INSTALLATION DESCRIPTION	OVM (ppm)
	58	S-1	0 - 2	32	10	Asphalt to approx. 0.5' bgs.		Flush-mount protective	0
1	18					Subbase Stone.		casing with concrete seal	
	14					(FILL) Hard, brown, Silty CLAY, little		to approx. 1.5 feet bgs.	
2	12					fine to coarse Sand, trace fine to medium			
	10	S-2	2 - 4	24	50	Gravel, trace brick fragments, trace slag			0.1
3	11					fragments, moist.			
	13					(FILL) Medium dense, brown, fine to			
4	14					coarse SAND, little fine to medium		Cement/Bentonite Grout	
	21	S-3	4 - 6	34	50	Gravel, trace Silt, trace brick, moist.		from approx. 1.5' to 19'	0.1
5	17					Grades to:..dense, tan to dark brown,		bgs.	
	17					trace fine to medium Gravel, trace slag			
6	17					fragments.		Approx. 10-inch borehole.	
	24	S-4	6 - 8	54	30	Grades to:..fine to medium SAND, little			0.2
7	28					Silt.			
	26								
8	10								
	3	S-5	8 - 10	15	20	(FILL) Stiff, brown, to dark brown, Silty			0
9	7					CLAY, trace fine to coarse Sand, trace			
	8					fine to medium Gravel, trace cinders,		2-inch I.D. Schedule 40	
10	4					moist.		PVC well riser to approx.	
	2	S-6	10 - 12	9	25	(FILL) Loose, dark gray, fine to coarse		23.9' bgs.	0.1
11	2					SAND, trace fine to medium Gravel, trace			
	7					Silt, trace brick fragemnts, moist.			
12	6								
	4	S-7	12 - 14	10	30	(FILL) Stiff, grayish brown, Silty CLAY,			0
13	5					trace fine to coarse Sand, trace fine			
	5					Gravel, trace cinders, moist.			
14	8								
	4	S-8	14 - 16	8	80	Grades to:..trace slag fragments.			0
15	4								
	4								
16	7								
	6	S-9	16 - 18	17	0				
17	8								
	9								
18	12								
	6	S-10	18 - 20	20	40	Grades to:..very stiff, brown to dark			0.2
19	9					grayish brown.			
	11							Bentonite pellet seal from	
20	10							approx. 19' to 22' bgs.	

S - Split Spoon Sample
C - Rock Core Sample

NOTES:
1) MiniRae 2000 organic vapor meter (OVM) used to screen soil samples. Meter was calibrated using a 100 ppm isobutylene calibration gas standard.
2) OVM reading from headspace screening of soil samples.
3) NV = no value.

General Notes:
1) Stratification lines represent approximate boundary between soil types; transitions may be gradual.
2) Water level readings have been made at times and under conditions stated; fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

129 Holden Street
BCP Site C915261
Buffalo, New York

Boring No. MW-6
Flie No. 21.0056642.10
Checked By: CZB

CONTRACTOR	Nature's Way, Inc	BORING LOCATION	See location plan
DRILLER	Nate Gingrich	GROUND SURFACE ELEVATION	666.0 DATUM
START DATE: 2/18/2013	END DATE: 2/20/2013	GZA GEOENVIRONMENTAL REPRESENTATIVE	John Beninati

WATER LEVEL DATA				
DATE	TIME	WATER	CASING	NOTES
2/19/13	14:00	17' bgs.		
2/19/13	16:00	26.2' bgs.		
2/20/13	8:00	25.9' bgs		

TYPE OF DRILL RIG	Mobile B-57 Truck Rig/Dietrich D-50 Track Rig
CASING SIZE AND DIAMETER	4 1/4" I.D. HSA
OVERBURDEN SAMPLING METHOD	2" Diameter x 24" Long Split Spoon
ROCK DRILLING METHOD	HQ Size Rock Core

DEPTH	SAMPLE BLOWS (/6")	NO.	DEPTH (FT)	N-VALUES /RQD	RECOVERY (%)	SAMPLE DESCRIPTION	WELL INSTALLATION DIAGRAM	WELL INSTALLATION DESCRIPTION	OVM (ppm)
	4	S-11	20 - 22	12	40	Grades to:..stiff, grayish brown, trace slag			0
21	5					fragments.			
	7								
22	12								
	9	S-12	22 - 24	25	20	Grades to:..very stiff, grayish brown with			0
23	10					pockets of black fine Sand.			
	15							#0 Quartz Rock Sand from	
24	14							approx. 22' to 33.9' bgs.	
	7	S-13	24 - 26	13	30	Grades to:..stiff, reddish brown.			0
25	5								
	8								
26	12					Chert fragment in end of split-spoon.			
	9	S-14	26 - 26.5	NV	0	Auger refusal at approx. 26.5' bgs.			
27	50/0"	C-1	26.5 - 29.6	35	100	(BEDROCK) Moderately hard to soft,			
						very slight to slightly weathered,			
28						aphanitic, gray, LIMESTONE, moderately			
						to extremely fractured, very thin to thinly		2-inch I.D. Schedule 40	
29						bedded, very close to closely spaced		PVC well screen from	
						horizontal to sub-horizontal fractures,		approx. 23.9' to 33.9' bgs.	
30		C-2	29.6 - 33.9	70	100	shaly partings.			
31									
32									
33									
34									
						End of MW-6 at approx. 33.9' bgs.			
35									
36									
37									
38									
39									
40									

S - Split Spoon Sample
C - Rock Core Sample

NOTES:
1) MiniRae 2000 organic vapor meter (OVM) used to screen soil samples. Meter was calibrated using a 100 ppm isobutylene calibration gas standard.
2) OVM reading from headspace screening of soil samples.
3) NV = no value.

General Notes:
1) Stratification lines represent approximate boundary between soil types; transitions may be gradual.
2) Water level readings have been made at times and under conditions stated; fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CONTRACTOR	TREC Environmental	BORING LOCATION	See Figure 2
DRILLER	Jim Agar	GROUND SURFACE ELEVATION	NM DATUM NA
START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	60	Asphalt		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2						
				FILL - Brown SILT & CLAY, trace Sand, trace Gravel, moist.		ND
3						
4						
	S-2	4 - 8	40	Grades to:... some Gravel.		ND
5						
6						
						ND
7				Grades to:... Reddish Brown.		
8						
	S-3	8 - 10.1	20			ND
9						
10						
				Refusal at 10.1 feet bgs.		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

Notes MiniRae 2000 organic vapor meter (OVM)was used to field screen and headspace soil samples.
ND = Non Detect; PPM = Parts Per Million; NA = Not Applicable

General Notes:
1) Stratification lines represent approximate boundary between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CONTRACTOR	TREC Environmental	BORING LOCATION	See Figure 2
DRILLER	Jim Agar	GROUND SURFACE ELEVATION	NM DATUM NA
START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	70	Asphalt		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2				Grades to:… Dark Gray, trace Brick, trace Wood.		
				FILL - Brown SILT & CLAY, little Gravel, trace Sand, moist.		ND
3						
4						
	S-2	4 - 8	50	Grades to:… little Gravel.		ND
5						
6						
						ND
7						
8				FILL - Brown Silty CLAY, some Gravel, little Sand, moist.		
	S-3	8 - 9.8	20			ND
9						
10						
				Refusal at 9.8 feet bgs.		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

Notes MiniRae 2000 organic vapor meter (OVM)was used to field screen and headspace soil samples.
ND = Non Detect; PPM = Parts Per Million; NA = Not Applicable

General Notes:
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CONTRACTOR	TREC Environmental	BORING LOCATION	See Figure 2
DRILLER	Jim Agar	GROUND SURFACE ELEVATION	NM DATUM NA
START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	70	Asphalt		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2				Grades to:… Dark Gray, trace Brick, trace Wood.		
				FILL - Brown SILT & CLAY, little Gravel, trace Sand, trace Brick,		ND
3				trace Glass, moist.		
4						
	S-2	4 - 8	40			ND
5						
6						
				FILL - Brown Silty CLAY, some Gravel, little Sand, moist.		ND
7						
8						
	S-3	8 - 9.7	20			ND
9						
10						
				Refusal at 9.7 feet bgs.		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

Notes MiniRae 2000 organic vapor meter (OVM)was used to field screen and headspace soil samples.
ND = Non Detect; PPM = Parts Per Million; NA = Not Applicable

General Notes:
1) Stratification lines represent approximate boundry between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CONTRACTOR	TREC Environmental	BORING LOCATION	See Figure 2
DRILLER	Jim Agar	GROUND SURFACE ELEVATION	NM DATUM NA
START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	50	Asphalt		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2				Grades to:… Dark Gray, trace Brick, trace Wood.		
				FILL - Brown SILT & CLAY, little Gravel, trace Sand, trace Brick,		ND
3				trace Glass, moist.		
4						
	S-2	4 - 8	30			ND
5						
				FILL-Dark Gray Silty CLAY, some Gravel, little Sand, trace Wood,		
6				trace Coal, trace Brick, moist.		
						ND
7						
8						
	S-3	8 - 12	30			ND
9						
10						
						ND
11						
12						
	S-4	12 - 16	20			ND
13						
14						
						ND
15						
16						
	S-5	16 - 16.7	5			ND
17				Refusal at 16.7 feet bgs.		
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

Notes MiniRae 2000 organic vapor meter (OVM)was used to field screen and headspace soil samples.
ND = Non Detect; PPM = Parts Per Million; NA = Not Applicable

General Notes:
1) Stratification lines represent approximate boundry between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CONTRACTOR	TREC Environmental	BORING LOCATION	See Figure 2
DRILLER	Jim Agar	GROUND SURFACE ELEVATION	NM DATUM NA
START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	60	Asphalt		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2				FILL - Brown SILT & CLAY, little Gravel, trace Sand, trace Brick, moist.		ND
3						
4						
	S-2	4 - 8	20			ND
5						
6						ND
7						
8						
	S-3	8 - 12	50	FILL - Brown SAND, some Clay, some Gravel, little Silt, moist.		ND
9						
10						ND
11				Grades to:... Dark Brown, some Clay.		
12						
				End of probe at 12 feet bgs.		
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

Notes MiniRae 2000 organic vapor meter (OVM)was used to field screen and headspace soil samples.
ND = Non Detect; PPM = Parts Per Million; NA = Not Applicable

General Notes:
1) Stratification lines represent approximate boundry between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CONTRACTOR	TREC Environmental	BORING LOCATION	See Figure 2
DRILLER	Jim Agar	GROUND SURFACE ELEVATION	NM DATUM NA
START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION			SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	Sample Number	DEPTH (FT)	RECOVERY (%)			
	S-1	0 - 4	60	FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist		ND
1				(subbase).		
2				FILL - Brown SILT & CLAY, little Gravel, trace Sand, trace Brick,		
				trace Glass, moist.		ND
3						
4						
	S-2	4 - 8	50			ND
5						
6						
				FILL - Brown SAND, some Gravle, little Silt, little Clay, moist.		ND
7						
8						
				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

S - Split Spoon Sample
C - Rock Core Sample

Notes MiniRae 2000 organic vapor meter (OVM)was used to field screen and headspace soil samples.
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General Notes:
1) Stratification lines represent approximate boundry between soil types, transitions may be gradual.
2) Water level readings have been made at times and under conditions stated, fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

CONTRACTOR	TREC Environmental	BORING LOCATION	See Figure 2
DRILLER	Jim Agar	GROUND SURFACE ELEVATION	NM DATUM NA
START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	70	Asphalt		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2				FILL - Brown SILT & CLAY, little Gravel, trace Sand, trace Brick, trace Glass, moist.		ND
3						
4						
	S-2	4 - 8	40	FILL-Gray GRAVEL, and Sand, some Clay, little Silt, moist.		ND
5						
6						ND
7						
8				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

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DATE	TIME	WATER	CASING
		NA	

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ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	70	Asphalt		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2				FILL - Brown SILT & CLAY, little Gravel, trace Sand, trace Brick, trace Glass, moist.		ND
3						
4						
	S-2	4 - 8	30			ND
5				FILL-Gray GRAVEL, and Sand, some Clay, little Silt, moist.		
6						
						ND
7						
8						
				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	40	FILL-Dark Gray Clayey SILT, little Sand, little Gravel, moist.	Odors	ND
1						
2						
				FILL - Brown SAND and Gravel, trace Clay, trace Brick, moist.		ND
3						
4						
	S-2	4 - 8	70			ND
5				Reddish Brown Silty CLAY, trace Sand, trace Gravel, moist.		
6						
						ND
7						
8						
				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	50	FILL-Brown Clayey SILT, little Sand, little Gravel, trace Brick, moist.		ND
1						
2				FILL - Brown Silty CLAY, some Gravel little Sand, trace Brick, moist.		ND
3						
4	S-2	4 - 8	30			ND
5						
6						ND
7						
8				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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DRILLER	Jim Agar	GROUND SURFACE ELEVATION	NM DATUM NA
START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	40	CONCRETE		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2				FILL - Reddish Brown Silty CLAY, some Gravel little Sand, trace Brick, moist.		ND
3						
4						
	S-2	4 - 8	30			ND
5				FILL-Brown SAND, some Clay, some Silt, little Gravel, trace Brick, moist.		
6						
						ND
7						
8				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	60	FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist		ND
1				(subbase).		
2				Grades to:… Dark Gray.		ND
3				FILL-Brown Silty CLAY, some Gravel, little Sand, trace Brick, moist.		
4				End of probe at 4 feet bgs.		
5						
6						
7						
8						
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11						
12						
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14						
15						
16						
17						
18						
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20						

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START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	40	FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist		ND
1				(subbase).		
2				FILL - Brown SILT & CLAY, little Gravel, trace Sand, trace Brick,		
				trace Glass, moist.		ND
3						
4						
	S-2	4 - 8	50	Reddish Brown Silty CLAY, little Gravel, trace Sand, moist.		ND
5						
6						
						ND
7						
8						
				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	20	FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist		ND
1				(subbase).		
2						ND
3						
4						
	S-2	4 - 8	40	FILL - Brown SILT & CLAY, little Gravel, trace Sand, trace Brick,		ND
5				trace Glass, moist.		
6						ND
7						
8				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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START DATE	10/11/11 END DATE 10/11/11	GZA GEOENVIRONMENTAL REPRESENTATIVE	J. Davide

WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	30	Brown TOPSOIL		ND
1				FILL-Brown Clayey SILT, trace Sand, trace Gravel, trace Wood, trace Organics, trace Plastic, trace Slag, moist.		
2						ND
3						
4						
	S-2	4 - 6	30	FILL - Brown SILT & CLAY, little Gravel, trace Sand, trace Brick, trace Glass, moist.		ND
5						
6						
				End of probe at 6 feet bgs.		
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	50	Asphalt		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2				FILL - Brown SILT & CLAY, little Gravel, trace Sand, trace Brick, trace Glass, moist.		ND
3						
4				FILL-Brown GRAVEL, and Sand, some Clay, little Silt, trace Brick,		
	S-2	4 - 8	40	moist.		ND
5						
				FILL-Brown Clayey SILT, little Gravel, trace Sand, moist.		
6						
						ND
7						
8						
				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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WATER LEVEL DATA

DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
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OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	50	Asphalt		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2				FILL - Dark Brown SAND and Gravel, trace Sand, trace Brick, trace Glass, moist.		ND
3						
4				Grades to:... Brown.		
	S-2	4 - 8	40			ND
5						
6						
						ND
7						
8				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
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OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	50	Asphalt		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2						ND
3				Grades to:… trace Slag, trace Brick.		
4						
	S-2	4 - 8	20			ND
5						
6						ND
7						
8				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
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16						
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18						
19						
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DATE	TIME	WATER	CASING
		NA	

TYPE OF DRILL RIG	Geoprobe 54 LT
CASING SIZE AND DIAMETER	2" diameter by 48" long Macro-core Sampler
OVERBURDEN SAMPLING METHOD	Direct push
ROCK DRILLING METHOD	NA

DEPTH	SAMPLE INFORMATION: Sample Number	DEPTH (FT)	RECOVERY (%)	SAMPLE DESCRIPTION	NOTES	OVM (ppm)
	S-1	0 - 4	70	Asphalt		ND
1				FILL - Gray GRAVEL and Sand, some Silt, little Clay, moist (subbase).		
2				FILL - Brown SILT & CLAY, little Gravel, trace Sand, trace Brick, trace Glass, trace Coal, moist.		ND
3						
4						
	S-2	4 - 8	40	FILL - Brown Silty CLAY, some Gravel little Sand, trace Brick, moist.		ND
5						
6				FILL-Brown SAND and Gravel, some Clay, little Silt, moist.		
						ND
7						
8				End of probe at 8 feet bgs.		
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

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APPENDIX D – EXCAVATION WORK PLAN (EWP)

D-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 A.

Table 1: Notifications*

Mr. Robert Schick	(518) 402-9706 derweb@dec.ny.gov
Mr. Jaspal Walia	(716) 851-7220 jaspal.walia@dec.ny.gov

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

This notification will include:

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

- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix E 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.

In addition, it is anticipated that during Site redevelopment, there will be excavations below the cover system. During such activities, the Department may require monthly reports pertaining to the handling of the excavated fill.

D-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 beneath the demarcation layer). Soil screening will be performed when invasive work is done and will include all excavation beneath the demarcation layer 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 D-6 of this Appendix. Refer to Section D-12 for a discussion of the methods to be followed in determining which materials can be re-used on-site beneath the demarcation layer and which materials must be properly disposed of off-site.

D-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.

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

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

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

D-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 will be determined at the time of the Site activities, based upon the nature and duration of the activities, and must take into account the following: (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.

D-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).

D-7 MATERIALS REUSE ON-SITE

The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP and as defined by the NYSDEC are followed and that unacceptable material does not remain on-site. Refer to Section D-12 for requirements in determining which excavated materials may be re-used on-site beneath the demarcation layer. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer and site cover system, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

As excavated material deemed acceptable for re-use on-site beneath the demarcation layer will be stockpiled above the clean soil cover system, materials will be stockpiled on 6-mil plastic sheeting and covered with similar plastic sheeting to prevent migration/mixing of the soil/fill with the clean soil cover and to prevent dust releases. Materials may be stockpiled in any location on-site which is feasible and safely accessed given the construction activities. Prior to stockpiling activities, as an added precaution, a silt fence will be installed around the entire perimeter of the area where the stockpiling will occur. The silt fence will be installed as shown in the silt fence detail on Drawing C201 included at the end of this appendix. The silt fence will be maintained while the stockpiled soil is present in that area of the Site. Weekly inspections will be completed to insure the silt fence remains intact and operating as designed. Materials will be stockpiled to a maximum height of 7 feet above grade, as indicated in Drawing C201.

An elevation management area (EMA) will be created during continued redevelopment to manage soil/fill excavated for building foundation footers, utility poles, conduits, etc. As soil/fill is generated from each phase of the construction build-out, the EMA consisting of an area of relatively lower elevation will be temporarily uncovered in accordance with this SMP, the acceptable soil/fill material placed into the EMA, and the EMA re-covered in accordance with the SMP. Refer to Section D-9, “Cover System Restoration.”

Drawing C003 included at the end of this appendix depicts a potential EMA located near the northern site boundary. The EMA will initially consist of clean soil cover that exceeds two feet in thickness, as verified by survey measurements of the top of clean soil cover and of the demarcation layer. The clean soil cover at the EMA will be removed in the presence of a surveyor, who will indicate when approximately six inches of clean soil cover remain above the demarcation layer. This will ensure that removed clean soil cover does not mix with the underlying potentially contaminated soil/fill. The removed clean soil cover will be stockpiled on-site. Soil/fill will then be added to the EMA above the existing demarcation layer and approximate six inches of remaining clean soil cover. A new demarcation layer will be placed above the placed soil/fill and its elevation surveyed. The stockpiled removed clean soil cover will then be placed over the demarcation layer to a thickness not less than two feet, and its final elevation surveyed. Any removed clean soil cover that is inadvertently mixed with potentially contaminated soil/fill will not be used as clean soil cover.

If during EMA activities installation of the new demarcation layer and replacement of the clean soil cover system will not be performed by then end of the work day (i.e., the EMA will be left open overnight), the EMA will be covered with 6-mil (minimum) plastic sheeting to prevent dust releases.

If the surveyed elevations of the demarcation layer and top of clean soil cover indicate that the clean soil cover is less than two feet in thickness, clean soil cover will either be added from other areas of the Site with excess clean soil cover, or DER-10 fill material will be imported to the Site and used as clean soil cover. The NYSDEC will be notified if fill material will need to be imported to the Site, such that testing requirements and subsequent approvals to use the imported fill can be obtained.

Presently, there are no buildings on-site to be demolished.

D-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering 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.

D-9 COVER SYSTEM RESTORATION

During the Remedial Action, a minimum of 24 inches of clean soil was placed over the entire Site. The clean soil, consisting primarily of sand, was imported from sources chemically characterized by GZA and approved by the NYSDEC for use as clean soil cover at the Site. The imported soil met the Part 375 SCOs for Restricted Residential site use. The imported clean soil is separated from the underlying potentially contaminated soil/fill by a high visibility orange mesh

demarcation layer with the exception of three areas depicted on Figure 6 of the SMP. These three areas do not include a demarcation layer. This demarcation layer is present at a depth of approximately 2 ft. bgs over the majority of the Site and at depths ranging between approximately 4 and 8 ft. bgs in the remediated hotspot areas and utility corridors which parallel the major roadways on Site.

Upon redevelopment of the Site, the cover system will include asphalt pavement, concrete-covered sidewalks, concrete building slabs, etc. Thickness of the imported clean soil may be less than 24 inches in areas with such hardscape structures; however, exposure to underlying potentially contaminated soil/fill will be prevented by the presence of the hardscape surfaces. Refer to Section 3.3.1 of the SMP for additional details regarding the types of hardscape to be incorporated into the cover system.

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the RAWP dated November 2014 and this SMP.

The demarcation layer, consisting of orange mesh material, will be replaced to provide a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report.

D-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site, either for use as clean soil cover or for use beneath the demarcation layer, 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). Imported soils must be comprised of soil or other unregulated material as set forth in 6NYCRR Part 360, and must not exceed the applicable soil cleanup objectives / soil quality standards for the Site. Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards for the Site are defined as the Part 375 Soil Cleanup Objectives (SCOs) for Restricted Residential Site Use. The NYSDEC Part 375 SCOs are included at the end of this appendix. 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. NYSDOT-approved aggregate sources may be imported to the Site, provided that they also meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). A current list of NYSDOT-approved aggregate sources can be found at https://www.dot.ny.gov/divisions/engineering/technical-services/materials-bureau/fine-coarse-aggregates.

Analytical data is required to demonstrate that the imported material complies with the Part 375 SCOs for Restricted Residential Site Use. The NYSDEC may issue a site specific exemption from the analytical testing requirements, based upon documentation of the origin and composition of the material. All of the testing data must be reported to the NYSDEC for approval to import soil to the Site. The table below lists the number of soil samples to be analyzed for soil imported to the Site, according to quantity of soil to be imported. Soil samples will be analyzed for the following:

- TCL and CP-51 list VOCs via USEPA SW-846 Test Method 8260
- TCL SVOCs via USEPA SW-846 Test Method 8270
- TAL Metals via USEPA SW-846 Test Methods 6010/7470
- PCBs via USEPA SW-846 Test Method 8082
- Pesticides via USEPA SW-846 Test Method 8081

Recommended Number of Soil Samples for Soil Imported To or Exported From a Site			
Contaminant	**VOCs**	**SVOCs, Inorganics & PCBs/Pesticides**	
Soil Quantity (cubic yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
> 1000	Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER		

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials, on 6-mil plastic sheeting, and will be covered with similar plastic sheeting to prevent dust releases. Materials may be stockpiled in any location on-site which is feasible and safely accessed given the construction activities. Prior to stockpiling activities, as an added precaution, a silt fence will be installed around the entire perimeter of the area where the stockpiling will occur. The silt fence will be installed as shown in the silt fence detail on Drawing C201 included at the end of this appendix. The silt fence will be maintained while the stockpiled soil is present in that area of the Site. Weekly inspections will be completed to insure the silt fence remains intact and operating as designed. Materials will be stockpiled to a maximum height of 7 feet above grade, as indicated in Drawing C201.

D-11 STORMWATER POLLUTION PREVENTION

Stormwater pollution prevention is to be accomplished during site redevelopment and future disturbance of the site cover system through the implementation of measures provided in the Erosion and Sedimentation Control Plan (E&SCP), GZA December 2014. The E&SCP was prepared prior to and used during site remediation and initial soil cover placement. The E&SCP includes provisions including:

- Construction Entrance;
- Silt Fencing;
- Seeding and mulching; and
- Inspections and Maintenance.

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

Silt fencing or hay bales will be installed around the entire perimeter of the construction area. A copy of the Erosion and Sediment Control Plan is provided in Appendix I.

D-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.

Soil/fill excavated beneath the demarcation layer during redevelopment will be field screened to determine if the soil/fill is potentially impacted. Non-impacted soil (those that do not appear to be visually impacted and registering 10 ppm or less on an OVM during field screening) will be excavated and stockpiled for eventual reuse on-site. As the materials will be stockpiled above the clean soil cover system, materials will be stockpiled on 6-mil plastic sheeting and covered with similar plastic sheeting to prevent migration/mixing of the soil/fill with the clean soil cover and to prevent dust releases. If any of the following materials are encountered during site work, they will be segregated and placed on and covered by 6-mil plastic sheeting for proper off-site disposal:

- Material exhibiting petroleum, solvent, and/or chemical-type odors
- Material that appears to include petroleum, solvent, and/or chemical free product

If any of the following materials are encountered during site work, they will be segregated and placed on and covered by 6-mil plastic sheeting for chemical characterization:

- Suspect SCOC material (black sands, dark brown sands, and ash)
- Material that appears to be visually impacted and/or registers more than 10 ppm on an OVM during field screening

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.

Sampling will be performed on the stockpiled soil/fill designated for chemical analysis to determine the nature of the material, if the material can be re-used on-site, and proper disposal method (if the material will require off-site disposal). For suspect SCOC material, chemical analysis will consist of the following:

- PAHs via USEPA SW-846 Test Method 8270
- TAL Metals via USEPA SW-846 Test Methods 6010/7470

For any material that appears to be visually impacted and/or registers more than 10 ppm on an OVM during field screening, chemical analysis will be performed for the following analytes, unless approval is granted by the NYSDEC to reduce the analyte list:

- TCL and CP-51 list VOCs via USEPA SW-846 Test Method 8260
- TCL SVOCs via USEPA SW-846 Test Method 8270
- TAL Metals via USEPA SW-846 Test Methods 6010/7470
- PCBs via USEPA SW-846 Test Method 8082
- Pesticides via USEPA SW-846 Test Method 8081

For the suspect SCOC material, the derived PELT values will be the comparison criteria utilized to determine if the material can be re-used on-site beneath the demarcation layer. The PELT values are listed below.

- Arsenic: 29.6 ppm
- Chromium: 9,145 ppm
- Copper: 10,000 ppm
- Nickel: 10,000 ppm
- Zinc: 10,000 ppm
- Benzo(a)anthracene: 21,173 ppm
- Benzo(a)pyrene: 17,615 ppm
- Benzo(b)fluoranthene: 18,022 ppm
- Dibenz(a,h)anthracene: 3,240 ppm
- Indeno(1,2,3-cd)pyrene: 13,149 ppm

For any material that appears to be visually impacted and/or registers more than 10 ppm on an OVM during field screening, the NYSDEC Part 375 Soil Cleanup Objectives (SCOs) for Restricted Residential Site Use will be utilized to determine if the material can be re-used on-site beneath the demarcation layer, with the exception of the ten analytes listed above for which the PELT values will be utilized. The NYSDEC Part 375 SCOs are attached to the end of this appendix.

All of the testing data must be reported to the NYSDEC before any reuse of soil/fill at the Site. All soil/fill designated for off-site disposal will be subject to the waste characterization analysis required by the selected disposal facility.

375-6.8 Soil cleanup objective tables.

(a) Unrestricted use soil cleanup objectives.

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
Metals		
Arsenic	7440-38-2	13 [c]
Barium	7440-39-3	350 [c]
Beryllium	7440-41-7	7.2
Cadmium	7440-43-9	2.5 [c]
Chromium, hexavalent [e]	18540-29-9	1[b]
Chromium, trivalent [e]	16065-83-1	30 [c]
Copper	7440-50-8	50
Total Cyanide [e, f]		27
Lead	7439-92-1	63 [c]
Manganese	7439-96-5	1600 [c]
Total Mercury		0.18 [c]
Nickel	7440-02-0	30
Selenium	7782-49-2	3.9[c]
Silver	7440-22-4	2
Zinc	7440-66-6	109 [c]
PCBs/Pesticides		
2,4,5-TP Acid (Silvex) [f]	93-72-1	3.8
4,4'-DDE	72-55-9	0.0033 [b]
4,4'-DDT	50-29-3	0.0033 [b]
4,4'-DDD	72-54-8	0.0033 [b]
Aldrin	309-00-2	0.005 [c]
alpha-BHC	319-84-6	0.02
beta-BHC	319-85-7	0.036
Chlordane (alpha)	5103-71-9	0.094

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
delta-BHC [g]	319-86-8	0.04
Dibenzofuran [f]	132-64-9	7
Dieldrin	60-57-1	0.005 [c]
Endosulfan I [d, f]	959-98-8	2.4
Endosulfan II [d, f]	33213-65-9	2.4
Endosulfan sulfate [d, f]	1031-07-8	2.4
Endrin	72-20-8	0.014
Heptachlor	76-44-8	0.042
Lindane	58-89-9	0.1
Polychlorinated biphenyls	1336-36-3	0.1
Semivolatile organic compounds		
Acenaphthene	83-32-9	20
Acenapthylene [f]	208-96-8	100 [a]
Anthracene [f]	120-12-7	100 [a]
Benz(a)anthracene [f]	56-55-3	1 [c]
Benzo(a)pyrene	50-32-8	1 [c]
Benzo(b)fluoranthene [f]	205-99-2	1 [c]
Benzo(g,h,i)perylene [f]	191-24-2	100
Benzo(k)fluoranthene [f]	207-08-9	0.8 [c]
Chrysene [f]	218-01-9	1 [c]
Dibenz(a,h)anthracene [f]	53-70-3	0.33 [b]
Fluoranthene [f]	206-44-0	100 [a]
Fluorene	86-73-7	30
Indeno(1,2,3-cd)pyrene [f]	193-39-5	0.5 [c]
m-Cresol [f]	108-39-4	0.33 [b]
Naphthalene [f]	91-20-3	12
o-Cresol [f]	95-48-7	0.33 [b]

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
p-Cresol [f]	106-44-5	0.33 [b]
Pentachlorophenol	87-86-5	0.8 [b]
Phenanthrene [f]	85-01-8	100
Phenol	108-95-2	0.33 [b]
Pyrene [f]	129-00-0	100
Volatile organic compounds		
1,1,1-Trichloroethane [f]	71-55-6	0.68
1,1-Dichloroethane [f]	75-34-3	0.27
1,1-Dichloroethene [f]	75-35-4	0.33
1,2-Dichlorobenzene [f]	95-50-1	1.1
1,2-Dichloroethane	107-06-2	0.02 [c]
cis -1,2-Dichloroethene [f]	156-59-2	0.25
trans-1,2-Dichloroethene [f]	156-60-5	0.19
1,3-Dichlorobenzene [f]	541-73-1	2.4
1,4-Dichlorobenzene	106-46-7	1.8
1,4-Dioxane	123-91-1	0.1 [b]
Acetone	67-64-1	0.05
Benzene	71-43-2	0.06
n-Butylbenzene [f]	104-51-8	12
Carbon tetrachloride [f]	56-23-5	0.76
Chlorobenzene	108-90-7	1.1
Chloroform	67-66-3	0.37
Ethylbenzene [f]	100-41-4	1
Hexachlorobenzene [f]	118-74-1	0.33[b]
Methyl ethyl ketone	78-93-3	0.12
Methyl tert-butyl ether [f]	1634-04-4	0.93
Methylene chloride	75-09-2	0.05

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
n - Propylbenzene [f]	103-65-1	3.9
sec-Butylbenzene [f]	135-98-8	11
tert-Butylbenzene [f]	98-06-6	5.9
Tetrachloroethene	127-18-4	1.3
Toluene	108-88-3	0.7
Trichloroethene	79-01-6	0.47
1,2,4-Trimethylbenzene [f]	95-63-6	3.6
1,3,5-Trimethylbenzene[f]	108-67-8	8.4
Vinyl chloride[f]	75-01-4	0.02
Xylene (mixed)	1330-20-7	0.26

All soil cleanup objectives (SCOs) are in parts per million (ppm).

Footnotes

[a] The SCOs for unrestricted use were capped at a maximum value of 100 ppm. See Technical Support Document (TSD), section 9.3.

[b] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

[c] For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.

[d] SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

[e] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[f] Protection of ecological resources SCOs were not developed for contaminants identified in Table 375-6.8(b) with “NS”. Where such contaminants appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources SCO according to the TSD.

(b) Restricted use soil cleanup objectives.

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Metals							
Arsenic	7440-38-2	16[f]	16[f]	16[f]	16[f]	13[f]	16[f]
Barium	7440-39-3	350[f]	400	400	10,000 [d]	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5[f]	4.3	9.3	60	4	7.5
Chromium, hexavalent [h]	18540-29-9	22	110	400	800	1[e]	19
Chromium, trivalent [h]	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 [d]	50	1,720
Total Cyanide [h]		27	27	27	10,000 [d]	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63[f]	450
Manganese	7439-96-5	2,000[f]	2,000[f]	10,000 [d]	10,000 [d]	1600[f]	2,000[f]
Total Mercury		0.81[j]	0.81[j]	2.8[j]	5.7[j]	0.18[f]	0.73
Nickel	7440-02-0	140	310	310	10,000 [d]	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9[f]	4[f]
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 [d]	10,000 [d]	10,000 [d]	109[f]	2,480
PCBs/Pesticides							
2,4,5-TP Acid (Silvex)	93-72-1	58	100[a]	500[b]	1,000[c]	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 [e]	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 [e]	136
4,4'- DDD	72-54-8	2.6	13	92	180	0.0033 [e]	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04[g]	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
delta-BHC	319-86-8	100[a]	100[a]	500[b]	1,000[c]	0.04[g]	0.25
Dibenzofuran	132-64-9	14	59	350	1,000[c]	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan II	33213-65-9	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan sulfate	1031-07-8	4.8[i]	24[i]	200[i]	920[i]	NS	1,000[c]
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
Semivolatiles							
Acenaphthene	83-32-9	100[a]	100[a]	500[b]	1,000[c]	20	98
Acenapthylene	208-96-8	100[a]	100[a]	500[b]	1,000[c]	NS	107
Anthracene	120-12-7	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benz(a)anthracene	56-55-3	1[f]	1[f]	5.6	11	NS	1[f]
Benzo(a)pyrene	50-32-8	1[f]	1[f]	1[f]	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1[f]	1[f]	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1[f]	3.9	56	110	NS	1[f]
Dibenz(a,h)anthracene	53-70-3	0.33[e]	0.33[e]	0.56	1.1	NS	1,000[c]
Fluoranthene	206-44-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Fluorene	86-73-7	100[a]	100[a]	500[b]	1,000[c]	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5[f]	0.5[f]	5.6	11	NS	8.2
m-Cresol	108-39-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
Naphthalene	91-20-3	100[a]	100[a]	500[b]	1,000[c]	NS	12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
o-Cresol	95-48-7	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
p-Cresol	106-44-5	34	100[a]	500[b]	1,000[c]	NS	0.33[e]
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8[e]	0.8[e]
Phenanthrene	85-01-8	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Phenol	108-95-2	100[a]	100[a]	500[b]	1,000[c]	30	0.33[e]
Pyrene	129-00-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Volatiles							
1,1,1-Trichloroethane	71-55-6	100[a]	100[a]	500[b]	1,000[c]	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33
1,2-Dichlorobenzene	95-50-1	100[a]	100[a]	500[b]	1,000[c]	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02[f]
cis-1,2-Dichloroethene	156-59-2	59	100[a]	500[b]	1,000[c]	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100[a]	100[a]	500[b]	1,000[c]	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1[e]	0.1[e]
Acetone	67-64-1	100[a]	100[b]	500[b]	1,000[c]	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100[a]	100[a]	500[b]	1,000[c]	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100[a]	100[a]	500[b]	1,000[c]	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33[e]	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100[a]	100[a]	500[b]	1,000[c]	100[a]	0.12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methyl tert-butyl ether	1634-04-4	62	100[a]	500[b]	1,000[c]	NS	0.93
Methylene chloride	75-09-2	51	100[a]	500[b]	1,000[c]	12	0.05
n-Propylbenzene	103-65-1	100[a]	100[a]	500[b]	1,000[c]	NS	3.9
sec-Butylbenzene	135-98-8	100[a]	100[a]	500[b]	1,000[c]	NS	11
tert-Butylbenzene	98-06-6	100[a]	100[a]	500[b]	1,000[c]	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100[a]	100[a]	500[b]	1,000[c]	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100[a]	100[a]	500[b]	1,000[c]	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm).
NS=Not specified. See Technical Support Document (TSD).

Footnotes

[a] The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

[b] The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

[c] The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

[d] The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

[e] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

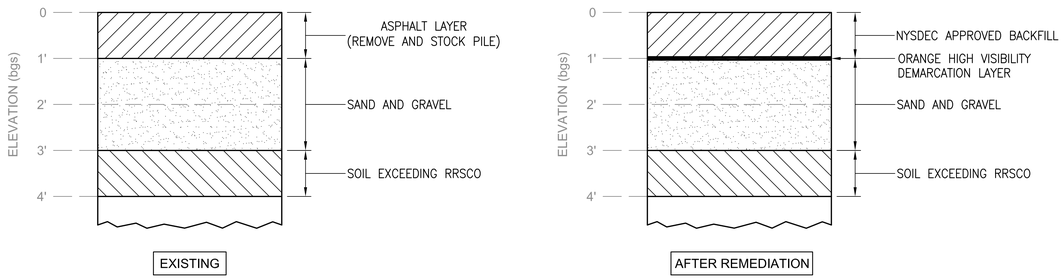
[f] For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

[g] This SCO is derived from data on mixed isomers of BHC.

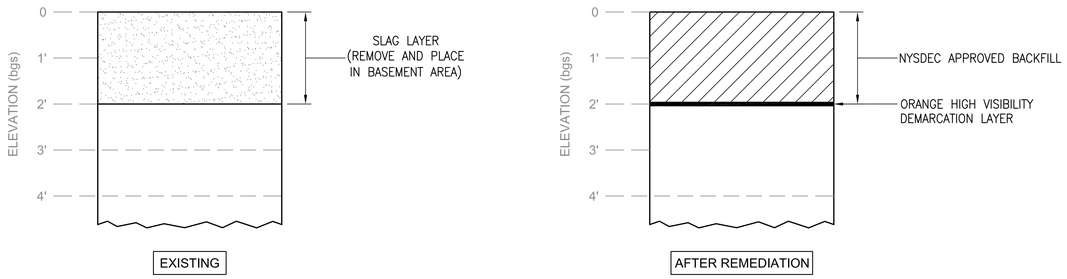
[h] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[i] This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

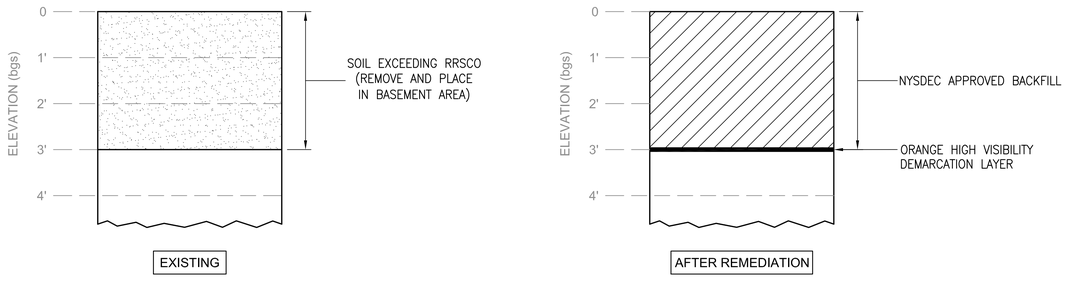
[j] This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.



1 ASPHALT REMOVAL FROM AREA 9
N.T.S.

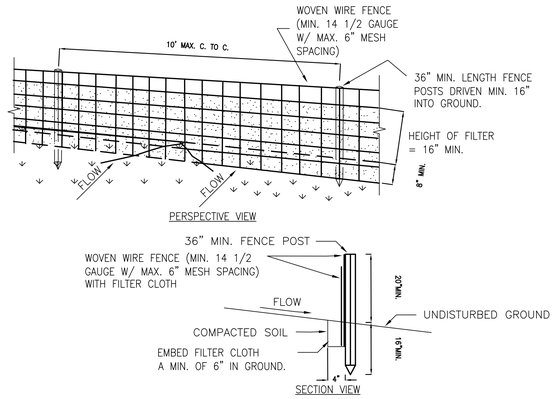


2 SLAG REMOVAL FROM AREA 13
N.T.S.



3 CONTAINMENT REMOVAL FROM AREA 2
N.T.S.

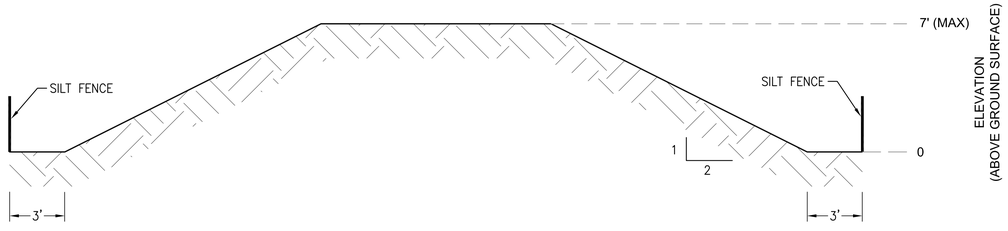
RRSCO = PART 37S RESTRICTED RESIDENTIAL SOIL CLEANUP OBJECTIVES



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

4 SILT FENCE DETAIL
N.T.S.



5 SOIL STORAGE DETAIL
N.T.S.

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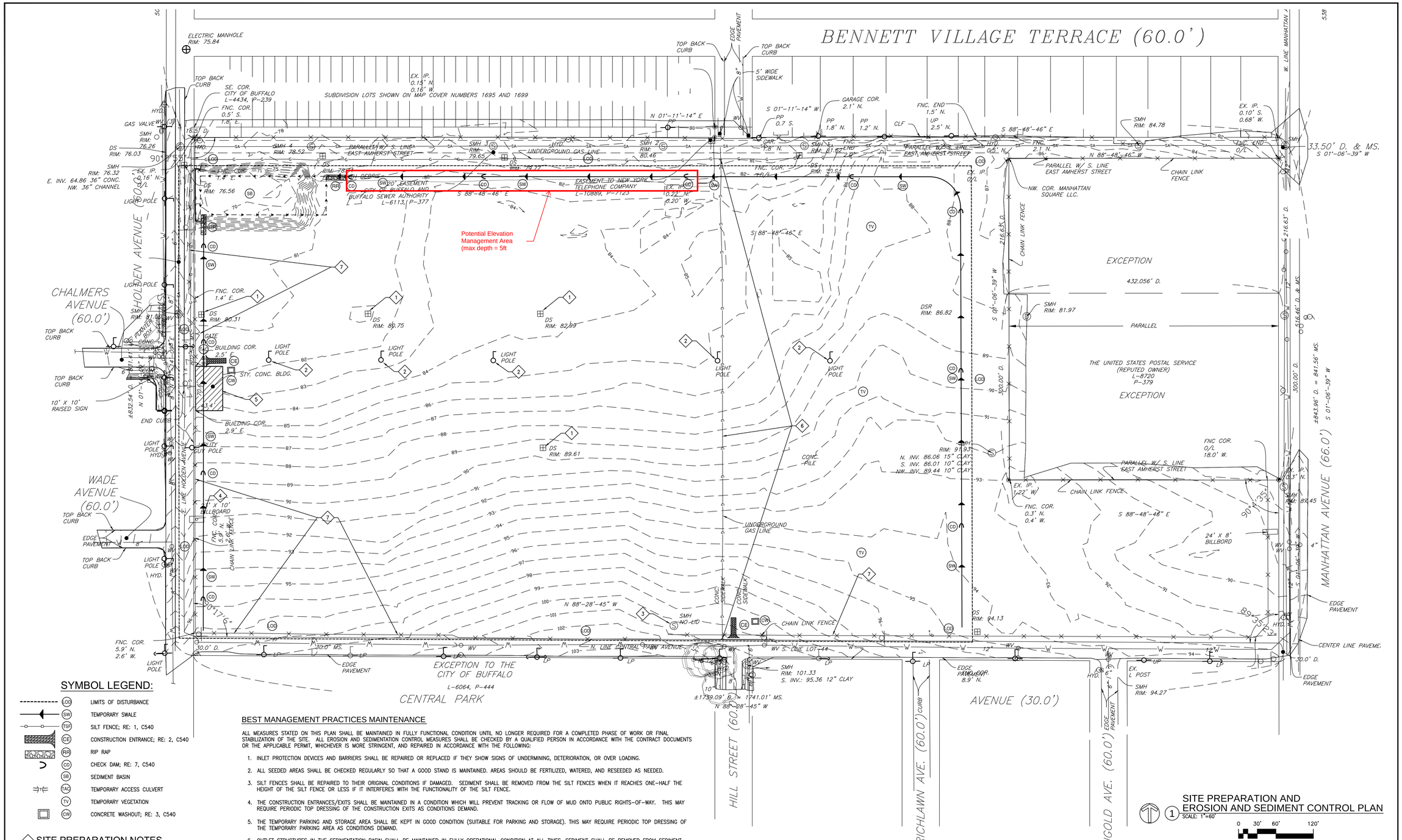
DWG. TITLE

DETAILS

DATE	MAY 2014		
SCALE	AS NOTED		
DWN.	STD	CHK.	SMR
PROJ. No.	324716		

DWG. No.

C201



SYMBOL LEGEND:

- LOG — LIMITS OF DISTURBANCE
- SW — TEMPORARY SWALE
- TSF — SILT FENCE; RE: 1, C540
- CE — CONSTRUCTION ENTRANCE; RE: 2, C540
- RR — RIP RAP
- CD — CHECK DAM; RE: 7, C540
- SB — SEDIMENT BASIN
- TAC — TEMPORARY ACCESS CULVERT
- TV — TEMPORARY VEGETATION
- GW — CONCRETE WASHOUT; RE: 3, C540

◇ SITE PREPARATION NOTES

1. REMOVE AND DISPOSE OF DRAINAGE STRUCTURE AND ASSOCIATED STORM PIPING TO NEAREST MANHOLE. PATCH REMAINING OPENING IN MANHOLE.
2. REMOVE AND DISPOSE OF LIGHT POLE, CONCRETE BASE AND ASSOCIATED CONDUIT.
3. REMOVE AND DISPOSE OF MANHOLE.
4. REMOVE AND DISPOSE OF BILLBOARD SIGN AND BASE.
5. REMOVE AND DISPOSE OF BUILDING AND FOUNDATION.
6. CUT, CAP AND ABANDON EXISTING GAS LINES IN PLACE. COORDINATE WITH NATIONAL FUEL.
7. UTILIZE EXISTING CHAIN LINK FENCE FOR SECURITY DURING CONSTRUCTION. REMOVE FENCE, POSTS, CONCRETE BASES, AND GATES AFTER CONSTRUCTION IS COMPLETE.

EROSION & SEDIMENT CONTROL NOTES TO CONTRACTOR

1. ALL SOIL EROSION & SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED IN CONFORMANCE WITH THE PROJECT DETAILS & SPECIFICATIONS. CONTRACTOR TO UTILIZE THE FOLLOWING EROSION CONTROL MEASURES AS NECESSARY AND AS DIRECTED BY A QUALIFIED INSPECTOR (QUALIFIED PROFESSIONAL) TO MINIMIZE SOIL EROSION AND SEDIMENT REMOVAL:
   - –FILTER FABRIC INLET PROTECTION
   - –SILT FENCE
   - –CHECK DAMS
   - –ROCK OUTLET PROTECTION
   - –CONSTRUCTION ENTRANCE
   - –SEDIMENT BASINS
   - –TEMPORARY SWALE
   - –DUST CONTROL (WATERING)
2. IMMEDIATELY DENOTE THE LOCATIONS OF THE FOLLOWING ITEMS ON THE SITE PLANS AFTER THEY ARE IMPLEMENTED AND INSTALLED AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS: TRAILERS, PARKING, LAY DOWN AREAS, PORTA–POTTIES, WHEEL WASHES, CONCRETE WASHOUTS, MASON'S AREA, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC.

BEST MANAGEMENT PRACTICES MAINTENANCE

ALL MEASURES STATED ON THIS PLAN SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, DETERIORATION, OR OVER LOADING.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY SO THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE–HALF THE HEIGHT OF THE SILT FENCE OR LESS IF IT INTERFERES WITH THE FUNCTIONALITY OF THE SILT FENCE.
4. THE CONSTRUCTION ENTRANCES/EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
6. OUTLET STRUCTURES IN THE SEDIMENTATION BASIN SHALL BE MAINTAINED IN FULLY OPERATIONAL CONDITION AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS AND/OR FOREBAYS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50% OR AT PROJECT COMPLETION.
7. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.

EROSION & SEDIMENT CONTROL NOTES

1. REFER TO SITE PREPARATION AND EROSION AND SEDIMENT CONTROL PLANS FOR INITIAL EROSION AND SEDIMENT CONTROLS AND SITE GRADING AND DRAINAGE PLANS FOR LOCATIONS OF TEMPORARY AND PERMANENT POST–CONSTRUCTION CONTROLS. (SILTFENCE, INLET PROTECTION, OUTLET PROTECTION, CHECK DAMS, ETC).
2. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMP'S) THROUGHOUT ALL PHASES OF CONSTRUCTION AS REQUIRED BY THE SWPPP. ADDITIONAL BMP'S SHALL BE IMPLEMENTED AS REQUIRED BY SITE CONDITIONS AND AS DIRECTED BY THE QUALIFIED INSPECTOR AS A RESULT OF WEEKLY CONSTRUCTION DURATION INSPECTIONS.
3. BMP'S AND OTHER REQUIRED CONTROLS SHALL CONFORM TO FEDERAL, STATE OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
4. THE GENERAL CONTRACTOR SHALL DENOTE ON PLAN (IF DIFFERENT FROM THAT CURRENTLY SHOWN) THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
5. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
6. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN–UP FUEL OR CHEMICAL SPILLS AND LEAKS.
7. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
8. RUBBISH, TRASH, GARBAGE, LITTER OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
9. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THESE PLANS SHALL BE INITIATED AS SOON AS PRACTICABLE.
10. ALL DENUDED AREAS THAT WILL BE INACTIVE FOR 14–DAYS OR MORE MUST BE STABILIZED TEMPORARILY WITH THE USE OF FAST–GERMINATING ANNUAL GRASS–GRAIN VARIETIES, STRAW–HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING OR BLANKETS.
11. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE PLANS. THESE AREAS SHALL BE SEEDED, SODDED AND/OR VEGETATED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
12. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.
13. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
14. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ACCUMULATED SEDIMENT IN THE SWALES, CHECK DAMS, AND SEDIMENT TRAP AREAS AS WELL AS ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE ONSITE OR OFFSITE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
15. ON–SITE SOIL STOCKPILES AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES.
16. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
17. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
18. THE GENERAL CONTRACTOR IS TO DESIGNATE/IDENTIFY AREAS ON THE PLANS (IF DIFFERENT FROM THOSE CURRENTLY SHOWN) INSIDE OF THE LIMITS OF DISTURBANCE FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
19. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE PERMANENTLY STABILIZED.
20. ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
21. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS. EXCESS TOPSOIL TO REMAIN ON SITE.
22. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL PRIOR TO PLACEMENT OF FILL.
23. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.
24. INLET PROTECTION SHALL BE PLACED AT ALL STORM INLETS FOR DURATION OF CONSTRUCTION OR UNTIL CONTRIBUTING DRAINAGE AREAS HAVE BEEN PERMANENTLY STABILIZED.
25. LOCATION OF PROPOSED SILT FENCE OR AS LABELED ON PLAN TO CORRESPOND WITH LIMITS OF CLEARING AND GRADING.
26. THE PLACEMENT OF FILTER FABRIC BETWEEN THE FRAME AND GRATE OF A DRAINAGE INLET WILL NOT BE ALLOWED AS INLET PROTECTION.
27. ALL WATER PUMPED FORM EXCAVATIONS (DEWATERING) MUST PASS THROUGH A SEDIMENT TRAPPING DEVICE BEFORE BEING DISCHARGED FROM THE SITE. THESE DEVICES INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT BAGS, PORTABLE SEDIMENT TANKS AND SEDIMENT TRAPS.
28. FOR STORMWATER INLETS IN GRASSED OR LANDSCAPED AREAS, USE FILTER FABRIC DROP INLET PROTECTION (SEE DETAILS ON SHEET C540). FOR INLETS IN AREAS TO BE PAVED, USE EXCAVATED DROP INLET PROTECTION UNTIL CONTRIBUTING AREA IS STABILIZED (SUBBASE OR PAVEMENT INSTALLATION). ADDITIONAL SILTFENCE MAY BE REQUIRED TO PREVENT SEDIMENT MIGRATION ONTO STABILIZED AREAS.

1 SITE PREPARATION AND EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1"=60'

0 30' 60' 120'

CITY OF BUFFALO

HIGHLAND PARK PHASE 1

CITY OF BUFFALO SITE PLAN APPROVAL SET

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SITE PREPARATION AND EROSION AND SEDIMENT CONTROL PLAN

DATE	MAY 1, 2015		
SCALE	AS SHOWN		
DWN.	CC1	CHK.	TJZ
PROJ. No.	324715		

DWG. No.

C003

APPENDIX E – HEALTH AND SAFETY PLAN

1. CLIENT/SITE/PROJECT INFORMATION		
Client: Highland Park Village, LLC		
Site Address: 129 Holden Street, Buffalo, New York		
Site Description, Work Environment: Work environment is primarily outdoors in utility, parking, and landscaped areas and indoors in residential units		
Job/Project #:	Estimated Start Date:	Estimated Finish Date:
Site is Covered by the Following Regulations:	OSHA HAZWOPER Standard ☒	Mine Safety and Health Administration ☐
	OSHA Construction Regulations ☒	None of these ☐

2. EMERGENCY INFORMATION		
Hospital Name: Buffalo General Hospital		Hospital #: 716-859-5600
Hospital Address: 100 High Street, Buffalo, New York		Directions and Street Map Attached: ☒ Yes
Local Fire #: 911	Local Ambulance #: 911	Local Police #: 911
WorkCare Incident Intervention Services:1-888-449-7787	**For non-emergencies, if an employee becomes hurt or sick call 888-449-7787**	
Other Emergency Contact(s):	Phone #'s:	
Site-Specific Emergency Preparedness/Response Procedures/Concerns:		
• All EHS Events (incidents, first aid, near misses, unsafe acts/conditions, fires, chemical spills, property damage, extraordinary safe behaviors) must be reported immediately to the Project Manager, and within 24hours to the EHS Event Reporting Portal at www.kelleronline.com/portal. Username gempl1; Password ge5607. • In the event of a chemical release greater than 5 gallons, site personnel will evacuate the affected area and relocate to an upwind location. The Field Safety Officer and client site representative shall be contacted immediately. • Site work shall not be conducted during non-day-light hours, severe weather, including high winds and lightning. In the event of severe weather, stop work, lower any equipment (drill rigs), and evacuate the affected area.		

3. SUB-SURFACE WORK, UNDERGROUND UTILITY LOCATION	
Will subsurface explorations be conducted as part of this work? ☒ Yes ☐ No	
Site property ownership where underground explorations will be conducted on: **Highland Park Village LLC**	Public Access Property ☐ Yes ☒ No Private Property ☒ Yes ☐ No
Have Necessary Underground Utility Notifications for Subsurface Work Been Made?	☐ Yes ☒ Yet to be conducted
Specify Clearance Date & Time, Dig Safe Clearance I.D. #, And Other Relevant Information: Any sub-contractors performing sub-surface earthwork activities will the call in the NYS UFPO, prior to commencing any intrusive work.	

IMPORTANT! For subsurface work, prior to the initiation of ground penetrating activities, personnel to assess whether the underground utility clearance (UUC) process has been completed in an manner that appears acceptable, based on participation/ confirmation by other responsible parties (utility companies, subcontractor, client, owner, etc.), for the following:				
Electric:	☐ Yes	☐ No	☐ NA	☐ Other_____
Fuel (gas, petroleum, steam):	☐ Yes	☐ No	☐ NA	☐ Other_____
Communication:	☐ Yes	☐ No	☐ NA	☐ Other_____
Water:	☐ Yes	☐ No	☐ NA	☐ Other_____
Sewer:	☐ Yes	☐ No	☐ NA	☐ Other_____
Other:_____	☐ Yes	☐ No	☐ NA	☐ Other_____
Comments:				

4. SCOPE OF WORK	
Any OSHA PERMIT-REQUIRED CONFINED SPACE entry? ☐ **YES** ☒ **NO** If yes, use Site Specific H&S Plan/Confined Space Entry Permit for that portion of the work	**Any INDOOR fieldwork?** ☐ **YES** ☐ **NO** If yes, explain:
General project description, and phase(s) or work to which this H&S Plan applies.	Any ground-disturbing work that is completed on-site.
Specific Tasks Performed by:	
Concurrent Tasks to be Performed by Subcontractors (List Subcontractors by Name):	
Concurrent Tasks to be Performed by Others:	

5. SITE-SPECIFIC OVERVIEW OF H&S HAZARDS/MITIGATIONS (NOTE: Based on Hazard Assessment, Section 10)	
Describe the major hazards expected to be present at the jobsite, and describe the safety measures to be implemented for worker protection. Use brief abstract statements or more detailed narrative as may be appropriate.	
ON-SITE HAZARDS:	**HAZARD MITIGATIONS:**
Site Traffic	Use of Hi-Vis Safety vests and traffic cones. Avoiding work in main drive lanes.
Underground Utilities	Review of site drawings, ground disturbance approval from facility management, UFPO clearance.
Slips, trips, and fall hazards	Pay special attention while walking on uneven surfaces; do not walk with hands in pockets, general overall awareness and housekeeping. Identify hazards within work area prior to commencement of work activities.

	Maintain a safe distance from excavations and monitor for conditions of instability/cave-in.
Soil Vapor	Screen the breathing zone for presence of organic vapors
Pore Water	Wear appropriate PPE when site porewater is encountered in any excavation work
Soil	Wear appropriate PPE when Site soils are encountered during excavation work.

6. HEALTH AND SAFETY EQUIPMENT AND CONTROLS

AIR MONITORING INSTRUMENTS

- ☒ PID Type: Lamp Energy: 10.6 eV
- ☐ FID Type:
- ☐ Carbon Monoxide Meter
- ☐ Hydrogen Sulfide Meter
- ☐ O_2/LEL Meter
- ☒ Particulate (Dust) Meter
- ☒ Calibration Gas Type: Isobutylene
- ☐ Others:

Note: Ensure instruments have been properly calibrated

OTHER H&S EQUIPMENT & GEAR

- ☒ Fire Extinguisher
- ☒ Caution Tape
- ☒ Traffic Cones or Stanchions (for open trenches)
- ☒ Warning Signs or Placards
- ☒ Decon Buckets, Brushes, etc.
- ☐ Portable Ground Fault Interrupter (GFI)
- ☐ Lockout/Tagout Equipment
- ☐ Ventilation Equipment
- ☐ Others:

PERSONAL PROTECTIVE EQUIPMENT

- ☐ Respirator Type:
- ☐ Resp-Cartridge Type:
- ☒ Hardhat
- ☒ Outer Gloves Type: Nitrile
- ☐ Inner Gloves Type:
- ☒ Steel-toed boots/shoes
- ☐ Coveralls Type:
- ☐ Outer Boots Type:
- ☒ Eye Protection with side shields
- ☐ Face Shield
- ☒ Traffic Vest
- ☐ Personal Flotation Device (PFD)
- ☐ Fire Retardant Clothing
- ☐ EH (Electrical Hazard) Rated Boots, Gloves, etc.
- ☒ Noise/Hearing Protection
- ☐ Others:

Discuss/Clarify, as Appropriate:

7. AIR MONITORING ACTION LEVELS

Is air monitoring to be performed for this project? Yes ☒ **No** ☐

Make sure air monitoring instruments are in working order and have been calibrated prior to use. Depending on project-specific requirements, periodic field calibration checks may be necessary during the day of instrument use.

ACTION LEVELS FOR OXYGEN DEFICIENCY AND EXPLOSIVE ATMOSPHERIC HAZARDS (Action levels apply to occupied work space in general work area)

☐ **Applicable, See Below.** ☒ **Not Applicable**

Parameter	**Response Actions for Elevated Airborne Hazards**
Oxygen	**At 19.5% or below** – Exit area, provide adequate ventilation, or proceed to Level B, or discontinue activities Verify presence of adequate oxygen (approx. 12% or more) before taking readings with LEL meter. Note: If oxygen levels are below 12%, LEL meter readings are not valid.
LEL	**Less than 10% LEL** – Continue working, continue to monitor LEL levels **Greater than or Equal to 10% LEL** – Discontinue work operations and immediately withdraw from area. Resume work activities ONLY after LEL readings have been reduced to less than 10% through passive dissipation, or through active vapor control measures.

ACTION LEVELS FOR INHALATION OF TOXIC/HAZARDOUS SUBSTANCES (Action levels are for sustained breathing zone concentrations)

☒ **Applicable, See Below.** ☐ **Not Applicable**

Air Quality Parameters (Check all that apply)	**Remain in Level D or Modified D**	**Response Actions for Elevated Airborne Hazards**
☒ VOCs	0 to 5 ppm	From 5 ppm to 10 ppm: Proceed to Level C, or Ventilate, or Discontinue Activities If greater than 10 ppm: Proceed to Level B, or, Ventilate, or Discontinue Activities
☐ Carbon Monoxide	0 to 35 ppm	At greater than 35 ppm, exit area, provide adequate ventilation, proceed to Level B, or discontinue activities.
☐ Hydrogen Sulfide	0 to 10 ppm	At greater than 10 ppm, exit area, provide adequate ventilation, proceed to Level B, or discontinue activities
☒ Dust	0 to 100 mg/m^3	From 0 to 100 mg/m^3, Continue working. If from 100 mg/m^3 to 150 mg/m^3; may continue work but employ dust suppression measures. If greater than 150 mg/m^3; must stop work, employ dust suppression measures, and find a solution to dust migration.

SPECIAL INSTRUCTIONS/COMMENTS REGARDING AIR MONITORING (IF APPLICABLE)

8. H&S TRAINING/QUALIFICATIONS FOR FIELD PERSONNEL

- ☒ Project-Specific H&S Orientation (Required for All Projects/Staff)
- ☒ OSHA 40-Hour HAZWOPER/8 Hour Refreshers
- ☒ Hazard Communication (for project-specific chemical products)
- ☒ First Aid/CPR (at least one individual on site)
- ☒ General Construction Safety Training
- ☐ Lockout/Tagout Training
- ☐ Electrical Safety Training
- ☐ Bloodborne Pathogen Training
- ☐ Fall Protection Training
- ☒ Trenching & Excavation
- ☐ Current Medical Clearance Letter
- ☐
- ☐
- ☐

Discuss/Clarify, as needed:

9. PROJECT PERSONNEL - ROLES AND RESPONSIBILITIES		
ON-SITE PERSONNEL:		
Name(s)	**Project Title/Assigned Role**	**Telephone Numbers**
	Site Supervisor	Work: Cell:
	Field Safety Officer	Work: Cell:
	First Aid Personnel	Work: Cell:
	Project Team Members	Work: Cell:
Site Supervisors and Project Managers (SS/PM): Responsibility for compliance with Health and Safety programs, policies, procedures and applicable laws and regulations is shared by all management and supervisory personnel. This includes the need for effective oversight and supervision of project staff necessary to control the Health and Safety aspects of on-site activities. **Site Safety Officer (SSO):** The SSO is responsible for implementation of the Site Specific Health and Safety Plan. **First Aid Personnel:** At least one individual who has current training and certification in basic first aid and cardiopulmonary resuscitation (CPR) must be present during on-site activities involving multiple personnel. **Project Team:** Follow instructions relayed by the HASP and manager on-site.		
OTHER PROJECT PERSONNEL:		
Name	**Project Title/Assigned Role**	**Telephone Numbers**
	Associate/Principal-in-Charge	Work: Cell:
	Project Manager	Work: Cell:
	Health and Safety Coordinator (HSC)	Work: Cell:
	EHS Director	Work: Cell:
Principal-in-Charge: Responsible of overall project oversight, including responsibility for Health and Safety. **Project Manager:** Responsible for day-to-day project management, including Health and Safety. **Health and Safety Coordinator:** General Health and Safety guidance and assistance. **EHS Director:** H &S technical and regulatory guidance, assistance regarding H&S policies and procedures.		

10. HAZARD ASSESSMENT (CHECK ALL THAT APPLY)

A. GENERAL FIELDWORK HAZARDS

☐ Confined Space Entry (STOP – Use Confined Space Entry HASP)	☐ Overhead Hazards (i.e. falling objects, overhead power lines)
☐ Abandoned or vacant building/Enclosed Spaces	☒ Portable Hand Tools or Power Tools
☒ Significant Slip/Trip/Fall Hazards	☒ Significant Lifting or Ergonomic Hazards
☐ Unsanitary/Infectious Hazards	☐ Electrical Hazards (i.e. Equipment 120 Volts or Greater, Work Inside Electrical Panels, or Maintenance of Electrical Equipment)
☐ Poisonous Plants	☐ Other Stored energy Hazards (i.e. Equipment with High Pressure or Stored Chemicals)
☐ Biting/Stinging Insects	☐ Fire and/or Explosion Hazard
☐ Feral Animal Hazards	☒ Elevated Noise Levels
☐ Water/Wetlands Hazards	☒ Excavations/Test Pits
☐ Remote Locations/Navigation/Orientation hazards	☐ Explosives or Unexploded Ordinance/MEC
☒ Heavy Traffic or Work Alongside a Roadway	☐ Long Distance or Overnight Travel
☒ Weather-Related Hazards	☒ Personal Security or High Crime Area Hazards
☒ Motor vehicle operation Hazards	☐ Working Alone
☒ Heavy Equipment Hazards	☐ Ionizing Radiation or Non-Ionizing Radiation
☐ Structural Hazards (i.e. unsafe floors/stairways/roof)	☒ Chemical/Exposure Hazards (See Part B for Details)
☒ Demolition/Renovation	☐ Other:
☒ Presence of Pedestrians or the General Public	

B. CHEMICAL/EXPOSURE HAZARDS

☐ No chemical hazards anticipated	☐ Methane
☐ Hydrogen Sulfide (H2S)	☐ Chemicals Subject to OSHA Hazard Communication (Note: For commercial chemical products, attach MSDSs if applicable)
☐ Cyanides, Hydrogen Cyanide (HCN)	☐ Containerized Waste, Chemicals in Piping & Process Equipment
☐ Carbon Monoxide	☒ Emissions from Gasoline-, Diesel-, Propane-fired Engine, Heater, Similar Equipment
☐ Herbicides, Pesticide, Fungicide, Animal Poisons	☒ General Work Site Airborne Dust Hazards
☒ Metals, Metal Compounds	☐ Volatile Organic Compounds (VOCs), BTEX
☐ Corrosives, Acids, Caustics, Strong Irritants	☐ Chlorinated Organic Compounds
☐ Polychlorinated Biphenyls (PCBs)	☐ Fuel Oil, Gasoline, Petroleum Products, Waste Oil
☒ Polycyclic Aromatic Hydrocarbons (PAHs)	☐ Asbestos
☐ Compressed Gases	☐ Oxygen Deficiency, Asphyxiation Hazards
☐ Flammable/Combustible Liquids	☐ Other:
☐ Radiation Hazards (i.e. radioactive sealed/open source, x-rays, ultra violet, infrared, radio-frequency, etc.)	

11. PLAN ACKNOWLEDGEMENT AND APPROVALS

Employee Plan Acknowledgement

I have read, understood, and agree to abide by the information set forth in this Safety and Accident Prevention Plan. I will follow guidance in this plan and in the Health and Safety Program Manual. I understand the training and medical monitoring requirements covered by the work outlined in this plan and have met those requirements.

Employee Name	Employee Signature	Date

Subcontractor Employee Plan Acknowledgement

This plan has been prepared solely for the purpose of protecting the health and safety of future workers. Subcontractors, visitors, and others at the site must refer to their organization's health and safety program or site-specific HASP for their protection. Subcontractor employees may use this plan for general informational purposes only. Subcontractor firms are obligated to comply with safety regulations applicable to their work, and understand this plan covers Highland Park Village, LLC activities only.

Subcontractor Employee Name	Subcontractor Employee Signatures	Date

Site-Specific Health and Safety Plan Approval Signatures

The following individuals indicate their acknowledgement and/or approval of the contents of this Site Specific H&S Plan based on their understanding of project work activities, associated hazards and the appropriateness of health and safety measures to be implemented.

Signatory	Employee Name	Employee Signature	Date
Preparer:			
EHS Reviewer:			
PIC Approval:			

bing Maps

A **129 Holden St, Buffalo, NY 14214**

B **100 High St, Buffalo, NY 14203**

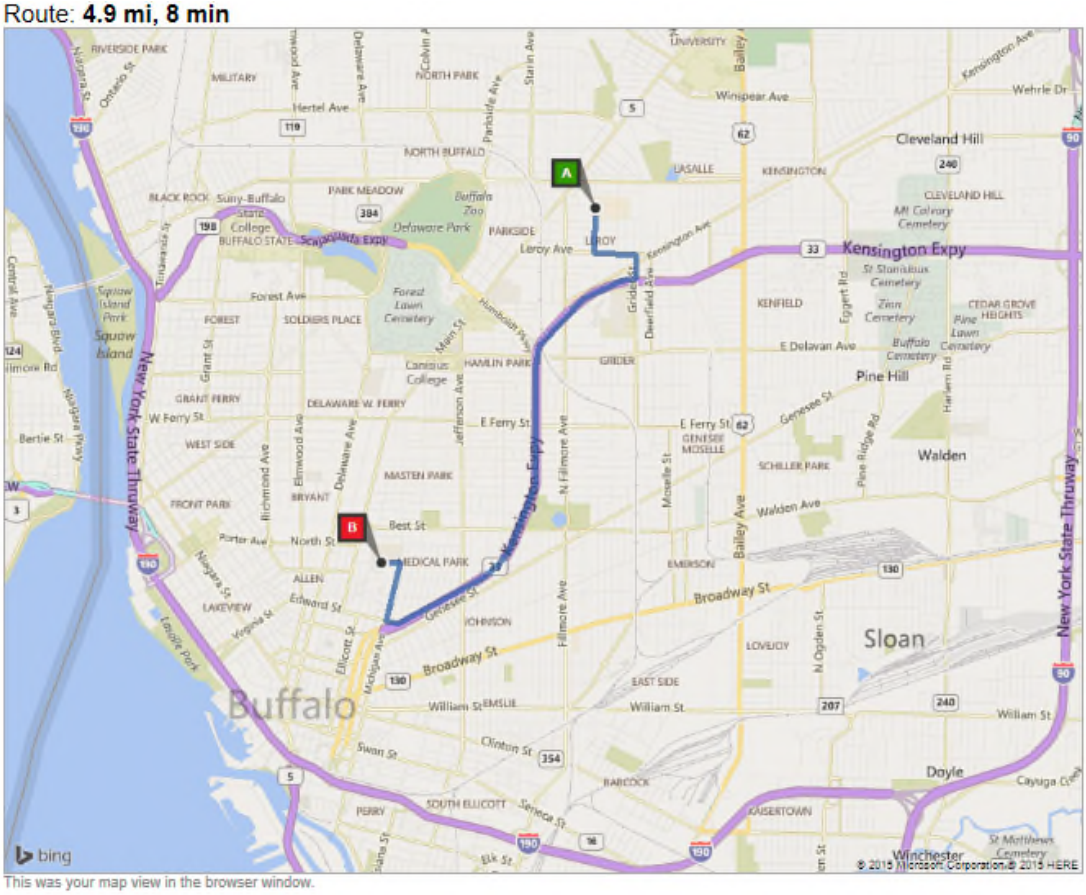
Type your route notes here (up to 120 characters).

On the go? Use **m.bing.com** to find maps, directions, businesses, and more

Route: **4.9 mi, 8 min**

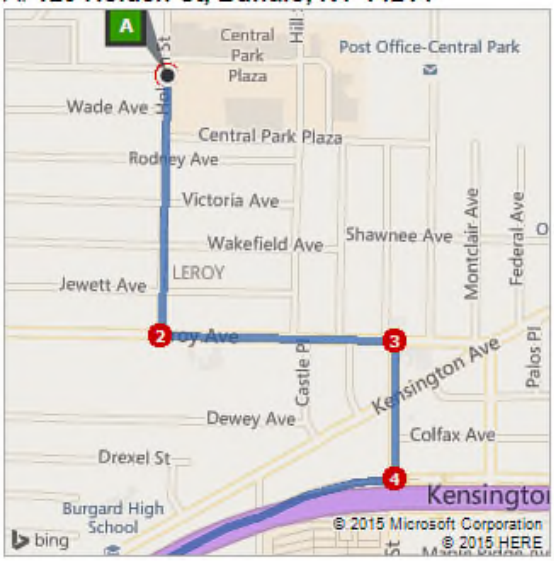
A	**129 Holden St, Buffalo, NY 14214**	**A–B: 4.9 mi** 8 min
	1. Depart **Holden St** toward Wade Ave	0.3 mi
	2. Turn **left** onto **Leroy Ave**	0.3 mi
	3. Turn **right** onto **Grider St**	0.2 mi
	4. Take ramp **right** and follow signs for **RT-33 West**	3.4 mi
33	5. Take ramp **right** and follow signs for **RT-33 West**	0.1 mi
	6. Turn **right** onto **Michigan Ave**	0.4 mi
	7. Turn **left** onto **High St**	0.1 mi
B	8. Arrive at **100 High St, Buffalo, NY 14203** *The last intersection is Michigan Ave* *If you reach N Oak St, you've gone too far*	

Route: **4.9 mi, 8 min**

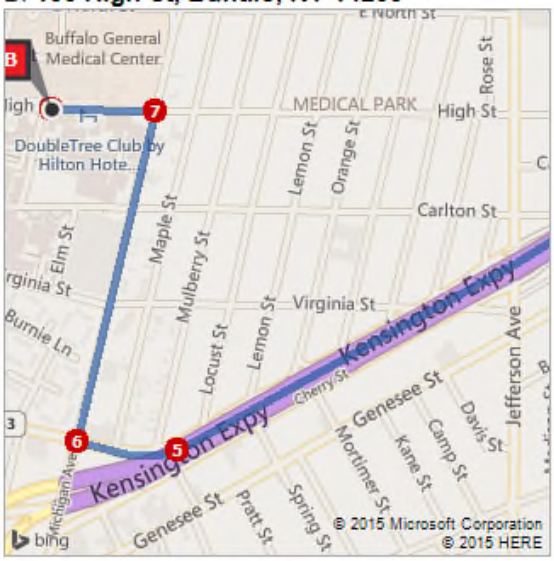


This was your map view in the browser window.

A: **129 Holden St, Buffalo, NY 14214**



B: **100 High St, Buffalo, NY 14203**



APPENDIX F – QUALITY ASSURANCE PROJECT PLAN

QUALITY ASSURANCE PROJECT PLAN

129 HOLDEN STREET
BUFFALO, NEW YORK

BROWNFIELD CLEANUP PROGRAM

SITE NO. C915261

TABLE OF CONTENTS

LIST OF TABLES

1.0 INTRODUCTION

1.1 PURPOSE AND OBJECTIVE

This Quality Assurance Project Plan (QAPP) has been developed for the Site Management Plan (SMP) associated with the 129 Holden Street Brownfield Cleanup Program (BCP) Site No. C915261 located at 129 Holden Street, Buffalo, New York. This QAPP presents the project scope, objectives, organization, planned activities, sampling procedures, data quality objectives and quality assurance/quality control (QA/QC) procedures.

Protocols for sample collection, sample handling and storage, equipment decontamination, chain-of-custody procedures, etc. are described in Section 3. This QAPP was developed in general accordance with the requirements of Section 2.4 of the NYSDEC DER-10/Technical Guidance for Site Investigation and Remediation, effective June 18, 2010 (NYSDEC DER-10).

1.2 PROJECT BACKGROUND

As described in more detail in Section 2.3 of this SMP, the 27.09-acre Site is located at 129 Holden Street, Buffalo, New York. No structures currently occupy the property. Surrounding adjacent areas are zoned for residential and public service use. The Site was originally developed for industrial use as early as 1874 for the mining industry and the production of limestone and natural rock cement.

The following environmental site assessments have been completed at the Site.

- In August 2011, GZA performed a Phase I Environmental Site Assessment (Phase I ESA) at the Site.

- In October 2011, GZA performed a Phase II Environmental Site Assessment (Phase II ESA) at the Site.

The Site was accepted by the NYSDEC into the BCP on January 31, 2012. The BCA required that a site-wide remedial investigation be completed.

GZA conducted a Remedial Investigation (RI) at the Site between July 2012 and March 2013 to characterize the nature and extent of contamination at the Site. Generally, the RI identified that a significant amount of fill material had been placed at the Site after the quarry operations ceased in the 1950s, prior to construction of the Central Park Plaza. Fill was identified from the ground surface to depths ranging from 5 to 19 feet bgs. Fill materials consisted of granular soils (gravel and sand with lesser amounts of silt and clay) overlying cohesive fill soils (silt and clay) with various amounts of brick, glass, slag, wood, and limestone fragments. It was evident from the subsurface investigation that extensive excavation of bedrock had been previously conducted at the Site.

According to the analytical results generated during the RI, SVOCs and metals were detected in shallow soil/fill samples at concentrations above the Part 375 SCOs for restricted residential site use (RRSCOs); however, specific sources of the SVOCs and metals contamination were not identified. No VOCs, PCBs, herbicides, or pesticides were detected at concentrations above the RRSCOs in the fill/soil samples submitted for analysis. Five SVOCs (Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Dibenz (a,h) anthracene, and Indeno (1,2,3-cd) pyrene) and five metals (arsenic, chromium, copper, nickel, and zinc) had at least one exceedance of the Part 375 SCOs for industrial site use (ISCOs) in the shallow soil/fill samples and were considered the Significant Contaminants of Concern (SCOC). No specific contaminants of concern were identified in the groundwater samples submitted for analysis; therefore, no groundwater remediation was required as part of the remedial action.

Based on the results of the RI and previous Phase II ESA, it was determined that remedial measures would be required to address SVOC- and metal- impacted shallow soil/fill at the Site prior to the anticipated redevelopment. Specifically, thirteen areas of concern (AOCs) were identified during the RI where SVOC- and metal- contaminated soil/fill was identified in exceedance of the RRSCOs. Within four of the AOCs (Areas 3, 4, 5, and 11), five "hotspots" (TP-10, TP-70, TP-74, TP-75, and TP-77) were identified with contamination above the site-specific Proposed Excavation Limit Threshold (PELT), derived by a statistical analysis of the concentrations of the ten above-listed SCOC. A Remedial Action

(RA) consisting of excavation and proper off-site disposal of shallow soil/fill at the five hotspots followed by installation of a 2-foot thick cover system over the entire Site that met the RRSCOs was recommended in order to achieve the RRSCOs via a Track 4 (site-specific) cleanup.

1.3 PROJECT DESCRIPTION

This QAPP is the quality control basis for the scope of work, which is further described in the Excavation Work Plan of the Site Management Plan. The major task involved at the Site is:

- Implementation of the Site Management Plan

2.0 SITE INVESTIGATION PROCEDURES AND RATIONALE

Shallow soil/fill containing concentrations of metals and SVOCs remain at the Site, underneath the demarcation layer and the cover system. Because of the presence of remaining impacted subsurface soil, future excavation activities require certain monitoring and other protocols which could include sampling. Environmental sampling, if warranted, would be performed in conjunction with the removal actions for the following purposes:

- confirmation sampling of excavation sidewalls and bottom;
- characterization of "clean" backfill materials; and
- characterization of soil and waters (if present) for disposal purposes.

Environmental sampling and other field activities will be performed in general accordance with the NYSDEC DER-10 guidance document.

General field activities are described in the following sections and described in further detail in the Remedial Action Work Plan (RAWP).

2.1 AIR SURVEILLANCE AND MONITORING

Air surveillance screening for total volatile organics and particulates for health and safety concerns will be performed with a portable organic vapor meter (OVM) equipped with a

photoionization detector (PID) that is using a 10.6 electron volt (eV) bulb and dust monitors placed both upwind and downwind of intrusive work sites. Monitoring will be performed during invasive activities such as soil/fill excavation. The OVM will also be used to field screen samples. Additional details are presented in the Site-specific Health and Safety Plan and RAWP, which includes the NYSDOH generic Community Air Monitoring Plan (CAMP).

2.2 SOIL SAMPLING

Soil/fill sampling will occur during any site improvement activities where disturbance to soil/fill beneath the site-wide cover system identified in the SMP may occur. This may include, but is not limited to, activities involving excavation and removal of impacted soil/fill, confirmatory sampling, and waste characterization. Samples will be collected and transferred to sample containers as soon as possible after being retrieved from the subsurface (i.e., excavator bucket).

The excavator will be decontaminated by the subcontractor prior to arrival on-Site. During remedial activities, decontamination will be accomplished using steam cleaning or high pressure hot water to wash equipment prior to moving to the next location. Stainless steel sampling devices will be cleaned manually with non-phosphate detergent (i.e., alconox) wash and potable water followed by a potable water rinse or a second steam cleaning followed by a distilled/deionized water rinse. Equipment will be similarly cleaned prior to leaving the Site.

Soil/fill samples, with the exception of those for VOCs, will be homogenized using a "coning and quartering" procedure. The soil will be removed from the sampling equipment and transferred to a clean surface (metal foil, steel pan, bowl, etc.). Observed debris, such as bricks, large stones, organics, etc. will be removed from the sample. The soil will be mixed to provide a more homogeneous sample for lab analysis. The soil will be scraped from the sides, corners, and bottom of the clean surface, rolled to the middle, and thoroughly mixed until the material appears homogenous. An aliquot of this pile will then be transferred to the required sample containers, slightly tamped-down, filled to near the top of the container, and sealed with the appropriate cap. Soil or sediment on the threads

of the container will be removed prior to placing the cap on the sample container. Soil samples for VOC analysis will be collected and directly placed into one unpreserved 2 oz jar per sample location.

Soil screening will be performed in two ways: by holding the probe of the OVM directly over the sample once it is retrieved from the subsurface and again by headspace screening after a representative portion of the soil samples has been placed in plastic bags, allowed to warm to ambient temperature, and placing the tip of the OVM into the plastic bag. The OVM used will be equipped with a PID that is using a 10.6 eV bulb.

The OVM will be calibrated daily, in accordance to manufacturer's requirements using a standard gas. Prior to screening, the headspace soil samples will be allowed to equilibrate to ambient temperature. For headspace screening, a hole will be made in the sample bag and the tip of the OVM inserted into the bag, and the peak response will be recorded. A response of less than 1 part per million (ppm), using this method, is not considered significant and will be reported as not detected. A blank will be run between test samples to check that extraneous contamination was not carried over.

2.3 EQUIPMENT DECONTAMINATION

To avoid cross contamination, non-disposable sampling equipment (defined as any piece of re-usable equipment which may contact a sample) will be decontaminated according to the following procedures outlined below.

2.3.1 Non-Dedicated Reusable Equipment

Non-dedicated reusable equipment such as stainless steel mixing bowls; pumps used for groundwater evacuation (and sampling, if applicable) etc. will require field decontamination. Acids and solvents will not be used in the field decontamination of such equipment. Decontamination typically involves scrubbing/washing with a laboratory grade detergent (e.g. alconox) to remove visible contamination, followed by potable (tap) water and analyte-free water rinses. Tap water may be used from any treated municipal water system; the use of an untreated potable water supply is not an acceptable substitute. Equipment should be allowed to dry prior to use. Steam cleaning or high pressure hot

water cleaning may be used in the initial removal of gross, visible contamination. Tubing will not be re-used (new tubing will be used for each well).

2.3.2 Disposable Sampling Equipment

Disposable sampling equipment will not be field-decontaminated; equipment may be rinsed with laboratory-provided analyte-free water prior to use. Disposable spoons or spatulas purchased from non-environmental equipment vendors (such as restaurant supply houses) will be decontaminated by scrubbing/washing with a laboratory grade detergent followed by potable water and Analyte-free water rinse; or by using steam or high pressure hot water rinse, followed by analyte free water rinse. The equipment will be allowed to air dry prior to use.

2.3.3 Heavy Equipment

Certain heavy equipment such as, excavator buckets, etc. may be used to obtain samples. Such equipment will be subject to high pressure hot water or steam cleaning between uses. A member of the sampling team will visually inspect the equipment to check that visible contamination has been removed by this procedure prior to sampling. Such equipment will be cleaned between excavation locations. Decontamination between excavation samples at a single location will be performed using alconox and water to clean the samplers. Samples submitted for analysis will not include material, which has been in direct contact with the excavator bucket.

2.4 STORAGE AND DISPOSAL OF WASTE GENERATED DURING SITE IMPROVEMENT ACTIVITIES

The sampling methods and equipment have been selected to limit both the need for decontamination and the volume of waste material to be generated. Investigation-derived material (e.g., decon sediments and water) generated during this project shall be presumed to be non-hazardous waste and will be characterized for off-site disposal at a permitted and NYSDEC-approved waste disposal facility.

Personal protective equipment and disposable sampling equipment will be placed in plastic garbage bags for disposal as a non-hazardous solid waste.

Decontamination Fluids

Wash water and rinse water, including detergent, may be generated during Site work. Non-phosphate detergent and water rinse will be disposed off-Site along with water generated from excavations if present.

3.0 SAMPLE HANDLING

3.1 SAMPLE IDENTIFICATION/LABELING

Samples will be assigned a unique identification using the sample location or other sample-specific identifier. Sample identification will be limited to seven alphanumeric characters to be consistent with the limitations of the laboratory tracking/reporting software. The general sample identification format follows.

SW - XX - Y-Y

Where:

SW = Type of sample (i.e., Side Wall, Excavation Bottom)

XX = Numeric character indicating the number from which the sample was obtained.

Y-Y = Depth of the sample.

Quality control (QC) field duplicate samples will be submitted blind to the laboratory; a fictitious sample identification will be created using the same system as the original. The sample identifications (of the original sample and its field duplicate) will be marked in the project specific field book and on the copy of the chain-of-custody kept by the sampler and copied to the project manager. Sample containers will be labeled in the field prior to the collection of samples. Affixed to each sampling container will be a non-removable label on which the following information will be recorded with permanent water-proof ink:

- Site name and location;
- Sample identification code;
- Date and time;
- Sampler's initials;
- Preservative; and

- Requested analyses.

3.2 SAMPLES, BOTTLES, PRESERVATION, AND HOLDING TIME

Table 1 specifies the analytical method, matrix, holding time, containers, and preservatives for the various analyses to be completed. Sample bottle requirements and holding times are discussed further below.

3.2.1 Sample Bottles

The selection of sample containers used to collect samples is based on the criteria of sample matrix, analytical method, potential contaminants of concern, reactivity of container material with the sample, QA/QC requirements and regulatory protocol requirements. Sample bottles will be provided by the analytical laboratory and will conform to the requirements of USEPA's Specifications and Guidance for Contaminant-Free sample Containers.

3.2.2 Holding Times

Holding times are judged from the verified time of sample receipt (VTSR) by the laboratory; samples will be shipped from the field to arrive at the lab no later than 48 hours from the time of sample collection. Holding time requirements will be those specified in the NYSDEC ASP; it should be noted that for some analyses, these holding times are more stringent than the holding time for the corresponding USEPA method.

Although trip blanks are prepared in the analytical laboratory and shipped to the Site prior to the collection of environmental samples, for the purposes of determining holding time conformance, trip blanks will be considered to have been generated on the same day as the environmental samples with which they are shipped and delivered. Procurement of bottles and blanks will be scheduled to prevent trip blanks from being stored for excessive periods prior to their return to the laboratory; the goal is that trip blanks should be held for no longer than one week prior to use.

3.3 CHAIN OF CUSTODY AND SHIPPING

A chain-of-custody form will trace the path of sample containers from the project site to the laboratory. Sample/bottle tracking sheets or the chain-of-custody will be used to track the containers from the laboratory to the containers' destination. The project manager will notify the laboratory of upcoming field sampling events and the subsequent transfer of samples. This notification will include information concerning the number and type of samples, and the anticipated date of arrival. Insulated sample shipping containers (typically coolers) will be provided by the laboratory for shipping samples. All sample bottles within each shipping container will be individually labeled with an adhesive identification label provided by the laboratory. Project personnel receiving the sample containers from the laboratory will check each cooler for the condition and integrity of the bottles prior to field work.

Once the sample containers are filled, they will be immediately placed in the cooler with ice (in plastic bags to prevent leaking) or synthetic ice packs to maintain the samples at 4 ^{o}C. The field sampler will indicate the sample designation/location number in the space provided on the chain-of-custody form for each sample. The chain of custody forms will be signed and placed in a sealed plastic bag in the cooler. The completed shipping container will be closed for transport with nylon strapping, or a similar shipping tape, and two paper seals will be affixed to the lid. The seals must be broken to open the cooler and will indicate tampering if the seals are broken before receipt at the laboratory. The cooler will be shipped either by laboratory-provided courier or by an overnight delivery service to the laboratory. When the laboratory receives the coolers, the custody seals will be checked and lab personnel will sign the chain-of-custody form.

4.0 QUALITY ASSURANCE/QUALITY CONTROL PROTOCOLS

This section describes the analytical methods, principles and procedures that will be used to generate quality data. These protocols include laboratory calibration, field equipment calibration, QC sample collection and analysis, quantitative evaluation of data quality protocols and data qualification, if necessary.

4.1 ANALYTICAL METHODS, PROCEDURES & CALIBRATION

4.1.1 Methods

Analytical methods to be used during this project are presented in the NYSDEC Analytical Services Protocol (ASP), June 2005. Specific methods and references for each parameter are shown in Table 1. The sample preservation and holding time requirements are also identified in Table 1. Quantification and detections limits for all analysis are those specified under the appropriate test methods.

It is the laboratory's responsibility to be familiar with this document, procedures and deliverables pertaining to the Site work. The laboratory selected to perform the analytical testing will be certified by the NYSDOH Environmental Laboratory Approval Program and Contract Laboratory Protocol certified.

4.1.2 Laboratory Instrumentation & Equipment

Laboratory instruments and equipment will be calibrated following SW-846 analytical methods protocol. Initial calibrations will be performed before samples analysis. Calibration checks will be performed at the frequencies specified in each analytical method.

4.1.3 Field Equipment

Field equipment will be used during various activities of the project and during the collection of environmental samples. The field equipment to be used may include the following.

Field equipment used includes:

- OVM with a photoionization detector.
- Electronic water level indicator.
- Multi-gas meter (CO, LEL, O_2, and H_2S).
- Particulate monitor

Field equipment will be cleaned and calibrated prior to use. The Operating and Maintenance (O&M) manuals for the field equipment will be kept in the field when in use and a copy will be retained in project files.

Calibration and standardization for the field equipment during project use will be in accordance with the manufacturer's recommendations, and will be recorded in the field log book. If instrument performance or data fall outside acceptable limits, then corrective actions will be taken. These actions may include recalibration of instruments, acquiring new standards, replacing equipment or repairing equipment. Subcontractors providing analytical services should perform their own internal laboratory audits and calibration procedures with data review conducted at a frequency so that errors and problems are detected early, thus avoiding the prospect of redoing large segments of work.

4.2 QUALITY CONTROL SAMPLES

4.2.1 Analytical Equipment

The analytical methods to be utilized (see Table 1) for laboratory sample analysis address the quality control to be used and the frequency of replicates, blanks and calibration standards for laboratory analytical equipment.

Table 1
Summary of Sample Methods, Container, Preservation and Holding Time Requirements
Quality Assurance Project Plan
129 Holden Street
Buffalo, New York
Brownfield Cleanup Program
Site No. C915261

Analysis	Method	Holding Time (days)		Containers		Preservative
		To Extraction	To Analyze	Number	Type	
Soil Samples						
Volatile Organic Compounds	SW-846 8260B		14	2	L	Cool
Semivolatile Organic Compounds	SW-846 8270C	14	40	2 *	J	Cool
PCBs	SW-846 8082	14	365		J	Cool
Metals	SW-846 6010B/7470A		180 (28 for Hg)		J	Cool
Pesticides	SW-846 8082	14	40		J	Cool
Herbicides	SW-846 8151	14	40		J	Cool
Aqueous Samples						
Volatile Organic Compounds	SW-846 8260B		14	3	G	Cool
Semivolatile Organic Compounds	SW-846 8270C	7	40	1	H	Cool
PCBs	SW-846 8080	7	365	1	H	Cool
Metals	SW-846 6010B/7470A	7	180 (28 for Hg)	1	I	HNO3
Pesticides	SW-846 8082	7	40	1	H	Cool
Herbicides	SW-846 8151	7	40	1	H	Cool

Notes:
Container Types
G - 40 ml glass, Teflon septum cap liner, HCL
H - 1L glass, Teflon cap liner
I - 250 ml, polyethylene, Teflon cap liner
J - 8 oz. wide mouth glass, Teflon cap liner
L - 2 oz. glass widemouth with Teflon cap liner
M - 1 liter vacuum canister
Preservatives
Cool - Cool to 4 degrees Celsius
HNO3 - Nitric Acid to <2 pH
NaOH - Sodium Hydroxide to >12pH
HCl - Hydrochloric acid to pH<2
* - Semi-volatiles, PCBs, metals pesticides, and herbicides analyses can take place from two 8 ounce glass widemouth jar with a teflon lined cap.

4.2.2 Field Samples

Field quality control samples will consist of trip blanks, sample duplicate, matrix spike and matrix spike duplicate. Trip blanks, for VOCs only, will consist of analyte free reagent grade water in VOC sampling containers to be used for the project. Trip blanks will be prepared at the laboratory, sealed, transported to the Site and returned without being opened to assess contamination that may have occurred during transport. Trip blanks will be submitted at a rate of one per sampling event when VOCs are shipped to the laboratory.

Field duplicate samples are used to assess the variability of a matrix at a specific sampling point and to assess the reproducibility of the sampling method. For soil samples, these samples are separate aliquots of the same sample; prior to dividing the sample into "sample" and "duplicate" aliquots, the samples are homogenized (except for the VOC aliquots, which are not homogenized). Aqueous field duplicate samples are second samples collected from the same location, at the same time, in the same manner as the first, and placed into a separate container. Each duplicate sample will be analyzed for the same

parameters as the original sample collected that day. The blind field duplicate Relative Percent Difference (RPD) objective will be ±50% percent RPD for all matrices. Field duplicates will be collected at a frequency of 1 per 20 environmental samples for both matrices (aqueous and non-aqueous) and test parameters.

Matrix spike/matrix spike duplicate (MS/MSD) samples are used to assess the laboratory method's accuracy and precision. These samples are spiked with known quantities of target analytes at the laboratory. The samples are collected at a frequency of five percent (1 in 20).

5.0 DATA DOCUMENTATION

5.1 FIELD NOTEBOOK

Field notebooks will be initiated at the start of on-Site work, in addition to field forms that will be filled out summarizing field work and become part of the project file. The field notebook will include the following daily information for Site activities:

- Date;
- Meteorological conditions (temperature, wind, precipitation);
- Site conditions (e.g., dry, damp, dusty, etc.);
- Identification of crew members (GZA and subcontractor present) and other personnel (e.g., agency or site owner) present;
- Description of field activities;
- Location(s) where work is performed;
- Problems encountered and corrective actions taken;
- Records of field measurements or descriptions recorded; and,
- Notice of modifications to the scope of work.

5.2 FIELD REPORTING FORMS

Field reporting forms (or their equivalent) to be utilized during the remediation may include the following:

- Excavation Log;
- Sample Collection Log;
- Chain of Custody Form; and
- Calibration Log.

These forms, when completed, will become part of the project file.

6.0 CORRECTIVE ACTIONS

If instrument performance or data fall outside acceptable limits, then corrective actions will be taken. These actions may include recalibration or standardization of instruments, acquiring new standards, replacing equipment, repairing equipment, and reanalyzing samples or redoing sections of work. Subcontractors providing analytical services should perform their own internal laboratory audits and calibration procedures with data review conducted at a frequency so that errors and problems are detected early, thus avoiding the prospect of redoing large segments of work.

Situations related to this project requiring corrective action will be documented and made part of the project file. For each measurement system identified requiring corrective action, the responsible individual for initiating the corrective action and also the individual responsible for approving the corrective action, if necessary, will be identified. As part of its total quality management program, GZA makes the results of laboratory audits and data validation reports available to the analytical laboratories. The laboratories are therefore made aware of non-critical items and areas where improvement may be made in subsequent NYSDEC ASP work.

7.0 DATA REDUCTION, VALIDATION, AND REPORTING

The guidance followed to perform quality data validation, and the methods and procedures outlined herein pertain to initiating and performing data validation, as well as reviewing

data validation performed by others (if applicable). An outline of the data validation process is presented here, followed by a description of data validation review summaries.

7.1 LABORATORY DATA REPORTING AND REDUCTION

The laboratory will meet the applicable documentation, data reduction, and reporting protocols as specified in the 2005 revision of the NYSDEC ASP CLP. Laboratory data reports for non-CLP data will conform to NYSDEC Category B deliverable requirements. With full CLP documentation, deliverables will include, but not be limited to:

Organics	**Inorganics**
Chains of Custody	Chains of Custody
Blanks	Blanks
Holding Times	Holding Times
Internal Standards	Furnace AA QC
Laboratory Duplicates	CRDL Standards
Tentatively Identified Compounds	ICP Serial Dilutions
GC/MS Instrument Performance Check	Laboratory Control Samples
System Monitoring Compound Recovery	Laboratory Duplicates
Matrix Spike & Matrix Spike Duplicates	ICP Interference Check
GC/MS Tuning	Spiked Sample Recovery
Surrogate Recoveries	

Copies of the laboratory's generic Quality Assurance Plan (QAP) will be on file at GZA. The laboratory's QAP will indicate the standard methods and practices for obtaining and assessing data, and how data are reduced from the analytical instruments to a finished report, indicating levels of review along the way.

In addition to the hard copy of the data report, the laboratory will be asked to provide the sample data in spreadsheet form to minimize possible transcription errors resulting from the manual transcription of data.

7.2 DATA VALIDATION AND DATA USABILITY SUMMARY REPORT

CLP data will be validated by a data validation subcontractor. Data validation will be performed in accordance with guidelines established in Appendix 2B of the NYSDEC

DER-10. Where necessary and appropriate, supplemental validation criteria may be derived from the EPA Functional Guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA-540/R-94/012, February 1993; and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA-540/R-94/013, February, 1994).

Data Usability Summary Reports (DUSRs) will consist of text results of the review and marked up copies of Form I (results with qualifiers applied by the validator). Validation will consist of target and non-target compounds with corresponding method blank data, spike and surrogate recoveries, sample data, and a final note of validation decision or qualification, along with any pertinent footnote references. Qualifiers applied to the data will be documented in the report text.

There may be some analyses for which there is no established USEPA or NYSDEC data validation protocol. In such cases, validation will be based on the EPA Region II SOPs and EPA Functional Guidelines as much as possible, as well as the laboratory's adherence to the technical requirements of the method, and the professional judgment of the validator. The degree of rigor in such validation will correspond to the nature of the data and the significance of the data and its intended use. Unless otherwise requested, non-CLP data (e.g., total organic carbon) is not subject to validation.

7.3 FIELD DATA

Field chemistry data collected during air monitoring, and soil screening (e.g., OVM readings), will be presented on field logs and provided in the appendices of the report.

8.0 PERFORMANCE AND SYSTEM AUDITS

An audit of the laboratory(s) during the BCP work will not be performed unless warranted by a problem(s) that cannot be resolved by any other means, or at the discretion of GZA or NYSDEC.

9.0 QUALITY ASSURANCE REPORTS TO MANAGEMENT

Monthly project status reporting to the NYSDEC will include aspects of quality control that were pertinent during the month's activities. Problems revealed during review of the month's activities will be documented and addressed. These reports will include a description of completed and on-going activities, and an indication how each task is progressing relative to the project schedule.

The project manager, through task managers, will be responsible for verifying that records and files related to this project are stored appropriately and are retrievable.

The laboratory will submit memoranda or correspondence related to quality control of this project's samples as part of its deliverables package.

APPENDIX G
SITE MANAGEMENT FORMS

129 Holden Street, Buffalo, NY
BCP Site No.: C915261
Site Management Form

SITE DETAILS	
Site No.:	Site Name:
Site Address:	
PERSON PERFORMING INSPECTION	
Name:	Email:
Company:	Phone Number:
Others Present:	
INSPECTION DATE AND SITE CONDITIONS	
Insepction Date:	Inspection Time:
Weather Conditions:	
REASON FOR SITE INSPECTION	
Type of Inspection: ☐ Annual Inspection ☐ Routine Maintenance Inspection ☐ Non-Routine Inspection	
Inspection after a Severe Condition that could effect Site control ☐ Yes ☐ No	
Describe severe condition triggering inspection:	
VERIFICATION OF SITE DETAILS	
Current Site Owner:	
Current Site Operator:	
Describe Current Site Use (*check all that apply*)	
☐ Industrial ☐ Commercial ☐ Residential ☐ Other	
Briefly describe observed site uses:	
Note any additional pertinent information to Verification of Site Details (use additional pages if necessary.	
DESCRIPTION OF ENGINEERING CONTROLS	
Are the Engineering Controls still in place: ☐ Yes ☐ No	
If No, explain:	
Is the Site Management Plan still in place: ☐ Yes ☐ No	
If No, explain:	
AREAS IN NEED OF REPAIR OR MAINTENANCE	
Area discussed in this section must be shown on a figure and have photographic documentation.	

129 Holden Street, Buffalo, NY
BCP Site No.: C915261
Site Management Form

INTRUSIVE ACTIVITIES PERFORMED AT SITE DURING INSPECTION PERIOD	
Location:	Date:
Description of activities being performed:	

Are Site records being properly generated and maintained: ☐ Yes ☐ No

Provide a summary of recordkeeping review and adeuacy:

ADDITIONAL NOTES & COMMENTS

INSPECTION CERTIFICATION

I hereby certify that the information included in this report is complete and accurate to the best of my knowledge

Inspector Signature: _____ Date: _____

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. 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.

II. 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.

Description of green remediation programs reported above (Attach additional sheets if needed)
Waste Generation:
Transportation/Shipping:
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 H – FIELD SAMPLING PLAN

Excavations/Pits/Trenches

If sampling of subsurface soil/fill is warranted per the provisions of the Excavation Work Plan, than such sampling will be conducted following the provisions of this Field Sampling Plan. The NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives (RRSCOs) will have to be met within the cover system and if the cover system is breached. Under the Environmental Easement, the Site has been classified for restricted residential, commercial, and industrial use only. Confirmation samples are used to establish that the chosen remedies have been achieved regarding the soil cleanup levels. Confirmation samples are required when the limits of the soil cleanup objectives are being determined in the field. The minimal confirmation soil sampling frequencies for soil excavations from NYSDEC DER-10 are below:

- If the area perimeter is less than 20 feet, one sample is to be collected from the bottom of the excavation, and one sample is to be collected on the sidewall sample biased in the direction of surface runoff.
- If the excavation area is between 20 to 300 feet in diameter, then one sample from the top of each sidewall for every 30 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area.
- If the excavation is to be greater than 300 feet in diameter, then a sampling plan shall be submitted to DER for approval. The sampling plan should have supporting rationale for reduced sampling frequency of appropriate.
- If multiple excavations are to be located within a larger excavation, each excavation will be considered a separate excavation.
- Confirmation samples will be analyzed for EPA Method 8270 (SVOCs) and EPA Method 6010/7471 (metals). Confirmation samples are to be collected from sidewalls and floor bottoms as described above.
- In an excavation where multiple layers of contamination have been visually or analytically identified, additional side wall samples in the horizon in which evidence of contamination was observed will be necessary.

Soil Imported/Exported To/From Site

If importing or exporting fill materials at the Site, personnel will sample and analyze the fill as outlined below and in the following table.

If VOC grab samples are to be collected and analyzed for EPA Method 8260, these samples will be collected from discrete locations within the fill material. Composite samples for SVOCs, PCBs, Pesticides, and Metals will be collected and are to be analyzed for EPA Methods 8270, 8082, 8151, and 6010/7471, respectfully. SVOCs, PCBs, Pesticides, and Metals composite samples are to be prepared by collecting samples from three to five random locations, mixing the samples together, then preparing the sample for analysis. Volume of samples to be collected and analyzed are provided in the table below.

Recommended Number of Soil Samples for Soil Imported To or Exported From a Site

Contaminant	**VOCs**	**SVOCs, Inorganics & PCBs/Pesticides**	
Soil Quantity (cubic yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1000	7	2	
> 1000	Add an additional 2 VOC and 1 composite for each additional 1000 Cubic yards or consult with DER		

APPENDIX I

EROSION AND SEDIMENT CONTROL PLAN

EROSION AND SEDIMENT CONTROL PLAN

Highland Park Village, LLC

129 Holden Street

(City of Buffalo, Erie County, NY)

December 2014

Contents

1.0 – INTRODUCTION

This Erosion and Sediment Control Plan (E&SCP) has been prepared by GZA GeoEnvironmental, Inc. (GZA) to control and minimize potential impacts to the environment resulting from activities related to the remediation and redevelopment site preparation at the 129 Holden Street Brownfield Cleanup Program (BCP) Site No. C915261 (Site). The Site was formerly known as the Central Park Plaza, and is located in the City of Buffalo, Erie County, New York (Refer to Figure 1). This plan was prepared to satisfy requirements of state and local agencies pertinent to the planned work. This plan also provides GZA employees and contractors with site-specific Best Management Practices (BMPs) to be applied prior to, during, and following the remedial and Site preparation activities to minimize accelerated erosion and sedimentation. The remedial activities and Site preparation include excavation and removal of soil/fill, stripping/stock piling of blacktop pavement, earth moving to establish pre-cover site grade, and placement of a clean soil cover.

2.0 – GENERAL PROJECT INFORMATION

Project Name:	129 Holden Street Brownfield Redevelopment
Project Location:	City of Buffalo, Erie County, NY. See **Figure 1 – Project Locus**
Land Owner:	Highland Park Village, LLC 129 Holden Street Buffalo, NY
Contractor:	LPCiminelli Construction (LPC) 2421 Main Street Buffalo, NY 14214

GZA Project Manager: Jim Richert (716) 844-7048

General Scope of Project:

Remedial and Site preparation actions at 129 Holden Street include:

- The excavation and removal of contaminated soil/fill.
- Stripping/stock piling of blacktop pavement.
- Establishment of pre-cover site grade, and placement of clean soil cover.

Description of Earth Disturbance Activities:

Earth disturbance associated with the remedial actions at 129 Holden Street may include the following activities:

- Excavation and disposal of contaminated soil.
- Stripping/stock piling and eventual re-use of blacktop material onsite.
- Relocation of approximately 30,000 cubic yards of on-site fill material by transporting and re-grading (Refer to pg. 14 of Remedial Action Work Plan – Soil Relocation and Clean Soil Cover System Installation).
- Stripping of ingress/egress blacktop, removal of material, and construction of a crushed concrete ingress/egress (Refer to Diagram 1).
- Stockpile and placement of clean soil cover (Refer to pg. 5 of Remedial Action Work Plan – Soil Relocation and Clean Soil Cover Installation).

Timing of Project:

Remedial activities began on Tuesday December 11, 2014 and are expected to extend into winter of 2014/2015. Remedial activities are proposed to be completed prior to spring of 2015.

3.0 – SITE TOPOGRAPHY

General site topography prior to startup of Site work is illustrated on **Figure 2** depicting the gentle slope of the Site within the project area. Elevations range from a high of approximately 670 feet above sea level at the South end of the site to a low of approximately 650 feet above sea level at the Northwest end of the site. Total area relief is approximately 20 feet.

4.0 – WATERSHED INFORMATION

The project area for the 129 Holden Street lies within the Two Mile Creek-Niagara River watershed. The closest waterbody to the project area is Scajaquada Creek, a tributary of the Niagara River, which is located approximately 7,600 feet southwest of the project area.

While surface water is absent at the site, previous studies have indicated that depth to groundwater ranges from approximately 13-26 feet below ground surface (bgs). Groundwater is not anticipated to be encountered during remedial activities, however, if encountered it will be managed in accordance with Buffalo Sewer Authority regulations and in consultation with the NYSDEC (Refer to pg. 16 of Remedial Action Work Plan – Section 2.3.6 Groundwater Management).

5.0 – LAND USES – PREDEVELOPMENT CONDITIONS

The Site was first utilized by Buffalo Cement as a quarry from the early 1900s until the mid-1950s. The Site was then backfilled with approximately 30 feet of mixed soil/fill and developed as the Central Park Plaza in 1958. Three Site buildings were originally constructed at Central Park Plaza. Two additional buildings were erected in 1967 and 1989, respectively. The Site operated as a shopping plaza from 1958 until July 2011 when the last tenant vacated the property. All but one small building remains on the Site. Building slab foundations have been removed, ground, and stockpiled for recycling during development. The site consists primarily of asphalt paved parking surfaces, which are underlain by soil/fill.

6.0 – SOILS INFORMATION

Soil/fill material was added to the site post-quarry operations and prior to the construction of the Central Park Plaza in 1958. On-site soil/fill is heterogeneous and contains various anthropogenic materials including brick, slag, ash, and concrete. Surface water readily infiltrates the onsite soil due to the course grain size of backfill materials.

7.0 – PROPOSED IMPROVEMENTS TO THE AREAS

Earth disturbances activities associated with the remedial actions at 129 Holden Street may include the following activities:

- Implementation of BMPs such as, the cleaning and repair of existing controls – straw bale barriers, silt fence, etc. – onsite and the inspection of controls as needed (Refer to Photos No. 3 & No. 5 – E&SCP Photo Log).
- Excavation and disposal of contaminated soil.
- Stripping/stock piling and eventual re-use of blacktop material onsite.
- Relocation of approximately 30,000 cubic yards of on-site soil/fill pre-cover by transporting and re-grading onsite fill (Refer to pg. 14 of Remedial Action Work Plan – Soil Relocation and Clean Soil Cover System Installation).
- Removal of excess mud and debris on adjacent roads will be controlled using a street sweeper and/or spray machine.
- Dust generated will be monitored using the Community Air Monitoring Plan (CAMP) and managed throughout the duration of excavation to mitigate airborne dust generation and migration (Refer to pg. 17 of Remedial Action Work Plan – Section 3.0 Community Air Monitoring).
- Stripping of ingress/egress blacktop, removal of material, and construction of a crushed concrete aggregate ingress/egress.
- Stockpile and placement of clean soil cover (Refer to pg. 5 of Remedial Action Work Plan – Soil Relocation and Clean Soil Cover Installation).

Erosion and sedimentation of site material will be controlled along the access/egress road and throughout Site by the use of temporary and permanent BMPs. Temporary and permanent BMPs will be used to filter and impede surficial water flow offsite.

Refer to Figure 3 – Site Erosion and Sediment Controls.

7.1 – Remedial Activities

Throughout remedial activities actions will be performed to prevent tracking of soil onto public road. The use of BMP's will include one or more of the following, but not limited to:

1. A crushed concrete aggregate exit will be constructed at the Site exit to remove away mud from vehicles exiting the Site.
2. The adjacent roads will be maintained using a street sweeper and/or spray machine; monitored by the CAMP.
3. MOB soil stockpiles are maintained using vegetative cover and/or silt fences located on the Site.

4. Upon completion or temporary cessation of earth disturbance activities the project site will be stabilized.
5. Inspection log sheets for BMPs will be used after/during major weather events, or on a weekly basis.

8.0 – EROSION AND SEDIMENT CONTROL MEASURES

8.1 – Construction Ingress/Egress

All traffic into and exiting the site will be through the south-central paved ingress/egress point. The paved ingress/egress has been demonstrated to be sufficient in removing excess mud from truck tires. Once the paved blacktop pavement is removed the removal of excess mud and debris on ingress/egress road will be controlled using a crushed concrete pad mud removal system.

Ingress/egress construction will be built on the existing access road after the demolition of the paved ingress/egress point. At a minimum, the ingress/egress road will be constructed as illustrated on **Diagram 1**. The constructed ingress/egress thickness will be maintained and crushed concrete will be added as necessary to continue to remove sediment.

8.2 - Filter Fabric Fence (Silt Fence)

Where soil stockpiles do not have vegetative cover, filter fabric fence will be used to control runoff from disturbed areas that coincide with the site perimeter. It will not be used in any areas of concentrated flows (i.e. channels, swales, erosion gullies, across pipe outfalls, as inlet protection, etc.).

- Filter fabric fence is recommended to be installed at a level grade.
- Filter fabric should be stretched and fastened to the upslope side of the support stakes. Wherever reinforced fabric fence is installed, the reinforcement mesh should be fastened to the stakes prior to the fabric.

Diagram 2 is a schematic representation of recommended filter fence installation.

8.3 - Vegetative Surface Stabilization

Soil stockpiles have been fertilized, mulched, and seeded. Traffic controls will be implemented to avoid heavy equipment treading over soil stockpiles. Inspections and BMPs will be utilized to maintain the vegetated areas properly.

9.0 – MAINTANANCE PROGRAM

9.1 - Frequency of Inspections

A qualified inspector will be responsible for the maintenance program and to ensure that control structures required have been properly installed and maintained. At a minimum, inspections of the site and control structures shall occur ***after each rain event,*** as well as, on ***a weekly basis*** during remedial activities. These weekly inspections shall continue until remedial work is completed.

Inspection criteria and remedial measures are provided below for each of the anticipated erosion control measures of the project:

9.2 – Construction Ingress/Egress

Periodic inspections will be completed of the construction entrance. The inspections shall assess the condition of the paved or crushed concrete construction entrance in regards to its effectiveness to remove mud from vehicular tires prior to exiting the project site. The surface of the construction entrance will be maintained and crushed concrete aggregate will be added as necessary to remove tire mud. If the entrance becomes clogged with mud, then the mud will be removed using a street sweeping machine.

9.3 - Fabric Fence

Inspection will assess the placement and condition of filter fabric fencing to ensure that they are in place and functioning as designed. Silt, mud, and litter will be removed manually from the fencing, whenever accumulations are equal or greater than ½ the height of the barrier. These structures may be removed as soon as permanent vegetation is established.

9.4 - Seeded and Mulched Areas

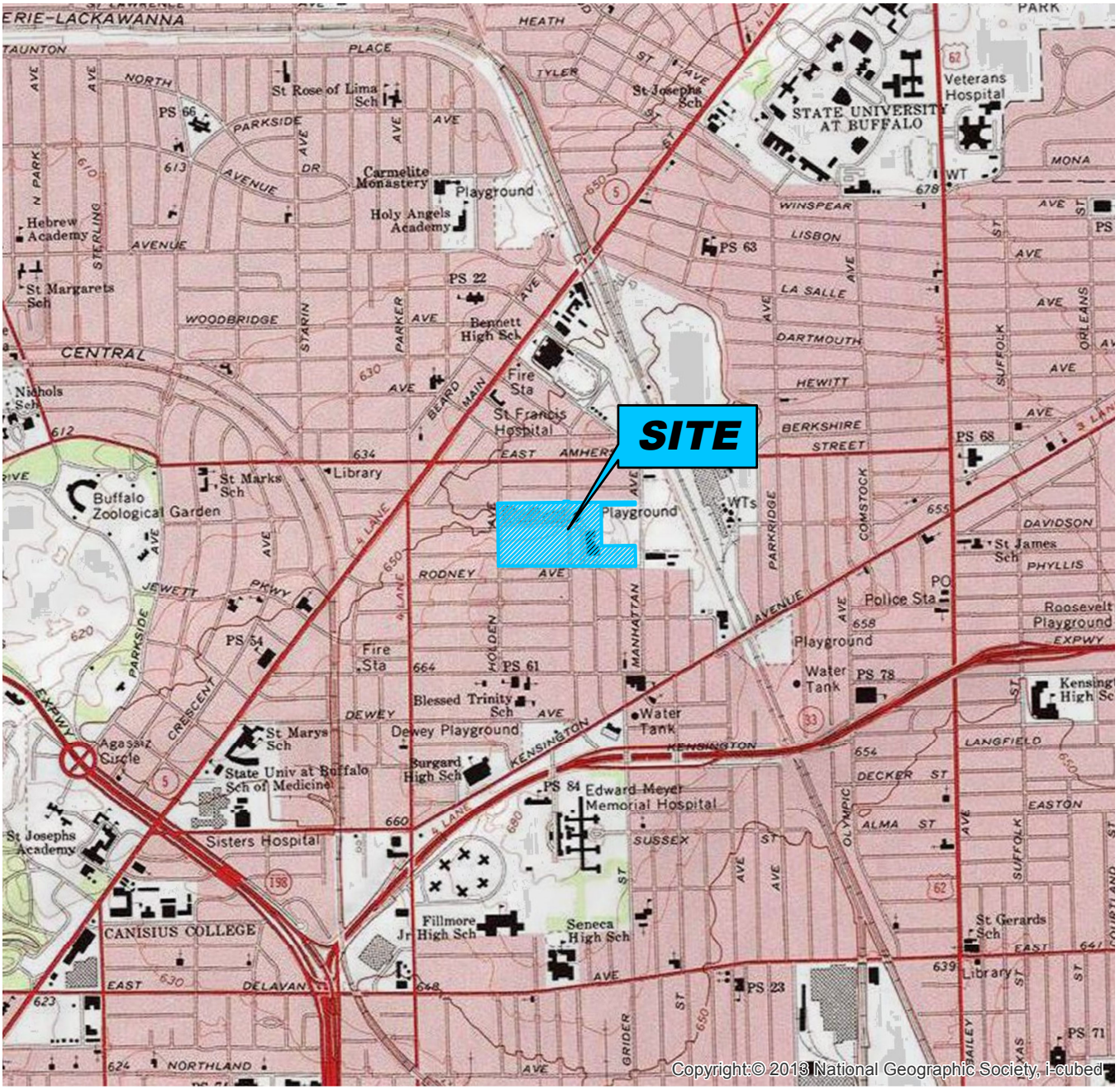
Inspections shall assess the stability of areas which have been seeded and/or mulched to confirm that these areas remain stable and undisturbed. Additional hay mulch and/or seed shall be applied as needed to maintain stability and to promote the establishment of vegetative cover.

Inspections will be documented on an Erosion & Sediment Control Inspection Form, a copy of which is included in **Appendix B**.

10.0 – IMPLEMENTATION SCHEDULE AND MAINTENANCE

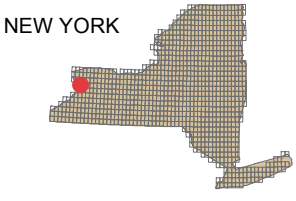
Erosion control structures were installed prior to earth disturbance activities as specified herein. These structures will be inspected weekly and after each rainfall event. Appropriate repairs and maintenance of the structures will be made to the structures as needed. Inspections will be documented on the Erosion & Sediment Control Inspection Form located in **Appendix B**. Erosional controls will be removed and inspections ended only after disturbed areas have been adequately re-vegetated and stabilized. Adequate re-vegetation will be considered to be established when there is a uniform coverage ≥ 70%. Any areas not meeting this criteria will be reseeded and mulched.

FIGURES



SOURCE: USGS TOPOGRAPHIC MAPS; NEW YORK STATE OFFICE OF CYBER SECURITY AND CRITICAL INFRASTRUCTURE COORDINATION

QUADRANT: BUFFALO NE, CREATED 1965; UPDATED 1989; 10' CONTOUR INTERVAL



QUADRANGLE LOCATION

SCALE
0 1,000 2,000 4,000

N
W E
S

NO.	ISSUE/DESCRIPTION	BY	DATE

129 HOLDEN STREET
BUFFALO, NEW YORK
BROWNFIELD CLEANUP PROGRAM SITE NO. C915261

PREPARED BY:
GZA GeoEnvironmental, Inc. of New York
Engineers and Scientists
104 WEST 29TH STREET, 10TH FLOOR
NEW YORK, NEW YORK 10001

PREPARED FOR:
Highland Village Park, LLC

PROJECT LOCUS

PROJ MGR: JJR	REVIEWED BY: TGB	CHECKED BY: TB	FIGURE 1
DESIGNED BY: PCF	DRAWN BY: PCF	SCALE: 1 " = 2,000 '	
DATE: December 2014	PROJECT NO. 21.0056642.10	REVISION NO.	

Legend:

- 2' Contour
- Bench Marks Used in Contour Survey
- Approximate Site Boundary

Notes:
1) All site features are approximate and NOT exact.
2) Contour labels do not represent feet above sea level. Labels represents differences from bench marks.

Sources:
1) 2011 U.S. Centus Tract
2) Wendel WD Architecture, Engineering, Surveying, and Landscape Architecture P.C.

0 90 180 360
SCALE IN FEET

N
W E
S

129 HOLDEN STREET
BUFFALO, NEW YORK
BROWNFIELD CLEANUP PROGRAM SITE NO. C915261

PRE-REDEVELOPMENT SITE CONTOURS

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: HIGHLAND VILLAGE PARK, LLC	
PROJ MGR: JRR	REVIEWED BY: TGB	CHECKED BY: TB	FIGURE 2
DESIGNED BY: PCF	DRAWN BY: PCF	SCALE: 1 in = 180 ft	
DATE: DECEMBER 2014	PROJECT NO. 21.0056642.10	REVISION NO.	

Legend:

Erosion and Sediment Controls

- Silt Fence
- Soil Stockpile
- Construction Entrance
- Approximate Site Boundary

Notes:
1) All site features are approximate and NOT exact.
2) Site is general covered with blacktop, fill, gravel, and vegetation.

Sources:
1) 2011 U.S. Centus Tract

0 90 180 360
SCALE IN FEET

N W E S

129 HOLDEN STREET
BUFFALO, NEW YORK
BROWNFIELD CLEANUP PROGRAM SITE NO. C915261

EROSION AND SEDIMENT CONTROLS

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
HIGHLAND VILLAGE PARK, LLC

PROJ MGR: JRR	REVIEWED BY: TGB	CHECKED BY: TB	FIGURE 3
DESIGNED BY: PCF	DRAWN BY: PCF	SCALE: 1 in = 180 ft	
DATE: DECEMBER 2014	PROJECT NO. 21.0056642.10	REVISION NO.	

APPENDIX A
PHOTO LOG

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Highland Park Village, LLC	129 Holden Street, Buffalo, New York 12414	21.0056642.10

Photo No.:	Date:
1	

Direction Photo Taken:
Northeast

Photographer:
Tom Bohlen

Description:

Soil stockpile from UB Medical located in the south-eastern portion of the site.

Photo No.:	Date:
2	

Direction Photo Taken:
East

Photographer:
Tom Bohlen

Description:

Soil stockpile from UB Medical site located in the south-eastern portion of the site.

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Highland Park Village, LLC	129 Holden Street, Buffalo, New York 12414	21.0056642.10

Photo No.:	Date:
3	

Direction Photo Taken:
Southwest

Photographer:
Tom Bohlen

Description:

Soil stockpile from medical office building (MOB) located in the south-central portion of the site. Silt fence located along South side of the MOB.

Photo No.:	Date:
4	

Direction Photo Taken:
West

Photographer:
Tom Bohlen

Description:

Soil stockpile from medical office building (MOB) located in the south-central portion of the site.

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.:
Highland Park Village, LLC	129 Holden Street, Buffalo, New York 12414	21.0056642.10

Photo No.:	Date:
5	

Direction Photo Taken:
South

Photographer:
Tom Bohlen

Description:

Current paved construction entrance

Photo No.:	Date:
6	

Direction Photo Taken:
N/A

Photographer:
Tom Bohlen

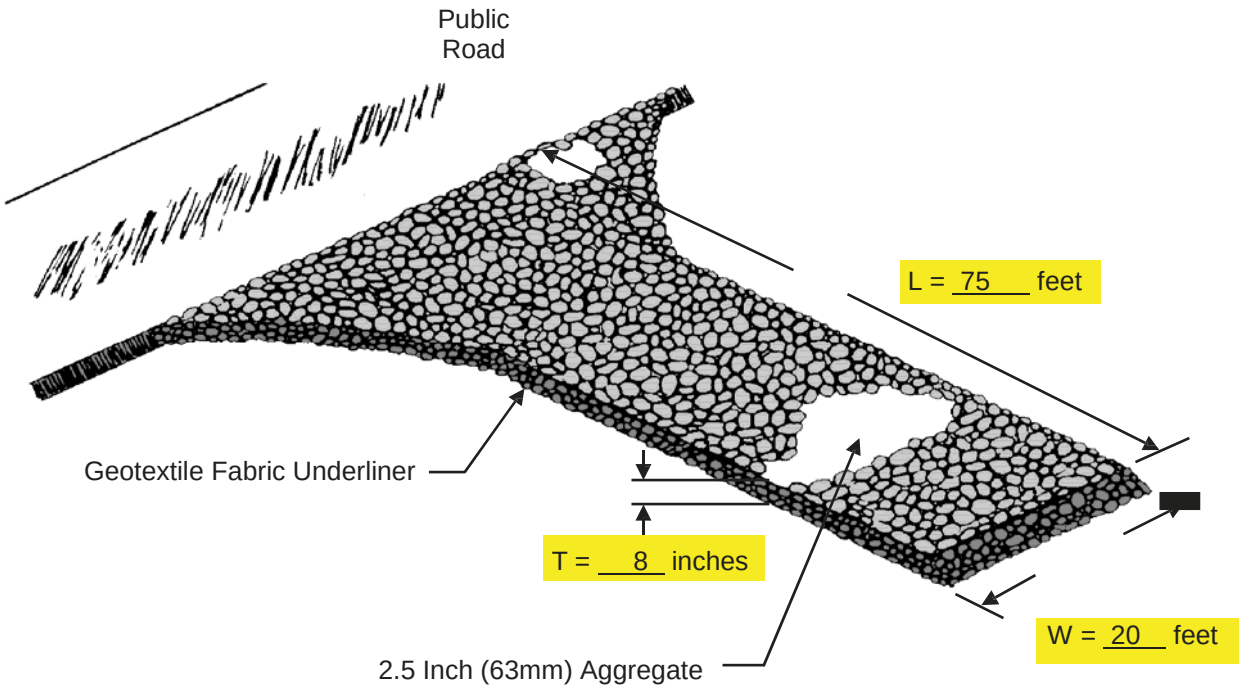
Description:

Street sweeper unit

APPENDIX B – Best Management Practices (BMP) Diagrams

Diagram 1 – Construction Ingress/Egress

Temporary Construction Ingress/Egress Pad
Plan View Worksheet
(large sites—two acres or larger)



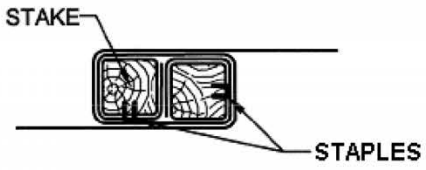
L = Ingress/Egress Pad Length
W = Ingress/Egress Pad Width
T = Aggregate Thickness

Source: State of Indiana – Storm Water Quality Measures: Construction & Land-Disturbing Activities; Adapted from North Carolina Erosion and Sediment Control Planning and Design Manual, 1993

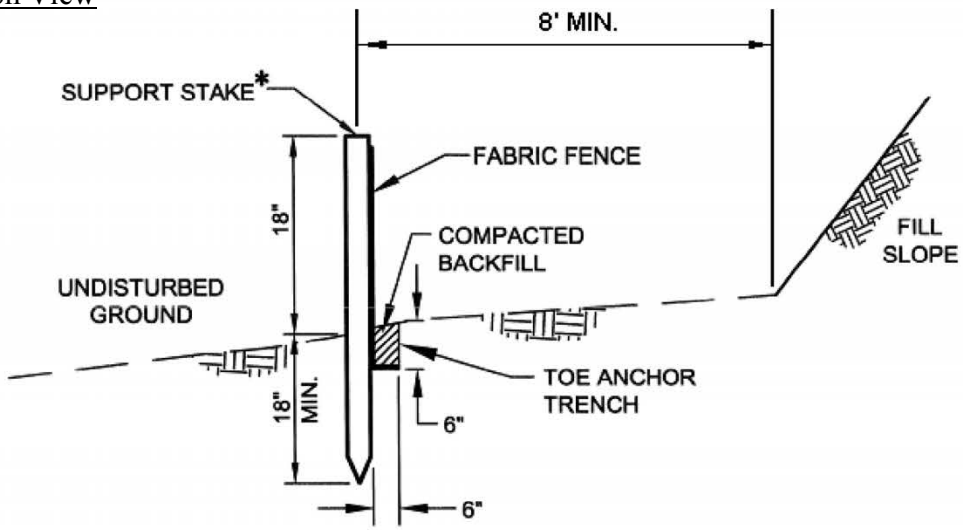
Diagram 2 – Filter Fabric Fence (Silt Fence)

Standard Filter Fabric Fence (18'' High)

Joining Fence Sections



Elevation View



Stakes spaced at 8' maximum. Use 2" x 2" wood or equivalent steel stakes.

Filter Fabric Fence must be placed at level existing grade. Both ends of the barrier must be extended at least 8 feet up slope at 45 degrees to the main barrier alignment.

Sediment must be removed when accumulations reach 1/2 the above ground height of the fence.

Any section of Filter Fabric Fence which has been undermined or topped must be immediately replaced with a Rock Filter Outlet. See Standard Construction Detail

Source: PADEP

APPENDIX C – Erosion and Sediment Control Inspection Form

Highland Village Park, LLC

Site Erosion & Sediment Controls Inspection Form

Inspector Name: _____ **Date:** _____

Site Conditions

Is the ingress/egress road in acceptable condition?	Y	N	N/A
Are the public roads in acceptable condition?	Y	N	N/A
Is the project area stable and free from accelerated erosion?	Y	N	N/A
Is the location adequately vegetated (70% permanent groundcover)?	Y	N	N/A

Erosion and Sedimentation Control

Has clean stormwater runoff has been diverted from areas to be disturbed?	Y	N	N/A
Has a temporary construction entrance to capture mud and debris from construction vehicles before they enter the public roadway has been installed?	Y	N	N/A
Is sediment that is tracked onto public streets removed or cleaned on a regular basis?	Y	N	N/A
Is the silt fence is installed at appropriate spacing intervals?	Y	N	N/A

Maintaining Water Quality

Is the site free from an increase in turbidity causing a substantial visible contrast to natural conditions?	Y	N	N/A
Is the site free from any residue oil and floating substances, visible oil film, globules, or grease?	Y	N	N/A
Are all ground disturbances within the limits of the approved plans?	Y	N	N/A
Are receiving surface waters and wetlands un-impacted by silt from the project?	Y	N	N/A

House Keeping

Is site litter and debris appropriately managed?	Y	N	N/A
Are facilities and equipment necessary for implementation of erosion and sediment controls in working order and/or properly maintained?	Y	N	N/A
Is dust adequately controlled?	Y	N	N/A

Soil Stabilization

Are stockpiles stabilized with vegetation and/or mulch?	Y	N	N/A
Are sediment controls installed at the boundary of site?	Y	N	N/A
Is clean stormwater runoff diverted from stockpile?	Y	N	N/A
Have temporary seeding and mulch been applied to idle areas?	Y	N	N/A

Approximately _____% of vegetation cover is present.

Sediment Control Practices

Is the stone clean enough at ingress/egress point to effectively remove mud from vehicles?.....	Y	N	N/A
Is the ingress/egress installed per standards and specifications?.....	Y	N	N/A
Does all traffic use the stabilized ingress/egress to enter and leave site?.....	Y	N	N/A
Is adequate drainage provided to prevent ponding at entrance?.....	Y	N	N/A
Is the silt fence installed on contour?.....	Y	N	N/A
Are joints constructed for the silt fence by wrapping the two ends together for continuous support?.....	Y	N	N/A
Is the fabric used for the silt fence buried per specifications?.....	Y	N	N/A
Posts for the silt fence are stable; fabric is tight, upright, and without rips or frayed areas……..	Y	N	N/A

Sediment accumulation is _____ % of design capacity.

Inspector Comments (Use additional pages if necessary)

APPENDIX J

RESPONSIBILITIES OF OWNER AND REMEDIAL PARTY

As both the Site owner and the remedial party, Highland Park Village, LLC is responsible for implementing the Site Management Plan for the 129 Holden Street Site, Site # 915261.