

FONF EXPANSION/SABRE PARK BCP
TOWN OF NIAGARA, NEW YORK

Revised Site Management Plan

NYSDEC BCP Number: C932162

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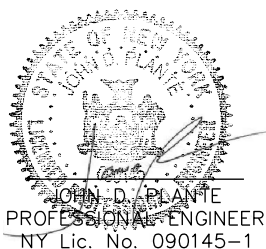
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JANUARY 2020

CERTIFICATION

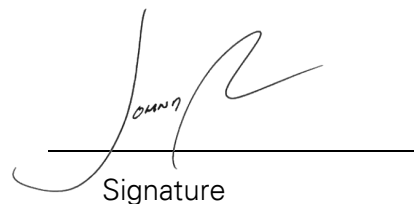
I, John Plante, P.E., certify that I am currently a NYS registered professional engineer and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.



7/21/2020

Date


Signature

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

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LIST OF ACRONYMS

Acronym	Definition
AAR	Alternatives Analysis Report
AOC	Area of Concern
ASTM	American Society for Testing and Materials
AWQS	Ambient Water Quality Standards
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
BMP	Best Management Practice
CAMP	Community Air Monitoring Plan
C&D	Construction & Demolition
CFR	Code of Federal Regulations
CHASP	Construction Health and Safety Plan
CLP	Contract Laboratory Program
COC	Contaminant of Concern
CQAP	Construction Quality Assurance Plan
DER	Division of Environmental Remediation
DRO	Diesel Range Organics
DSHM	Division of Solid & Hazardous Materials
DUSR	Data Usability Summary Report
EC/IC	Engineering Control and Institutional Control
EDD	Electronic Data Deliverable
EDR	Environmental Data Resources
ELAP	Environmental Laboratory Approval Program
EM	Electromagnetics
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FER	Final Engineering Report
FSP	Field Sampling Plan
GC	Gas Chromatography
GPR	Ground Penetrating Radar
GPS	Global Positioning System
GRO	Gasoline Range Organics
HASP	Health & Safety Program
HAZWOPER	Hazardous Waste Operations Emergency Response
HDPE	High-density Polyethylene
IHWDS	Inactive Hazardous Waste Disposal Site
IRM	Interim Remedial Measure
IRMWP	Interim Remedial Measures Work Plan
MMP	Material Management Plan

Acronym	Definition
MS/MSD	Matrix Spike / Matrix Spike Duplicate
NAVD	North American Vertical Datum
NWI	National Wetland Inventory
NYCRR	New York Codes Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYS DEC DER	New York State Department of Environmental Conservation Division of Environmental Remediation
NYS DEC PBS	New York State Department of Environmental Conservation Petroleum Bulk Storage
NYSDOH	New York State Department of Health
NYS DOT	New York State Department of Transportation
O&M	Operations & Maintenance
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PE	Professional Engineer
PID	Photoionization Detector
PM	Particulate Matter
PPE	Personal Protective Equipment
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance / Quality Control
QAPP	Quality Assurance Project Plan
QEP	Qualified Environmental Professional
RAOs	Remedial Action Objectives
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RE	Remedial Engineer
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
SCOs	Soil Cleanup Objectives
SCGs	Standards, Criteria and Guidance
SEQR EAF	State Environmental Quality Review Environmental Assessment Form
SMP	Site Management Plan
SOP	Site Operations Plan
SPDES	State Pollutant Discharge Elimination System
SSDS	Sub-Slab Depressurization System
SSURGO	Soil Survey Geographic
SVOCs	Semi-Volatile Organic Compound
SWPPP	Stormwater Pollution Prevention Plan
TAL	Target Analyte List

Acronym	Definition
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TOGS	Technical and Operation Guidance Series
TPH	Total Petroleum Hydrocarbons
USEPA	United State Environmental Protection Agency
UST	Underground Storage Tank
VOCs	Volatile Organic Compound
XRF	X-Ray Fluorescence

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 Introduction

This Site Management Plan (SMP) is required as an element of the remedial program at Fashion Outlet of Niagara Falls (FONF) Expansion/Sabre Park BCP (hereinafter referred to as the “Site”) under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by the New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #C932162-06-13, Site #C932162, which was executed on June 18, 2013. Remedial activities were completed at the Site on 12 November 2014, and a certificate of completion was issued by the NYSDEC on 19 December 2014.

This Revised SMP has been completed to address changes to the Site features and remedial systems (specifically, converting the active SSD system in the mall expansion building into a passive system), which occurred after issuance of the Site’s certificate of completion on 19 December 2014. All activities conducted on the Site prior to submission of this Revised SMP were completed under the original SMP, which was included as Appendix C of the Final Engineering Report and approved by the NYSDEC on 15 November 2014.

1.1.1 General

Fashion Outlets II, LLC (FO II, LLC) and Macerich-Niagara, LLC (collectively “Macerich” for the purpose of this report) entered into a BCA with the NYSDEC to remediate a 47.8-acre property located in the Town of Niagara, New York. This BCA required the Remedial Party, Macerich, to investigate and remediate contaminated media at the Site. The Site location, boundaries, and layout are provided as Figures 1 and 2. The boundaries of the Site are more fully described in Appendix B – Metes and Bounds.

After completion of the remedial work described in the Remedial Action Work Plan (RAWP), some contamination was left in the subsurface at the Site, which is hereafter referred to as “remaining contamination”. This SMP was prepared to manage remaining contamination at the Site until the Environmental Easements are extinguished in accordance with ECL Article 71, Title 36. All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. (Langan) on behalf of Macerich, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the

Institutional Controls (ICs) and Engineering Controls (ECs) that are required by Environmental Easements for the Site.

1.1.2 Purpose

Engineering Controls have been incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site and to ensure protection of public health and the environment. Environmental Easements granted to the NYSDEC and recorded with the Niagara County Clerk's Office will require compliance with this SMP and all ECs and ICs placed on the Site. The ICs place restrictions on Site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary to ensure compliance with all ECs and ICs required by the Environmental Easements for contamination that remains at the Site. This plan has been approved by NYSDEC and compliance with this plan is required by the grantor of the Environmental Easements and the grantor's successors and assigns. This SMP may only be revised with the approval of NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) media monitoring; (3) operation and maintenance of all treatment, collection, containment, or recovery systems; (4) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports to NYSDEC.

To address these needs, this SMP includes three plans: (1) an Engineering and Institutional Control Plan for implementation and management of Engineering Controls/Institutional Controls (EC/ICs); (2) a Monitoring Plan for implementation of Site Monitoring; (3) an Operation and Maintenance Plan for implementation of remedial collection, containment, treatment, and recovery systems (including, where appropriate, preparation of an Operation and Maintenance Manual for complex systems).

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easements. Failure to properly implement the SMP is a violation of the environmental easements, 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 #C932162-06-13, Site #C932162 for the Site, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Environmental Easements 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.

This Revised SMP has been completed to address changes to the Site features and remedial systems (specifically, converting the active SSD system in the mall expansion building into a passive system), which occurred after issuance of the Site's certificate of completion on 19 December 2014. All activities conducted on the Site prior to submission of this Revised SMP were completed under the original SMP, which was included as Appendix C of the Final Engineering Report and approved by the NYSDEC on 15 November 2014.

1.2 Site Background

1.2.1 Site Location and Description

The Site encompasses 47.815 acres and includes the $\pm$ 34-acre former Sabre Park Mobile Home Community located at 1705 Factory Outlet Boulevard, a $\pm$ 10.35-acre parcel located on the southern portion of the Fashion Outlets of Niagara Falls property, and a $\pm$ 3.45-acre parcel on the western side of the site located at 1755 Factory Outlet Boulevard. A metes and bounds description of the Site is included in Appendix B, and a Site Location Map and a Site Layout Map are provided as Figures 1 and 2, respectively.

The Site is currently improved with a new 225,000 square-foot expansion including 175,000 square feet of new enclosed gross leasable area to the existing FONF mall, which includes 50 new stores and dedicated public common space, an additional 1,720,000 square feet of asphalt paved parking areas, 195,000 square feet of stormwater detention ponds, and 303,750 square feet of landscaped areas. Also, a new Secure Storage facility has been constructed in the southwest corner of the Site to replace the former Secure Storage facility. The new Site development was constructed concurrently with implementation of the RAWP. A Site layout map depicting the development is included as Figure 2.

1.2.2 Site History

A detailed summary of the Site history was included in the following reports:

- Phase I ESA Report for Sabre Park, dated 5 July 2011, prepared by Langan; and

- Phase I ESA Report for the Fashion Outlets of Niagara Falls, dated 5 July 2011, prepared by Langan.

Sabre Park Property

This property was owned by the Union Carbide Corporation from 1949 until 1969. The exact use of this property by Union Carbide is unknown. Use of the property for a mobile home community began in 1972. During an expansion to the south in 1978, fill material with elevated levels of chlorinated solvents, mercury and heating oil was discovered. The fill material was subsequently excavated by the Hooker Chemical Company and disposed off-site at a permitted facility.

Soil sampling by the United States Environmental Protection Agency (USEPA) in November 1986 and May 1988 identified the presence of elevated concentrations of mercury. As a result, a portion of the property was listed in the NYSDEC's Registry of Inactive Hazardous Waste Disposal Sites (Registry) in 1989 (Site No. 932104). Also in 1989, the USEPA excavated approximately 1,200 cubic-yards of mercury contaminated fill from the southern portion of the property and disposed of the material as hazardous waste (D009-mercury) at an off-site permitted facility. The site was delisted from the NYSDEC's Registry in 1995. Demolition of the facility commenced in March 2013 and was completed in September 2013.

Fashion Outlets of Niagara Falls Property

During construction of a mall expansion in November 1994, a white powder waste was encountered while drilling caissons for the mall's foundation. A sample of the waste was collected for analysis and found to exceed the TCLP regulatory limit for vinyl chloride. In February 1995 approximately 3,037 cubic yards of material was excavated and staged on-site. This material was subsequently screened on-site to separate drums, wood and other debris. The drums and debris were disposed off-site at permitted facilities. Analysis of the screened soils did not exceed TCLP limits for vinyl chloride, so the soils were backfilled on-site and covered with an asphalt parking lot. The backfill area is within the BCP site.

1755 Factory Outlet Boulevard Property

This property was owned by the Union Carbide Corporation from 1949 until 1969. The exact use of this property by Union Carbide is unknown.

1.2.3 Geologic Conditions

The generalized stratigraphy underlying the Site is composed of:

- Fill material consisting of brown to dark gray and black fine to coarse grained sands with varying levels of silt, clay, gravel, organics (roots), brick, concrete, wood, glass, rubber,

slag, and miscellaneous pieces of plastic and metal. Fill generally extends to an average depth of 5 feet below ground surface (bgs), with a maximum depth of approximately 15 feet bgs at limited locations to the south;

- Silty fine sand layer observed beneath the fill layer ranging in thickness from 2 to 4 feet below the fill;
- Silty clay layer observed underlying the fill and/or silty sand layers, encountered at depths of 2 to 16 feet bgs;
- Clay layer observed underlying the silty clay layer; the clay layer varied in color from brown, gray and reddish-brown, and contained trace quantities of silt and fine sand. The clay was observed to be dense with increased quantities of coarse sand and fine gravel at depths of 13 to 16 feet bgs or just prior to refusal.

There are two hydrogeologic zones beneath the Site. The uppermost zone consists of overburden groundwater which is typically encountered at depths ranging from 1.8 to 4.39 feet bgs (elevations 572.50 to 567.23 NAVD 88) and is perched above the clay layer of the Site. A perched groundwater contour map was created based on these elevations, indicating that the perched groundwater generally flows to the north. The groundwater contour map is provided as Figure 3. The second hydrogeologic zone represents a confined aquifer beneath the clay that flows within the underlying bedrock. Bedrock groundwater was not evaluated during the Remedial Investigation (RI). See Appendix D for geologic cross sections depicting soil stratigraphy and inferred groundwater elevations observed during the remedial investigation of the Site.

1.3 Summary of Remedial Investigation Findings

A RI was performed to characterize the nature and extent of contamination at the Site. The results of the RI are described in detail in the Remedial Investigation Report, dated 16 August 2013, prepared by Langan.

Boring and test pit locations, soil vapor well locations, and monitoring well locations from Langan's remedial investigation are shown on Figure 2.

A total of 62 soil borings and 84 exploratory test pits were advanced, and 10 soil gas monitoring points and 8 overburden groundwater monitoring wells were installed across the Site. A total of 295 soil samples, 8 groundwater samples, and 3 soil gas samples were collected and submitted for laboratory analysis during Langan's remedial investigation of the Site. Langan's RIR dated 16 August 2013 contains a full discussion of the data.

The remedial investigation determined that the primary contaminants of concern include volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and chromium. These contaminants were detected in soil, groundwater, and soil vapor.

Soil

PAHs were detected in 16 of 295 soil and fill samples at concentrations exceeding the commercial soil cleanup objectives (SCOs). PCBs were detected in 5 samples at concentrations (1.07 to 23.0 ppm) exceeding the commercial SCO of 1 ppm. Total chromium was detected in 20 samples at concentrations (1,500 to 6,560 ppm) exceeding the commercial SCO of 1,500 ppm, while hexavalent chromium exceeded the commercial SCO of 400 ppm in 2 samples (486 and 506 ppm). Slag was observed in the historic fill at many locations throughout the site, but did not exhibit radioactivity during the RI; however, approximately 258.5 tons of low level radioactive waste (LLRW) was encountered along the northeast corner of the Site during remedial excavation activities (see Figure 7).

Soil sample analytical results are summarized in Table 1. Figures showing exceedances of the Unrestricted Use and Restricted Commercial Use SCOs identified during the 2013 remedial investigation are included as Figures 4a and 4b.

Groundwater

Total chromium was detected in four groundwater samples at concentrations (884 to 1,260 ppb) exceeding the groundwater standard of 50 ppb, while hexavalent chromium was detected in four samples at concentrations (818 to 1,230 ppb) exceeding the groundwater standard of 50 ppb. Chlorinated solvents were detected in one groundwater sample at concentrations exceeding groundwater standards. These compounds included (cis) 1,2-dichloroethylene (59 ppb; standard 5 ppb), trichloroethylene (19 ppb; standard 5 ppb) and vinyl chloride (13 ppb; standard 2 ppb). Groundwater pH ranged from 6.29 to 12.2. Contaminated overburden groundwater is not migrating from the site.

Groundwater sample analytical results are summarized in Figure 5 and Table 2.

Soil Vapor

Chlorinated and petroleum related VOCs were detected in all three of the soil gas samples collected at the Site. VOCs detected in ambient air samples were generally lower than the soil gas samples.

Soil vapor sample analytical results are summarized in Figure 6 and Table 3.

Underground Storage Tanks

Langan did not identify any existing or historic USTs during the Phase I ESA's of the Site. A geophysical survey was performed in 2013 that did not identify USTs on the Site.

1.4 Summary of Remedial Actions Prior to Issuance of Certificate of Completion

The Site was remediated in accordance with the following NYSDEC-approved documents: 9 October 2013 Interim Remedial Measures Work Plan (IRMWP) (revised on 17 January 2014); and a 30 April 2014 Remedial Action Work Plan (RAWP).

The following is a summary of the remedial actions performed at the Site:

1. Full-time implementation of a Community Air Monitoring Program (CAMP) for particulates and VOCs.
2. Excavation and off-site disposal of contaminated 164,627.17 tons of construction related spoils.
3. Excavation and offsite disposal of two hot spot areas, including PCB-impacted soils with concentrations exceeding 10 mg/kg (716.6 tons), and chromium impacted soils with concentrations exceeding the RCRA Characteristically Hazardous Waste Criteria of 5 mg/L (682.1 tons).
4. Excavation and disposal of approximately 258.5 tons of low-level radioactive waste (LLRW) encountered during installation of building utilities and interior piers in the northern portion of the FONF mall building pad.
5. Sampling and analysis of excavated soil/fill in accordance with the requirements of the selected disposal facilities. The excavated soil/fill was classified and segregated, based on the analytical results of the soil characterization sampling.
6. Transportation and off-site disposal of soil/fill material at permitted facilities in accordance with the RAWP, disposal facility requirements, and applicable laws and regulations for handling, transport, and disposal.
7. Systematic screening of imported soil and excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a photoionization detector (PID).
8. Collection and permitted discharge of approximately 10,698,200 gallons of perched, contaminated groundwater and accumulated stormwater exceeding Part 703 GA criteria to the Niagara Falls Water Board (NFWB) Wastewater Treatment facility.
9. Installation of vapor barriers with active sub-slab depressurization systems beneath the mall expansion building and occupied office building of the relocated Secure Storage facility;
10. Construction of a site-wide soil cap/cover system consisting of the following to prevent human exposure to remaining contaminated soil/fill remaining at the Site:
 - a. Placement of a minimum of 1 foot of certified clean soils meeting the Allowable Constituent Levels for Imported Fill or Soil for Commercial Uses (Appendix 5 of DER

- 10) over all landscaped areas;
- b. Placement of a combination of a minimum of 6 inches of certified clean clay and a minimum of 1 foot of certified clean soils meeting the Allowable Constituent Levels for Imported Fill or Soil for Commercial Uses (appendix 5 of DER 10) at the stormwater detention ponds.
- c. Pavement with varying depths of subbase (4 to 12 inches) in the parking lots and drive aisles, and concrete building foundations under all buildings;
11. Backfilling of remedial excavation areas to development grade with clean virgin quarried stone or clean fill meeting the requirements of NYSDEC Division of Environmental Remediation (DER) Draft DER-10 – Technical Guidance for Site Investigation and Remediation, Section 5.4, or virgin, native imported crushed stone.
12. Execution and recording of Environmental Easements that cover the entire extent of the BCP property to restrict land use and manage the engineering controls to prevent exposure to contamination remaining at the Site.
13. Submittal of a Final Engineering Report (FER) that describes the remedial activities, certifies that the remedial requirements have been achieved, describes all mitigation measures to be implemented at the Site, and lists any deviations from the RAWP.
14. Development and implementation of a SMP for long-term management of residual contamination as required by the Environmental Easements, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance, and (4) reporting.

Remedial activities were completed at the Site on 12 November 2014, and a certificate of completion was issued by the NYSDEC on 19 December 2014.

1.4.1 Removal of Contaminated Materials from the Site

A BCP Track 4 remedy, which conformed to the Site's remedial action goals and RAOs, was implemented at this Site in accordance with 6 NYCRR Part 375 Environmental Remediation Programs (2006), DER-10 (2010), the IRMWP (October 9, 2013), and the RAWP (April 30, 2014). The remedial action included the removal of fill and soil exceeding RCRA hazardous waste regulatory criteria, a PCB hot spot area, and LLRW.

The Remediation Contractor, under the supervision of the Remedial Engineer, divided the Site material into categories depending on known or suspected levels of the Contaminants of Concerns (COC). The categories of material were separately managed to 1) avoid co-mingling of contaminated and potentially contaminated material with apparently clean material, and 2) handle and characterize material for on-site reuse or off-site disposal at an approved facility. The categories are as follows:

- Hazardous Chromium Material – This material refers to historic fill that contains exceedances of hazardous chromium as defined by RCRA.
- Contaminated, Non-hazardous PCB Material – This material refers to historic fill that contains PCBs in exceedance of 10 mg/kg.
- Low-Level Radioactive Waste – This material refers to fill and slag exhibiting radiation levels exceeding the background concentrations of 5,000-7,000 counts per minute (cpm).
- Contaminated, Non-hazardous Material – This material refers to historic fill or underlying native soil that contains exceedances of the Part 375 commercial use SCOs.

A figure showing the locations where remedial excavation was performed for the Site are shown in Figure 7. Figure 8 shows the locations and dimensions of the PCB and hazardous chromium hotspots and the locations and results of the confirmatory endpoint samples collected.

Hazardous Chromium Contaminated Soil

Removal of characteristically hazardous chromium-impacted fill/soil identified in boring LSB-23 during the RI was completed subsequent to the demolition of the existing Secure Storage facility buildings in order to access and remove the material. The chromium hotspot remediation included the excavation of chromium impacted soils with concentrations exceeding the RCRA Hazardous Waste Criteria of 5 mg/L in one location at the west central area of the Site (see Figure 8). The chromium hotspot removal consisted of an excavation footprint approximately 75 feet by 25 feet, with an excavation depth ranging from 6 to 7 feet bgs. Approximately 669.8 tons of hazardous chromium-impacted soils was excavated and disposed of offsite at the preapproved CWM Chemical Services, LLC (CWM landfill).

Contaminated, Non-Hazardous PCB Material

The PCB hotspot remediation included excavation of PCB-impacted soils that exceeded 10 mg/kg at one location at the southwest side of the Site (see Figure 8). Based on the RI data, PCBs were detected at concentrations exceeding 10 mg/kg at test pit location LTP-46 at a depth ranging from approximately 2 to 4 feet bgs. The PCB hotspot removal consisted of an excavation footprint approximately 40 feet by 40 feet, with an excavation depth of 10 feet bgs. Approximately 716.6 tons of PCB-impacted soils was excavated and disposed of offsite at the preapproved CWM landfill.

Low-Level Radioactive Waste

During remedial construction activities, LLRW was encountered during the excavation of a trench for the installation of the new storm sewer system on the Site (see Figure 7). Greater Radiological Dimensions (GRD) was onsite for full-time surveying of excavated LLRW soils and overseeing the excavation and stockpiling, with Langan. A total of 258.5 tons of LLRW was transported off-

site by NYCRR Part 364-permitted transporters to Waste Management Mahoning Landfill located in Mahoning, Ohio, which was the disposal facility approved to accept the material.

Excess Contaminated Soil/Fill Removal

Due to development of the Site, excess fill/soil with concentrations exceeding the Restricted Commercial SCOs were generated, including pond excavations, parking lot and building pad grading, utility trenching, building plumbing, and building foundation installations throughout the Site. Figure 7 shows area of remedial excavations completed during construction. A total of 164,627.17 tons of soil was excavated from the Site and disposed at Allied Waste Niagara Falls Landfill (Allied) of Niagara Falls, New York, and Modern Disposal Services, Inc. (Modern), Town of Lewiston, New York.

1.4.2 Removal of Impacted Groundwater

During redevelopment, perched groundwater infiltration was encountered in excavations across the Site. Groundwater was encountered between approximately 1.5 and 3 feet bgs; therefore, excavations extending below this depth required dewatering. Infiltrating groundwater was pumped from the excavations into on-site fractionation tanks prior to off-site discharge. Pumped water was held within the fractionation tanks allowing suspended solids to settle out. After suspended solids settled, up to 150,000 gallons of pumped water per day was discharged to the City of Niagara sanitary sewer system where it flowed to and was treated at the Niagara Falls Water Board Wastewater Facility of Niagara Falls, New York. A total of 10,698,200 gallons of impacted groundwater was discharged to the Niagara Falls Water Board Wastewater Facility and was treated under the Niagara Falls Water Board Wastewater Facilities Wastewater Discharge Permit for Industrial Commercial User permit number ICU-72.

1.4.3 Remaining Contamination

Per the IRMWP, RAWP, and NYSDEC DER policy, endpoint documentation soil sample collection was completed from each sidewall for every 20 linear feet of sidewall and one sample from the excavation bottom for every 900 square feet of bottom area of both the PCB and chromium hotspots. Based on these criteria, two base endpoint samples and eight sidewall samples were collected at the PCB hotspot, and 2 base endpoint samples and 12 sidewall samples were collected at the hazardous chromium hotspot, plus the required QA/QC samples. Tables 4, 5, and 6; and Figure 8 summarize the endpoint soil sample results and include comparison to the Site SCOs.

Certain areas of the Site with materials exceeding the commercial SCOs but below the Site-specific SCOs were allowed to remain in place. Figure 9 shows the location of remaining contamination at the Site. Due to contaminated soil remaining beneath the Site after completion

of the Remedial Action, Institutional and Engineering Controls are required to protect human health and the environment. The long-term management of these Engineering and Institutional Controls (ECs/ICs) are described in this SMP.

1.5 Summary of Remedial Actions following Issuance of Certificate of Completion

Remedial activities were completed at the Site on 12 November 2014, and a certificate of completion was issued by the NYSDEC on 19 December 2014. Following issuance of the certificate of completion, additional intrusive activities and remedial actions were completed at the Site.

Between 2015 and 2018, intrusive activities were performed in accordance with the NYSDEC-approved SMP and Excavation Work Plan (EWP) dated 15 November 2014. Five notifications of future intrusive activities reports were provided to NYSDEC at least 15 days prior to the start of any activity that was anticipated to encounter remaining contamination. A detailed account of the intrusive activities is provided in the Periodic Review Reports for the Certification Periods 2015 through 2017 and 2018 which are included as Appendix P of this report. A listing and brief summary of the previously completed intrusive activities is provided in the following sections.

1.5.1 Storm Sewer Force Main, Drive Aisle, and Directional Sign Installation

The storm sewer system installed as part of the site-wide construction activities completed in December 2014 was installed as a temporary measure. As such, additional storm sewer excavation and installation activities were required to install a storm sewer force main and pump house along the northeastern portion of the Site. Additionally, three drive aisles and three directional signs were also installed along the eastern portions of the Site. The activities related to the storm sewer force main, drive aisle, and directional sign installation were completed between 19 May and 3 July 2015.

During installation of the storm sewer force main, the drive aisles, and the direction signs, excess fill/soil with concentrations exceeding the Restricted Commercial SCOs were generated. A total of 1,871.93 tons of soil was excavated from the Site and disposed at Allied Waste Niagara Falls Landfill (Allied) of Niagara Falls, New York, and Modern Disposal Services, Inc. (Modern), Town of Lewiston, New York.

1.5.2 Pond 1A Interim Corrective Measures

A failure of the composite cap/cover system occurred at storm water detention Pond 1A in April 2015. Preventative measures were implemented in accordance with the SMP that successfully protected human health and the environment prior to the approval and implementation of a Corrective Measures Plan (CMP), which is discussed in Section 1.5.5. The goals of the Interim Corrective Measures were to 1) determine the source of the breach at stormwater detention

Pond 1A and 2) temporarily remove Pond 1A from the site-wide stormwater management system until a CMP could be executed. The Interim Corrective Measures activities, beginning with the discovery of a breach of the engineered cap at stormwater detention Pond 1A, were completed between 9 April 2015 and 26 July 2016 and included the installation of storm sewer piping, the excavation and removal of existing storm sewer piping, and the excavation and adjustment of existing storm piping in the vicinity of Ponds 1A and 1B.

During completion of the interim corrective measures, excess contaminated non-hazardous fill/soil with concentrations exceeding the Restricted Commercial SCOs were generated. A total of 668.58 tons of soil was excavated from the Site and disposed at Modern Disposal Services, Inc. (Modern), Town of Lewiston, New York.

1.5.3 Site-Wide Storm Sewer Redesign

Due to the removal of stormwater detention Pond 1A from the Site's stormwater management system, modification of the site-wide stormwater management system was necessary in order to compensate for the storage volume lost with the elimination of Pond 1A. The Site-Wide Storm Sewer Redesign activities were completed between 1 June and 28 September 2017 and included the installation of storm sewer piping and associated structures, the excavation and removal of existing storm sewer piping, and the excavation and adjustment of existing storm piping.

During completion of the site-wide storm sewer redesign, excess contaminated non-hazardous fill/soil with concentrations exceeding the Restricted Commercial SCOs were generated. A total of 4,778.74 tons of soil was excavated from the Site and disposed at Modern Disposal Services, Inc. (Modern), Town of Lewiston, New York.

1.5.4 Secure Storage Expansion

Panamerican Environmental, Inc. (Panamerican) of Buffalo, New York submitted a Secure Storage – SMP Excavation Work Plan Notification Letter (dated 31 August 2017) and a SMP Excavation Work Plan (dated 6 September 2017) to the NYSDEC to outline intrusive activities associated with the construction of two storage units and associated utilities at the Secure Storage facility located on the southwestern portion of the Site. Construction and remedial activities were completed by Panamerican at the Site between 20 September and 10 November 2017 and included stockpiling of the existing 1 foot topsoil cover for reuse onsite, installation of storm sewer piping, regrading of the southern portion of the Site, and the construction of two concrete slab-on-grade storage units.

1.5.5 Pond 1A Final Corrective Measures Plan Implementation

Upon discovery of the breach of the engineered cap at stormwater detention Pond 1A in April 2015, Pond 1A remained shut off from the Site's Stormwater system discharges until the remedy failure investigation and final corrective measures could be implemented. Implementation of the CMP was completed from 26 July through 19 August 2016 and the corrective action status for the Site was closed by NYSDEC on 7 August 2017. The final CMP for Pond 1A included the dewatering of stored water within Pond 1A, the abandonment of existing storm sewer piping by filling with flowable fill, the backfilling of the former Pond 1A with certified clean imported virgin stone, and the installation of a 1 foot thick certified clean imported topsoil cover over the former Pond 1A.

During completion of the Pond 1A final CMP, stored water within Pond 1A was pumped and discharged to the City of Niagara sanitary sewer system where it flowed to and was treated at the Niagara Falls Water Board Wastewater Facility of Niagara Falls, New York under the Niagara Falls Water Board Wastewater Facilities Wastewater Discharge Permit for Industrial Commercial User permit number ICU-72 dated 23 June 2016. Approximately 173,900 gallons of water from Pond 1A was discharged to the Niagara Falls Wastewater Treatment Plant during the implementation of the corrective measures.

1.5.6 SSD System Modification

Continuing power surges at the Site between 2015 and 2018 had resulted in the need to repair or replace the vacuum blower equipment for the active SSD system at the FONF mall expansion building at an unreasonable frequency. Langan submitted a SSD System Modification Work Plan to NYSDEC on 22 May 2018 to outline a proposed monitoring plan to be implemented with the aim of converting the active SSD system at the FONF mall expansion building into a passive system. The SSD System Modification Work Plan was approved by the NYSDEC through email correspondence on 29 May 2018. All sampling and modification activities were completed in accordance with the NYSDEC-approved SMP, dated 15 November 2014. On 26 June 2018 Langan completed sub-slab soil vapor sampling from 12 of the 14 existing permanent sub-slab monitoring points installed during construction of the FONF mall expansion building. Following receipt of the laboratory analytical results, Langan submitted a Summary of Sub-Slab Soil Vapor Sampling Report to the NYSDEC on 17 August 2018. The report summarized the findings of the 26 June 2018 sampling event and recommended the conversion of the active SSD system at the FONF mall expansion building to a passive SSD system. The Summary of Sub-Slab Soil Vapor Sampling Report was approved by the NYSDEC through email correspondence on 29 October 2018. Following NYSDEC approval, Langan commenced conversion of the active SSD system at the FONF mall expansion building to a passive (wind-driven exhaust fan) system on 27 December 2018. Periodic inspections of the newly converted passive SSD system components following

installation at the FONF mall expansion building showed they have operated pursuant to the manufactures specifications.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 Introduction

2.1.1 General

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

2.1.2 Purpose

This plan provides:

- A description of EC/ICs on the Site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Environmental Easements;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan 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 EC/ICs required by the site remedy, as determined by the NYSDEC.

2.2 Engineering Controls

2.2.1 Engineering Control Systems

2.2.1.1 Cap/Cover System

Exposure to remaining contamination in soil/fill at the Site is prevented by a cap/cover system comprised of a minimum 4-inch thick asphalt cap at parking areas, a concrete cap at building slabs, a concrete cap at sidewalks, a minimum 1-foot thick clean imported topsoil cover at all landscaped areas, and a combination of a minimum 6-inch thick clay cap and 1-foot thick clean imported topsoil cover at detention ponds. The minimum 6-inch thick clay cap was installed along the pond sidewalls to the top of the normal water surface elevation. The remaining upper areas

of the pond sidewalls were capped with at least 1-foot of clean imported topsoil. As an additional construction measure to ensure containment of clean stormwater runoff, the ponds were covered by a 40-mil HDPE textured geomembrane to ground surface. The geomembrane was covered with a minimum of 1-foot of topsoil from elevation 567.05 at Pond 2 and 569.0 in pond 1b to the top of the pond slopes. The cap/cover system is installed across the entire footprint of the Site.

The Excavation Work Plan that appears in Appendix A outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 4 of this SMP.

2.2.1.2 Sub-Slab Depressurization Systems

Exposure to soil vapor infiltration into fulltime occupied buildings located at the Site is prevented by sub-slab depressurization (SSD) systems that include a 20-mil vapor barrier (20 mil Stego Wrap) and an active SSD system beneath the fulltime occupied Secure Storage office building and a passive SSD system beneath the fulltime occupied FONF mall expansion building. Conduit and pipe penetrations through the slabs were sealed to prevent infiltration of vapors through the foundation slab penetrations. The active SSD system at the Secure Storage office building and the passive SSD system at the FONF mall expansion building were installed as engineering controls in the two fulltime occupied structures to mitigate soil vapor intrusion. Sub-slab components for each of these systems were installed as part of construction of the new buildings. Successful installation and operation of the complete systems (roof-mounted blowers for the active system, roof mounted wind-driven exhaust fans for the passive system, and connecting piping) were verified by pressure field monitoring and inspection following completion of the buildings under the 14 November 2014 SMP. The SSD systems were designed to create negative pressure under the newly constructed FONF mall building expansion, and the newly constructed Secure Storage office building foundation slabs, which will eliminate human exposure to possible soil vapors that would otherwise infiltrate through the foundation slabs into the occupied areas.

Procedures for operating and maintaining the SSD systems are documented in the Operation and Maintenance Plan (Section 4 of this SMP). Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of this SMP). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the site, occurs.

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the RAWP.

The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

2.2.2.1 Composite Cover System

The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

2.2.2.2 Sub-slab Depressurization Systems

The active and passive SSD systems will not be discontinued unless prior written approval is granted by the NYSDEC. In the event that monitoring data indicates that the SSD systems are no longer required, a proposal to discontinue the SSD system will be submitted by the property owner to the NYSDEC and NYSDOH.

2.3 Institutional Controls

A series of ICs are required by the RAWP to: (1) implement, maintain and monitor EC systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the remaining contamination; and, (3) limit the use and development of the Site to commercial and industrial uses. Adherence to these ICs is required by the Environmental Easements and will be implemented under this SMP. The ICs are:

- Compliance with the Environmental Easements and this SMP by the Grantor and the Grantor's successors and assigns;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs on the Site must be inspected at a frequency and in a manner defined in the SMP.
- Sub-slab pressure field monitoring and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to management of the Site must be reported at the frequency and in a manner defined in this SMP;
- On-site and off-site environmental monitoring devices must be protected and replaced as necessary to ensure the devices function in the manner specified in this SMP; and
- Institutional Controls identified in the Environmental Easements may not be discontinued without an amendment to or extinguishment of the Environmental Easements.

The Site has a series of ICs in the form of Site restrictions. Adherence to these ICs is required by the Environmental Easements. Site restrictions that apply to the Controlled Property are:

- The Site owner or remedial party is required to complete and submit to NYSDEC a periodic certification of IC/ECs in accordance with Part 375-1.8 (h)(3);

- The Site may only be used for commercial and industrial uses as defined by Part 375-1.8(g), provided that the long-term IC/ECs included in this SMP are employed;
- The property may not be used for a higher level of use, such as unrestricted residential, restricted residential or other higher uses without additional remediation and amendment of the Environmental Easements, as approved by the NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of the groundwater at the Site as a source of potable or process water is prohibited without necessary water quality treatment as determined by the NYSDOH or County DOH;
- Vegetable gardens and farming on the property are prohibited; and
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

2.3.1 Excavation Work Plan

The Site has been remediated for commercial and industrial uses. Any future intrusive work that will penetrate the cover system, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cap/cover system will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix A to this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in the Stormwater Pollution Prevention Plan (SWPPP), Health and Safety Plan (HASP), and Community Air Monitoring Plan (CAMP) prepared for the Site (see Appendix E and Appendix F). Based on future changes to state and federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and resubmitted with the notification provided in Section A-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5). Disposal facility truck routes are provided in Figures 11a, 11b, and 11c.

The Site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for: 1) the safe performance of all intrusive work; 2) the structural integrity of excavations; 3) proper disposal of excavation spoils

and dewatering fluids; 4) control of runoff from open excavations into remaining contamination; and 5) structures that may be affected by excavations. The Site owner will ensure that Site development activities will not interfere with, or otherwise impair or compromise the engineering controls described in this SMP.

2.3.2 Soil Vapor Intrusion Evaluation

Prior to the construction of any future enclosed structures on the Site, a Soil Vapor Intrusion (SVI) evaluation will be performed to determine whether any mitigation measures are necessary to eliminate potential exposure to vapors in the proposed structure. Alternatively, an SVI mitigation system may be installed as an element of the building foundation without first conducting an investigation. This mitigation system will include a vapor barrier and active sub-slab depressurization system.

Prior to conducting an SVI investigation or installing a mitigation system, a work plan will be developed and submitted to the NYSDEC and NYSDOH for approval. This work plan will be developed in accordance with the most recent NYSDOH "Guidance for Evaluating Vapor Intrusion in the State of New York". Measures to be employed to mitigate potential vapor intrusion will be evaluated, selected, designed, installed, and maintained based on the SVI evaluation, the NYSDOH guidance, and construction details of the proposed structure.

2.4 Inspections and Notifications

2.4.1 Inspections

Inspections of all remedial components installed at the Site will be conducted at the frequency specified in the SMP Monitoring Plan schedule. A comprehensive site-wide inspection will be conducted at the frequency defined in Section 5.1.1. 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 Easements;
- Achievement of remedial performance criteria;
- Performance of active SSD system sub-slab pressure field monitoring;
- Performance and integrity of remedial system components;
- If Site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system.

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5.3).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted within five days of the event to verify the effectiveness of the EC/ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

2.4.2 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed 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 proposed ground-intrusive activities pursuant to the Excavation Work Plan.
- Notice within 48 hours of any damage or defect to the foundation, structures or engineering control 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 shall be submitted to the NYSDEC within 45 days and shall describe and document 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 has been provided with a copy of the BCA, and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing.

2.5 Contingency Plan

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions. Fire or explosion and environmental release are not likely to occur in relation to the EC/ICs implemented at the Site, but are included in this contingency plan. A more thorough emergency/contingency plan can be found in the HASP for the Site (Appendix F).

2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance, the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to the Program Manager or Project Manager or the Field Safety Officer (FSO). These emergency contact lists must be maintained in an easily accessible location at the Site.

Table 7: Emergency Contact Numbers

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

Table 8: Langan Contact Numbers*

Program Manager:	Jamie P. Barr, L.E.P. (203) 562-5771
Project Manager:	Ryan Wohlstrom (203) 562-5771
Health & Safety Officer (HSO):	Tony Moffa (215) 756-2523
Field Safety Officer (FSO):	Justin Hall (203) 562-5771
NYSDEC Project Manager:	Glenn May (716) 851-7220
Owner Representative:	Aladdin Ghafari (424) 229-3387

* Note: Contact numbers subject to change and will be updated as necessary.

2.5.2 Map and Directions to Nearest Health Facility

Site Location: 1705 Factory Outlet Boulevard, Niagara Falls, NY

Nearest Hospital Name: Mount Saint Mary's Hospital

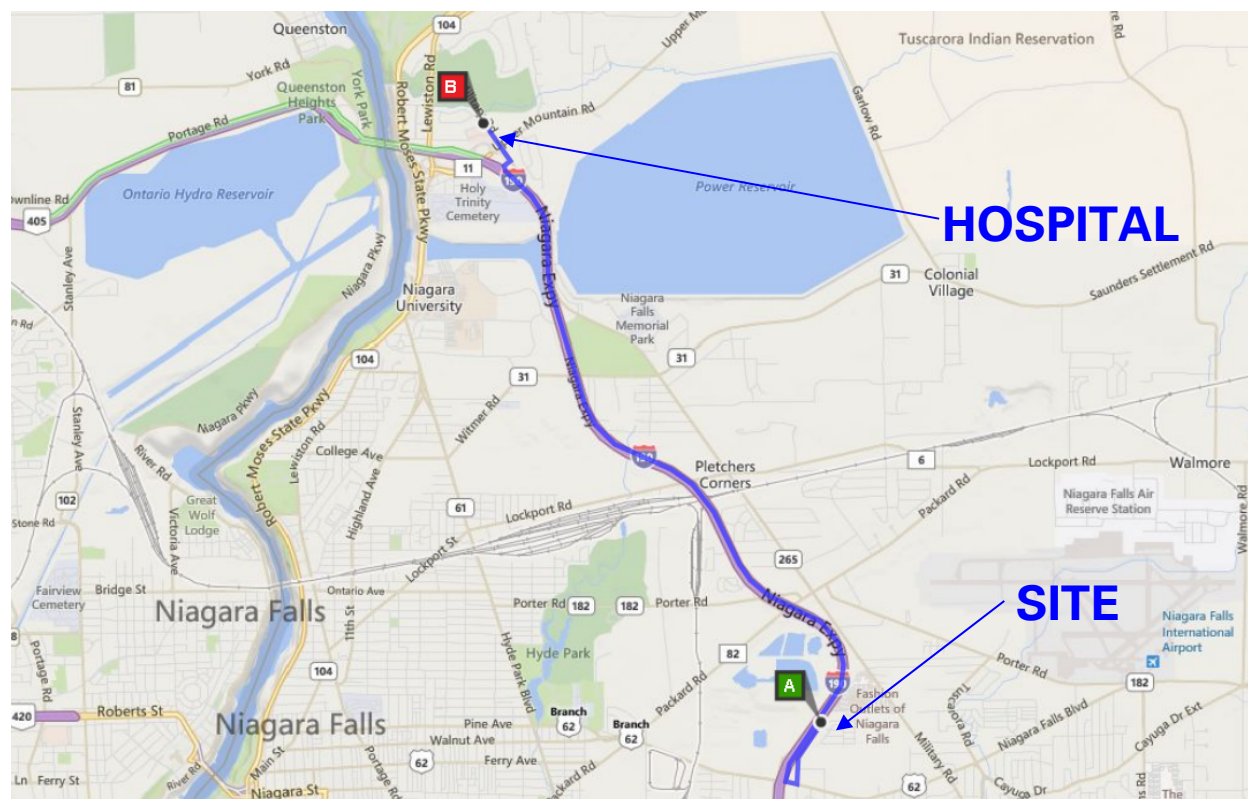
Hospital Location: 5300 Military Road, Lewiston, NY

Hospital Telephone: (716) 297-4800

Directions to the Hospital (Total Est. Time: 8 minutes Total Est. Distance: 6.3 miles)

- 1: Head southwest on Factory Outlet Blvd towards Niagara Falls Blvd.
- 2: Turn right onto Niagara Falls Blvd.
- 3: Turn right to merge onto I-190 N.
- 4: Take exit 25A for NY-265 toward Lewiston.
- 5: Turn left onto NY-265 N.
- 6: Destination will be on left.

Figure 12: Map Showing Route from the Site to the Hospital



2.5.3 Response Procedures

For spills less than 5-gallons, sorbent materials such as sand, sawdust or commercial sorbents should be placed directly on the substance to contain the spill and aid recovery. Any acid spills

should be diluted or neutralized carefully prior to attempting recovery. Berms of earthen or sorbent materials can be used to contain the leading edge of the spills. Drains or drainage areas should be blocked. All spill containment materials will be properly disposed. An exclusion zone around the spill area should be established depending on the size of the spill. The following steps should be taken by the Emergency Coordinator:

- Determine the nature, identity and amounts of major spill components;
- If a flammable liquid, gas or vapor is involved, remove all ignition sources and use non-sparking and/or explosive-proof equipment to contain or clean up the spill (diesel only vehicles, air operated pumps, etc.);
- Make sure all unnecessary persons are removed from the spill area;
- Take action to stop or minimize the spill; such as shutting down equipment,
- Notify appropriate response teams and authorities;
- Use proper PPE in handling of the spill;
- If possible, try to stop the leak with appropriate material;
- Remove all surrounding materials that can react or compound with the spill; and
- Ensure spilled material, containment material and PPE are contained for proper disposal.

In order to mobilize the manpower, resources and equipment necessary to cope with a fire or other emergency, a clear chain of authority should be established. The local fire department will take charge of all emergency response activities and dictate the procedures that will be followed for the duration of the emergency. The fire department will report immediately to the scene of the emergency, assess the seriousness of the situation, and direct whatever efforts are necessary until the emergency response units arrive. All project personnel will be instructed on proper emergency response procedures and locations of emergency telephone numbers. If an emergency occurs, including but not limited to fire, explosion or significant release of fuel, all heavy equipment will be shut down and all personnel will evacuate the work areas and assemble at an evacuation meeting point.

The emergency responders will give directions for implementing whatever actions are necessary. If traffic control is necessary, as in the event of a fire or explosion, a project team member, who has been trained in these procedures and designated at the Site safety meeting, will take over these duties until local police and fire fighters arrive.

2.5.3.1 Emergency Contacts/Notification System

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 7). The list will also be posted prominently at the Site and made readily available to all personnel at all times.

2.5.3.2 Procedures for Spills

Control or stop the spread of minor chemical spills utilizing the appropriate materials (i.e., absorbents, etc.) if possible. Whenever possible, the MSDS will be consulted to assist in determining the best means of containment and cleanup. For all petroleum or hazardous chemical spills immediately notify the appropriate response groups including the NYSDEC Spill Response hotline (within 2 hours of discovery).

2.5.3.3 Evacuation Plans

In the event evacuation of the Site is necessary (e.g., fire, explosion, etc.), personnel will evacuate using evacuation routes posted in all on-site buildings.

2.5.3.4 Contingency Plan Amendments

As changes in Site conditions and operations may take place over time, some information in this contingency plan may need to be updated to reflect these changes. The contingency plan will be updated on an as-needed basis. Any updates to the contingency plan will be kept with this Monitoring Plan and will be maintained at the Site.

3.0 SITE MONITORING PLAN

3.1 Introduction

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the composite cap/cover system, the SSD systems, and all affected Site media identified below. Monitoring of other ECs is described in Section 4, Operation, Monitoring and Maintenance Plan. This Monitoring Plan may only be revised with the approval of NYSDEC.

3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

- Assessing achievement of the remedial performance criteria;
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

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

- Active SSD system pressure field monitoring locations, protocol, and frequency;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for the active and passive SSD system components; and
- Annual inspection and periodic certification.

Prior to start-up of the SSD systems, the systems will be inspected to confirm that all system components are in place and the systems are functioning. Annual inspections will be conducted to establish that the systems are operational and performing within the design specifications. Unscheduled inspections and/or pressure field monitoring may take place when a suspected failure of the SSD systems has been reported or an emergency occurs that is deemed likely to affect the operation of the systems. The monitoring program is summarized in Table 9 and outlined in detail in Section 3.2 and 3.3 below.

Table 9: Monitoring/Inspection Schedule

Monitoring Program	Frequency*	Matrix	Analysis
Active Sub-slab Pressure Testing for SSD Systems	Annual	Sub-slab vapor	micro-manometer
Active and Passive SSD System Inspections	Annual	None	Visual inspection of SSD system components
Composite Cap/Cover System	Annual	Soil	Visual inspection of all cover system components

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

3.2 SSD System Monitoring Program

Following completion of the active SSD systems installation in November 2014 at the FONF mall expansion building and Secure Storage office building, a baseline inspection and sub-slab pressure field testing were conducted on permanent monitoring points located throughout the buildings concrete floor and the building's exterior sidewalk monitoring locations to confirm that a negative pressure vacuum was being created throughout the entire buildings footprint. Negative pressure readings from the monitoring points ranged from 0.005 to 0.070 inches of water.

The active SSD system at the Secure Storage office building will be inspected and the pressure field will be monitored on an annual basis and/or when a suspected failure of the SSD system has been reported or an emergency occurs that is deemed likely to affect the operation of the system.

Following NYSDEC approval on 29 October 2018, Langan commenced conversion of the active SSD system at the FONF mall expansion building to a passive (wind-driven exhaust fan) system on 27 December 2018 (conversion of the FONF mall SSD system is discussed further in Section 1.5.6). Due to the nature of the passive system, sub-slab pressure field testing is not required to confirm a negative pressure vacuum beneath the building footprint; however, the passive SSD system at the FONF mall expansion building will be inspected on an annual and periodic basis and/or when a suspected failure of the SSD system has been reported or an emergency occurs that is deemed likely to affect the operation of the system.

The inspection and pressure field monitoring frequency may be modified in the future with NYSDEC approval. In the event future inspection and pressure field monitoring frequencies change the SMP will be modified to reflect the changes approved by NYSDEC. Deliverables for the inspection and pressure field monitoring of the soil vapor mitigation systems are specified in Section 3.5. As built drawings detailing the components of the soil vapor mitigation systems are provided in Appendix L and Appendix M of this SMP.

3.2.1 Sampling Protocol

The Secure Storage active SSD system sub-slab pressure field monitoring activities will be recorded on the Secure Storage Active SSD System Inspection Form provided in Appendix J-1.

3.2.1.1 Sampling requirements

Based on the NYSDOH *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (October 2006), air monitoring is not necessary once the SSD system has been properly installed and is maintaining a vacuum underneath the entire slab. An annual pressure field test will be conducted on the Secure Storage office building active SSD system to ensure the system is maintaining a vacuum underneath the entire building slab while only a visual inspection will be conducted on the FONF mall expansion building passive SSD system to ensure the system's components are operating per manufacturers specifications.

3.3 Composite Cover System Monitoring

A composite cap/cover system comprised of asphalt parking areas, concrete building slabs, concrete sidewalks, clay and topsoil lined detention ponds, and 1-foot thick topsoil covers over landscaped areas serve as a protective barrier minimizing the risk of exposure to residual contamination left in place under the Site. The components of the composite cap/cover system are illustrated in Figure 10 and Appendix K. Inspection of the composite cap/cover system by a professional engineer or a qualified environmental professional under the direction of a professional engineer will be conducted on an annual basis and following any severe weather or other conditions that could affect the cover. During these inspections, an inspection form will be

completed (Appendix I). The inspection requires sufficient information to certify the integrity of all elements of the cap/cover system described above and should document any composite cover disturbance activities. Any damage to the composite cover identified during the inspection will be repaired in accordance with the Excavation Work Plan (Appendix A) and the remedial cap/cover design (Figure 10).

3.4 Site-Wide Inspection

Site-wide inspections will be performed at the frequency defined in Section 5.1. 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 (Appendix I). 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;
- Compliance with permits and schedules included in the Operation and Maintenance Plan; and
- Confirm that Site records are up to date.

3.5 Monitoring Reporting Requirements

Forms and any other information generated during regular monitoring events and inspections will be kept on file at the Site. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. A letter report will also be submitted to the NYSDEC subsequent to each monitoring event. The report, and letter, will include, at a minimum:

- Date of event;
- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (if any);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;

- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format); and
- Any observations, conclusions, or recommendations.

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the monitoring program deliverables are summarized in Table 9 above and the monitoring program schedule is summarized in Table 10 below.

Table 10: Schedule of Monitoring/Inspection Reports

Monitoring Program	Reporting Frequency*
Active and Passive SSD System Inspections	Annual
Sub-Slab Pressure Testing for Active SSD Systems	Annual
Composite Cover System Inspections	Annual

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

4.0 OPERATION AND MAINTENANCE PLAN

4.1 Introduction

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

- Includes the steps necessary to allow individuals unfamiliar with the site to operate and maintain the SSD systems;
- Includes an operation and maintenance contingency plan; and,
- Will be updated periodically to reflect changes in site conditions or the manner in which the SSD systems are operated and maintained.

Information on non-mechanical Engineering Controls (i.e. soil cover system) is provided in Section 4.3 - Engineering Control System Operation and Maintenance. A copy of this Operation and Maintenance Plan, along with the complete SMP, will be kept at the site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of the SMP.

4.2 Engineering Control System Operation and Maintenance

4.2.1 Sub-Slab Depressurization Systems

4.2.1.1 Scope

This section provides operation and maintenance requirements for the passive SSD system located at the newly constructed FONF mall building and the active SSD system located at the newly constructed Secure Storage office building. The Operation and Maintenance Program has been prepared based on the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York – October 2006 and Environmental Protection Agency (EPA) Guidance Document EPA/625/R-92/016 concerning sub-slab depressurization of large buildings and schools (June 1994).

Details of the system design and layout are provided in the Engineering and Institutional Control Plan section of the Site Management Plan. As-built drawings are shown in Appendix L for the passive SSD system installed in the FONF mall expansion building and Appendix M for the active SSD system installed in the Secure Storage office building.

4.2.1.2 System Start-Up and Testing

Prior to initial start-up of the SSD systems, an inspection will be performed to confirm that all system components are in place. All equipment will then be started in accordance with the

manufacturer's recommendations (system component manuals are presented in Appendix N). System testing will then be performed, as follows:

- For the active SSD systems at the Secure Storage office building, a manometer test will be performed to ensure that at least 0.001 inches water column (WC) of vacuum is being created between the sub-slab space and the indoor air space of the building throughout the building footprint. If conditions of inadequate depressurization are observed, the source or cause (e.g., improper fan operation) will be identified and corrected.
- For the active SSD systems at the Secure Storage office building, the warning device indicating blower malfunction will be tested to confirm proper operation.
- For the passive SSD system at the FONF mall expansion building, the system components will be inspected to ensure they are operating per manufacturers specifications (i.e. wind-driven exhaust fans are rotating free of obstructions).

The system testing described above will be conducted annually and if, in the course of the SSD systems lifetime, significant changes are made to the system and the system restarted.

4.2.1.3 System Operation: Routine Operating Procedures

The vacuum blowers for the active SSD system at the Secure Storage office building and the wind-driven fans for the passive SSD system at the FONF mall expansion building will operate continuously after initial startup. All equipment will be operated in accordance with manufacturer's recommendations (see Appendix N). During the course of operation for the SSD systems, especially immediately after start-up, some technical difficulties may be encountered and/or the SSD systems may not operate within design specifications. Any required maintenance, adjustments, or repairs to the system will be conducted as per manufacturer's recommendations (see Appendix N).

4.2.1.4 System Operation: Routine Equipment Maintenance

Routine equipment maintenance (e.g., replacing vacuum blowers at the Secure Storage office building active SSD system, replacing wind-driven exhaust fans at the FONF mall expansion building passive SSD system), repairs, and/or adjustments will be determined based on the life expectancy and warranty for the specific part as well as visual observations over time. The need for repairs and/or adjustments will depend upon the results of a specific activity compared to the results obtained when system operations were initiated. Routine maintenance activities and minimum schedules are provided in Appendix N.

4.2.1.5 System operation: Non-Routine Equipment Maintenance

Non-routine maintenance may also be required during the operation of the SSD systems, including the following situations:

- For the active SSD systems at the Secure Storage office building, the building's Owners or occupants report that the warning device indicates the active SSD system is not operating properly;
- For the passive SSD system at the FONF mall expansion building, the building's Owners or occupants report that an obstruction or general wear and tear has stopped the wind-driven exhaust fans;
- The SSD systems become damaged; and/or,
- The building has undergone renovations that may reduce the effectiveness of the SSD systems.

Activities conducted during non-routine maintenance visits will vary depending upon the reason for the visit. Repairs or adjustments will be made to the system as appropriate and as per manufacturer guidelines. If necessary, the system will be redesigned and restarted.

4.3 Engineering Control System Performance Monitoring

4.3.1 Sub-Slab Depressurization Systems

4.3.1.1 Monitoring Schedule

Inspection of passive SSD system exhaust fans, active SSD system vacuum blowers, and other equipment will be conducted on an annual basis to establish that it is operational and performing within the design specifications. Unscheduled inspections and/or pressure field monitoring may take place when a suspected failure of the SSD system has been reported or an emergency occurs that is deemed likely to affect the operation of the system. Monitoring deliverables for the SSD systems are specified in Section 3.1.2 of the Site Monitoring Plan.

4.3.1.2 General Equipment Monitoring

A visual inspection of the complete system will be conducted during the monitoring event. SSD system components to be inspected include, but are not limited to the following:

- Active SSD system vacuum blower;
- Passive SSD system exhaust fans; and,
- General system piping.

A complete list of components to be checked is provided in the Secure Storage Active SSD System Inspection Form, presented in Appendix J-1, and the FONF Mall Passive SSD System Inspection Form, presented in Appendix J-2. If any equipment readings are not within their typical range, any equipment is observed to be malfunctioning, or the system is not performing within specifications, maintenance and repairs will be conducted per the Operation and Maintenance Plan, and the SSD system restarted.

4.3.1.3 System Monitoring Devices and Alarms

The active SSD system at the Secure Storage office building includes a warning device that indicates when the system is not operating properly. The warning device will have an alarm in the site manager or maintenance personnel office. The passive SSD system at the FONF mall expansion building will require periodic visual inspection by onsite personnel in addition to an annual inspection to ensure they are operating properly. In the event the warning device is activated for the active SSD system or visual inspection of the passive SSD system identifies system malfunction, applicable maintenance and repairs will be conducted, as specified in the Operation and Maintenance Plan, and the SSD system restarted. Operational problems will be noted in the Periodic Review Reports. System monitoring devices and alarms for the active SSD system at the Secure Storage office building will be tested as part of the annual monitoring event and periodic visual inspections of the passive SSD system at the FONF mall expansion building will be performed by onsite personnel.

4.3.1.4 Sampling Event Protocol

Based on the NYSDOH Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006), air monitoring is not necessary once the SSD system has been properly installed and is maintaining a vacuum underneath the entire slab. Some repairs and adjustments will be made to the SSD systems over their lifetime. In case of redesign and start-up, SSD system testing, as outlined in Section 4.2.1 of the Operation and Maintenance Plan, will be conducted. If an extended shut-down of the SSD system is necessary or anticipated, the State will be notified and indoor air sampling may be required.

4.4 Maintenance and Performance Monitoring Reporting Requirements

4.4.1 Routine Maintenance Reports

Checklists or forms (see Appendix J-1 for the Secure Storage active SSD system and Appendix J-2 for the FONF Mall passive SSD system) will be completed during each routine maintenance event. Checklists/forms will include, but not be limited to the following:

- The date;
- The name, company, and position of person(s) conducting maintenance activities;
- Any maintenance activities conducted;
- 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).

4.4.2 Non-Routine Maintenance Reports

During each non-routine maintenance event, a form will be completed which will include, but not be limited to, the following information:

- The date;
- The name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- The presence of leaks, if any;
- The date the leak, if any, was fixed;
- Any other repairs or adjustments made to the system;
- 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).

5.0 INSPECTIONS, REPORTING AND CERTIFICATIONS

5.1 Site Inspections

5.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3. At a minimum, a site-wide inspection will be conducted annually. Inspections will also be conducted whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

All inspections and monitoring events will be recorded on the appropriate forms for their respective system which are contained in Appendix J-1 for the Secure Storage active SSD system and Appendix J-2 for the FONF Mall passive SSD system. Additionally, a general site-wide inspection form will be completed during the site-wide inspection (see Appendix I). These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including all media sampling data and system maintenance reports, generated for the Site during the reporting period will be provided in electronic format in the Periodic Review Report.

5.1.3 Evaluation of Records and Reporting

The results of the inspection and Site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;
- The Site remedy continues to be protective of public health and the environment and is performing as designed in the RAWP and FER.

5.2 Certification of Engineering and Institutional Controls

After the last inspection of the reporting period, a Professional Engineer licensed to practice in New York State will prepare the following certification:

For each IC/EC 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 IC/ECs required by the remedial program was performed under my direction;

- The IC and/or EC employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any Site management plan for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- Use of the Site is compliant with the environmental easements;
- The EC 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;
- No new information has come to my attention to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid;
- Every five years the following certification will be added: The assumptions made in the qualitative exposure assessment remain valid;
- The information presented in this report is accurate and complete; and
- 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, John Plante, P.E. of Langan, have been authorized and designated by the Site owner to sign this certification for the Site.

The signed certification will be included in the Periodic Review Report described below.

5.3 Periodic Review Report

Periodic Review Reports will be submitted to 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 B (Metes and Bounds). The report will be prepared in accordance with NYSDEC 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. These reports will include:

- Identification, assessment and certification of all EC/ICs required by the remedy for the Site;
- Results of the required annual Site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the Site during the reporting period in electronic format;

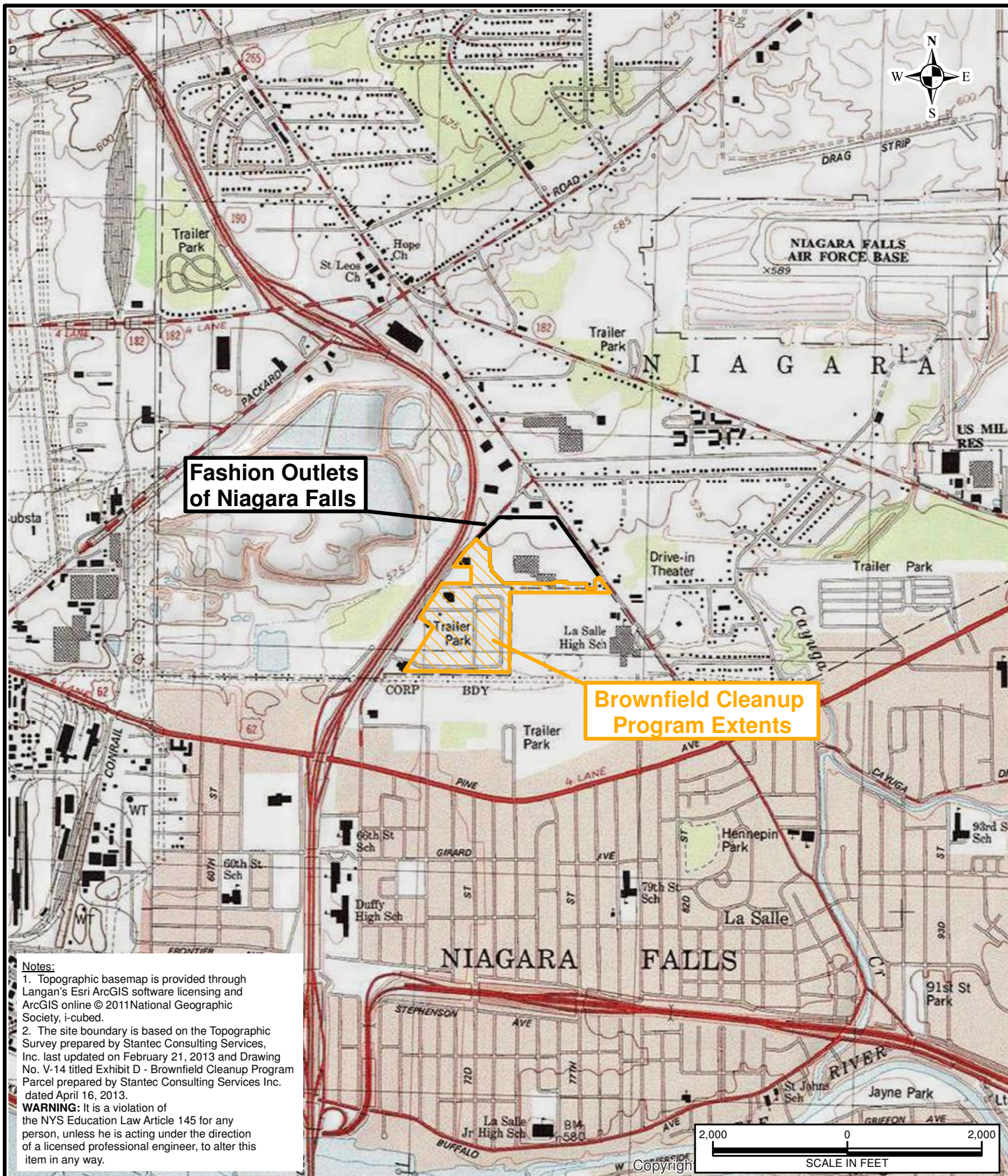
- If applicable, results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format;
- A site evaluation, which includes the following:
 - Compliance of the remedy with the requirements of the site-specific RAWP;
 - Any new conclusions or observations regarding Site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
 - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
 - The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Region 9 Office located at 270 Michigan Avenue, Buffalo, New York, and in electronic format to NYSDEC Central Office, Region 9 Office and the NYSDOH Bureau of Environmental Exposure Investigation.

5.4 Corrective Measures Plan

If a 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 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 plan until it is approved by the NYSDEC.

FIGURES



LANGAN

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Langan Engineering, Environmental, Surveying and
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Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

**FONF Expansion/
Sabre Park BCP**

TOWN OF NIAGARA

NIAGARA COUNTY

NEW YORK

Drawing Title

**SITE LOCATION
MAP**

Project No.

140091401

Date

7/18/2014

Scale

1" = 2000'

Drawn By

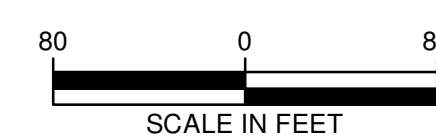
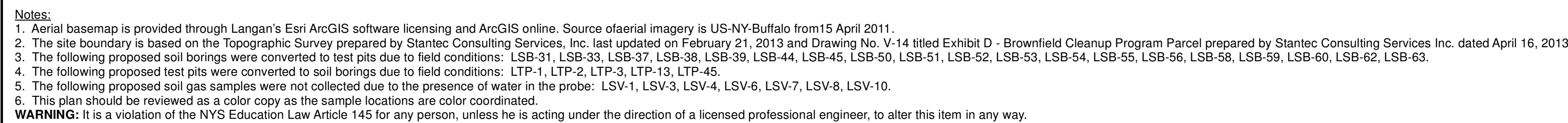
JPH

Submission Date

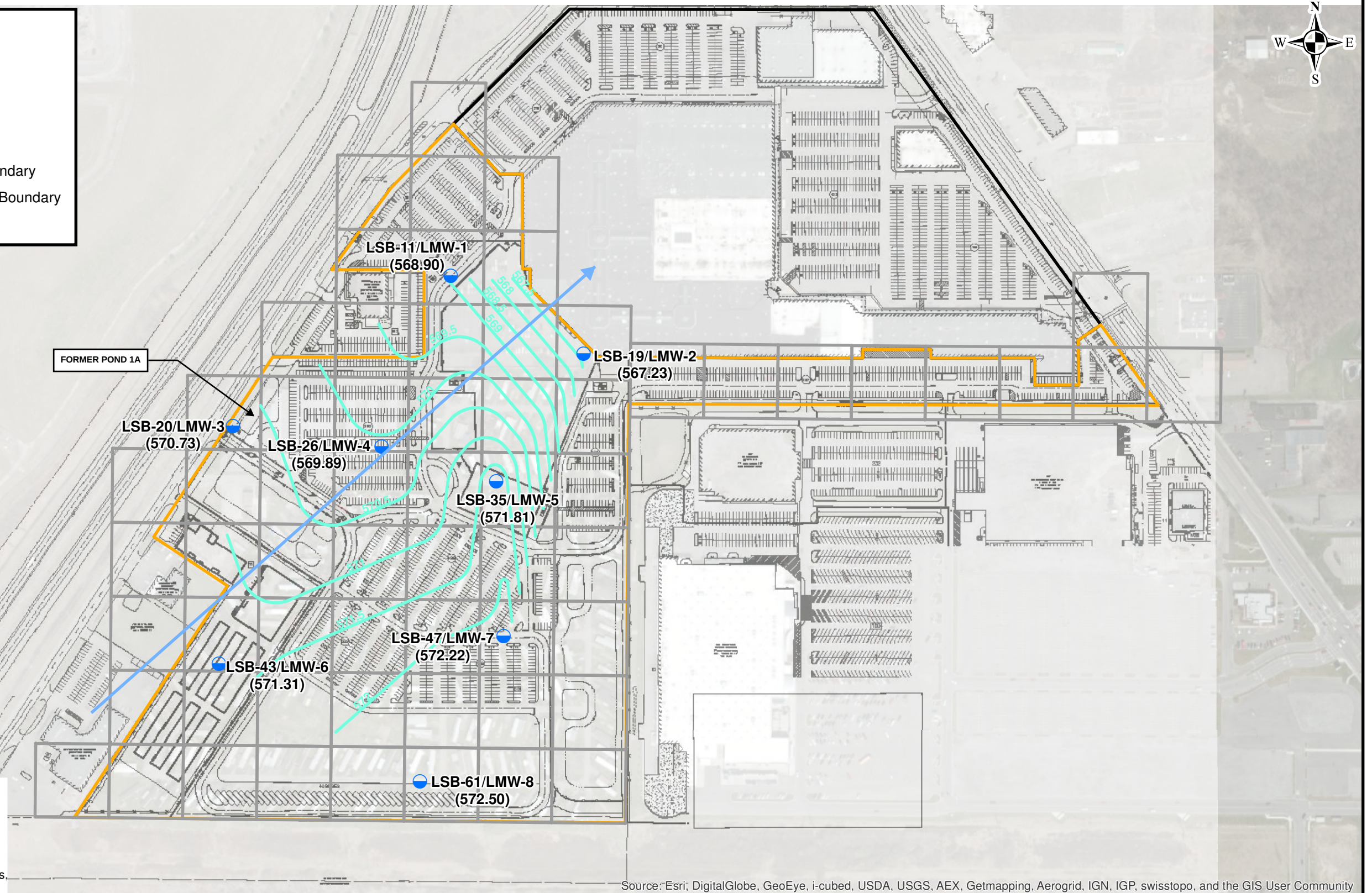
11/15/2014

Figure

1



- July 2013 Groundwater Contours
- Groundwater Flow Direction
- Monitoring Well
- 1-Acre Grid Cell
- Brownfield Cleanup Program Site Boundary
- Fashion Outlets Of Niagara Falls Site Boundary
- (571.30) Groundwater Elevation (ft MSL)



1. The site boundary is based on the Topographic Survey prepared by Stantec Consulting Services, Inc. last updated on February 21, 2013 and Drawing No. V-14 titled Exhibit D - Brownfield Cleanup Program Parcel prepared by Stantec Consulting Services Inc. dated April 16, 2013.
2. The basemap was provided by Stantec Consulting Services, Inc. on August 27, 2014 and is identified as Drawing CS 100 - Overall Site Plan.
3. Sample locations were surveyed by Langan July 3, 2013 with a Trimble RTK GPS Unit, referencing the New York State Department of Transportation (NYSDOT) cooperative base station network.
4. This plan should be reviewed as a color copy as the sample locations are color coordinated.

WARNING: It is a violation of the NYS Education Law Article 14 any person, unless he is acting under the direction of a licensed professional engineer, to alter this item in any way.

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



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NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

FONF Expansion/ Sabre Park BCP

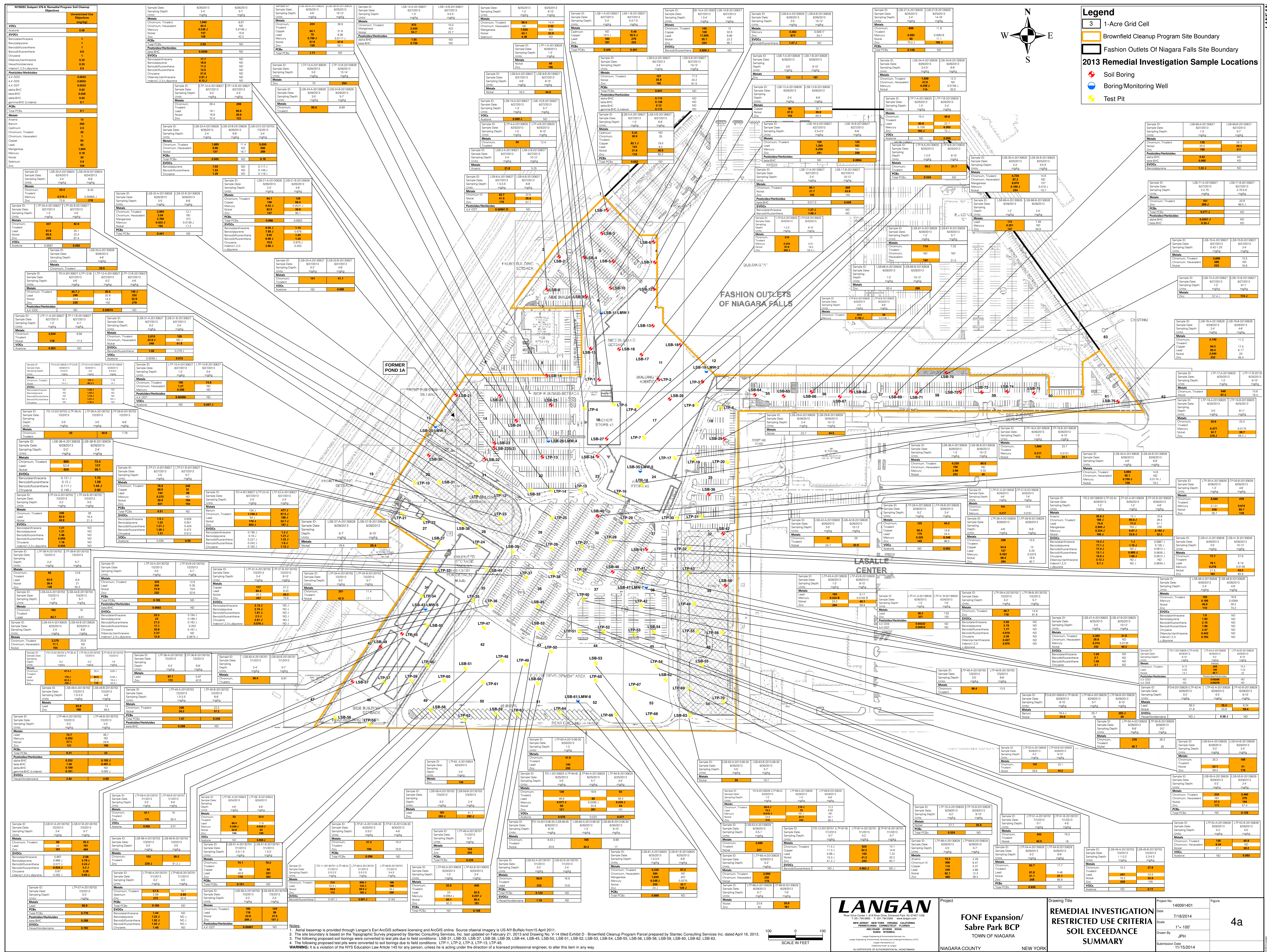
TOWN OF NIAGARA

NEW YORK

GROUNDWATER CONTOUR MAP

Submission Date	11/15/2014
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3

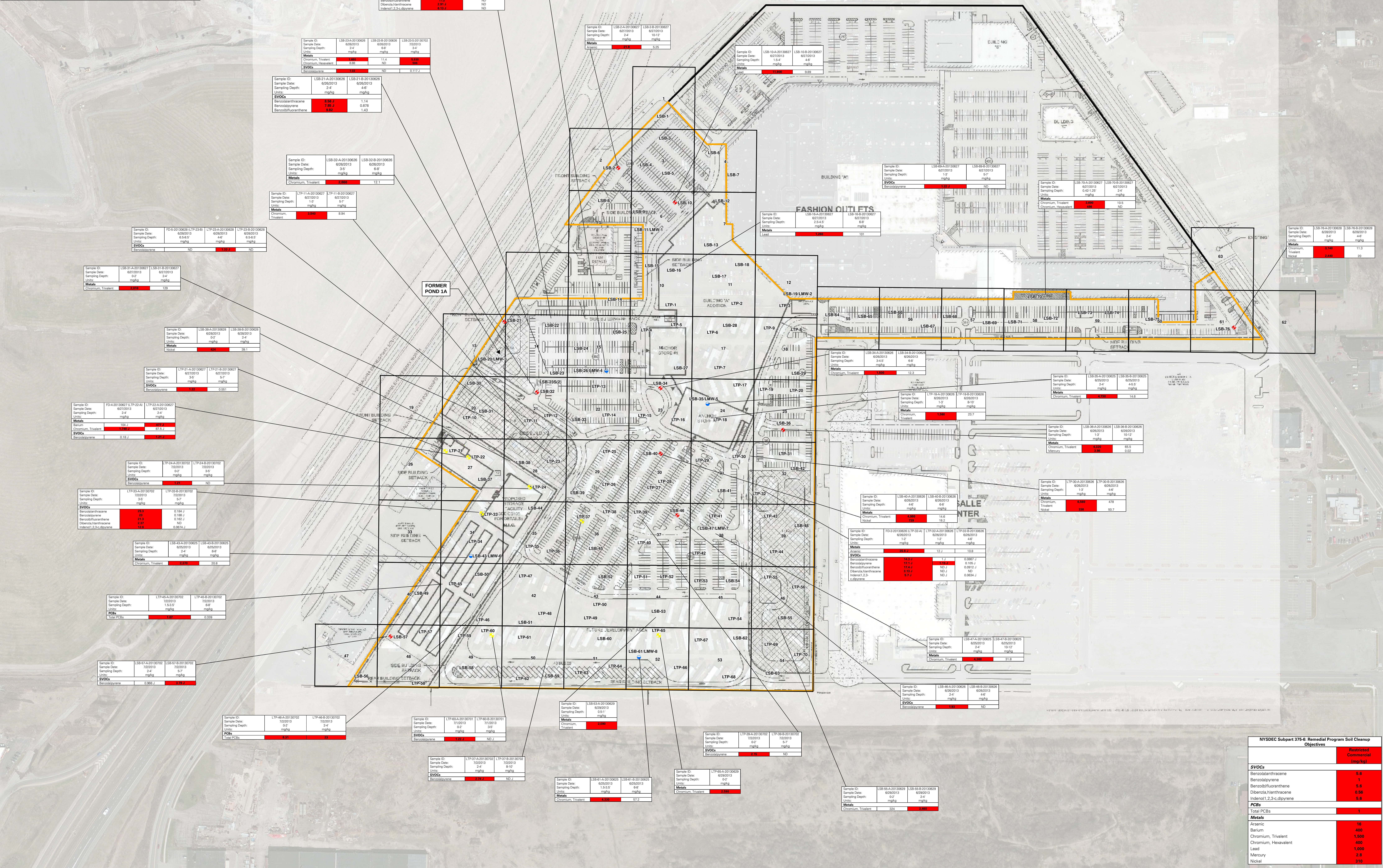


Legend

- 3 1-Acre Grid Cell
- Brownfield Cleanup Program Site Boundary
- Fashion Outlets Of Niagara Falls Site Boundary

2013 Remedial Investigation Sample Locations

- Soil Boring
- Boring/Monitoring Well
- Test Pit



Notes:
1. Aerial basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online. Source of aerial imagery is US NY Buffalo from 15 April 2011.
2. The site boundary is based on the topographic survey prepared by Stantec Consulting Services, Inc. last updated on February 21, 2013 and Drawing No. V-14 titled Exhibit D - Brownfield Cleanup Program Parcel prepared by Stantec Consulting Services Inc. dated April 16, 2013.
3. The following proposed soil borings were converted to test pits due to field conditions: LSB-31, LSB-33, LSB-37, LSB-38, LSB-39, LSB-44, LSB-45, LSB-50, LSB-51, LSB-52, LSB-53, LSB-54, LSB-55, LSB-56, LSB-58, LSB-59, LSB-60, LSB-62, LSB-63.
4. The following proposed test pits were converted to soil borings due to field conditions: LTP-1, LTP-2, LTP-3, LTP-13, LTP-15, LTP-45.
WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless he is acting under the direction of a licensed professional engineer, to alter this item in any way.

LANGAN
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ARIZONA, ARKANSAS, COLORADO, DELAWARE, FLORIDA
GEORGIA, IOWA, KANSAS, KENTUCKY, LOUISIANA, MAINE, MASSACHUSETTS, MICHIGAN, MINNESOTA, MISSISSIPPI, MISSOURI, MONTANA, NEBRASKA, NEVADA, NEW HAMPSHIRE, NEW JERSEY, NEW MEXICO, NEW YORK, NORTH CAROLINA, NORTH DAKOTA, OHIO, OKLAHOMA, OREGON, PENNSYLVANIA, RHODE ISLAND, SOUTH CAROLINA, SOUTH DAKOTA, TENNESSEE, TEXAS, UTAH, VERMONT, VIRGINIA, WASHINGTON, WISCONSIN, WYOMING

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Project
**FONF Expansion/
Sabre Park BCP**
TOWN OF NIAGARA

Drawing Title
**REMEDIAL INVESTIGATION
RESTRICTED COMMERCIAL
USE CRITERIA
SOIL EXCEEDANCE SUMMARY**

Project No.	Figure
140091401	4b
Date	7/18/2014
Scale	1"= 100'
Drawn By	JPH
Submission Date	11/15/2014

NYSDC Subpart 375-B Remedial Program Soil Cleanup Objectives	
Objectives	Restricted Commercial (mg/kg)
SVOCs	
Benzolanthracene	5.5
Benzobiphenylene	1
Benzofluoranthene	5.5
Dibenz(a,h)anthracene	0.56
Indeno(1,2,3-c,d)pyrene	5.5
PCBs	
Total PCBs	1
Metals	
Asbestos	16
Barium	400
Chromium, Trivalent	1,500
Chromium, Hexavalent	400
Lead	1,500
Mercury	2.8
Nickel	310

	GW Quality Standards Part 703 (µg/L)
VOCs	
cis-1,2-Dichloroethylene	5
Trichloroethylene (TCE)	5
Vinyl Chloride	2
SVOCs	
Benzo(k)fluoranthene	0.002
Metals	
Chromium, Hexavalent	50
Chromium, Total	50
Manganese	300
Selenium	10

Sample ID:	LMW-4-20130702
Sample Date:	7/2/2013
Sample Depth:	5.75'
Units:	µg/L
Metals	
Manganese	1,330
Selenium	10

Sample ID:	LMW-1-20130702
Sample Date:	7/2/2013
Sample Depth:	7'
Units:	µg/L
Metals	
Manganese	1,140
VOCs	
cis-1,2-Dichloroethylene	59
Trichloroethylene (TCE)	19
Vinyl Chloride	13

Sample ID:	LMW-3-20130702
Sample Date:	7/2/2013
Sample Depth:	6.5'
Units:	µg/L
Metals	
Manganese	2,730
Selenium	19

Sample ID:	LMW-2-20130702
Sample Date:	7/2/2013
Sample Depth:	6.25'
Units:	µg/L
Metals	
Manganese	504

Sample ID:	LMW-6-20130702
Sample Date:	7/2/2013
Sample Depth:	6'
Units:	µg/L
Metals	
Chromium, Hexavalent	818
Chromium, Total	884

Sample ID:	LMW-5-20130702
Sample Date:	7/2/2013
Sample Depth:	7'
Units:	µg/L
Metals	
Chromium, Hexavalent	1,230
Chromium, Total	1,260

Sample ID:	FD-1-20130702 (LMW-8)	LMW-8-20130702
Sample Date:	7/2/2013	7/2/2013
Sample Depth:	5'	5'
Units:	µg/L	µg/L
Metals		
Chromium, Hexavalent	1,220	1,120
Chromium, Total	1,220	1,230
SVOCs		
Benzo(k)fluoranthene	ND J	0.0526 J

Sample ID:	LMW-7-20130702
Sample Date:	7/2/2013
Sample Depth:	5.5'
Units:	µg/L
Metals	
Chromium, Hexavalent	910
Chromium, Total	921

Legend

-  Monitoring Well
-  1-Acre Grid Cell
-  Brownfield Cleanup Program Site Boundary
-  Fashion Outlets Of Niagara Falls Site Boundary



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Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

**FONF Expansion/
Sabre Park BCP**

TOWN OF NIAGARA

NIAGARA COUNTY

NEW YORK

Drawing Title

**REMEDIAL
INVESTIGATION
GROUNDWATER
EXCEEDANCE
SUMMARY**

Project No.

140091401

Date

11/14/2014

Scale

1"=300'

Drawn By

JPH

Submission Date

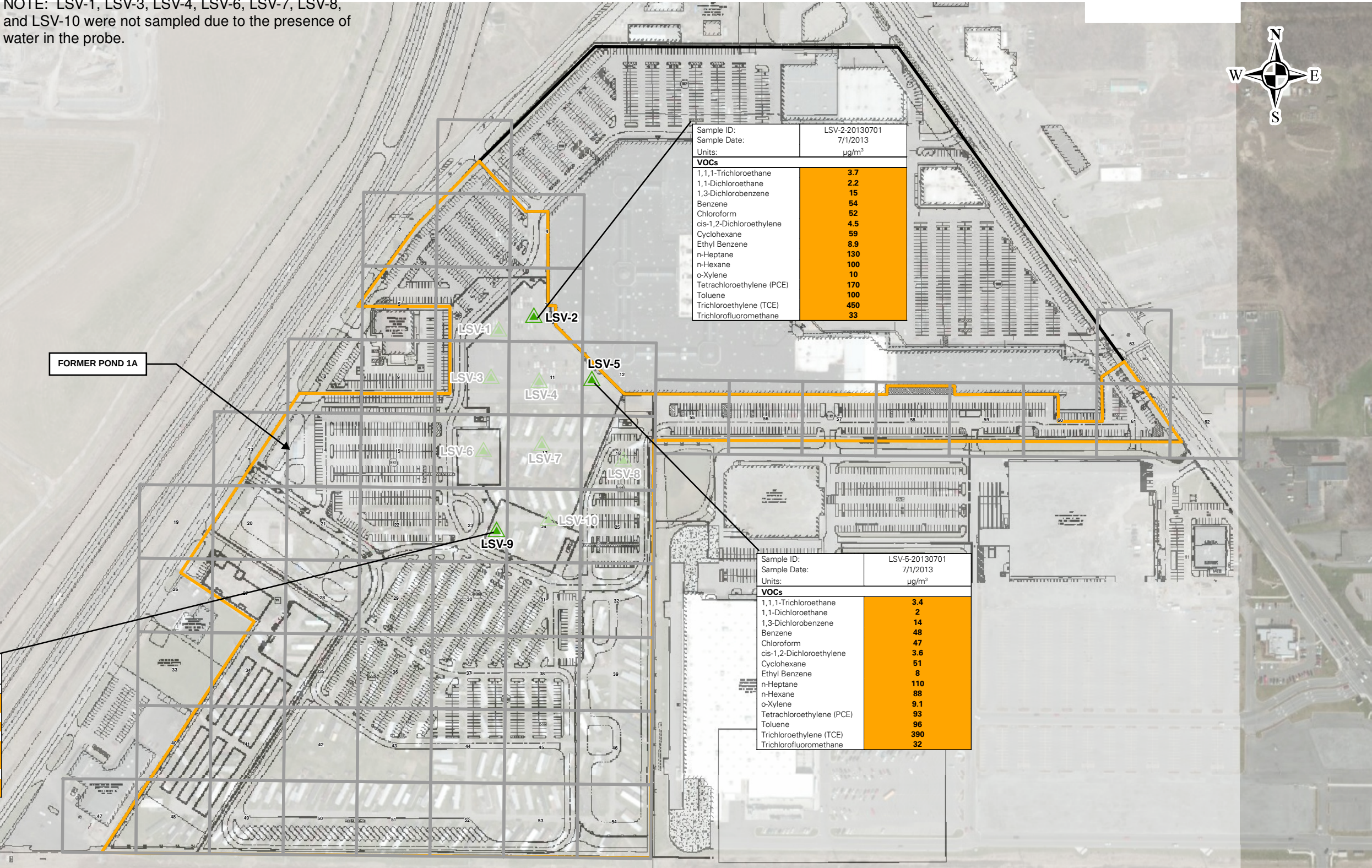
11/15/2014

Figure

5

New York State Department of Health Outdoor Vapor Upper Fence Criteria	
	Soil Gas (ug/m³)
VOCs	
1,1,1-Trichloroethane	2.5
1,1-Dichloroethane	0.4
1,3-Dichlorobenzene	0.5
2-Butanone	16
4-Methyl-2-pentanone	1.9
Benzene	13
Chlorobenzene	0.4
Chloroform	1.2
cis -1,2-Dichloroethylene	0.4
Cyclohexane	6.3
Ethyl Benzene	6.4
Methylene chloride	16
n-Heptane	18
n-Hexane	14
o-Xylene	7.1
Tetrachloroethylene (PCE)	2.5
Tetrahydrofuran	0.8
Toluene	57
Trichloroethylene (TCE)	0.5
Trichlorofluoromethane	12

NOTE: LSV-1, LSV-3, LSV-4, LSV-6, LSV-7, LSV-8, and LSV-10 were not sampled due to the presence of water in the probe.



Sample ID:	FD-2-20130702 (LSV-9)	LSV-9-20130702
Sample Date:	7/2/2013	7/2/2013
Units:	ug/m³	ug/m³
VOCs		
Benzene	34	32
Chloroform	31	29
cis-1,2-Dichloroethylene	7.9	ND
Cyclohexane	34	32
Methylene chloride	16	14
n-Heptane	76	69
n-Hexane	60	55
Tetrachloroethylene (PCE)	1,300	1,100
Toluene	59	56
Trichloroethylene (TCE)	400	360
Trichlorofluoromethane	24	20

Sample ID:	LSV-2-20130701
Sample Date:	7/1/2013
Units:	ug/m³
VOCs	
1,1,1-Trichloroethane	3.7
1,1-Dichloroethane	2.2
1,3-Dichlorobenzene	15
Benzene	54
Chloroform	52
cis-1,2-Dichloroethylene	4.5
Cyclohexane	59
Ethyl Benzene	8.9
n-Heptane	130
n-Hexane	100
o-Xylene	10
Tetrachloroethylene (PCE)	170
Toluene	100
Trichloroethylene (TCE)	450
Trichlorofluoromethane	33

Sample ID:	LSV-5-20130701
Sample Date:	7/1/2013
Units:	ug/m³
VOCs	
1,1,1-Trichloroethane	3.4
1,1-Dichloroethane	2
1,3-Dichlorobenzene	14
Benzene	48
Chloroform	47
cis-1,2-Dichloroethylene	3.6
Cyclohexane	51
Ethyl Benzene	8
n-Heptane	110
n-Hexane	88
o-Xylene	9.1
Tetrachloroethylene (PCE)	93
Toluene	96
Trichloroethylene (TCE)	390
Trichlorofluoromethane	32

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Legend

- Soil Vapor Sample Location
- 1-Acre Grid Cell
- Brownfield Cleanup Program Site Boundary
- Fashion Outlets Of Niagara Falls Site Boundary



LANGAN

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and
Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

**FONF Expansion/
Sabre Park BCP**

TOWN OF NIAGARA

NIAGARA COUNTY

NEW YORK

Drawing Title

**REMEDIAL
INVESTIGATION
SOIL VAPOR SUMMARY**

Project No.

140091401

Date

11/14/2014

Scale

1"=300'

Drawn By

JPH

Submission Date

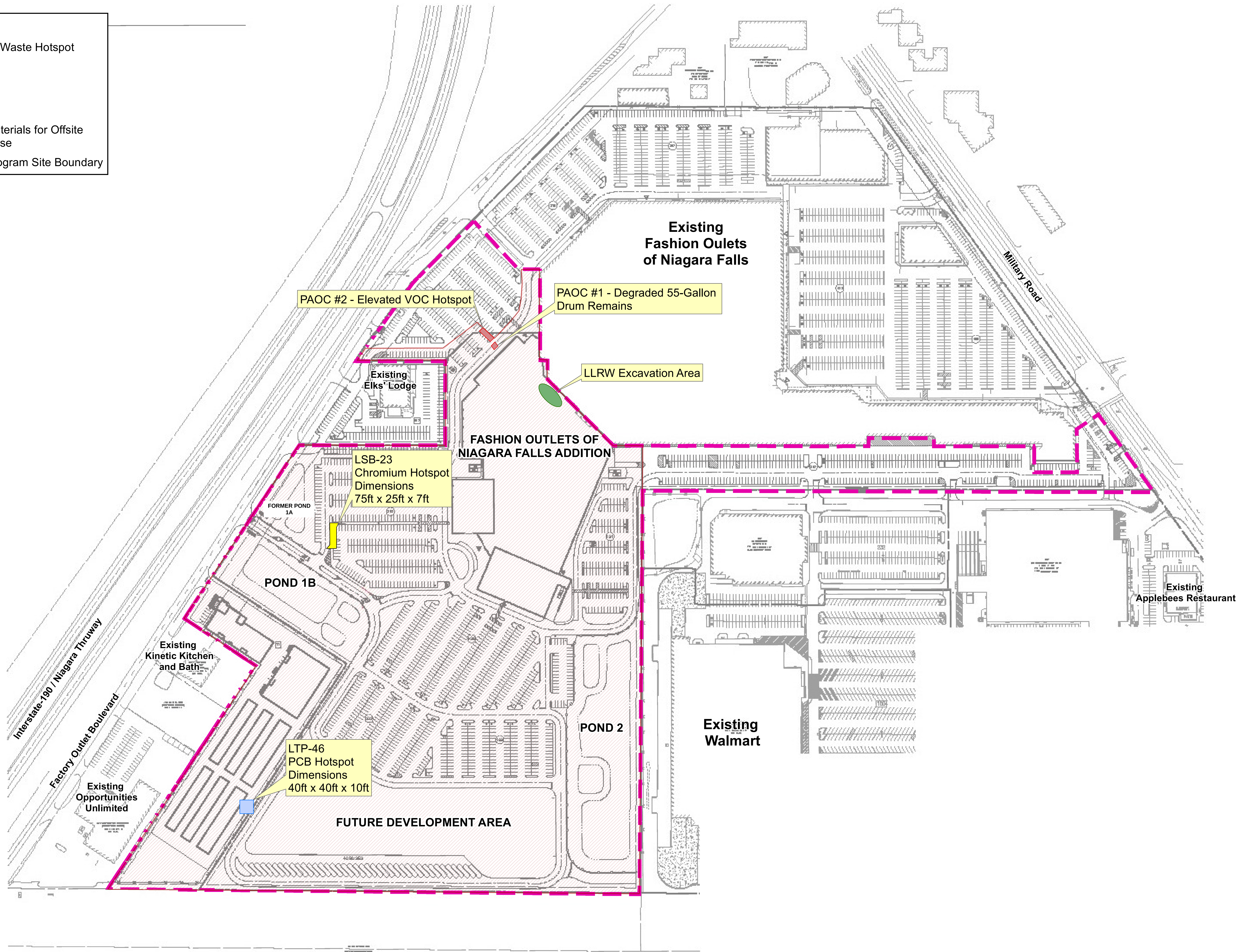
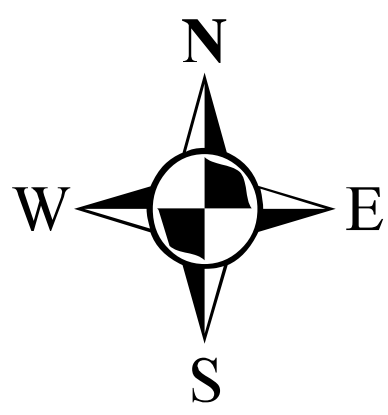
11/15/2014

Figure

6

Legend

- Low Level Radioactive Waste Hotspot
- Chromium Hotspot
- PCB Hotspot
- PAOC #1 and #2
- Areas of Excavated Materials for Offsite Disposal or Onsite Reuse
- Brownfield Cleanup Program Site Boundary



Notes:

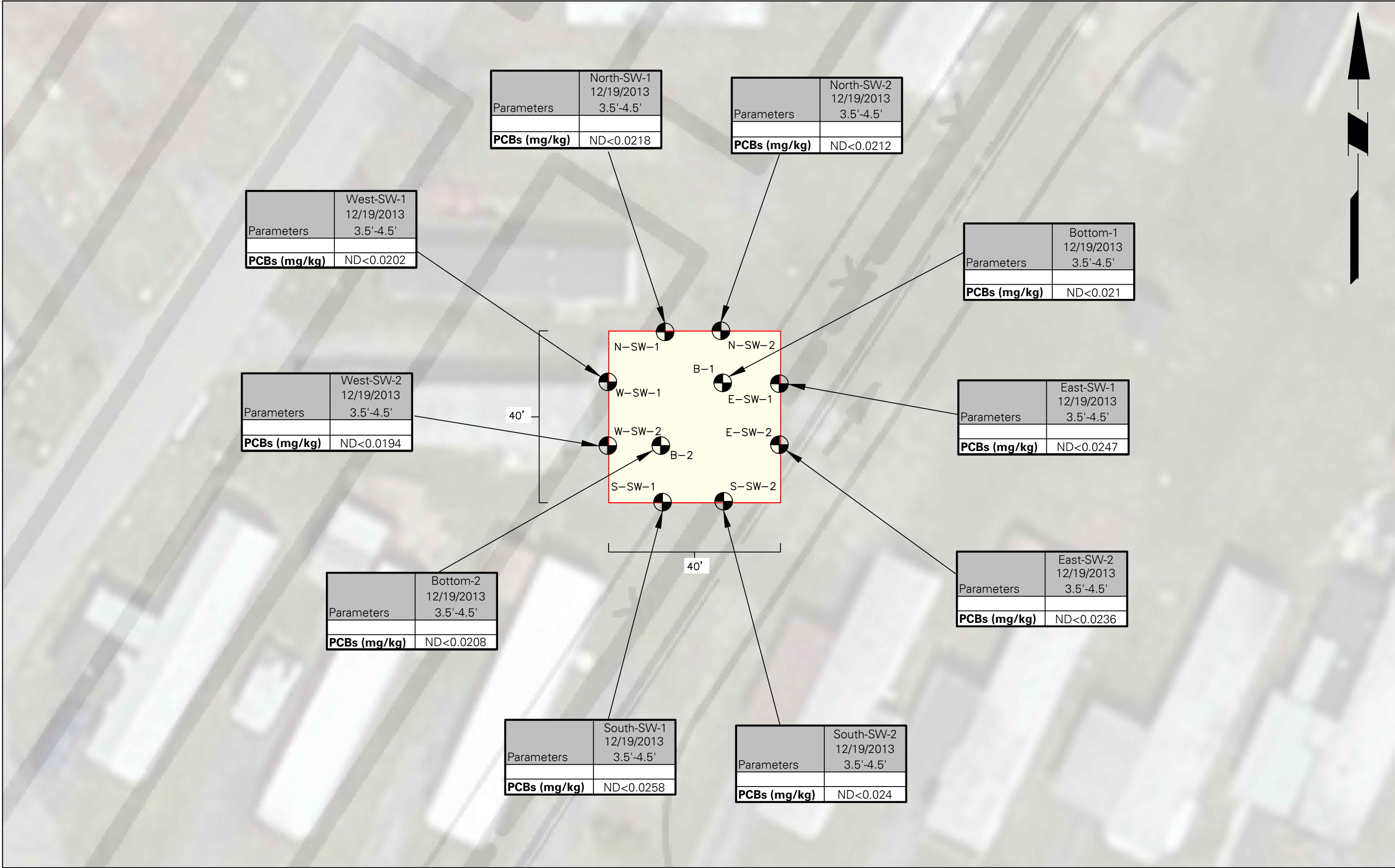
- The site boundary is based on the Topographic Survey prepared by Stantec Consulting Services, Inc. last updated on February 21, 2013 and Drawing No. V-14 titled Exhibit D - Brownfield Cleanup Program Parcel prepared by Stantec Consulting Services Inc. dated April 16, 2013.
- The basemap was provided by Stantec Consulting Services, Inc. on August 27, 2014 and is identified as Drawing CS 100 - Overall Site Plan.
- This plan should be reviewed as a color copy as the sample locations are color coordinated.

WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless he is acting under the direction of a licensed professional engineer, to alter this item in any way.

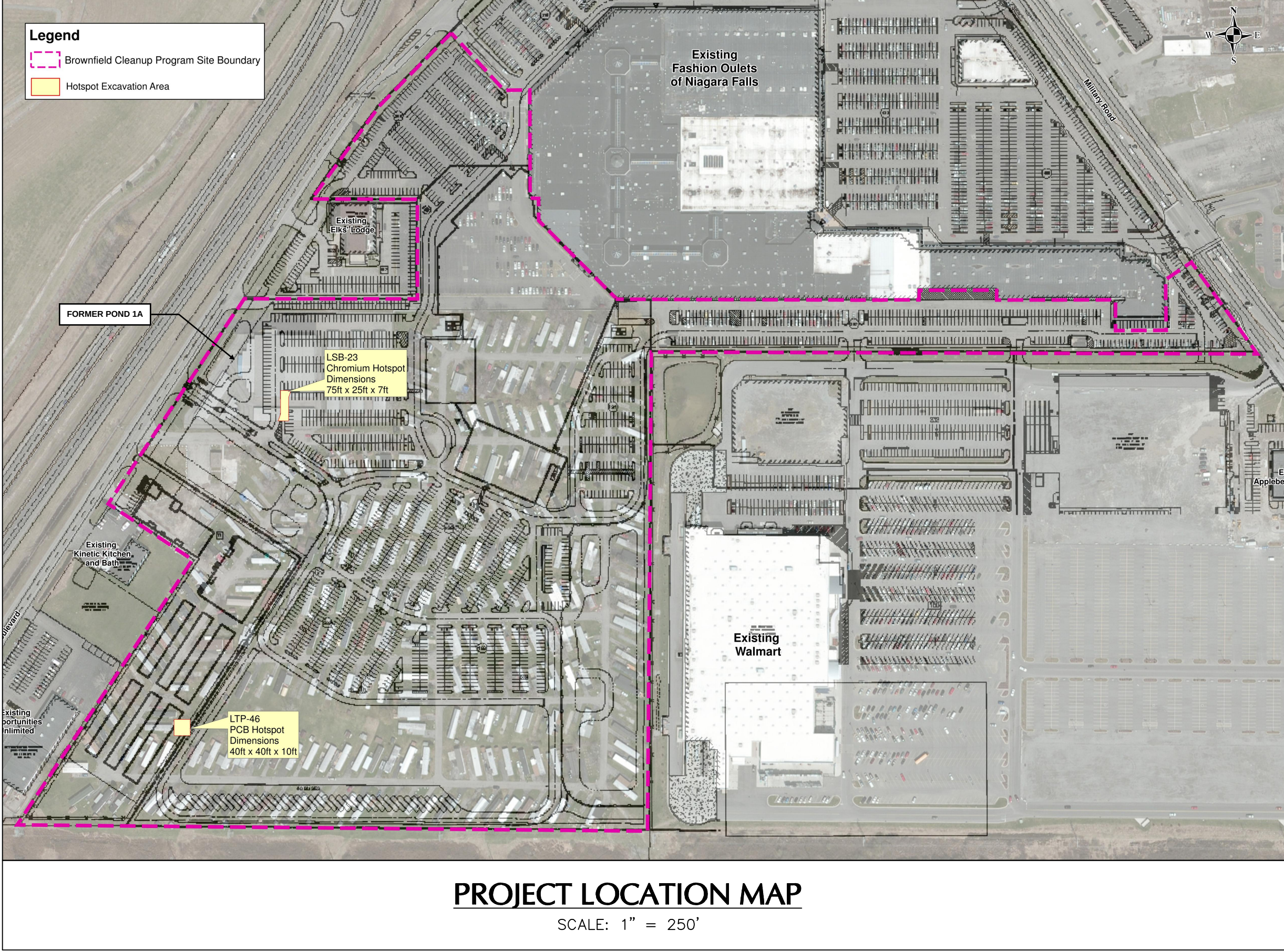
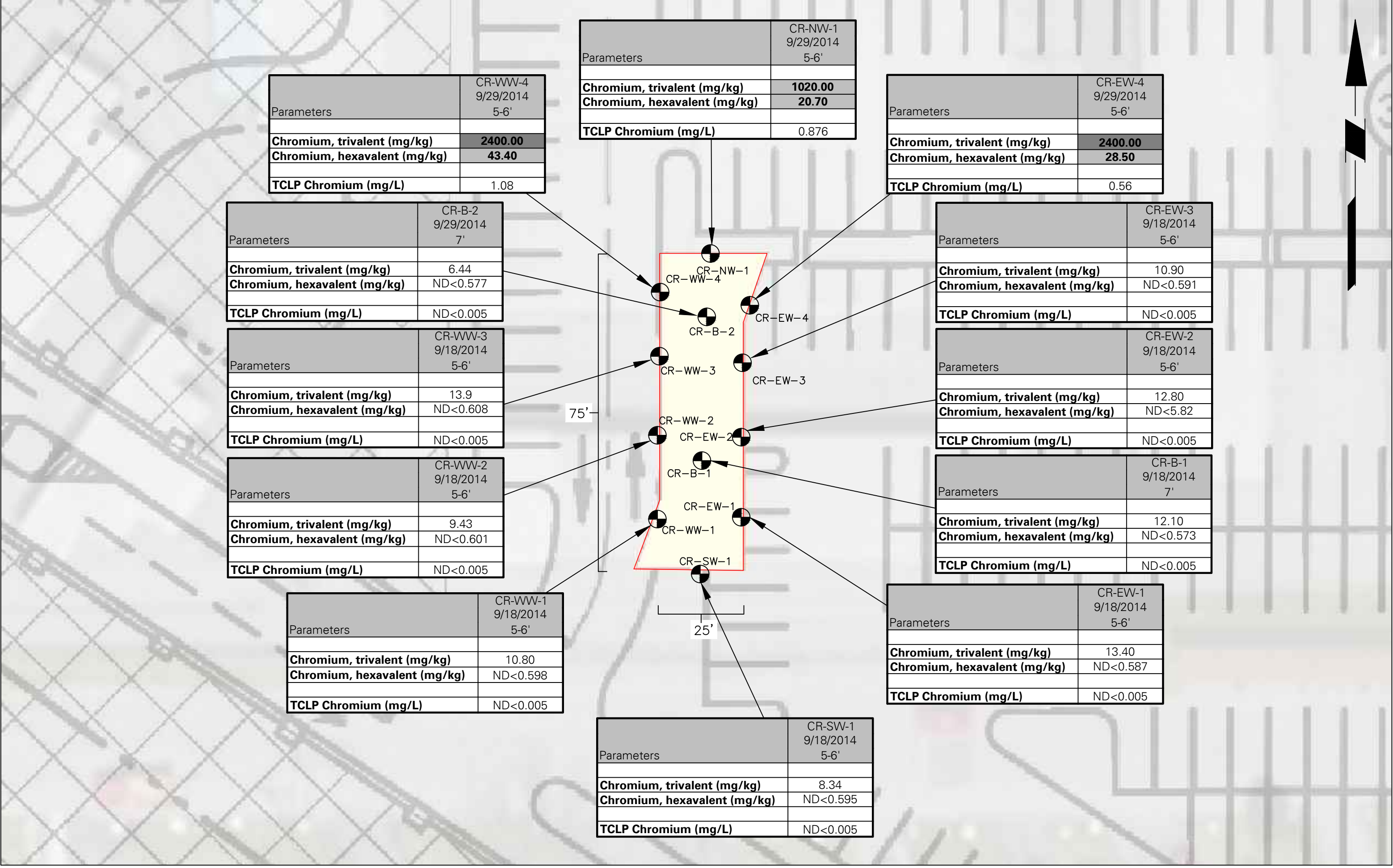


LANGAN River Drive Center 1, 100 River Drive, Elmwood Park, NJ 07632-1338 T: 201-794-6300 F: 201-794-6305 www.langan.com NEW JERSEY NEW YORK MICHIGAN CALIFORNIA PENNSYLVANIA CONNECTICUT FLORIDA MASSACHUSETTS TEXAS ILLINOIS INDIANA LANGAN ENGINEERING & CONSULTANTS, INC. Langan Engineering & Consultants, Inc. is an Equal Opportunity Employer. Langan Engineering & Consultants, Inc. is an Equal Opportunity Employer. Langan Engineering & Consultants, Inc. is an Equal Opportunity Employer. Langan Engineering & Consultants, Inc. is an Equal Opportunity Employer. Langan Engineering & Consultants, Inc. is an Equal Opportunity Employer.	Project	FONF Expansion/ Sabre Park BCP	Drawing Title	REMEDIAL ACTION SITE PLAN	Project No.	140091401	Figure	7
	Location	TOWN OF NIAGARA			Date	11/14/2014		
	County	NIAGARA COUNTY			Scale	1"= 100'		
	State	NEW YORK			Drawn By	JPH		
					Submission Date	11/15/2014		

PCBs EXCEEDING 10-PPM HOTSPOT



HAZARDOUS CHROMIUM HOTSPOT



Compound	NYSDEC Subpart 375-6: Remedial Program Soil Cleanup Objectives		RCRA Hazardous Waste Criteria
	Unrestricted Use	Restricted Commercial	
PCBs (mg/kg)	0.1	1	—
Trivalent Chromium (mg/kg)	30	1500	—
Hexavalent Chromium (mg/kg)	1	400	—
TCLP Chromium (mg/L)	—	—	5

Unrestricted Use SCOs Exceedances are Bold and Shaded Lightly
Restricted Commercial SCO Exceedances are Bold and Shaded Darkly

LEGEND

S-SW-1 POST-EXCAVATION ENDPOINT SAMPLE

- NOTES
1. AERIAL BASEMAP IS PROVIDED THROUGH LANGAN'S ESRI ARCGIS SOFTWARE LICENSING AND ARCGIS ONLINE. SOURCE OF AERIAL IMAGERY IS US-NY-BUFFALO FROM 15 APRIL 2011.
 2. THE BASEMAP WAS PROVIDED BY STANTEC CONSULTING SERVICES, INC. ON AUGUST 27, 2014 AND IS IDENTIFIED AS DRAWING CS 100 - OVERALL SITE PLAN.
 3. ENDPOINT SOIL SAMPLE RESULTS WERE COMPARED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION (NYSDEC) TITLE 6 OF THE OFFICIAL RULES AND REGULATIONS (NYCRR) PART 375 RESTRICTED COMMERCIAL USE PROTECTION OF GROUNDWATER AND SOIL CLEANUP OBJECTIVES (SCO).
 4. ND = NO DETECTIONS
 5. mg/kg = MILLIGRAM PER KILOGRAM
 6. PCB = POLYCHLORINATED BIPHENYLS
 7. UNRESTRICTED USE SCO EXCEEDANCES ARE BOLD AND LIGHTLY SHADED.
 8. RESTRICTED COMMERCIAL USE SCO EXCEEDANCES ARE BOLD AND DARKLY SHADED.
 9. THERE WERE NO RCRA HAZARDOUS WASTE CRITERIA EXCEEDANCES.



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

LANGAN 555 Long Wharf Drive, New Haven, CT 06511 T: 203.562.5772 F: 203.789.6142 www.langan.com NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO VIRGINIA WASHINGTON DC FLORIDA NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan ES, Inc. Langan Environmental LLC Collectively known as Langan	Project FONF EXPANSION/ SABRE PARK BCP TOWN OF NIAGARA NIAGARA FALLS NEW YORK	Drawing Title ENDPOINT SAMPLE LOCATIONS AND RESULTS MAP	Project No. 140091402	Drawing No. 8
			Date 11/14/2014 Scale 1"=20' Drawn By JPH Submission Date 11/15/2014	

Sheet 1 of 1

Legend

 Brownfield Cleanup Program Site Boundary

 Fashion Outlets Of Niagara Falls Site Boundary

2013 Remedial Investigation Sample Locations

- Soil Boring
- Boring/Monitoring Well
- Test Pit

Sample ID:	LSB-2-A-20130627	LSB-2-B-20130627
Sample Date:	6/27/2013	6/27/2013
Sampling Depth:	2'-4'	10'-12'
Units:	mg/kg	mg/kg
Metals		
Arsenic	21.8	5.25
Depth Under Cap (ft):	2.5	10.5

Sample ID:	LSB-26-A-20130625	LSB-26-B-20130625
Sample Date:	6/26/2013	6/26/2013
Sampling Depth:	4'-6'	10'-12'
Units:	mg/kg	mg/kg
PCBs		
Total PCBs	17.1	ND
Depth Under Cap (ft):	5	11

Sample ID:	LSB-21-A-20130626	LSB-21-B-20130626
Sample Date:	6/26/2013	6/26/2013
Sampling Depth:	2'-4'	4'-6'
Units:	mg/kg	mg/kg
SVOCs		
Benzo(a)anthracene	9.96 J	1.14
Benzo(a)pyrene	7.98 J	0.878
Benzo(b)fluoranthene	9.92	1.43
Depth Under Cap (ft):	2	4

Sample ID:	LSB-32-A-20130626	LSB-32-B-20130626
Sample Date:	6/26/2013	6/26/2013
Sampling Depth:	3'-5'	6'-8'
Units:	mg/kg	mg/kg
Metals		
Chromium, Trivalent	2.88	12.1
Depth Under Cap (ft):	5.5	8.5

Sample ID:	LTP-21-A-20130627	LTP-21-B-20130627
Sample Date:	6/27/2013	6/27/2013
Sampling Depth:	3'-5'	5'-7'
Units:	mg/kg	mg/kg
SVOCs		
Benzo(a)pyrene	1.22	0.551
Depth Under Cap (ft):	5.5	7.5

Sample ID:	FD-4-20130627 (LTP-22-A)	LTP-22-A-20130627
Sample Date:	6/27/2013	6/27/2013
Sampling Depth:	2'-4'	2'-4'
Units:	mg/kg	mg/kg
Metals		
Barium	104 J	477 J
Chromium, Trivalent	1,740 J	87.5 J
SVOCs		
Benzo(a)pyrene	0.18 J	1,21 J
Depth Under Cap (ft):	4	4

Sample ID:	LTP-24-A-20130702	LTP-24-B-20130702
Sample Date:	7/2/2013	7/2/2013
Sampling Depth:	6'-2'	3'-5'
Units:	mg/kg	mg/kg
SVOCs		
Benzo(a)pyrene	1.21	ND
Depth Under Cap (ft):	2.5	5.5

Sample ID:	LTP-33-A-20130702	LTP-33-B-20130702
Sample Date:	7/2/2013	7/2/2013
Sampling Depth:	3'-5'	5'-7'
Units:	mg/kg	mg/kg
SVOCs		
Benzo(a)anthracene	25.3	0.184 J
Benzo(a)pyrene	21	0.188 J
Benzo(b)fluoranthene	21.3	0.162 J
Dibenz(a,h)anthracene	2.37	ND
Indeno(1,2,3-c,d)pyrene	12.6	0.0674 J
Depth Under Cap (ft):	5.5	7.5

Sample ID:	LSB-43-A-20130625	LSB-43-B-20130625
Sample Date:	6/25/2013	6/25/2013
Sampling Depth:	2'-4'	6'-8'
Units:	mg/kg	mg/kg
Metals		
Chromium, Trivalent	2.379	20.8
Depth Under Cap (ft):	3	

Sample ID:	LSB-57-A-20130702	LSB-57-B-20130702
Sample Date:	7/2/2013	7/2/2013
Sampling Depth:	2'-4'	5'-7'
Units:	mg/kg	mg/kg
SVOCs		
Benzo(a)pyrene	0.966 J	3.78 J
Depth Under Cap (ft):	3	

Sample ID:	LTP-60-A-20130701	LTP-60-B-20130701
Sample Date:	7/1/2013	7/1/2013
Sampling Depth:	0'-2'	3'-5'
Units:	mg/kg	mg/kg
SVOCs		
Benzo(a)pyrene	1.24 J	ND J
Depth Under Cap (ft):	5	8

Sample ID:	LTP-37-A-20130702	LTP-37-B-20130702
Sample Date:	7/2/2013	7/2/2013
Sampling Depth:	2'-4'	3'-5'
Units:	mg/kg	mg/kg
SVOCs		
Benzo(a)pyrene	2.28 J	ND J
Depth Under Cap (ft):	3	9

Sample ID:	LSB-61-A-20130625	LSB-61-B-20130625
Sample Date:	6/25/2013	6/25/2013
Sampling Depth:	1.5'-3.5'	6'-8'
Units:	mg/kg	mg/kg
Metals		
Chromium, Trivalent	4.330	57.2
Depth Under Cap (ft):	5	9.5

Sample ID:	LTP-65-A-20130629	LSB-46-B-20130626
Sample Date:	6/29/2013	6/26/2013
Sampling Depth:	0'-2'	4'-6'
Units:	mg/kg	mg/kg
SVOCs		
Benzo(a)pyrene	1.73	ND
Depth Under Cap (ft):	2.5	4.5

Sample ID:	LSB-46-A-20130626	LSB-46-B-20130626
Sample Date:	6/26/2013	6/26/2013
Sampling Depth:	2'-4'	4'-6'
Units:	mg/kg	mg/kg
SVOCs		
Benzo(a)pyrene	1.73	ND
Depth Under Cap (ft):	2.5	4.5

Remaining Soil Contamination GPS Locations			
Sample ID	X coordinate	Y coordinate	Coordinate Unit
LSB- 26 / MW - 4	1041678.3730	1128304.9650	Feet
LSB- 35 / MW - 5	1042016.9850	1128194.9480	Feet
LSB- 61 / MW - 6	1041224.2830	1127685.2650	Feet
LSB- 43 / MW - 8	1041788.8420	1127346.6730	Feet
LSB- 76	1043781.6580	1128451.0420	Feet
LSB- 2	1041717.4320	1128985.0780	Feet
LSB- 10	1041907.3580	1128869.9410	Feet
LSB- 21	1041336.9980	1128473.9580	Feet
LSB- 36	1042270.3950	1128107.4520	Feet
LSB- 32	1041444.1380	1128237.9690	Feet
LSB- 46	1042039.7270	1127904.7920	Feet
LSB- 37	1041596.2680	1127801.5180	Feet
LSB- 57	1040955.1470	1127416.5340	Feet
LSB- 40	1041800.7713	1128019.5435	Feet
LSB- 34	1041863.1830	1128244.2968	Feet
LTP- 65	1041855.1370	1127423.3030	Feet
LTP- 60	1041293.4330	1127419.6080	Feet
LTP- 24	1041422.9500	1127915.1530	Feet
LTP- 22	1041215.9300	1128016.2090	Feet
LTP- 21	1041138.8250	1128036.5370	Feet
LTP- 33	1041261.1330	1127828.3950	Feet
LTP- 60	1041293.4330	1127419.6080	Feet

NYSDEC Subpart 375-B Remedial Program Soil Cleanup Objectives		
Objectives	Restricted Commercial (mg/kg)	
SVOCs		
Benzo(a)anthracene	5.5	
Benzo(a)pyrene	1	
Dibenz(a,h)anthracene	0.86	
Indeno(1,2,3-c,d)pyrene	5.5	
PCBs		
Total PCBs	1	
Metals		
Arsenic	18	
Barium	400	
Chromium, Trivalent	1,500	
Chromium, Hexavalent	400	
Lead	1,000	
Mercury	2.8	
Nickel	310	

Notes:
 1. The site boundary is based on the Topographic Survey prepared by Stantec Consulting Services, Inc. last updated on February 21, 2013 and Drawing No. V-14 titled Exhibit D - Brownfield Cleanup Program Parcel prepared by Stantec Consulting Services Inc. dated April 16, 2013.
 2. The base map was provided by Stantec Consulting Services, Inc. on August 27, 2014 and is identified as Drawing CS 100 - Overall Site Plan.
 3. Sample locations were surveyed by Langan July 3, 2013 with a Trimble RTK GPS Unit, referencing the New York State Department of Transportation (NYSDOT) cooperative base station network.
 4. This plan should be reviewed as a color copy as the sample locations are color coordinated.
WARNING: It is a violation of the NYS Education Law Article 145 for any person, unless he is acting under the direction of a licensed professional engineer, to alter this item in any way.

80 0 80
SCALE IN FEET

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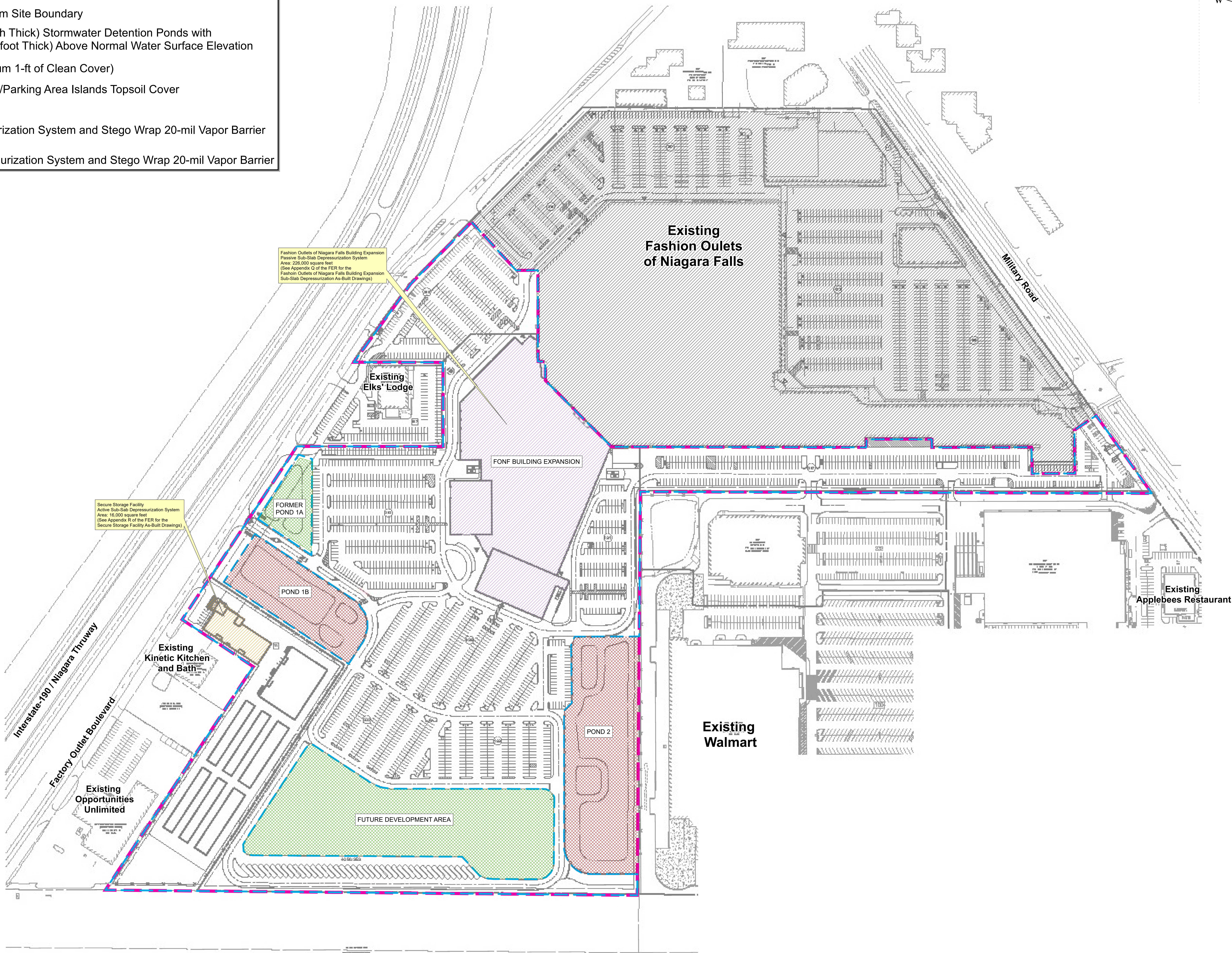
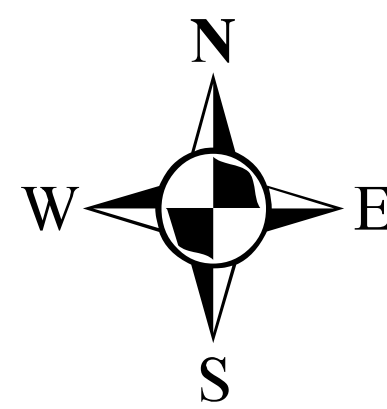
Project
**FONF Expansion/
 Sabre Park BCP**
 TOWN OF NIAGARA
 NIAGARA COUNTY NEW YORK

Drawing Title
**LOCATION OF REMAINING
 SOIL CONTAMINATION
 ABOVE COMMERCIAL SCOs**

Project No. 140091401
 Date 11/14/2014
 Scale 1" = 80'
 Drawn By JPH
 Submission Date 11/15/2014
 Figure 9

Legend

- Fashion Outlets Of Niagara Falls Site Boundary
- Brownfield Cleanup Program Site Boundary
- Clay Lined (Minimum 6-inch Thick) Stormwater Detention Ponds with Topsoil Cover (Minimum 1-foot Thick) Above Normal Water Surface Elevation
- Landscaped Areas (Minimum 1-ft of Clean Cover)
- Asphalt Cap/Concrete Cap/Parking Area Islands Topsoil Cover (Minimum 1-foot Thick)
- Active Sub-Slab Depressurization System and Stego Wrap 20-mil Vapor Barrier
- Passive Sub-Slab Depressurization System and Stego Wrap 20-mil Vapor Barrier



Notes:
1. The site boundary is based on the Topographic Survey prepared by Stantec Consulting Services, Inc. last updated on February 21, 2013 and Drawing No. V-14 titled Exhibit D - Brownfield Cleanup Program Parcel prepared by Stantec Consulting Services Inc. dated April 16, 2013.
2. The basemap was provided by Stantec Consulting Services, Inc. on August 27, 2014 and is identified as Drawing CS 100 - Overall Site Plan.
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Project
FONF Expansion/
Sabre Park BCP
TOWN OF NIAGARA
NIAGARA COUNTY
NEW YORK

Drawing Title
LOCATION OF
ENGINEERING
CONTROLS AND
COVER SYSTEM TYPES

Project No.	140091401	Figure	10
Date	DECEMBER 2019		
Scale	1"= 100'		
Drawn By	JPH		
Submission Date	DECEMBER 2019		

DIRECTIONS

Drive 1.1 miles, 2 min

○ Sabre Dr

Niagara Falls, NY 14304

↑ 1. Head southwest on Factory Outlet Blvd toward Sabre Park

0.2 mi

↑ 2. Continue onto 66th St

0.3 mi

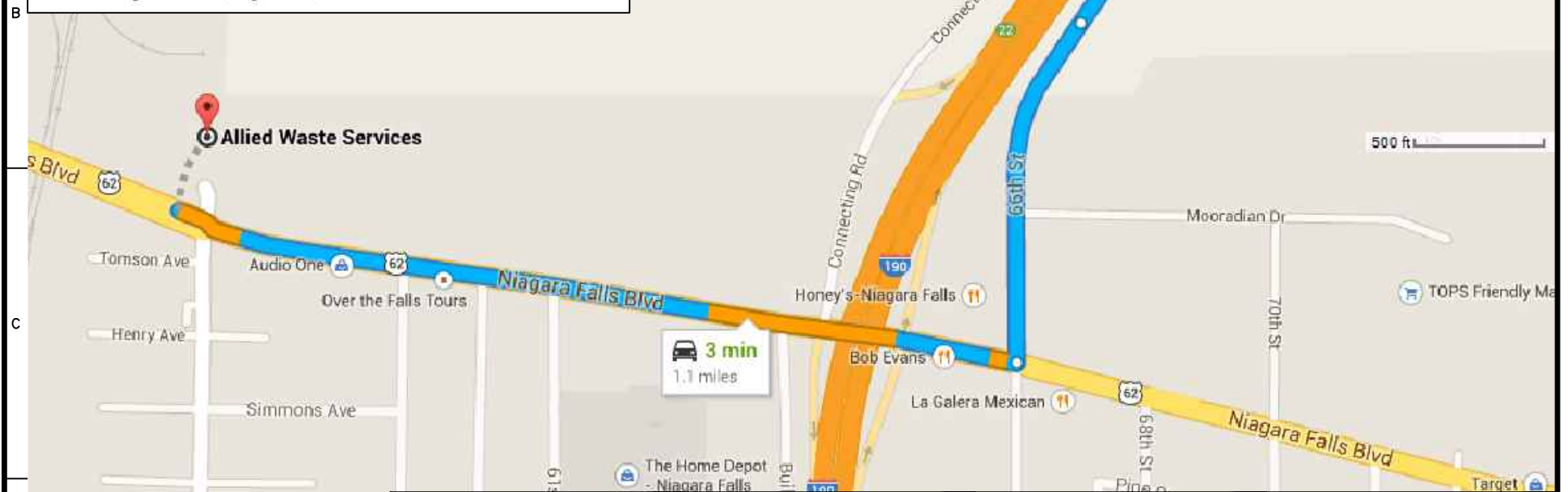
➔ 3. Turn right onto Niagara Falls Blvd

➊ Destination will be on the right

0.6 mi

⊙ Allied Waste Services

5600 Niagara Falls Blvd, Niagara Falls, NY 14304



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Project

FONF Expansion/ Sabre Park BCP

TOWN OF NIAGARA

NIAGARA COUNTY

NEW YORK

Drawing Title

TRUCK TRANSPORT ROUTE - ALLIED WASTE LANDFILL

Project No.
140091402

Date
7/18/2014

Scale
NTS

Drawn By
SEC

Checked By
JPH

Submission Date
11/15/2014

Drawing No.

11a

DIRECTIONS

Drive 8.7 miles, 15 min

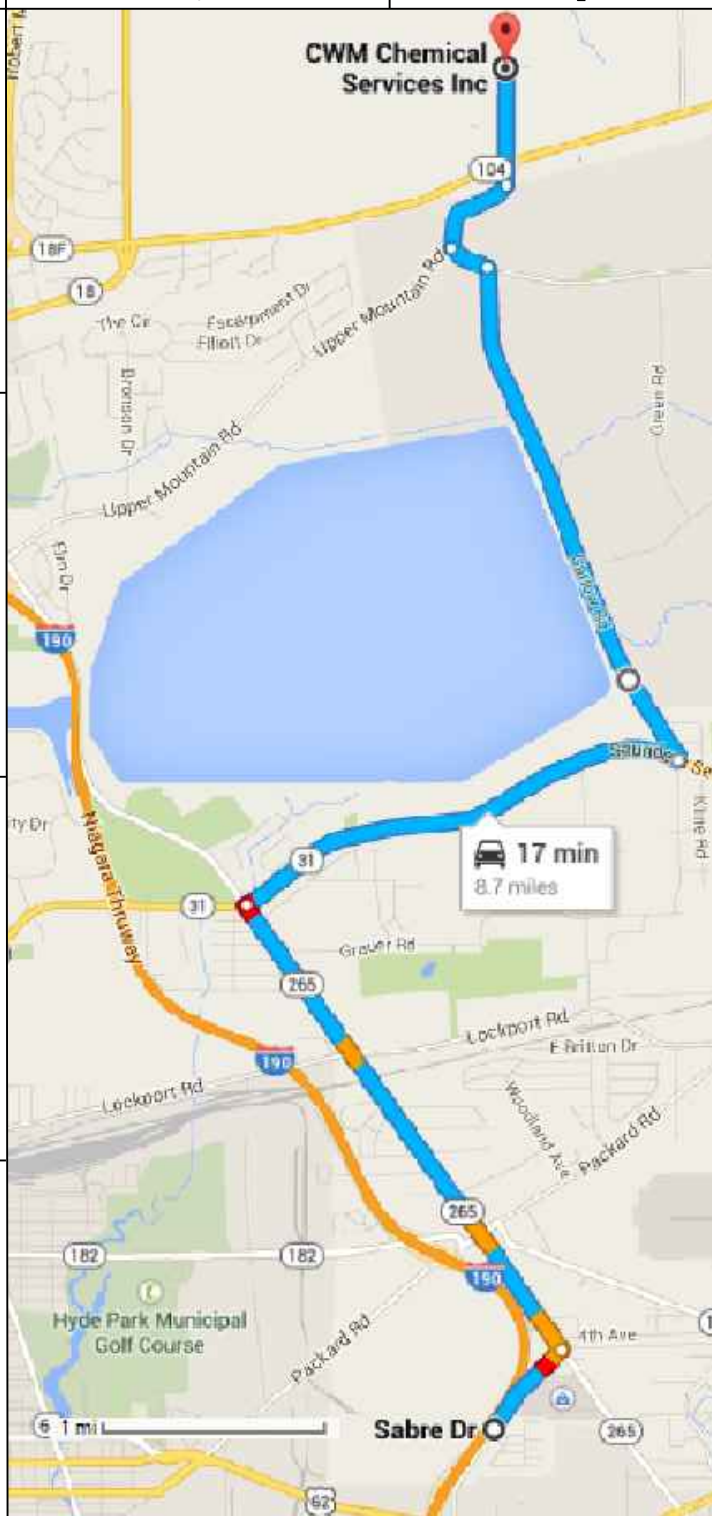
○ Sabre Dr

Niagara Falls, NY 14304

- ↑ 1. Head northeast on Factory Outlet Blvd 0.5 mi
- ↙ 2. Turn left onto NY-265 N 2.6 mi
- ↘ 3. Turn right onto NY-31 E 2.2 mi
- ↙ 4. Turn left onto Garlow Rd 2.4 mi
- ↙ 5. Turn left onto Upper Mountain Rd 0.2 mi
- ↘ 6. Turn right onto Indian Hill Rd 0.4 mi
- ↙ 7. Slight left onto Model City Rd 0.5 mi

● CWM Chemical Services Inc

1550 Balmer Rd, Model City, NY 14107



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Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project

FONF Expansion/ Sabre Park BCP

TOWN OF NIAGARA

NIAGARA COUNTY

NEW YORK

Drawing Title

TRUCK TRANSPORT ROUTE - CHEMICAL WASTE MANAGEMENT LANDFILL

Project No.

140091401

Date

7/18/2014

Scale

NTS

Drawn By
SEC

Checked By
JPH

Submission Date
7/18/2014

Drawing No.

11b