

**INTERIM REMEDIAL MEASURES
WORK PLAN
NORTHTOWN INC.
AMHERST, NEW YORK
BROWNFIELD CLEANUP PROGRAM
SITE NO. C915292**

Prepared For:

New York State Department of Environmental Conservation
Region 9
Buffalo, New York

Prepared By:

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Buffalo, New York

May 2015
File No: 31.0056687.30

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CERTIFICATION

I, Bart A. Klettke, P.E., certify that I am currently a NYS registered professional engineer and that this Interim Remedial Measures Work 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).



A handwritten signature in blue ink that reads 'Bart A. Klettke'.

Bart A. Klettke, P.E.

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May 2015

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1.0 INTRODUCTION

1.1 PURPOSE AND OBJECTIVE

This Interim Remedial Measures (IRM) Work Plan has been developed by GZA GeoEnvironmental of New York (GZA), on behalf of Northtown Associates, LLC (Northtown), for IRM activities associated with the Northtown Inc. Brownfield Cleanup Program (BCP) Site No. C915292 (Site). Northtown Plaza is approximately 18.6 acres in size and is located at 3045 Sheridan Drive, Amherst, New York, and the BCP Site is comprised of three Areas of Interest (AOIs) which are a combined total of 1.51 acres, as shown on Figures 1 and 2. The work described in this IRM Work Plan will be performed under a New York State Department of Environmental Conservation (NYSDEC) BCP Agreement. This IRM Work Plan presents the project scope, objectives, planned activities, sampling procedures and reporting requirements.

The planned IRMs include the following:

- AOI1: removal of underground storage tank (UST) and associated impacted soil;
- AOI2: removal of underground storage tank (UST) and associated impacted soil;
- AOI3:
 - removal of soil impacted with Tetrachloroethene (PCE) at concentrations greater than the soil cleanup objectives (SCOs) for commercial use property (as depicted on Figure 5);
 - Installation of sub-slab depressurization systems at two tenant units within AOI3; and
 - Installation of sub-slab depressurization system at the building adjacent to the west of AOI3.

1.2 PROJECT BACKGROUND

The proposed BCP Site consists of three AOIs collectively comprising approximately 1.5 acres of an approximately 18.6 acre parcel of land on which the Northtown Plaza is located. Currently the Plaza Site is occupied by six commercial buildings, most containing multiple tenant spaces. The Site is bordered by other areas of the Northtown Shopping Plaza and beyond that Sheridan Drive to the North, Eggert Road to the south, Bailey Avenue to the east and Niagara Falls Boulevard to the west. Northtown Shopping Plaza is located in a commercial business area along Sheridan Drive and Niagara Falls Boulevard. The primary use of the area is as a shopping district, with major retailers located within a ½ mile of the Site. Residential properties are located on the side streets surrounding the site. Figure 2 presents a site plan.

The Site appears to have been agricultural land until it was developed for commercial use in the early-1950s. Site development occurred from the mid-1950s to 1983 when it reached site usage similar to today. Site occupant uses of environmental concern have included a dry cleaner. On-site dry cleaning operations ceased at the Site in the 1990s but there currently is an active pick-up/drop-off dry cleaning business in the same location (cleaning operation is performed at an off-site facility).

No underground storage tanks (USTs) are currently being used at the Site or other portions of Northtown Plaza. However, two USTs formerly used for heating oil remain at the Site.

A Phase I Environmental Site Assessment completed by GZA for the entire Northtown Plaza property in accordance with ASTM 1527 identified Recognized Environmental Conditions (RECs) including the former use of USTs (see above) and the former on-site dry cleaning operations at the Site.

A Phase II Environmental Site Assessment was completed by GZA to assess the RECs identified in the Phase I. The assessment included the following:

- The completion of 51 soil probes and the installation of 3 groundwater monitoring wells;
- The analyses of 53 soil samples for Target Compound List (TCL) Volatile Organic Compounds (VOCs) EPA Method 8260, Spill Technology and Remediation Series (STARS) Semi-Volatile Organic Compounds (SVOCs) EPA Method 8270, and Poly Chlorinated Biphenyl's (PCBs) EPA Method 8082;
- The analyses of three groundwater samples for TCL VOCs EPA Method 8260;
- Indoor air and sub-slab soil vapor sampling at three tenant spaces;
- A camera survey of sewer lines associated with the dry cleaning unit; and
- A Ground Penetrating Radar (GPR) study of known current and past UST locations.

Soil impacts were detected at three discreet locations: proximate to the two abandoned fuel oil USTs locations, and in the vicinity of the dry cleaners unit. No VOCs were detected above the NYSDEC Class GA Criteria in groundwater collected from these three overburden monitoring wells completed at the Site.

Limited areas of visual and olfactory evidence of petroleum were encountered adjacent to the southern (AOI1) and western (AOI2) inactive heating oil USTs. NYSDEC was notified on May 9, 2014 and spill number 1401409 was assigned for both USTs. The extent of impact is limited to the uppermost 6 to 8 feet of soils immediately adjacent to the USTs. Approximately 20 soil probes were completed on the west side of the dry cleaner's space (AOI3). Fifty three soil samples were analyzed for VOCs. PCE was detected above the Unrestricted Soil Cleanup Objectives (USCO) in 16 soil samples, above the Commercial Soil Cleanup Objectives (CSCO) in two samples, and above the Industrial Soil Cleanup Objectives (ISCO) in one sample. The PCE impacts were restricted to a depth between 6 and 18 feet below ground surface. No surficial soil impacts were identified.

Samples from the monitoring well installed in the area of the PCE soil impacts and two other locations confirmed no impact to groundwater. Groundwater was encountered at approximately 50 feet below ground surface.

To further characterize AOI3, GZA completed a Pre-Design Field Characterization (PDFC) in March and April of 2015. Twenty five additional soil probes were advanced using direct push drilling methods. 18 of these soil probes were located at exterior areas of AOI 3, and 7 were located within the vacant tenant space #13, which is directly north of the dry cleaner space. GZA also installed six, 1-inch diameter, shallow water monitoring wells at six of the soil probe locations.

The following field samples were collected as part of the PDFC:

- 32 subsurface soil samples;
- 7 Sub-slab soil vapor samples from tenant spaces;
- 7 indoor air samples, co-located with corresponding sub-slab soil vapor samples;
- 2 soil gas samples from beneath pavement; and
- 5 pore water samples, from the 5 wells that produced water of sufficient volume to sample.

All of the above samples were analyzed for chlorinated volatile organic compounds (CVOCs).

Results of the PDFC are summarized as follows:

- Thirty of the 32 subsurface soil samples contained no PCE or PCE at a concentration lower than the CSCO. The two other samples (SP-62 (16-17) and SP-56 (14-15)) contained PCE at a concentration greater than the CSCO, one of which also exceeded the industrial SCO (ISCO).
- The results of soil vapor sampling performed at the six tenant spaces, north of the vacant which adjoins the drycleaner, indicates that vapor intrusion is not occurring in those spaces.
- Soil vapor collected from beneath the building to the west of AOI3 contained PCE and other chlorinated VOCs at elevated concentrations. Indoor air sampling indicates no impact to air in that building.

Pore water samples collected from the moist upper overburden at the two wells located within the known area of soil impact contained PCE at concentrations greater than the NYSDEC standard used for drinking water wells. Based on the composition of the till layer and very slow to lack of water recharge to the wells completed in the till confining layer, water encountered in the shallow wells is not considered to be groundwater from an aquifer but rather pore water from the tight clay till. Since there are no standards or criteria for pore water, NYSDEC Class GA groundwater standards were used for discussion purposes only. VOCs were not detected in the other three pore water samples.

Soil gas samples collected near the east and west boundaries of AOI3 contained PCE at concentrations less than 10 µg/m³. The State of New York does not have standards, criteria or guidance values for concentrations of VOCs in subsurface soil vapors. For reference

however, the concentrations detected were well below the NYSDOH indoor/outdoor air guidance values (AGV).

Hydrogeologic conditions encountered during the PDFC include:

- Subsurface soils to depths up to 24 feet consist of glacial till composed of clay with varying size and amounts of gravel and sand.
- The fine-grained compact nature of the subsurface soil inhibits flow of subsurface water and acts as a confining layer above the water bearing zone encountered during the Phase II investigation at significant depth (between 45 and 55 feet).
- The Moist soils observed in the zero to 24 feet depth at the Site yielded no to little pore water.
- Water samples collected were of very high turbidity and are not representative of actual groundwater but are more so pore water or residual water maintained by capillary tension exerted by the soil pores.

Based on the results of the Phase II and PDFC, only four small areas of significant PCE impacted subsurface soil were identified at the Site, which areas correspond to the immediate vicinity of the four (of 83) soil samples that exceeded CSCOs for PCE: SP-23, SP-47, SP-56, and SP-62. The extent of impact at each of these areas is limited. Soil samples collected from probes surrounding these four data points contained PCE at concentrations below the CSCO.

1.3 PROJECT DESCRIPTION

Removal of USTs:

The IRM activities will involve the removal of two underground storage tanks (USTs) and associated impacted soils located within AOI 1 and AOI 2. One UST is present in each AOI, and both USTs will be removed during the IRM work. Limited soil impacts were observed in both AOIs, and such impacted soils will be excavated and disposed of according to the work plan outlined in the IRM. See Figures 3 and 4 for the approximate locations of AOI 1 and 2 with their respected USTs to be removed and soil excavations. Removal operations are contingent on results of a structural evaluation of the adjoining buildings. If it is determined that removal of the UST(s) could pose a structural risk to the adjacent building, then the subject UST(s) will be closed-in-place and adjacent impacted soils, if present, would be removed if possible without posing similar structural risk to the building.

Removal of PCE Soils:

PCE impacted soils will be removed from AOI 3 at and around the four soil boring locations where PCE concentrations greater than CSCOs were detected. Refer to Figure 5 for the location of AOI 3 and the approximate locations of the soil excavations. Soils will be excavated and disposed of according to this IRM work plan.

Sub-slab depressurization systems (SSDSs) will be installed at the two southernmost tenant spaces of AOI 3 and at the building located directly west of AOI3.. See Figure 6.

1.4 PROJECT MANAGEMENT AND ORGANIZATION

1.4.1 Personnel

The general responsibilities of key project personnel are listed below.

NYSDEC Project Manager – Timothy Dieffenbach will have the responsibility for regulatory oversight for the work associated with BCP Site No. C915292.

Northtown Associates Project Manager – Andrew Manning will have the responsibility for implementing the BCP project and has the authority to commit funding necessary to meet the objectives and requirements.

GZA Project Manager – Jim Richert will be responsible for managing the implementation of the activities associated with the BCP investigation, remediation and coordinating the collection of data during the project. The Project Manager is responsible for technical quality control and project oversight.

Quality Assurance (QA) Officer – Todd Bown will report to the GZA Project Manager and will be responsible for ensuring that QA/QC procedures are being followed. The QA Officer will be responsible for overseeing the review of field and laboratory data.

The QA Officer will monitor the performance of the laboratory to verify that the Data Quality Objectives for the project are met.

Field QA Officer – Todd Bown will be responsible for the overall operation of the field team and reports directly to the GZA Project Manager.

1.4.2 Specific Tasks and Services

GZA will obtain subcontractor specialists for services relating to underground storage tank and contaminated soil removal, soil disposal, design and installation of SSDSs, laboratory services, and data validation services. The subcontractors to be utilized will be determined at a later time.

2.0 DESCRIPTION OF IRM FIELD ACTIVITIES

2.1 GENERAL FIELD ACTIVITIES

General field activities include site meetings, mobilization, implementing the health and safety plan, UST removal, soil excavation, sampling of soil and water, installation of SSDSs, equipment decontamination, and handling of wastes. Subcontractors will be used for removal of the USTs, soil excavations, and analytical testing.

2.1.1 Site Meeting

A Site “kick-off” meeting will be held with Northtown, GZA and subcontractors prior to initiating field work activities. The purpose of the meeting will be to orient field team members, Northtown staff and subcontractors with the Site, project personnel, Site background, scope of work, potential dangers, health and safety requirements, site-specific security and safety protocols, emergency contingencies and other field procedures. NYSDEC staff are welcome to attend and will be notified at least seven days in advance of the meeting.

2.1.2 Mobilization

Following approval of the IRM Work Plan by NYSDEC, the Underground Facilities Protection Organization (UFPO) will be contacted at 1-800-962-7962 to clear excavation and drilling locations. Utility clearance will require three working days by UFPO. GZA and its subcontractors will then mobilize necessary materials and equipment to the Site.

2.1.3 Health and Safety

It is anticipated that the work to be completed at the Site will be performed at level D personal protection. Should health and safety monitoring during field activities warrant an upgrade to level C protection, work will stop, Site conditions will be re-evaluated prior to further remedial activities. See Section 6.0 for additional information on Health and Safety.

2.2 AIR SURVEILLANCE AND MONITORING

During all IRM activities, air surveillance screening for total volatile organics and particulate levels will be performed at the perimeter of the work area for health and safety concerns. Organic vapors will be monitored with a portable organic vapor meter (OVM) equipped with a photoionization detector (PID) using an 11.7 electron volt (eV) bulb. The particulates will be monitored using equipment that is capable of measuring particle size in the 10-micrometer range (PM-10) and can integrate measurements over a 15-minute time frame. The equipment will also have an audible and/or visual alarm indicating an exceedance of the action level.

Additional details on the total organic and particulate monitoring are presented in the Site-specific Health and Safety Plan (see Section 6.0).

2.3 UST AND SOIL EXCAVATIONS

AOI 1 – Fuel Oil UST and Petroleum Impacted Soil Area

One 500-gallon UST is located on the southern portion of the Site, which formerly contained fuel oil for heating purposes. It was confirmed that this UST is no longer in use, and its approximate location was determined through the use of a geophysical survey.

Fuel oil impacted soil was identified from soil probes completed during the Phase II ESA adjacent to the UST. The impacted area identified is estimated to be approximately 12 feet by 46

feet (552 square feet), with a confining depth up to 6 feet bgs, based on soil probes. The estimated volume is approximately 130 cubic yards or about 220 tons of potentially impacted soil (see Figure 3).

AOI 2 – Fuel Oil UST and Petroleum Impacted Soil Area

One 500-gallon UST is located on the western portion of the Site, which formerly contained fuel oil for heating purposes. It was confirmed that this UST is no longer in use, and its approximate location was determined through the use of a geophysical survey.

Fuel oil impacted soil was identified from soil probes completed during the Phase II ESA adjacent to the UST. The impacted area identified is estimated to be approximately 20 feet by 32 feet (640 square feet), with a confining depth up to 8 feet bgs, based on soil probes. The estimated volume is approximately 190 cubic yards or about 325 tons of potentially impacted soil (see Figure 4).

AOI 3 – PCE Soil Excavation

Two separate soil excavations will be completed on the western side of AOI 3 to remove soils in the vicinity of the four borings where soil samples exceeded commercial SCO's. PCE concentrations and depths were confirmed from soil probes completed during the Phase II ESA and the PDFC.

Soil Excavation No. 1 (SP-23 to SP-62), will remove PCE impacted soils that exceeded the commercial SCO's. These soils will be disposed of as hazardous waste required under the NYSDEC "Contained-In" policy per TAGM 3026. The impacted area identified is estimated to be approximately 30 feet by 8 feet (240 square feet), with impacts confined from 8 to 17 feet, based on soil probes and analytical data. Total depth of the excavation is anticipated to be 18 feet bgs. The estimated volume is approximately 160 cubic yards, or about 275 tons of hazardous soil (see Figure 5).

Soil Excavation No. 2 (SP-56 to SP-47), will remove PCE impacted soils that exceeded the industrial SCO's. These soils will be disposed of as hazardous waste required under the NYSDEC "Contained-In" policy per TAGM 3026. The impacted area identified is estimated to be approximately 30 feet by 8 feet (240 square feet), with impacts confined from 6 to 17 feet, based on soil probes and analytical data. Total depth of the excavation is anticipated to be 18 feet bgs. The estimated volume is approximately 160 cubic yards, or about 275 tons of hazardous soil (see Figure 5).

- Prior to the start of the PCE soil excavation, a decontamination pad will be built to allow equipment used during the remedial activities to be decontaminated. The pad will be constructed on a stable onsite surface using a minimum of 8-mil plastic sheeting and allow water generated during the decontamination processes to be contained and transferred to 55-gallon drums for characterization and proper disposal. Upon

completion of the excavation work, the decontamination pad will be disposed of at a permitted disposal facility.

- Soils removed will be screened with a handheld organic vapor meter, and measurements will be recorded and mapped as the excavation progress.
- Excavated soils will be live-loaded directly into a dump truck or a disposal container. Prior to being loaded, the dump truck or container will be lined with 8 mil polyethylene sheeting. Hazardous Waste manifests will be signed and provided to the driver in accordance with 6 NYCRR Part 372. Dump trucks and disposal containers will then be transported to the approved receiving disposal and treatment facilities by a permitted hauler in accordance 6 NYCRR Part 364.
- If perched groundwater is encountered at depths while excavating soils, then, as necessary, the groundwater will be pumped out of the excavation into appropriate containers (i.e. DOT approved 55 gallon drums). The water will then be characterized and arrangements will be made for disposal. Containers will be staged on pallets within a temporary secondary containment, in accordance with applicable NYSDEC waste regulations.
- In accordance with NYSDEC DER 10 confirmatory soil samples will be collected for cleanup level requirements. One sample will be collected from each excavation sidewall, and one sample from the excavation bottom. Sidewall samples will be biased toward areas and depths of highest concentrations identified during previous sampling events unless field indicators such as field instrument measurements or observations during the remedial excavation indicate that other locations and depths may be more heavily impacted.
- If post-excavation soil samples indicate that impacted soil at levels above CSCOs remains, additional soil will be excavated for off-Site disposal until confirmatory samples indicate CSCOs have been achieved.
- Confirmatory samples will be analyzed for Target Compound List (TCL) Chlorinated VOCs via EPA Method 8260. Detection limits of the sample analysis will be below the Part 375 Commercial SCOs.
- The excavation areas will be barricaded to keep the public and unauthorized personnel away from the excavation while awaiting analytical results and prior to backfilling.

AOI 3 – Sub-Slab Depressurization Systems

A sub-slab depressurization system (SSDS) will be installed in each of two commercial tenant spaces (Unit 12 and Unit 13) within AOI3, as shown on Figure 6. The southernmost tenant space currently occupied by a dry cleaning pick-up and delivery service and the adjacent to the north, currently vacant, space will each have an independent SSDS installed to mitigate potential

intrusion of sub-slab vapors into the building interior spaces. An SSDS also will be installed in the building located directly west of AOI3. A qualified subcontractor, experienced with the design and installation of SSDSs will be hired to perform the work in accordance with the NYSDOH document “Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006”.

All individuals not directly involved with the planned work will be absent from the room in which the work will occur. Additionally, the location of all HVAC and other vents in the room and their discharge points, and potential pathways (doors, openings, conduits, etc.) relative to adjoining rooms, will be identified prior to commencement of work and the monitoring locations will be established accordingly. Exhaust fans or other engineering controls will be used to create negative air pressure within the work area during remedial activities. If possible, the planned work will be implemented during hours when building occupancy is at a minimum.

At each of the three tenant spaces, SSDSs will be designed to create and maintain a minimum negative pressure differential of 0.004 inches of water column (wci) below the concrete slab foundations which function as boundaries between sub-slab space and the occupied interior space. Once the SSDSs have been installed, testing will be performed to verify the lateral extent of the negative pressure field. The SSDS work effort will include the following tasks:

- sub-slab communication testing;
- design of the SSDS systems;
- installation of the two multi-suction point SSDS systems;
- post-installation pressure field extension testing; and
- preparation of a Construction Completion Report (CCR) with Operations, Maintenance, and Monitoring Plan (OM&M Plan)

Appendix A provides a copy of the contractor proposal which includes a more detailed description of the scope of work for design and construction of the three SSDSs.

General UST and Soil Removal Procedures

The following are the general UST removal procedures that will be followed for the two USTs and associated impacted soil areas (AOI1 and AOI2). Closure of the fuel oil USTs will be done in accordance with 6 NYCRR Part 613.9 – Closure of Out-of-Service Tanks, and will follow NYSDEC guidance document, *Permanent Closure of Petroleum Tanks (1987/1998/2003)*.

- Prior to the start of the subsurface soil work, a decontamination pad will be built to allow equipment used during the excavation and UST removal activities to be decontaminated. The pad will be constructed on a stable onsite surface using a minimum of 8-mil plastic sheeting and allow water generated during the decontamination processes to be contained and transferred to 55-gallon drums for characterization and proper disposal. Upon completion of the excavation work, the decontamination pad will be disposed of with the impacted soils stockpiled for off-site disposal at a permitted disposal facility.

- Overburden soil excavated to facilitate the removal of the UST will be field screened to determine if the soil is potentially impacted. Non-impacted soil (those registering 5 ppm or less on an OVM during field screening) will be excavated and stockpiled onsite on 6-mil plastic and covered with 6-mil plastic for reuse onsite.
- Tank contents (i.e., liquids and tank sludge) will be removed from tank and connection lines, containerized and characterized for proper off-site disposal. The tank contents will be properly disposed of by the contractor and disposal documentation will be provided.
- The tanks will be made safe by purging any petroleum vapors via one of three approved methods: dry ice, carbon dioxide, or nitrogen gas.
- Connecting lines going from the tanks into the building will be capped closed as close to the building as practical without affecting the building foundation during the tank removal/closure..
- Any residual product within the connection piping will be flushed back into the USTs, removed and containerized with its respective tank contents.
- If based on the results of a structural evaluation, it is determined that removal of the UST would not pose a structural risk to the building, the Contractor will remove the USTs.
- Water from the UST cleaning process will be contained in NYSDOT-approved 55-gallon drums or extracted using a vacuum truck, pending the volume needed to clean the USTs. Water will be properly disposed of by the contractor and disposal documentation will be provided.
- The USTs will be cut into manageable pieces and/or crushed and removed from the Site to be either recycled or disposed of at an approved disposal facility. The contractor will supply disposal or recycling records.
- Once the USTs have been removed from the excavation an assessment will be made of the excavation side walls and bottom of the UST areas. The excavation side walls and bottom will be field screened with an OVM to assess for additional petroleum impacts.
- If the USTs are closed in place, the tank tops will be cut opened, the tank interior cleaned and the tanks will be filled with an inert material.
- Soils determined to be impacted, within the UST areas, based on visual observations and field screening (registering 5 ppm or greater), will be excavated and stockpiled onsite on 8-mil plastic and covered with 8-mil plastic. The excavation work will include removal of grossly impacted soils and water (if any) which contains LNAPL. Contingent on the results of the pre-excavation structural evaluation, some volume of impacted soil may need to remain in place to protect the structural integrity of the adjacent buildings.

- The excavated soils stockpiled for off-site disposal will be analyzed for landfill characterization, as required by the selected landfill. After approval for disposal from the landfill facility, the soil will be loaded into dump trucks or dump trailers, covered, and transported by a licensed hauler to a permitted solid waste landfill for proper disposal. Disposal documentation will be provided.
- Post-excavation soil samples will be collected from the side walls and bottom of each excavation in accordance with NYSDEC DER-10 guidelines to confirm that the remaining soil meets the Part 375 Commercial SCOs. One sidewall sample will be collected from each excavation sidewall that is less than 30 linear feet. If an excavation sidewall exceeds 30 linear feet, then one sample will be collected for every 30 linear feet. A minimum of one bottom sample will be collected from each UST excavation area. One sample will be collected for every 500 square feet of bottom excavation area.
- Confirmatory samples will be analyzed for Target Compound List (TCL) VOCs via EPA Method 8260 and SVOCs via EPA Method 8270 STARS¹. Detection limits of the sample analysis will be below the Part 375 Commercial SCOs.
- The excavation areas will be barricaded to keep the public and unauthorized personnel away from the excavation while awaiting analytical results and prior to backfilling. If post-excavation soil samples indicate that impacted soil at levels above CSCOs remains, it is anticipated that additional soil will be excavated for off-Site disposal.
- Although not expected to be encountered, if groundwater is encountered within an excavation, a sample will be collected for TCL VOC analysis to characterize for disposal.
- Photographic documentation of the IRM activities will be performed and included in the IRM Report (see Section 4.0).
- Upon soil excavation completion, equipment will be decontaminated prior to being removed from the Site at the decontamination pad location.
- Suitable backfill material shall be placed and compacted in lifts within the excavation areas. Backfill brought to the Signore BCP Site will meet the requirements outlined in Part 375-6.7(d) and DER-102 Section 5.4(e).
- After backfilling is completed, asphalt pavement will be replaced

1 Spill Technology and Remediation Series (STARS) Memo #1, Petroleum-Contaminated Soil Guidance Policy, New York State Department of Environmental Conservation, August 1992.

2 NYSDEC, Division of Environmental Remediation (DER), DER-10 / Technical Guidance for Site Investigation and Remediation, issued May 3, 2010.

2.4 ENVIRONMENTAL ANALYTICAL TESTING PROGRAM

The estimated environmental testing program is summarized in Table 1. The actual number of samples will vary based on the size of excavations, observations and engineering judgment. The samples collected as part of this IRM will be subject to analytical testing methodologies that follow NYSDEC Analytical Service Protocol (ASP) Category B deliverables and allow for the development of a data usability summary report (DUSR). Further information regarding sampling and testing methodologies can be found in the QAPP (see Section 5.0).

3.0 DATA DOCUMENTATION

Field notes will be kept during the IRM work, in addition to daily field summaries that will be generated summarizing the field work and become part of the project file. The daily field summaries will include the following daily information for the IRM activities:

- Date;
- Meteorological conditions (temperature, wind, precipitation);
- Site conditions (e.g., dry, damp, dusty, etc.);
- Identification of crew members (GZA and subcontractor present) and other personnel (e.g., agency or site owner) present;
- Description of field activities;
- Location(s) where work is performed;
- Samples collected;
- Problems encountered and corrective actions taken;
- Records of field measurements or descriptions recorded; and
- Notice of modifications to the scope of work.

Photographic documentation of the IRM activities will be performed. Pertinent photographs will be included in the IRM Report.

4.0 IRM ACTIVITIES REPORT

An IRM Activities Report will be prepared summarizing the IRN work conducted. The report will include the following.

- a summary of the activities completed as part of the IRM Work;
- analytical data from the confirmatory samples collected. Tables containing the analytical results will identify laboratory qualifiers assigned to the data and will identify the detection limits for non-detected compounds (e.g., < 0.5);

- figures showing the size and location of IRM activities along with confirmatory sample locations;
- pertinent photographic documentation of the activities completed;
- waste disposal documentation of the various material generated for disposal; and
- findings, conclusions and recommendations resulting from the IRM work. The report will be submitted to NYSDEC for review.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

The Quality Assurance Project Plan (QAPP) to be used for the Northtown Plaza IRM activities is the “Quality Assurance Project Plan, Northtown Plaza, Amherst, New York, Brownfield Cleanup Program, Site No. C915292” dated May 2015. The QAPP presents the sampling procedures, analytical methods and QA/QC procedures associated with the activities planned for BCP Site. Protocols for sample collection, sample handling and storage, Chain of Custody procedures, and laboratory and field analyses are described or specifically referenced to related investigation documents. The QAPP is provided as Appendix B

6.0 HEALTH AND SAFETY PROTOCOLS

The health and safety protocols to be used for the Northtown Plaza IRM activities are in the “Health and Safety Plan, Northtown Plaza, Amherst, New York, Brownfield Cleanup Program, Site No. C915292” dated April 2014. The Health and Safety Plan (HASP) presents the specific health and safety protocols associated with the activities planned for BCP Site, including Community Air Monitoring Plan (CAMP). The HASP is provided as Appendix C.

7.0 CITIZEN PARTICIPATION

The Citizen Participation (CP) component for the Northtown BCP Site discussed in the “Brownfield Cleanup Program, Citizen Participation Plans, Northtown Plaza, 3045 Sheridan Drive, Amherst, Erie County, New York, Site Number: C915292” dated April 2015. The CP Plan outlines how members of the affected and interested public are provided with information about how NYSDEC will inform and involve them during the investigation and remediation of the Site. Information such as project contacts, document repositories, site contact lists, and CP activities are provided in the CP Plan. The CP Plan for the project is provided as Appendix D.

8.0 SCHEDULE

The following schedule is proposed for the IRM field activities and IRM Report preparation.

Activity:	Duration:	Anticipated Date:
Submit Final IRM Work Plan		May 28, 2015
NYDEC Accepts IRM Work Plan:	5 days	June 4, 2015
Perform IRM Activities:	61 days	June and July 2015
Submittal of IRM Report	45 days	September, 2015

TABLES

Table 1
Estimated IRM Analytical Testing Program Summary
Northtown Inc. BCP Site
BCP Site No. C905034
Amherst, New York

Location	VOCs TCL	SVOCs STARS	Water Sample for Characterization *	WASTE CHARACTERIZATION **
AOI-1	SOIL	SOIL	WATER	SOIL
Confirmatory	5	5	1	1
Duplicate	1	1	0	0
MS/MSD	2	2	0	0
Rinsate	1	1	0	0
Trip Blank	1	0	1	1
Total	10	9	2	2
AOI-2				
Confirmatory	5	5	1	1
Duplicate	1	1	0	0
MS/MSD	2	2	0	0
Rinsate	1	1	0	0
Trip Blank	1	0	1	1
Total	10	9	2	2
AOI-3				
Confirmatory	10	0	2	2
Duplicate	2	2	0	0
MS/MSD	2	2	0	0
Rinsate	1	1	0	0
Trip Blank	1	0	1	1
Total	16	5	3	3
	36	23	7	7

Notes:

MS/MSD - Matrix Spike/Matrix Spike Duplicate.

TCL VOCs - Target Compound List Volatile Organic Compounds.

TCL SVOCs - Target Compound List Semi-volatile Organic Compounds.

TAL Metals - Target Analyte List Metals.

TCL PCBs - Target Compound List Polychlorinated Biphenyls.

** = Water Characterization will include VOC, SVOC, & METALS

** = Waste Characterization parameters will be based on the disposal facility criteria.

TABLE 2B
Analytical Summary - Pre-Design Subsurface Soils
Northtown Inc. Site No. C915292
Amherst, New York

Parameter	Part 375 - Unrestricted Use SCOs	Part 375 - Commercial Use SCOs	Part 375 - Industrial Use SCOs	SP-52 8-9 03/10/2015	SP-53 7 -8 03/10/2015	SP-54 8-9 03/10/2015	SP-54 15-16 03/10/2015	SP-55 10-11 03/11/2015	SP-56 14-15 03/11/2015	SP-57 12-13 03/11/2015	SP-58 11-12 03/11/2015	SP-59 13-14 03/11/2015	SP-59 20-21 03/11/2015	SP-60 5-6 03/12/2015	SP-61 7-8 03/12/2015	SP-61 19-20 03/12/2015	SP-62 16-17 03/12/2015	FD-01 16-17 03/12/2015	SP-63 8-9 03/12/2015
Volatile Organic Compounds - EPA Method 8260 TCL (ug/Kg)																			
Tetrachloroethene	1,300	150,000	300,000	29	56	4,010	56,600	1,830	458,000	9,570	24,400	105,000	82,600	26	837	97,900	275,000	168,000	861
Trichloroethene	470	200,000	400,000	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<	113,000
cis-1,2-Dichloroethene	250	500,000	1,000,000	2,710 J	<	<	<	<	<	<	<	<	<	29,600	<	<	<	<	32,400 J

- Notes:
- 1. Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
 - 2. Soil analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
 - 3. ug/kg = part per billion.
 - 4. NV = no value. NT = not tested.
 - 5. Gray shading indicates value exceeds Commerical Use Soil Cleanup Objectives.
 - 6. Red shading indicates value exceeds Industrial Use Soil Cleanup Objectives.
 - 7. Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use, Commercial Use and Industrial Soil Cleanup Objectives.
 - 8. < indicates compound not detected above method detection limits.
 - 9. Field Duplicate 01 (FD 01) is associated with sample SP-62 (16-17 ft.).
 - 10. Field Duplicate 02 (FD 02) is associated with sample SP-72 (9-10 ft.).
 - 11. TCL = Target Compound List.

TABLE 2B
Analytical Summary - Pre-Design Subsurface Soils
Northtown Inc. Site No. C915292
Amherst, New York

Parameter	Part 375 - Unrestricted Use SCOs	Part 375 - Commercial Use SCOs	Part 375 - Industrial Use SCOs	SP-64 8-9 03/12/2015	SP-64 21-22 03/12/2015	SP-65 16-17 03/12/2015	SP-66 12-13 03/12/2015	SP-67 15-16 03/12/2015	SP-68 7-8 03/13/2015	SP-68 16-17 03/13/2015	SP-69 12-13 03/13/2015	SP-70 6-7 03/13/2015	SP-71 3-4 03/13/2015	SP-72 9-10 03/13/2015	FD-02 9-10 03/13/2015	SP-73 6-7 03/13/2015	MW-8 14 04/22/2015	MW-9 11 04/22/2015
Volatile Organic Compounds - EPA Method 8260 TCL (ug/Kg)																		
Tetrachloroethene	1,300	150,000	300,000	21,400	109,000	36,600	58,500	70,800	12	30	3 J	55	21	122	378	13	<	<
Trichloroethene	470	200,000	400,000	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<
cis-1,2-Dichloroethene	250	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<	<	<	<

- Notes:
- Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
 - Soil analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
 - ug/kg = part per billion.
 - NV = no value. NT = not tested.
 - Gray shading indicates value exceeds Commerical Use Soil Cleanup Objectives.
 - Red shading indicates value exceeds Industrial Use Soil Cleanup Objectives.
 - Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use, Commercial Use and Industrial Soil Cleanup Objectives.
 - < indicates compound not detected above method detection limits.
 - Field Duplicate 01 (FD 01) is associated with sample SP-62 (16-17 ft.).
 - Field Duplicate 02 (FD 02) is associated with sample SP-72 (9-10 ft.).
 - TCL = Target Compound List.

TABLE 3
Analytical Summary
Phase II Soil Vapor Intrusion Samples
Northtown Inc.
Amherst, New York

Parameter	GI-Ro Dry Cleaner		Outdoor Air	Vacant - Former Manhattan Bagel		Outdoor Air
	Sub-slab	Indoor air		Sub-slab	Indoor air	
1,1,1-Trichloroethane	<0.83	<0.83	<0.83	<0.83	<0.83	27
1,1-Dichloroethene	<0.60	<0.60	<0.60	<0.60	<0.60	3
1,2,4-Trimethylbenzene	6.2	<1.1	<0.75	33	<1.1	0.5
1,3,5-Trimethylbenzene	1.7	<0.75	<0.75	13	0.85	<0.75
1,4-Dioxane	<1.1	<1.1	<1.1	<1.1	<1.1	42
4-ethyltoluene	2.1	<0.75	<0.75	8.2	<0.75	<0.75
Acetone	250	4.3	11	71	26	24
Benzene	9.4	0.68	0.62	59	0.52	0.68
Carbon disulfide	1.8	<0.47	<0.47	410	0.54	<0.47
Carbon tetrachloride	<0.96	<0.26	0.51	0.45	0.45	0.51
Chloromethane	<0.31	0.57	0.84	<0.31	0.94	0.84
cis-1,2-Dichloroethene	0.44 J	<0.60	<0.60	<0.60	<0.60	<0.60
Cyclohexane	57	<0.52	<0.52	130	<0.52	<0.52
Ethylbenzene	5.1	<0.66	<0.66	27	<0.66	<0.66
Freon 11	4.1	0.69 J	1.5	14	37	1.4
Freon 12	2.4	1.2	2.9	3.8	6.7	2.4
Heptane	42	0.58 J	<0.62	160	0.92	0.79
Hexane	44	0.54	0.47 J	170	0.97	0.61
Isopropyl alcohol	<0.37	3.2	5.6	12	9.7	1.5
m&p-Xylene	18	0.84 J	0.93 J	88	1.3	0.79
Methyl Ethyl Ketone	26	1.1	0.96	<1.2	2	1.6
Methyl Isobutyl Ketone	<1.2	<1.2	<1.2	19	<1.2	<1.2
Methylene chloride	0.71	<0.53	0.49 J	0.99	1.6	1.6
o-Xylene	5.9	<0.66	<0.66	36	0.57	<0.66
Styrene	5.4	<0.65	<0.65	<0.65	<0.65	<0.65
Tetrachloroethylene	230	60	1.3	6,400	70	0.9
Toluene	19	1.7	1.5	170	2	2
Trichloroethene	2.5	2.4	<0.22	32	0.22	<0.22
Vinyl chloride	<0.39	<0.10	<0.10	<0.39	<0.10	<0.10

Notes:

- Compounds detected in one or more samples are presented in this table, with exception of 7 compounds highlighted in orange. Refer to Appendix D for list of all compounds included in analysis.
Compounds highlighted in orange are subject to the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in New York State, dated October 2006, soil vapor intrusion decision matrices.
- Air sample analytical testing completed by Centek Laboratory in Syracuse, New York.
- ug/m³ = microgram per cubic meter.
- Samples collected were for an approximate 8-hour sample duration.
- J = estimated concentration detected less than the reporting limit.
- < = compound was not detected above reporting limit provided.
- Bold and gray shading indicates compound action required by NYSDOH soil vapor intrusion guidance matrices or indoor air guidance values.

TABLE 2A
Analytical Summary - Phase II Subsurface Soils
Northtown Inc.
Amherst, New York

Parameter	Part 375 - Unrestricted Use SCOs	Part 375 - Commercial Use SCOs	Part 375 - Industrial Use SCOs	SP-5 8 to 10 feet bgs	SP-11 7 feet bgs	SP-11 10 to 12 feet bgs	SP-12 8 to 10 feet bgs	SP-16 10 to 12 feet bgs	SP-16 12 to 14 feet bgs	SP-23 12 to 14 feet bgs	SP-23 18 to 19 feet bgs	SP-24 8 to 10 feet bgs	SP-37 1 feet bgs	SP-37 11.9 feet bgs	SP-46 0 to 2 feet bgs
Volatile Organic Compounds - EPA Method 8260 TCL (ug/Kg)															
2-Butanone	120	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<
1,2-Dichlorobenzene	1,100	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<
Acetone	50	500,000	1,000,000	<	<	<	<	<	<	<	<	44.6	<	<	<
Benzene	60	44,000	89,000	<	<	<	<	<	<	<	<	<	<	<	<
Toluene	700	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<
Ethylbenzene	1,000	390,000	780,000	<	<	<	<	<	<	<	<	<	<	<	<
m&p-Xylene	260 ^{Note 8}	500,000 ^{Note 8}	1,000,000 ^{Note 8}	<	<	<	<	<	<	<	<	<	<	<	<
o-Xylene	260 ^{Note 8}	500,000 ^{Note 8}	1,000,000 ^{Note 8}	<	<	<	<	<	<	<	<	<	<	<	<
Isopropylbenzene	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Methylcyclohexane	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Tetrachloroethene	1,300	150,000	300,000	<	<	33,000	23.5	4,400	1,510	214,000	8,720	155	5,280	137,000	13,000
Trichloroethene	470	200,000	400,000	<	<	<	74.1	<	<	<	128	20.4	870	<	480
cis-1,2-Dichloroethene	250	500,000	1,000,000	<	<	<	135	<	<	<	<	223	343	<	110 J
Carbon disulfide	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Cyclohexane	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Total VOCs				<	<	33,000	232.6	4,400	1,510	214,000	8,848	443	6,493	137,000	<
Semi-Volatile Organic Compounds - EPA Method 8270 STARS (ug/Kg)															
Naphthalene	12,000	500,000	500,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	30,000	500,000	500,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	100,000	500,000	500,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	100,000	500,000	500,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Pyrene	100,000	500,000	500,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [a] anthracene	1,000	5,600	5,600	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	1,000	56,000	56,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [b] fluoranthene	1,000	5,600	5,600	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [a] pyrene	1,000	1,000	1,000	<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT
Total SVOCs				<	<	<	<	NT	NT	NT	NT	NT	NT	NT	
Polychlorinated Biphenyls - EPA Method 8082 (ug/Kg)															
Total PCBs				<	<	<	<	NT	NT	NT	NT	NT	NT	NT	NT

- Notes:
- Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
 - Soil analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
 - ug/kg = part per billion.
 - NV = no value. NT = not tested.
 - Gray shading indicates value exceeds Commerical Use Soil Cleanup Objectives.
 - Red shading indicates value exceeds Industrial Use Soil Cleanup Objectives.
 - SCO provided is for Xylene (mixed).
 - Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use, Commercial Use and Industrial Soil Cleanup Objectives.
 - < indicates compound not detected above method detection limits.
 - TCL = Target Compound List. STARS = NYSDEC Spill Technology and Remediation Series (STARS) Memo #1, Petroleum-Contaminated Soil Guidance Policy, New York State Department of Environmental Conservation, August 199

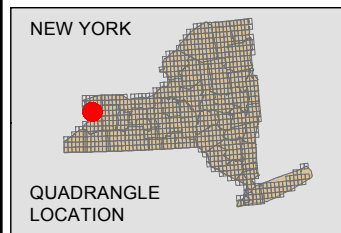
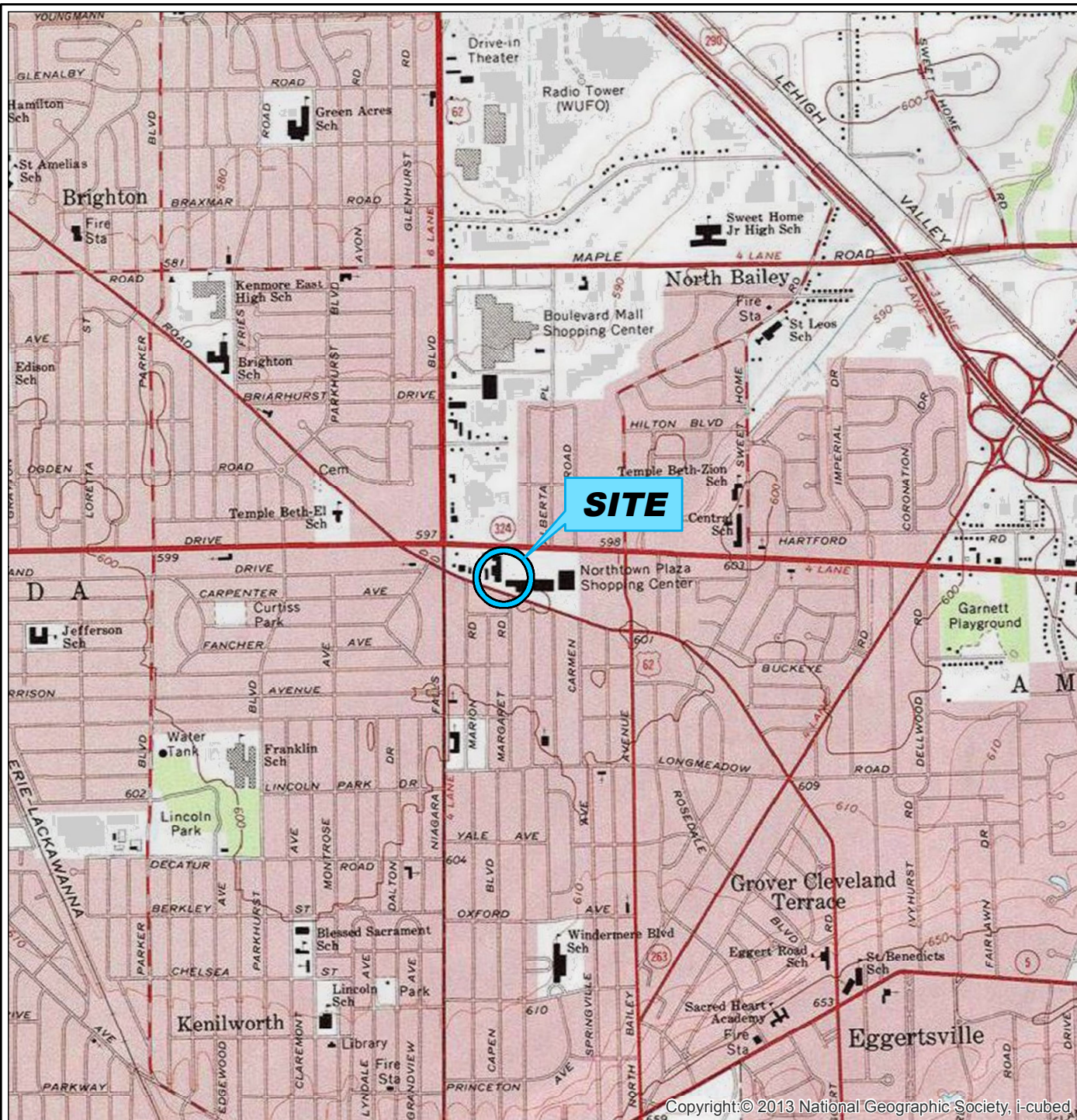
TABLE 2A
Analytical Summary - Phase II Subsurface Soils
Northtown Inc.
Amherst, New York

Parameter	Part 375 - Unrestricted Use SCOs	Part 375 - Commercial Use SCOs	Part 375 - Industrial Use SCOs	SP-46 2 to 4 feet bgs	SP-47 6 to 8 feet bgs	SP-47 12 to 14 feet bgs	SP-47 18 to 20 feet bgs	SP-48 10 to 12 feet bgs	SP-48 18 to 20 feet bgs	SP-49 12 to 14 feet bgs	SP-49 18 to 20 feet bgs	SP-50 8 to 10 feet bgs	SP-51 10 to 12 feet bgs	MW-1 20 to 22 feet bgs	MW-1 26 to 28 feet bgs
Volatile Organic Compounds - EPA Method 8260 TCL (ug/Kg)															
2-Butanone	120	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<
1,2-Dichlorobenzene	1,100	500,000	1,000,000	<	40 J	<	<	<	<	<	<	<	<	<	<
Acetone	50	500,000	1,000,000	<	<	<	<	<	<	<	<	<	<	<	<
Benzene	60	44,000	89,000	<	<	<	<	<	<	<	<	<	<	<	<
Toluene	700	500,000	1,000,000	<	50 J	<	<	<	<	<	<	<	<	<	<
Ethylbenzene	1,000	390,000	780,000	<	<	<	<	<	<	<	<	<	<	<	<
m&p-Xylene	260 ^{Note 8}	500,000 ^{Note 8}	1,000,000 ^{Note 8}	<	<	<	<	<	<	<	<	<	<	<	<
o-Xylene	260 ^{Note 8}	500,000 ^{Note 8}	1,000,000 ^{Note 8}	<	<	<	<	<	<	<	<	<	<	<	<
Isopropylbenzene	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Methylcyclohexane	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Tetrachloroethene	1,300	150,000	300,000	34 J	1,100,000 D	52,000 D	15,000	15,000	48,000 D	7,800	52,000 D	940	4,200	56 J	<
Trichloroethene	470	200,000	400,000	<	3,700	130 J	110 J	44 J	120 J	300	140 J	45 J	<	<	<
cis-1,2-Dichloroethene	250	500,000	1,000,000	<	130 J	350	<	160 J	57 J	530	<	<	<	<	<
Carbon disulfide	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Cyclohexane	NV	NV	NV	<	<	<	<	<	<	<	<	<	<	<	<
Total VOCs				<	<	<	<	<	<	<	<	<	<	<	<
Semi-Volatile Organic Compounds - EPA Method 8270 STARS (ug/Kg)															
Naphthalene	12,000	500,000	500,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	30,000	500,000	500,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	100,000	500,000	500,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	100,000	500,000	500,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Pyrene	100,000	500,000	500,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [a] anthracene	1,000	5,600	5,600	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	1,000	56,000	56,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [b] fluoranthene	1,000	5,600	5,600	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo [a] pyrene	1,000	1,000	1,000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Total SVOCs															
Polychlorinated Biphenyls - EPA Method 8082 (ug/Kg)															
Total PCBs				NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

- Notes:
- Compounds detected in one or more samples are presented on this table. Refer to Appendix D for list of all compounds included in analysis.
 - Soil analytical testing completed by Paradigm Environmental Services, Inc., in Rochester, NY.
 - ug/kg = part per billion.
 - NV = no value. NT = not tested.
 - Gray shading indicates value exceeds Commerical Use Soil Cleanup Objectives.
 - Red shading indicates value exceeds Industrial Use Soil Cleanup Objectives.
 - SCO provided is for Xylene (mixed).
 - Soil cleanup objectives (SCOs) are from NYSDEC Part 375, Subpart 375-6: Unrestricted Use, Commercial Use and Industrial Soil Cleanup Objectives.
 - < indicates compound not detected above method detection limits.
 - TCL = Target Compound List. STARS = NYSDEC Spill Technology and Remediation Series (STARS) Memo #1, Petroleum-Contaminated Soil Guidance Policy, New York State Department of Environmental Conservation, August 1992.

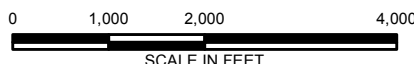
FIGURES

© 2015 - GZA GeoEnvironmental, Inc. T:\Clients\NorthernBC\PMXD\April2015 Deliverable\Figure1 LocusMap.mxd, 4/14/2015, 1:33:26 PM, patrick.finnerty




SOURCE : THIS MAP CONTAINS THE ESRI ARCGIS ONLINE USA TOPOGRAPHIC MAP SERVICE, PUBLISHED DECEMBER 12, 2009 BY ESRI ARCGIS SERVICES AND UPDATED AS NEEDED. THIS SERVICE USES UNIFORM NATIONALLY RECOGNIZED DATUM AND CARTOGRAPHY STANDARDS AND A VARIETY OF AVAILABLE SOURCES FROM SEVERAL DATA PROVIDERS

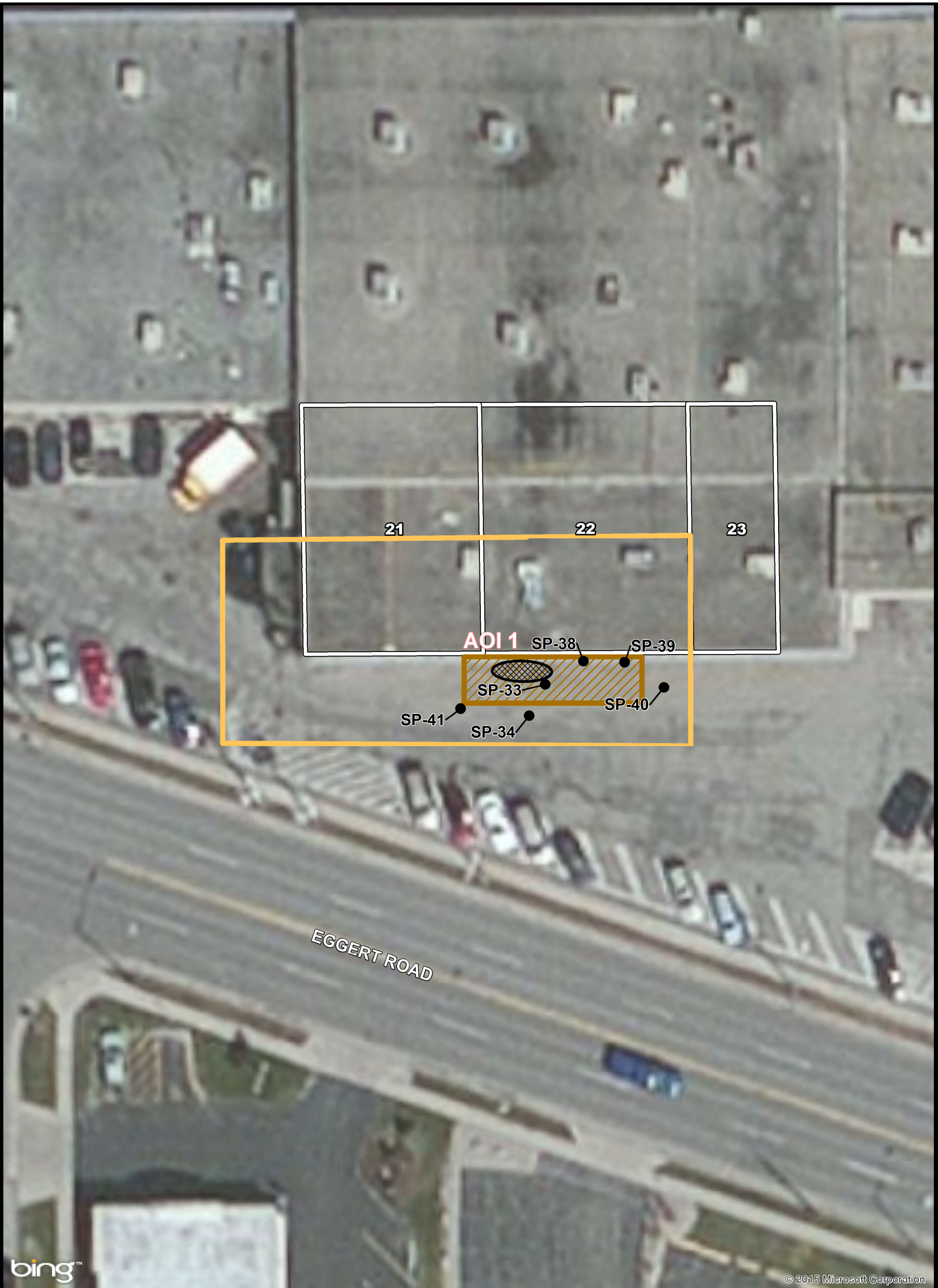
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3045 SHERIDAN DRIVE AMHERST, NEW YORK 14226		PREPARED BY:  GZA GeoEnvironmental, Inc. of Buffalo Engineers and Scientists 535 WASHINGTON ST BUFFALO, NEW YORK 14203		PREPARED FOR: NORTHTOWN ASSOCIATES, LLC	
SITE LOCUS MAP		PROJ MGR: JJR	REVIEWED BY: TGB	CHECKED BY: BK	FIGURE 1
		DESIGNED BY: TGB	DRAWN BY: PCF	SCALE: 1" = 2,000'	
		DATE: April 2015	PROJECT NO. 31.0056687.30	REVISION NO.	





bing™

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Legend:

- Soil Probes Completed - 2014
- Building Layout
- Approximate BCP Site Boundary - Includes AOI 1
- ▨ Approximate Soil Excavation
- Approximate UST Location

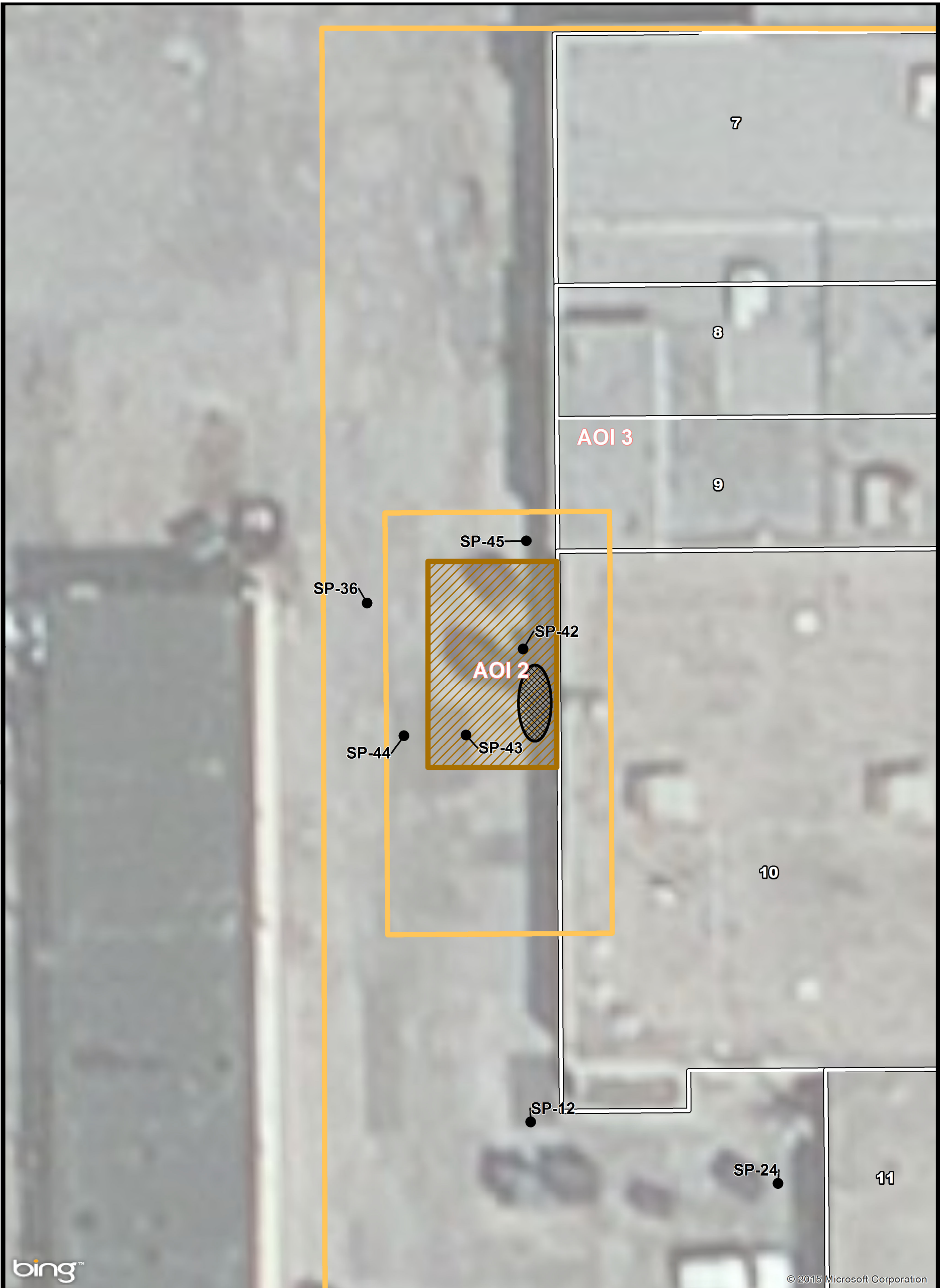
Source: Erie County GIS Mapping Website
Notes: All features should be considered approximate

0 25 50
SCALE IN FEET



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NORTHTOWN PLAZA 3045 SHERIDAN DRIVE AMHERST, NEW YORK 14226			
AOI 1 - UST REMOVAL/SOIL EXCAVATION			
PREPARED BY:  GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NORTHTOWN ASSOCIATES, LLC	
PROJ MGR: JJR	REVIEWED BY: TGB	CHECKED BY: BK	FIGURE 3
DESIGNED BY: TGB	DRAWN BY: PCF	SCALE: 1 in = 25 ft	
DATE: APRIL 2015	PROJECT NO. 31.0056687.30	REVISION NO.	

© 2015 - GZA GeoEnvironmental, Inc. T:\Clients\NorthernBCP\MXDs\April2015_Deliverable\Figure4_AOI_2.mxd, 4/30/2015, 1:38:17 PM, patrick.finnerty



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Legend:

- Soil Probes Completed - 2014
- Building Layout
- Approximate BCP Site Boundary - Includes AOI 2 & AOI 3
- Approximate Soil Excavation
- Approximate UST Location


Source: Erie County GIS Mapping Website
Notes: All features should be considered approximate

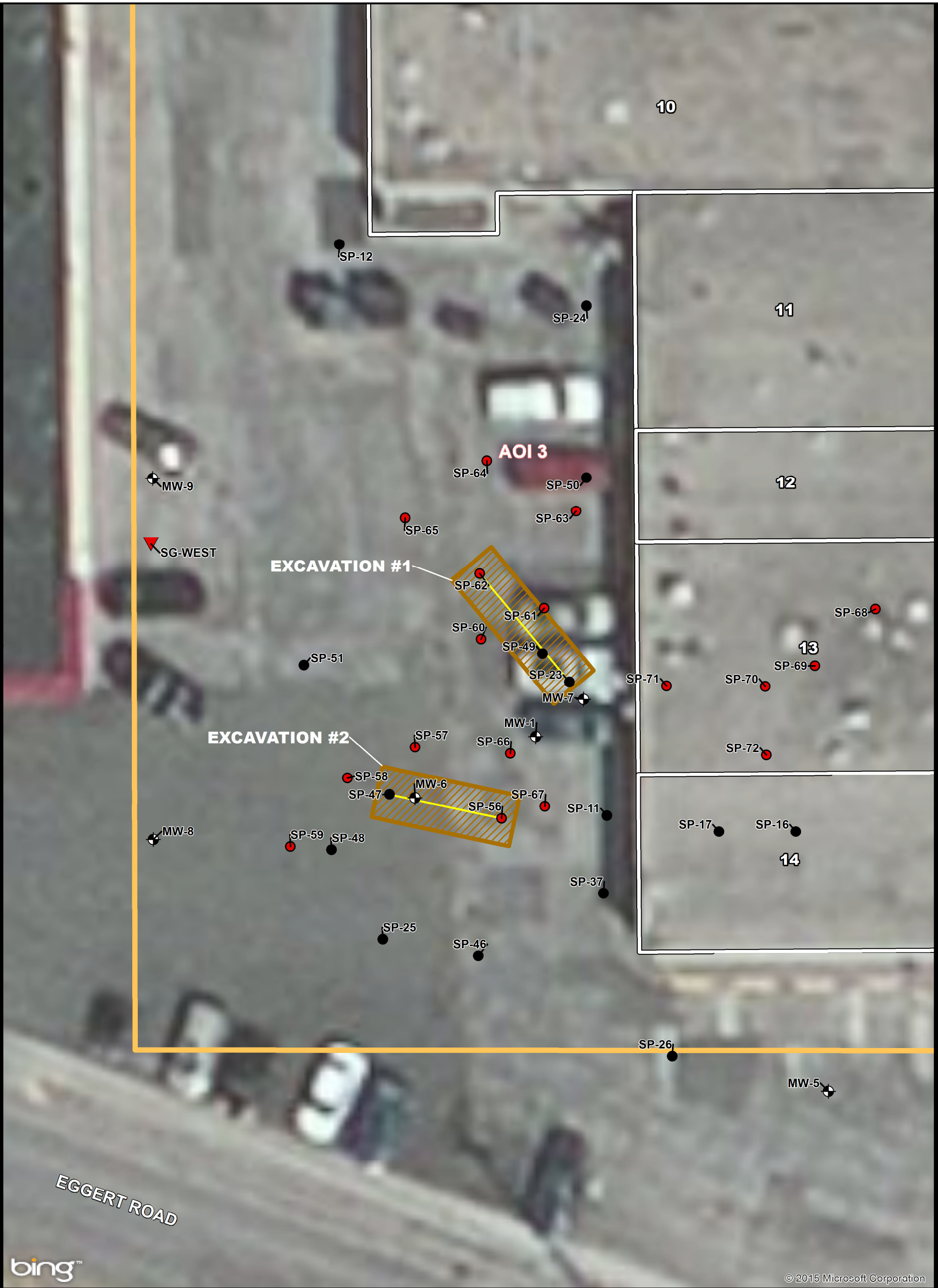


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NORTHTOWN PLAZA
3045 SHERIDAN DRIVE
AMHERST, NEW YORK 14226

AOI 2 - UST REMOVAL/SOIL EXCAVATION

PREPARED BY:  GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NORTHTOWN ASSOCIATES, LLC	
PROJ MGR: JJR	REVIEWED BY: TGB	CHECKED BY: BK	FIGURE 4
DESIGNED BY: TGB	DRAWN BY: PCF	SCALE: 1 in = 15 ft	
DATE: APRIL 2015	PROJECT NO. 31.0056687.30	REVISION NO.	



Legend:

- Soil Gas Sample Completed - March 2015
- Monitoring Well
- Soil Probes Completed - March 2015
- Soil Probes Completed - 2014
- Approximate BCP Site Boundary - Includes AOI 3
- Approximate Excavation Extent
- Building Layout
- Tenant Name**
13. Vacant
14. Giro Cleaners

Source: Erie County GIS Mapping Website
Notes: All features should be considered approximate







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NORTHTOWN PLAZA 3045 SHERIDAN DRIVE AMHERST, NEW YORK 14226			
AOI 3 - SOIL EXCAVATION & PROPOSED MONITORING WELLS			
PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NORTHTOWN ASSOCIATES, LLC	
PROJ MGR: JJR	REVIEWED BY: TGB	CHECKED BY: BK	FIGURE 5
DESIGNED BY: TGB	DRAWN BY: PCF	SCALE: 1 in = 15 ft	
DATE: APRIL 2015	PROJECT NO. 31.0056687.30	REVISION NO. 1	



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Legend:

-  Sub-slab Soil Vapor & Indoor Air Sample - 2014
-  Building Layout
-  Installation Area For Sub-slab Depressurization System
-  Approximate BCP Site Boundary - Includes AOI 3

- Tenant Name**
- 1. Total Automotive
 - 13. Vacant
 - 14. Giro Cleaners


Source: Erie County GIS Mapping Website
Notes: All features should be considered approximate



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NORTHTOWN PLAZA
3045 SHERIDAN DRIVE
AMHERST, NEW YORK 14226

AOI 3 - SUB-SLAB DEPRESSURIZATION SYSTEM

PREPARED BY:  GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NORTHTOWN ASSOCIATES, LLC	
PROJ MGR: JJR	REVIEWED BY: TGB	CHECKED BY: BK	FIGURE 6
DESIGNED BY: TGB	DRAWN BY: PCF	SCALE: 1 in = 30 ft	
DATE: APRIL 2015	PROJECT NO. 31.0056687.30	REVISION NO.	




Legend:


-  Sub-slab Soil Vapor & Indoor Air Sample
-  Building Layout
-  Installation Area For Sub-slab Depressurization Systems
-  Approximate BCP Site Boundary - Includes AOI 3

Source: Erie County GIS Mapping Website
Notes: All features should be considered approximate

0 15 30 60
SCALE IN FEET



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NORTHTOWN PLAZA 3045 SHERIDAN DRIVE AMHERST, NEW YORK 14226			
AOI 3 - SUB-SLAB DEPRESSURIZATION SYSTEMS			
PREPARED BY:  GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com	PREPARED FOR: NORTHTOWN ASSOCIATES, LLC		
PROJ MGR: JJR	REVIEWED BY: TGB	CHECKED BY: BK	FIGURE 6
DESIGNED BY: TGB	DRAWN BY: PCF	SCALE: 1 in = 30 ft	
DATE: MAY 2015	PROJECT NO. 31.0056687.30	REVISION NO.	

APPENDIX A

SSDS Subcontractor Scope of Work

mitigation tech *vapor intrusion specialists*

April 30, 2015

Mr. James J. Richert P.G., C.P.G.
Senior Project Manager
GZA GeoEnvironmental, Inc.
535 Washington Street, 11th Floor | Buffalo, New York 14203
Via email: James Richert <J.Richert@palmertongroup.com>

Re: Northtown Plaza, Amherst NY - Soil Vapor Intrusion Mitigation System Proposal
(2) south end units: Giro Cleaners and former Manhattan Bagel, and
(1) unit in building to west

Dear Mr. Richert,

For you review and comment, we submit the following work plan:

1.0 Introduction

Soil vapor containing chlorinated volatile organic compounds has been detected at or near this site. This document presents a Work Plan that consists of the installation and operation of three sub-slab depressurization systems (SSDSs) that are designed to mitigate the migration or potential migration of sub surface vapors into the building interiors. The subject areas are the foundation footprint of the two southernmost retail spaces, currently occupied by Giro Cleaners and formerly occupied by Manhattan Bagel and also the entire building to the west that is currently occupied by Total Automotive Repair. The SSDSs are not intended to remove or diminish the source of the contamination. After start-up, demonstration of SSDS effectiveness will be confirmed and thereafter, periodic maintenance and monitoring will be performed.

2.0 Objectives

This work plan was developed in general accordance with the NYS DOH document, "Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006".

The objective of the SSDS is to create and maintain a minimum negative pressure differential of .004 inches of water column (wci) below all concrete slabs which function as boundaries between sub-slab space and occupied interior space. Once an SSDS has been installed, testing will be performed to verify the extension of the pressure field. If and where necessary, additional measures will be furnished to ensure that performance objectives are met. Modeling based on sub-slab air flow data suggests that the proposed design is sufficient.

3.0 Work Plan Design and Specifications

3.1 Overview

Work descriptions are based on certain assumptions identified herein and are subject to modification based on further field observations and measurements before and during construction.

3.2 Predesign Communication Testing

Sub-slab air communication testing would be performed before construction to verify design and determine the most efficient system configuration. The test procedure will include drilling core borings and small diameter test holes to measure vacuum influence. Because of limited suction cavity placement opportunities, testing would be directed toward designing a network of perimeter suction points. Discovery of relatively dense sub-slab material may result in a higher number of suction cavities or higher vacuum fans.

3.3 Scope of Work

The Scope of Work is to furnish and install (3) multi-point active sub-slab depressurization systems at the designated locations. The Scope of Work is based on the construction necessary to achieve the design objective of furnishing a minimum .004 wci pressure differential at all areas of the sub -slab.

Furnish and Install:

- **SYSTEM 1:** Giro Cleaners
- System configuration - (1) RADONAWAY GP-501, roof mount over riser or manifold pipe, to provide sub-slab depressurization via 3" schedule 40 PVC pipe to roof exhaust; w/ (3) suction points along south perimeter wall and w/ (2) suction points along north perimeter wall
- **SYSTEM 2:** former Manhattan Bagel
- System configuration - (1) RADONAWAY GP-501, roof mount over riser or manifold pipe, to provide sub-slab depressurization via 3" schedule 40 PVC pipe to roof exhaust; w/ (2) suction points along south perimeter wall and w/ (3) suction points along north perimeter wall
- **SYSTEM 3:** Total Automotive Repair
- System configuration - (1) RADONAWAY GP-501, roof mount over riser or manifold pipe, to provide sub-slab depressurization via 3" schedule 40 PVC pipe to roof exhaust; w/ (4-5) suction points along south perimeter wall or as determined

- **COMMON ELEMENTS:**
- Pre-construction consultation to obtain approval for component placements
- Suction points as follows: connection via 3" Schedule 40 PVC pipe, to cavity in sub-slab, with urethane seal; access hole to suction cavity by 5" core drill or hand drill; suction cavity to consist of approximately 1 cu. ft. excavated material in sub-slab
- Electrical switch at fan with *Sealtite* conduit to building interior; final connection to panel by others at other's expense
- Roof flashing for pipe penetrations; extra cost if roof warranty requires work by original contractor
- Proportioning valves or plates for suction risers where required
- All exhaust points minimum 10" from any air intakes
- Exterior switch and *Sealtight* and/or MC conduit from fan housings to vicinity of electrical panel; final connection to circuit or panel in vicinity of fans
- (2) U-tube style vacuum indicator per system, on vertical pipe run; location TBD

- Urethane sealant at slab joints, accessible cracks and penetrations in vicinity of suction points
- Horizontal pipe near ceiling, with metal bracketing direct to structure, sloped as required, above drop ceiling where present
- At completion, perform backdraft testing, measure pressure differentials and document; label components and provide system description and operational instructions
- Permits and inspections at additional cost
- Consult with client engineering representatives to develop operation, maintenance and periodic inspection plan
- Two year warranty; labor and installed components

3.4 Post Installation Pressure Field Extension Testing

A digital micromanometer will be used to measure pressure differentials and values will be recorded on a floor plan. All test holes will be repaired with urethane caulk (MSDS available) applied over a closed cell backer rod. Smoke tubes will be used to identify floor cracks and other openings to the sub-slab that could “short circuit” the pressure field. Backdrafting testing will be performed.

3.5 System Operation Following Power Loss

The systems will restart automatically after power restoration.

3.6 General Work Plan Provisions

- Daily tailgate meeting for safety review
- Hazwoper trained personnel to perform drilling operations
- PID monitoring not included
- Level 4 PPE for on-site personnel
- Procedures to follow site specific HASP

3.7 IRM Construction Completion Report

At conclusion of construction, a Construction Completion Report (CCR) will be submitted. This report will include an as-built drawing, showing SSDS locations and components. The CCR will include measurements of created sub-slab to ambient air static pressure differentials, detailed descriptions of SSDS components, and post-installation sampling results.

An Operations, Maintenance, and Monitoring (OM&M) Plan will be submitted with the CCR. The OM&M Plan will be provided to the owner and occupants to facilitate their understanding of the system's operation, maintenance and monitoring. The OM&M Plan will include the following:

- a description of the SSDS Installed and its basic operating principles, with diagram;
- how the owner or tenant can check that the SSDS is operating properly;
- how the SSDS will be maintained and monitored and by whom;
- a description of long-term reporting and annual SSDS certification requirements;
- a list of appropriate actions for the owner or tenant to take if a SSDS warning device (manometer) indicates system degradation or failure;
- a description of the proper operating procedures for the SSDS, including manufacturer's operation and maintenance instructions and warranties; and
- contact information if the owner or tenant has questions, comments, or concerns.

3.8 Maintenance and Monitoring

Future monitoring will be proposed to monitor system communication via differential pressure measurements. The monitoring will be performed annually until a less-frequent monitoring frequency is approved. This routine monitoring will include:

- visual inspection of the equipment and piping;
- inspection of exhaust points to verify that no air intakes have been located nearby;
- identification and subsequent repair of any leaks;
- audible operational status check of vent fans;
- damper adjustments as required to balance parallel branches of system;
- measurement of differential pressure between the indoor air and the sub-slab to ensure a lower pressure is being maintained in the sub-slab relative to indoor ambient, as indicated by the pressure gauge on the fan suction pipe.

The SSDS will be operated until such time as permission in writing is received from NYSDEC to terminate operation of the system and remove the equipment.

3.9 Schedule

Client shall provide notification to tenants for timing of construction and shall obtain any necessary access agreements.

It is anticipated that work can be completed within thirty days of receipt of order. It is anticipated that portions of the work involving considerable noise or intrusion will take place after hours.

3.10 Discharge Permitting

It is understood that an air discharge permit to discharge treated vapors will not be required. It is further understood that all discharges will be direct to the atmosphere and that a Community Air Monitoring Plan is not required.

4.0 Cost: To be provided under separate cover

END OF WORK PLAN

Thank you.

Nicholas E. Mouganis EPA listing # 15415-I; NEHA ID# 100722

55 SHUMWAY ROAD, BROCKPORT, NEW YORK, 14420 * OFFICE/FAX 585-637-7430

APPENDIX B

Quality Assurance Project Plan

**QUALITY ASSURANCE
PROJECT PLAN
NORTHTOWN INC.
AMHERST, NEW YORK
BROWNFIELD CLEANUP PROGRAM
SITE NO. C915292**

Prepared For:

New York State Department of Environmental Conservation
Region 9
Buffalo, New York

Prepared By:

GZA GeoEnvironmental of New York
Buffalo, New York

May 2015
File No: 31.0056687.30

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**QUALITY ASSURANCE PROJECT PLAN
NORTHTOWN INC.
ELLCOTTVILLE, NEW YORK
BROWNFIELD CLEANUP PROGRAM
SITE NO. C915292**

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1.0 INTRODUCTION

1.1 PURPOSE AND OBJECTIVE

This Quality Assurance Project Plan (QAPP) has been developed by GZA GeoEnvironmental of New York (GZA) for project activities associated with the Northtown Inc. Brownfield Cleanup Program (BCP) Site No. C915292 located at 3097 Sheridan Drive, Amherst, New York (see Figure 1). This QAPP presents the project scope, objectives, organization, planned activities, sampling procedures, data quality objectives and quality assurance/quality control (QA/QC) procedures.

Protocols for sample collection, sample handling and storage, equipment decontamination, chain-of-custody procedures, etc. are described in Section 3. This QAPP was developed in general accordance with the requirements of Section 2.4 of the NYSDEC DER-10/Technical Guidance for Site Investigation and Remediation, effective May 3, 2010 (NYSDEC DER-10).

1.2 PROJECT BACKGROUND

The BCP Site consists of three AOIs collectively comprising approximately 1.5 acres of an approximately 18.6 acre parcel of land on which the Northtown Plaza is located. Currently the Plaza property is occupied by six commercial buildings, most containing multiple tenant spaces. The Site is bordered by other areas of the Northtown Shopping Plaza and beyond that Sheridan Drive to the North, Eggert Road to the south, Bailey Avenue to the east and Niagara Falls Boulevard to the west. Northtown Shopping Plaza is located in a commercial business area along Sheridan Drive and Niagara Falls Boulevard. The primary use of the area is as a shopping district, with major retailers located within a ½ mile of the Site. Residential properties are located on the side streets surrounding the site. Figure 2 presents a site plan.

The Site appears to have been agricultural land until it was developed for commercial use in the early-1950s. Site development occurred from the mid-1950s to 1983 when it reached site usage similar to today. Site occupant uses of environmental concern have included a dry cleaner. On-site dry cleaning operations ceased at the Site in the 1990s but there currently is an active pick-up/drop-off dry cleaning business in the same location (cleaning operation is performed at an off-site facility).

No underground storage tanks (USTs) are currently being used at the Site or other portions of Northtown Plaza. However, two USTs formerly used for heating oil remain at the Site.

A Phase I Environmental Site Assessment completed by GZA for the entire Northtown Plaza property in accordance with ASTM 1527 identified Recognized Environmental Conditions (RECs) including the former use of USTs (see above) and the former on-site dry cleaning operations at the Site.

A Phase II Environmental Site Assessment was completed by GZA to assess the RECs identified in the Phase I. The assessment included the following:

- The completion of 51 soil probes and the installation of 3 groundwater monitoring wells;
- The analyses of 53 soil samples for Target Compound List (TCL) Volatile Organic Compounds (VOCs) EPA Method 8260, Spill Technology and Remediation Series (STARS) Semi-Volatile Organic Compounds (SVOCS) EPA Method 8270, and Poly Chlorinated Biphenyl's (PCBs) EPA Method 8082;
- The analyses of three groundwater samples for TCL VOCs EPA Method 8260;
- Indoor air and sub-slab soil vapor sampling at three tenant spaces;
- A camera survey of sewer lines associated with the dry cleaning unit; and
- A Ground Penetrating Radar (GPR) study of known current and past UST locations.

Soil impacts were detected at three discreet locations: proximate to the two abandoned fuel oil USTs locations, and in the vicinity of the dry cleaners unit. No VOCs were detected above the NYSDEC Class GA Criteria in groundwater collected from the three deep overburden monitoring wells completed at the Site.

Limited areas of visual and olfactory evidence of petroleum were encountered in the vicinity of the southern (AOI1) and western (AOI2) inactive heating oil USTs. NYSDEC was notified on May 9, 2014 and spill number 1401409 was assigned for both USTs. The extent of the impact detected in the UST areas are immediately adjacent to the USTs and limited to the uppermost 6 to 8 feet. Approximately 20 soil probes were completed on the west side of the dry cleaner's space (AOI3). Fifty three soil samples were analyzed for VOCs. PCE was detected above the Unrestricted Soil Cleanup Objectives (USCO) in 16 soil samples, above the Commercial Soil Cleanup Objectives (CSCO) in two samples, and above the Industrial Soil Cleanup Objectives (ISCO) in one sample. The PCE impacts were restricted to a depth between 6 and 18 feet below ground surface. No surficial soil impacts were identified.

One deep monitoring well was installed in the area of the PCE soil impacts and two other locations did not show impacts to the groundwater in this area. Groundwater was encountered at approximately 50 feet below ground surface.

To further characterize AOI3, GZA completed a Pre-Design Field Characterization (PDFC) in March and April of 2015. Twenty five additional soil probes were advanced using direct push drilling methods. Eighteen of these soil probes were located at exterior areas of AOI 3, and 7 were located within the vacant tenant space #13, which is directly north and adjacent to the dry cleaner space. GZA installed six, 1-inch diameter, shallow water monitoring wells at six of the soil probe locations.

Based on the results of the Phase II and PDFC, four areas of PCE impacted subsurface soil were identified at the western exterior of AOI3. The four samples that exceeded CSCOs for PCE are SP-

23, SP-47, SP-56, and SP-62 and the extent of impact at each of these areas is of limited extent. The impacted depth intervals in exceedance of the CSCOs range from six feet at SP-47 to seventeen feet SP-62. Soil samples collected from probes surrounding the four data points contained PCE at concentrations below the CSCO, illustrating the limited extent of the higher concentrations of PCE.

1.3 PROJECT DESCRIPTION

This QAPP is the quality control basis for the scope of work, which is further described in the Interim Remedial Measures Work Plan. The major tasks involved at the Site are:

- Interim Remedial Measures Work Plan Development (Field Activity Plan, Health and Safety Plan, and Quality Assurance Project Plan).
- Implementation of an Interim Remedial Measure
- Revision of the Alternatives Analysis Report

1.4 PROJECT MANAGEMENT AND ORGANIZATION

1.4.1 Personnel

The general responsibilities of key project personnel are listed below.

NYSDEC Project Manager – Tim Dieffenbach will have the responsibility for regulatory oversight for the work associated with BCP Site No. C915292.

Northtown Associates LLC Project Manager – Andrew Manning will have the responsibility for implementing the project and has the authority to commit funding necessary to meet the objectives and requirements.

GZA Project Manager – Jim Richert will be responsible for managing the implementation of the activities associated with the BCP investigation, remediation and coordinating the collection of data during the project. The Project Manager is responsible for technical quality control and project oversight.

Quality Assurance (QA) Officer – Todd Bown will report to the Project Manager and will be responsible for ensuring that QA/QC procedures are being followed. The QA Officer will be responsible for overseeing the review of field and laboratory data.

The QA Officer will monitor the performance of the laboratory to verify that the Data Quality Objectives for the project are met.

Field QA Officer – Todd Bown will be responsible for the overall operation of the field team and reports directly to the Project Manager.

1.4.2 Specific Tasks and Services

GZA will obtain subcontractor specialists for services relating to underground storage tank removal, soil excavation, soil transport and disposal, sub-slab vapor mitigation system design and installation, laboratory/analytical services and data validation services. The subcontractors to be utilized will be determined at a later time.

2.0 SITE INVESTIGATION PROCEDURES AND RATIONALE

AOI 1 and AOI 2 of the BCP Site each contain one inactive underground storage tank (UST) that were reportedly used to store fuel oil. Petroleum impacted soil is present adjacent to each UST. At AOI 3, chlorinated solvent impacts are present in the overburden soil and shallow pore water of the overburden. The IRM fieldwork proposed by GZA is the result of extensive site characterization work and focuses mainly on removal of the USTs and impacted soils as well and installation of sub-slab depressurization of two tenant units at AOI 3 and one space to the west of AOI3. Environmental sampling will be performed in conjunction with the removal actions for the following purposes:

- confirmation sampling of excavation sidewalls and bottom;
- characterization of “clean” backfill materials; and
- characterization of soil and waters (if present) for disposal purposes.

Environmental sampling and other field activities will be performed in general accordance with the NYSDEC DER-10 guidance document.

General field activities are described in the following sections and described in further detail in the Interim Remedial Measures Work Plan.

2.1 AIR SURVEILLANCE AND MONITORING

Air surveillance screening for total volatile organics and particulates for health and safety concerns will be performed with a portable organic vapor meter (OVM) equipped with a photoionization detector (PID) that is using a 11.7 electron volt (eV) bulb and dust monitors placed both upwind and downwind of intrusive work sites. Monitoring will be performed during invasive activities such as soil excavation and UST removal. The OVM will also be used to field screen samples. Additional details are presented in the Site-specific Health and Safety Plan which includes the NYSDOH generic Community Air Monitoring Plan (CAMP).

2.2 SOIL SAMPLING

Soil sampling will occur during remedial activities involving excavation and removal of impacted soil and USTs, confirmatory sampling and waste characterization. Samples will be collected and transferred to sample containers as soon as possible after being retrieved from the subsurface (i.e., excavator bucket).

The excavator will be decontaminated by the subcontractor prior to arrival on-Site. During remedial activities, decontamination will be accomplished using steam cleaning or high pressure hot water to wash equipment prior to moving to the next location. Stainless steel sampling devices will be cleaned manually with non-phosphate detergent (i.e.,alconox) wash and potable water followed by a potable water rinse or a second steam cleaning followed by a distilled/deionized water rinse. Equipment will be similarly cleaned prior to leaving the Site.

Soil samples, with the exception of those for VOCs, will be homogenized using a "coning and quartering" procedure. The soil will be removed from the sampling equipment and transferred to a clean surface (metal foil, steel pan, bowl, etc.). Observed debris, such as bricks, large stones, organics, etc. will be removed from the sample. The soil will be mixed to provide a more homogeneous sample for lab analysis. The soil will be scraped from the sides, corners, and bottom of the clean surface, rolled to the middle, and thoroughly mixed until the material appears homogenous. An aliquot of this pile will then be transferred to the required sample containers, slightly tamped-down, filled to near the top of the container, and sealed with the appropriate cap. Soil or sediment on the threads of the container will be removed prior to placing the cap on the sample container. Soil samples for VOC analysis will be collected and directly placed into one unpreserved 2 oz jar per sample location.

Soil screening will be performed in two ways: by holding the probe of the OVM directly over the sample once it is retrieved from the subsurface and again by headspace screening after a representative portion of the soil samples has been placed in plastic bags, allowed to warm to ambient temperature, and placing the tip of the OVM into the plastic bag. The OVM used will be equipped with a PID that is using a 11.7 eV bulb.

The OVM will be calibrated daily, in accordance to manufacturer's requirements using a standard gas. Prior to screening, the headspace soil samples will be allowed to equilibrate to ambient temperature. For headspace screening, a hole will be made in the sample bag and the tip of the OVM inserted into the bag, and the peak response will be recorded. A response of less than 1 part per million (ppm), using this method, is not considered significant and will be reported as not detected. A blank will be run between test samples to check that extraneous contamination was not carried over.

2.3 EQUIPMENT DECONTAMINATION

To avoid cross contamination, non-disposable sampling equipment (defined as any piece of reusable equipment which may contact a sample) will be decontaminated according to the following procedures outlined below.

2.3.1 Non-Dedicated Reusable Equipment

Non-dedicated reusable equipment such as stainless steel mixing bowls; pumps used for groundwater evacuation (and sampling, if applicable) etc. will require field decontamination. Acids and solvents will not be used in the field decontamination of such equipment.

Decontamination typically involves scrubbing/washing with a laboratory grade detergent (e.g.alconox) to remove visible contamination, followed by potable (tap) water and analyte-free water rinses. Tap water may be used from any treated municipal water system; the use of an untreated potable water supply is not an acceptable substitute. Equipment should be allowed to dry prior to use. Steam cleaning or high pressure hot water cleaning may be used in the initial removal of gross, visible contamination. Tubing will not be re-used (new tubing will be used for each well).

2.3.2 Disposable Sampling Equipment

Disposable sampling equipment will not be field-decontaminated; equipment may be rinsed with laboratory-provided analyte-free water prior to use. Disposable spoons or spatulas purchased from non-environmental equipment vendors (such as restaurant supply houses) will be decontaminated by scrubbing/washing with a laboratory grade detergent followed by potable water and Analyte-free water rinse; or by using steam or high pressure hot water rinse, followed by analyte free water rinse. The equipment will be allowed to air dry prior to use.

2.3.3 Heavy Equipment

Certain heavy equipment such as, excavator buckets, etc. may be used to obtain samples. Such equipment will be subject to high pressure hot water or steam cleaning between uses. A member of the sampling team will visually inspect the equipment to check that visible contamination has been removed by this procedure prior to sampling. Such equipment will be cleaned between excavation locations. Decontamination between excavation samples at a single location will be performed usingalconox and water to clean the samplers. Samples submitted for analysis will not include material, which has been in direct contact with the excavator bucket.

2.4 STORAGE AND DISPOSAL OF INVESTIGATION-DERIVED WASTE

The sampling methods and equipment have been selected to limit both the need for decontamination and the volume of waste material to be generated. Investigation-derived material (e.g., decon sediments and water) generated during this project shall be presumed to be non-hazardous waste and will be characterized for off-site disposal at a permitted and NYSDEC-approved waste disposal facility.

Personal protective equipment and disposable sampling equipment will be placed in plastic garbage bags for disposal as a non-hazardous solid waste.

Decontamination Fluids

Wash water and rinse water, including detergent, may be generated during Site work. Non-phosphate detergent and water rinse will be disposed off-Site along with water generated from excavations if present.

3.0 SAMPLE HANDLING

3.1 SAMPLE IDENTIFICATION/LABELING

Samples will be assigned a unique identification using the sample location or other sample-specific identifier. Sample identification will be limited to seven alphanumeric characters to be consistent with the limitations of the laboratory tracking/reporting software. The general sample identification format follows.

SW - XX - Y-Y

Where:

SW	=	Type of sample (i.e., Side Wall, Excavation Bottom)
XX	=	Numeric character indicating the number from which the sample was obtained.
Y-Y	=	Depth of the sample.

Quality control (QC) field duplicate samples will be submitted blind to the laboratory; a fictitious sample identification will be created using the same system as the original. The sample identifications (of the original sample and its field duplicate) will be marked in the project specific field book and on the copy of the chain-of-custody kept by the sampler and copied to the project manager. Sample containers will be labeled in the field prior to the collection of samples. Affixed to each sampling container will be a non-removable label on which the following information will be recorded with permanent water-proof ink:

- Site name and location;
- Sample identification code;
- Date and time;
- Sampler's initials;
- Preservative; and
- Requested analyses.

3.2 SAMPLES, BOTTLES, PRESERVATION, AND HOLDING TIME

Table 1 specifies the analytical method, matrix, holding time, containers, and preservatives for the various analyses to be completed. Sample bottle requirements and holding times are discussed further below.

3.2.1 Sample Bottles

The selection of sample containers used to collect samples is based on the criteria of sample matrix, analytical method, potential contaminants of concern, reactivity of container material with the sample, QA/QC requirements and regulatory protocol requirements. Sample bottles will be provided by the analytical laboratory and will conform to the requirements of USEPA's Specifications and Guidance for Contaminant-Free sample Containers.

3.2.2 Holding Times

Holding times are judged from the verified time of sample receipt (VTSR) by the laboratory; samples will be shipped from the field to arrive at the lab no later than 48 hours from the time of sample collection. Holding time requirements will be those specified in the NYSDEC ASP; it should be noted that for some analyses, these holding times are more stringent than the holding time for the corresponding USEPA method.

Although trip blanks are prepared in the analytical laboratory and shipped to the Site prior to the collection of environmental samples, for the purposes of determining holding time conformance, trip blanks will be considered to have been generated on the same day as the environmental samples with which they are shipped and delivered. Procurement of bottles and blanks will be scheduled to prevent trip blanks from being stored for excessive periods prior to their return to the laboratory; the goal is that trip blanks should be held for no longer than one week prior to use.

3.3 CHAIN OF CUSTODY AND SHIPPING

A chain-of-custody form will trace the path of sample containers from the project site to the laboratory. A sample Chain of Custody is included in Attachment 1, Field Forms. Sample/bottle tracking sheets or the chain-of-custody will be used to track the containers from the laboratory to the containers' destination. The project manager will notify the laboratory of upcoming field sampling events and the subsequent transfer of samples. This notification will include information concerning the number and type of samples, and the anticipated date of arrival. Insulated sample shipping containers (typically coolers) will be provided by the laboratory for shipping samples. All sample bottles within each shipping container will be individually labeled with an adhesive identification label provided by the laboratory. Project personnel receiving the sample containers from the laboratory will check each cooler for the condition and integrity of the bottles prior to field work.

Once the sample containers are filled, they will be immediately placed in the cooler with ice (in plastic bags to prevent leaking) or synthetic ice packs to maintain the samples at 4 °C. The field sampler will indicate the sample designation/location number in the space provided on the chain-of-custody form for each sample. The chain of custody forms will be signed and placed in a sealed plastic bag in the cooler. The completed shipping container will be closed for transport with nylon strapping, or a similar shipping tape, and two paper seals will be affixed to the lid. The seals must be broken to open the cooler and will indicate tampering if the seals are broken before receipt at the laboratory. The cooler will be shipped either by laboratory-provided courier or by an overnight delivery service to the laboratory. When the laboratory receives the coolers, the custody seals will be checked and lab personnel will sign the chain-of-custody form.

4.0 QUALITY ASSURANCE/QUALITY CONTROL PROTOCOLS

This section describes the analytical methods, principles and procedures that will be used to generate quality data. These protocols include laboratory calibration, field equipment calibration, QC sample collection and analysis, quantitative evaluation of data quality protocols and data qualification, if necessary.

4.1 ANALYTICAL METHODS, PROCEDURES & CALIBRATION

4.1.1 Methods

Analytical methods to be used during this project are presented in the NYSDEC Analytical Services Protocol (ASP), June 2005. Specific methods and references for each parameter are shown in Table 1. The sample preservation and holding time requirements are also identified in Table 1. Quantification and detections limits for all analysis are those specified under the appropriate test methods.

It is the laboratory's responsibility to be familiar with this document, procedures and deliverables pertaining to the Site work. Alpha Analytical is tentatively scheduled to perform the analytical testing. Alpha is certified by the NYSDOH Environmental Laboratory Approval Program and Contract Laboratory Protocol certified.

4.1.2 Laboratory Instrumentation & Equipment

Laboratory instruments and equipment will be calibrated following SW-846 analytical methods protocol. Initial calibrations will be performed before samples analysis. Calibration checks will be performed at the frequencies specified in each analytical method.

4.1.3 Field Equipment

Field equipment will be used during various activities of the project and during the collection of environmental samples. The field equipment to be used may include the following.

Field equipment used includes:

- OVM with a photoionization detector.
- Electronic water level indicator.
- Multi-gas meter (CO, LEL, O₂, and H₂S).
- Particulate monitor

Field equipment will be cleaned and calibrated prior to use. The Operating and Maintenance (O&M) manuals for the field equipment will be kept in the field when in use and a copy will be retained in project files.

Calibration and standardization for the field equipment during project use will be in accordance with the manufacturer's recommendations, and will be recorded in the field log book. If instrument performance or data fall outside acceptable limits, then corrective actions will be taken. These actions may include recalibration of instruments, acquiring new standards, replacing equipment or repairing equipment. Subcontractors providing analytical services should perform their own internal laboratory audits and calibration procedures with data review conducted at a frequency so that errors and problems are detected early, thus avoiding the prospect of redoing large segments of work.

4.2 QUALITY CONTROL SAMPLES

4.2.1 Analytical Equipment

The analytical methods to be utilized (see Table 1) for laboratory sample analysis address the quality control to be used and the frequency of replicates, blanks and calibration standards for laboratory analytical equipment.

4.2.2 Field Samples

Field quality control samples will consist of trip blanks, sample duplicate, matrix spike and matrix spike duplicate. Trip blanks, for VOCs only, will consist of analyte free reagent grade water in VOC sampling containers to be used for the project. Trip blanks will be prepared at the laboratory, sealed, transported to the Site and returned without being opened to assess contamination that may have occurred during transport. Trip blanks will be submitted at a rate of one per sampling event when VOCs are shipped to the laboratory.

Field duplicate samples are used to assess the variability of a matrix at a specific sampling point and to assess the reproducibility of the sampling method. For soil samples, these samples are separate aliquots of the same sample; prior to dividing the sample into "sample" and "duplicate" aliquots, the samples are homogenized (except for the VOC aliquots, which are not homogenized). Aqueous field duplicate samples are second samples collected from the same location, at the same time, in the same manner as the first, and placed into a separate container. Each duplicate sample will be analyzed for the same parameters as the original sample collected that day. The blind field duplicate Relative Percent Difference (RPD) objective will be $\pm 50\%$ percent RPD for all matrices. Field duplicates will be collected at a frequency of 1 per 20 environmental samples for both matrices (aqueous and non-aqueous) and test parameters.

Matrix spike/matrix spike duplicate (MS/MSD) samples are used to assess the laboratory method's accuracy and precision. These samples are spiked with known quantities of target analytes at the laboratory. The samples are collected at a frequency of five percent (1 in 20).

5.0 DATA DOCUMENTATION

5.1 FIELD NOTEBOOK

Field notebooks will be initiated at the start of on-Site work, in addition to field forms that will be filled out summarizing field work and become part of the project file. The field notebook will include the following daily information for Site activities:

- Date;
- Meteorological conditions (temperature, wind, precipitation);
- Site conditions (e.g., dry, damp, dusty, etc.);
- Identification of crew members (GZA and subcontractor present) and other personnel (e.g., agency or site owner) present;
- Description of field activities;
- Location(s) where work is performed;
- Problems encountered and corrective actions taken;
- Records of field measurements or descriptions recorded; and,
- Notice of modifications to the scope of work.

5.2 FIELD REPORTING FORMS

Field reporting forms (or their equivalent) to be utilized during the remediation may include the following:

- Excavation Log;
- Sample Collection Log;
- Chain of Custody Form; and
- Calibration Log.

These forms, when completed, will become part of the project file.

6.0 CORRECTIVE ACTIONS

If instrument performance or data fall outside acceptable limits, then corrective actions will be taken. These actions may include recalibration or standardization of instruments, acquiring new standards, replacing equipment, repairing equipment, and reanalyzing samples or redoing sections of work. Subcontractors providing analytical services should perform their own internal laboratory audits and calibration procedures with data review conducted at a frequency so that errors and problems are detected early, thus avoiding the prospect of redoing large segments of work.

Situations related to this project requiring corrective action will be documented and made part of the project file. For each measurement system identified requiring corrective action, the responsible individual for initiating the corrective action and also the individual responsible for approving the corrective action, if necessary, will be identified. As part of its total quality management program, GZA makes the results of laboratory audits and data validation reports available to the analytical laboratories. The laboratories are therefore made aware of non-critical items and areas where improvement may be made in subsequent NYSDEC ASP work.

7.0 DATA REDUCTION, VALIDATION, AND REPORTING

The guidance followed to perform quality data validation, and the methods and procedures outlined herein pertain to initiating and performing data validation, as well as reviewing data validation performed by others (if applicable). An outline of the data validation process is presented here, followed by a description of data validation review summaries.

7.1 LABORATORY DATA REPORTING AND REDUCTION

The laboratory will meet the applicable documentation, data reduction, and reporting protocols as specified in the 2005 revision of the NYSDEC ASP CLP. Laboratory data reports for non-CLP data will conform to NYSDEC Category B deliverable requirements. With full CLP documentation, deliverables will include, but not be limited to:

Organics

Chains of Custody
Blanks
Holding Times
Internal Standards
Laboratory Duplicates
Tentatively Identified Compounds
GC/MS Instrument Performance Check
System Monitoring Compound Recovery
Matrix Spike & Matrix Spike Duplicates
GC/MS Tuning
Surrogate Recoveries

Inorganics

Chains of Custody
Blanks
Holding Times
Furnace AA QC
CRDL Standards
ICP Serial Dilutions
Laboratory Control Samples
Laboratory Duplicates
ICP Interference Check
Spiked Sample Recovery

Copies of the laboratory's generic Quality Assurance Plan (QAP) will be on file at GZA. The laboratory's QAP will indicate the standard methods and practices for obtaining and assessing data, and how data are reduced from the analytical instruments to a finished report, indicating levels of review along the way.

In addition to the hard copy of the data report, the laboratory will be asked to provide the sample data in spreadsheet form to minimize possible transcription errors resulting from the manual transcription of data.

7.2 DATA VALIDATION AND DATA USABILITY SUMMARY REPORT

CLP data will be validated by a data validation subcontractor. Data validation will be performed in accordance with guidelines established in Appendix 2B of the NYSDEC DER-10. Where necessary and appropriate, supplemental validation criteria may be derived from the EPA Functional Guidelines (USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA-540/R-94/012, February 1993; and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA-540/R-94/013, February, 1994).

Data Usability Summary Reports (DUSRs) will consist of text results of the review and marked up copies of Form I (results with qualifiers applied by the validator). Validation will consist of target and non-target compounds with corresponding method blank data, spike and surrogate recoveries, sample data, and a final note of validation decision or qualification, along with any pertinent footnote references. Qualifiers applied to the data will be documented in the report text.

There may be some analyses for which there is no established USEPA or NYSDEC data validation protocol. In such cases, validation will be based on the EPA Region II SOPs and EPA Functional Guidelines as much as possible, as well as the laboratory's adherence to the technical requirements of the method, and the professional judgment of the validator. The degree of rigor in such validation will correspond to the nature of the data and the significance of the data and its intended use. Unless otherwise requested, non-CLP data (e.g., total organic carbon) is not subject to validation.

7.3 FIELD DATA

Field chemistry data collected during air monitoring, and soil screening (e.g., OVM readings), will be presented on field logs and provided in the appendices of the report.

8.0 PERFORMANCE AND SYSTEM AUDITS

An audit of the laboratory(s) during the BCP work will not be performed unless warranted by a problem(s) that cannot be resolved by any other means, or at the discretion of GZA or NYSDEC.

9.0 QUALITY ASSURANCE REPORTS TO MANAGEMENT

Monthly project status reporting to the NYSDEC will include aspects of quality control that were pertinent during the month's activities. Problems revealed during review of the month's activities will be documented and addressed. These reports will include a description of completed and on-going activities, and an indication how each task is progressing relative to the project schedule.

The project manager, through task managers, will be responsible for verifying that records and files related to this project are stored appropriately and are retrievable.

The laboratory will submit memoranda or correspondence related to quality control of this project's samples as part of its deliverables package.

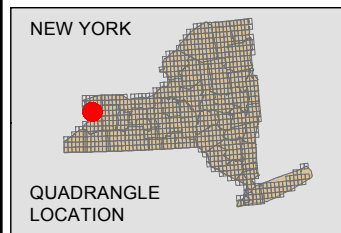
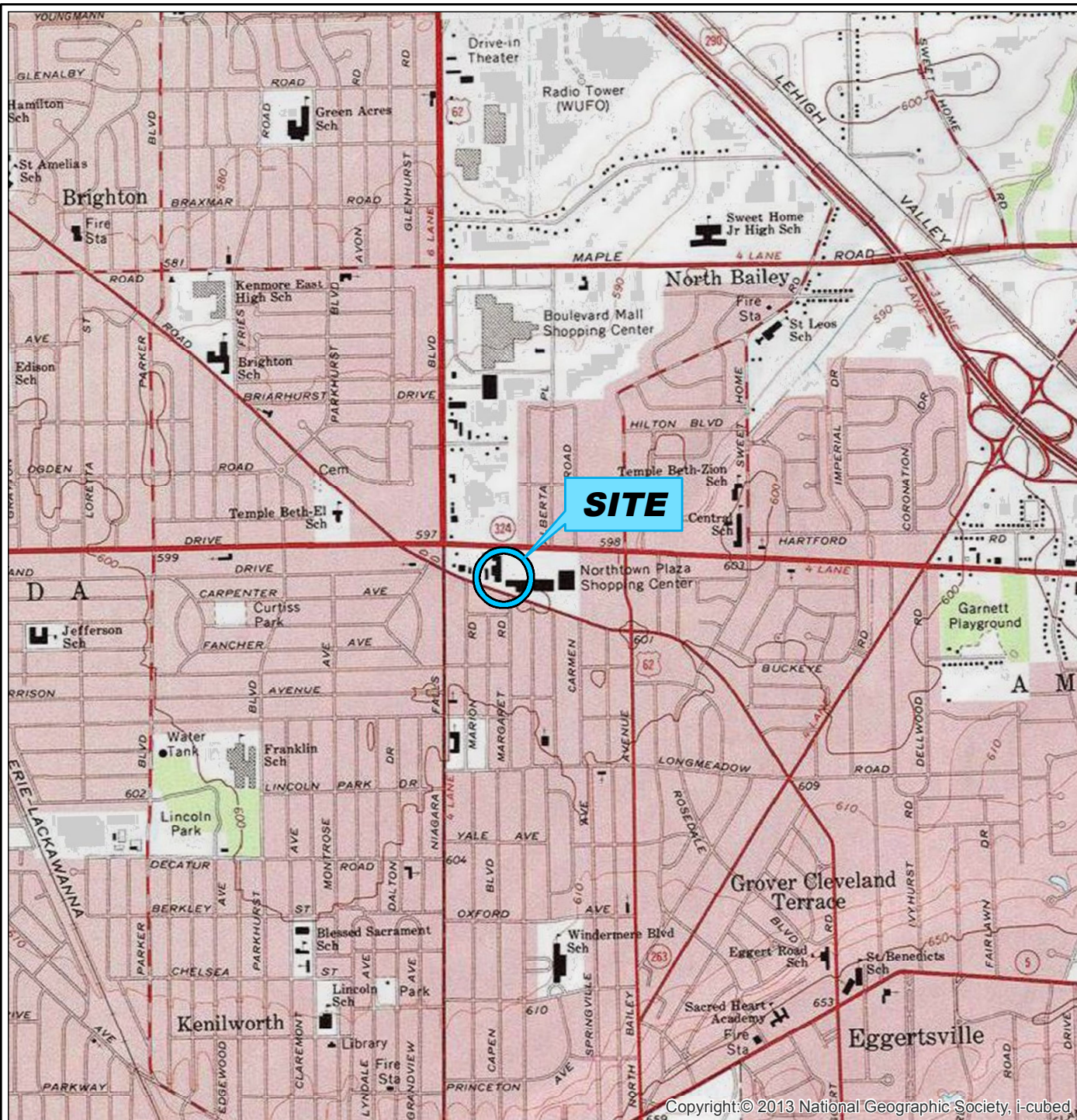
TABLES

Table 1
Summary of Sample Methods, Container, Preservation and Holding Time Requirements
Quality Assurance Project Plan
Northtown Inc.
Amherst, New York
Brownfield Cleanup Program
Site No. C915292

Analysis	Method	Holding Time (days)		Containers		Preservative
		To Extraction	To Analyze	Number	Type	
Soil Samples						
Volatile Organic Compounds	SW-846 8260B		14	2	L	Cool
Semivolatile Organic Compounds	SW-846 8270C	14	40	1 *	J	Cool
Aqueous Samples						
Volatile Organic Compounds	SW-846 8260B		14	3	G	Cool
Semivolatile Organic Compounds	SW-846 8270C	7	40	2	H	Cool
Notes:						
Container Types						
G - 40 ml glass, Teflon septum cap liner, HCL						
H - 1000 ml glass, Teflon cap liner						
J - 8 oz. wide mouth glass, Teflon cap liner						
L - 2 oz. glass widemouth with Teflon cap liner						
Preservatives						
Cool - Cool to 4 degrees Celsius						
* - Semi-volatiles analyses can take place from a single 8 ounce glass widemouth jar with a teflon lined cap.						

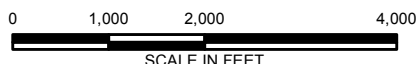
FIGURES

© 2015 - GZA GeoEnvironmental, Inc. T:\Clients\NorthernBC\PMXD\April2015 Deliverable\Figure1 LocusMap.mxd, 4/14/2015, 1:33:26 PM, patrick.finnerty




SOURCE : THIS MAP CONTAINS THE ESRI ARCGIS ONLINE USA TOPOGRAPHIC MAP SERVICE, PUBLISHED DECEMBER 12, 2009 BY ESRI ARCGIS SERVICES AND UPDATED AS NEEDED. THIS SERVICE USES UNIFORM NATIONALLY RECOGNIZED DATUM AND CARTOGRAPHY STANDARDS AND A VARIETY OF AVAILABLE SOURCES FROM SEVERAL DATA PROVIDERS

Data Supplied by :



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3045 SHERIDAN DRIVE AMHERST, NEW YORK 14226		PREPARED BY:  GZA GeoEnvironmental, Inc. of Buffalo Engineers and Scientists 535 WASHINGTON ST BUFFALO, NEW YORK 14203		PREPARED FOR: NORTHTOWN ASSOCIATES, LLC	
SITE LOCUS MAP		PROJ MGR: JJR	REVIEWED BY: TGB	CHECKED BY: BK	FIGURE 1
		DESIGNED BY: TGB	DRAWN BY: PCF	SCALE: 1" = 2,000'	
		DATE: April 2015	PROJECT NO. 31.0056687.30	REVISION NO.	



APPENDIX C

Health & Safety Plan

GZA SITE-SPECIFIC HEALTH, SAFETY & ACCIDENT PREVENTION STANDARD-PLAN

1. CLIENT/SITE/PROJECT INFORMATION		
Client: Northtown Associates, LLC		
Site Address: 3097 Sheridan Drive, Amherst, NY 14226		
Site Description, Work Environment: Active suburban shopping plaza, work environment is primarily outdoors in parking areas and indoors in active and vacant retail space.		
Job/Project #: 31.0056687.30	Estimated Start Date: June 2015	Estimated Finish Date: July 2015
Site is Covered by the Following Regulations:	OSHA HAZWOPER Standard <input checked="" type="checkbox"/>	Mine Safety and Health Administration <input type="checkbox"/>
	OSHA Construction Regulations <input type="checkbox"/>	None of these <input type="checkbox"/>

2. EMERGENCY INFORMATION		
Hospital Name: Millard Fillmore Suburban Hospital		Hospital #: (716) 568-3600
Hospital Address: 1540 Maple Road, Williamsville, NY 14221		Directions and Street Map Attached: <input checked="" type="checkbox"/> Yes
Local Fire #: 911 or	Local Ambulance #: 911 or	Local Police #: 911 or
WorkCare Incident Intervention Services:	For non-emergencies, if an employee becomes hurt or sick call 888-449-7787	
Other Emergency Contact(s):	Phone #'s:	
Site-Specific Emergency Preparedness/Response Procedures/Concerns:		
<ul style="list-style-type: none"> All EHS Events (incidents, first aid, near misses, unsafe acts/conditions, fires, chemical spills, property damage, extraordinary safe behaviors) must be reported immediately to the Project Manager, and within 24hours to the EHS Event Reporting Portal at www.kelleronline.com/portal. Username gempl1; Password 4Incidents!. In the event of a chemical release greater than 5 gallons, site personnel will evacuate the affected area and relocate to an upwind location. The GZA Field Safety Officer and client site representative shall be contacted immediately. Site work shall not be conducted during severe weather, including high winds and lightning. In the event of severe weather, stop work, lower any equipment (drill rigs), and evacuate the affected area. 		

3. SUB-SURFACE WORK, UNDERGROUND UTILITY LOCATION				
Will subsurface explorations be conducted as part of this work? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Site property ownership where underground explorations will be conducted on:		Public Access Property	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
		Private Property	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Have Necessary Underground Utility Notifications for Subsurface Work Been Made?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Yet to be conducted		
Specify Clearance Date & Time, Dig Safe Clearance I.D. #, And Other Relevant Information: Drilling and excavation subcontractors will be calling in the UFPO.				
IMPORTANT! For subsurface work, prior to the initiation of ground penetrating activities, GZA personnel to assess whether the underground utility clearance (UUC) process has been completed in a manner that appears acceptable, based on participation/ confirmation by other responsible parties (utility companies, subcontractor, client, owner, etc.), for the following:				
Electric:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____
Fuel (gas, petroleum, steam):	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____
Communication:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____
Water:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____
Sewer:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____
Other: _____	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA	<input type="checkbox"/> Other _____
Comments:				

GZA SITE-SPECIFIC HEALTH, SAFETY & ACCIDENT PREVENTION STANDARD-PLAN

4. SCOPE OF WORK	
<p>Any OSHA PERMIT-REQUIRED CONFINED SPACE entry?</p> <p style="text-align: center;"> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO </p> <p>If yes, use <u>Site Specific H&S Plan/Confined Space Entry Permit</u> for that portion of the work</p>	<p>Any INDOOR fieldwork? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>If yes, explain: Will be installing sub-slab depressurization systems in two tenant spaces in the strip plaza building and the Total Automotive building.</p>
<p>General project description, and phase(s) or work to which this H&S Plan applies.</p>	<p>GZA will implement Interim Remedial Measures using subcontractors that consist of the following activities: excavation and off-site disposal of USTs and related impacted soil at two locations, excavation and off-site disposal of PCE-impacted subsurface soil, installation of sub-slab depressurization systems at two commercial tenant spaces within the plaza and the Total Automotive building, including requisite sample collection, equipment decontamination and handling of investigation wastes.</p>
<p>Specific Tasks Performed by GZA:</p>	<p>GZA will observe excavation and SSDS installation subcontractors, screen soil for VOCs, provide CAMP monitoring, and collect confirmation and characterization soil and IDW samples.</p>
<p>Concurrent Tasks to be Performed by GZA Subcontractors (List Subcontractors by Name):</p>	<p>Monitoring well installation oversight, removal of the UST oversight, soil excavation oversight and analytical sampling/testing.</p>
<p>Concurrent Tasks to be Performed by Others:</p>	

5. SITE-SPECIFIC OVERVIEW OF H&S HAZARDS/MITIGATIONS (NOTE: Based on Hazard Assessment, Section 10)	
<p>Describe the major hazards expected to be present at the jobsite, and describe the safety measures to be implemented for worker protection. Use brief abstract statements or more detailed narrative as may be appropriate.</p>	
ON-SITE HAZARDS:	HAZARD MITIGATIONS:
Site Traffic	Use of Hi-Vis Safety vests and traffic cones. Avoiding work in main drive lanes of plaza
Underground Utilities	Review of site drawings, ground disturbance approval from facility management, UFPO clearance.
Soil Vapor	Screen soil cores and breathing zone for presence of organic vapors
Flammable Liquids	Use only approved fuel containers for fuel; store flammable liquids in an appropriate area when not in use
Hazardous Materials	Identify wells with hazardous concentrations of contaminants; sample wells in order of least to most impacted; wear proper gloves when handling jars
Noise	Wear appropriate hearing protection during activities that produce noise (running generators, air compressors, pumps, etc.)

GZA SITE-SPECIFIC HEALTH, SAFETY & ACCIDENT PREVENTION STANDARD-PLAN

6. HEALTH AND SAFETY EQUIPMENT AND CONTROLS

AIR MONITORING INSTRUMENTS

- ☒ PID Type: Lamp Energy: eV
- ☐ FID Type:
- ☐ Carbon Monoxide Meter
- ☐ Hydrogen Sulfide Meter
- ☐ O₂/LEL Meter
- ☐ Particulate (Dust) Meter
- ☐ Calibration Gas Type
- ☐ Others:

Note: Ensure instruments have been properly calibrated

OTHER H&S EQUIPMENT & GEAR

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

PERSONAL PROTECTIVE EQUIPMENT

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

Discuss/Clarify, as Appropriate:

7. AIR MONITORING ACTION LEVELS

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

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

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

☐ Applicable, See Below. ☒ Not Applicable

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

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

☐ Applicable, See Below. ☐ Not Applicable

Air Quality Parameters (Check all that apply)	Remain in Level D or Modified D	Response Actions for Elevated Airborne Hazards
<input checked="" type="checkbox"/> VOCs	0 to 5 ppm	From 5 ppm to 10 ppm: Proceed to Level C, or Ventilate, or Discontinue Activities If greater than 10 ppm: Proceed to Level B, or, Ventilate, or Discontinue Activities

GZA SITE-SPECIFIC HEALTH, SAFETY & ACCIDENT PREVENTION STANDARD-PLAN

<input type="checkbox"/> Carbon Monoxide	0 to 35 ppm	At greater than 35 ppm, exit area, provide adequate ventilation, proceed to Level B, or discontinue activities.
<input type="checkbox"/> Hydrogen Sulfide	0 to 10 ppm	At greater than 10 ppm, exit area, provide adequate ventilation, proceed to Level B, or discontinue activities
<input checked="" type="checkbox"/> Dust	0 to 100 mcg/m ³	If greater than 100 micro grams/m3 above background, employ dust suppression. If greater than 150 mcg/m3 above background stop work.
<input type="checkbox"/>		
SPECIAL INSTRUCTIONS/COMMENTS REGARDING AIR MONITORING (IF APPLICABLE)		

8. H&S TRAINING/QUALIFICATIONS FOR FIELD PERSONNEL

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

Discuss/Clarify, as needed:

9. PROJECT PERSONNEL - ROLES AND RESPONSIBILITIES

GZA ON-SITE PERSONNEL:

Name(s)	Project Title/Assigned Role	Telephone Numbers
Todd Bown	Site Supervisor	Work: 716-844-7044 Cell: 716-381-7778
Todd Bown	Field Safety Officer	Work: 716-844-7044 Cell: 716-381-7778
Todd Bown	First Aid Personnel	Work: 716-844-7044 Cell: 716-381-7778
Thomas Bohlen	GZA Project Team Members	Cell: 716-570-5983

Site Supervisors and Project Managers (SS/PM): Responsibility for compliance with GZA Health and Safety programs, policies, procedures and applicable laws and regulations is shared by all GZA management and supervisory personnel. This includes the need for effective oversight and supervision of project staff necessary to control the Health and Safety aspects of GZA on-site activities.

Site Safety Officer (SSO): The SSO is responsible for implementation of the Site Specific Health and Safety Plan.

First Aid Personnel: At least one individual designated by GZA who has current training and certification in basic first aid and cardiopulmonary resuscitation (CPR) must be present during on-site activities involving multiple GZA personnel.

GZA Project Team: Follow instructions relayed by the HASP and GZA manager on-site.

OTHER PROJECT PERSONNEL:

Name	Project Title/Assigned Role	Telephone Numbers
Bart Klettke	Principal-in-Charge	Work: 716-844-7035 Cell: 716-570-2093

GZA SITE-SPECIFIC HEALTH, SAFETY & ACCIDENT PREVENTION STANDARD-PLAN

Jim Richert	Project Manager	Work: 716-844-7048 Cell: 716-341-4459
Troy Miller	Health and Safety Coordinator (HSC)	Work: 716-844-7049 Cell: 716-343-5293
Richard Ecord	GZA EHS Director	Work: 781-278-3809 Cell: 404-234-2834
<p>Principal-in-Charge: Responsible of overall project oversight, including responsibility for Health and Safety.</p> <p>Project Manager: Responsible for day-to-day project management, including Health and Safety.</p> <p>Health and Safety Coordinator: General Health and Safety guidance and assistance.</p> <p>GZA EHS Director: H &S technical and regulatory guidance, assistance regarding GZA H&S policies and procedures.</p>		

10. HAZARD ASSESSMENT (CHECK ALL THAT APPLY)

A. GENERAL FIELDWORK HAZARDS

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

B. CHEMICAL/EXPOSURE HAZARDS

<input type="checkbox"/> No chemical hazards anticipated	<input type="checkbox"/> Methane
<input type="checkbox"/> Hydrogen Sulfide (H ₂ S)	<input type="checkbox"/> Chemicals Subject to OSHA Hazard Communication (Note: For commercial chemical products, attach MSDSs if applicable)
<input type="checkbox"/> Cyanides, Hydrogen Cyanide (HCN)	<input type="checkbox"/> Containerized Waste, Chemicals in Piping & Process Equipment
<input type="checkbox"/> Carbon Monoxide	<input checked="" type="checkbox"/> Emissions from Gasoline-, Diesel-, Propane-fired Engine, Heater, Similar Equipment
<input type="checkbox"/> Herbicides, Pesticide, Fungicide, Animal Poisons	<input type="checkbox"/> General Work Site Airborne Dust Hazards
<input type="checkbox"/> Metals, Metal Compounds	<input checked="" type="checkbox"/> Volatile Organic Compounds (VOCs), BTEX
<input type="checkbox"/> Corrosives, Acids, Caustics, Strong Irritants	<input checked="" type="checkbox"/> Chlorinated Organic Compounds
<input type="checkbox"/> Polychlorinated Biphenyls (PCBs)	<input checked="" type="checkbox"/> Fuel Oil, Gasoline, Petroleum Products, Waste Oil
<input type="checkbox"/> Polycyclic Aromatic Hydrocarbons (PAHs)	<input type="checkbox"/> Asbestos
<input type="checkbox"/> Compressed Gases	<input type="checkbox"/> Oxygen Deficiency, Asphyxiation Hazards
<input checked="" type="checkbox"/> Flammable/Combustible Liquids	<input type="checkbox"/> Other:
<input type="checkbox"/> Radiation Hazards (i.e. radioactive sealed/open source, x-rays, ultra violet, infrared, radio-frequency, etc.)	

GZA SITE-SPECIFIC HEALTH, SAFETY & ACCIDENT PREVENTION STANDARD-PLAN

11. PLAN ACKNOWLEDGEMENT AND APPROVALS

GZA Employee Plan Acknowledgement

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

GZA Employee Name	GZA Employee Signature	Date
Todd Bown		
Thomas Bohlen		


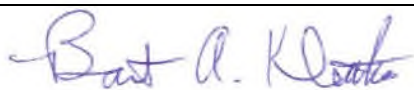
Subcontractor Employee Plan Acknowledgement

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

Subcontractor Employee Name	Subcontractor Employee Signatures	Date

GZA Site-Specific Health and Safety Plan Approval Signatures

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

GZA Signatory	Employee Name	Employee Signature	Date
Preparer:	Todd Bown		
EHS Reviewer:	Troy Miller		4/16/15
PIC Approval:	Bart Klettke		4/17/15

GZA SITE-SPECIFIC HEALTH, SAFETY & ACCIDENT PREVENTION STANDARD-PLAN



A 3097 Sheridan Dr, Amherst, NY 14226-1910

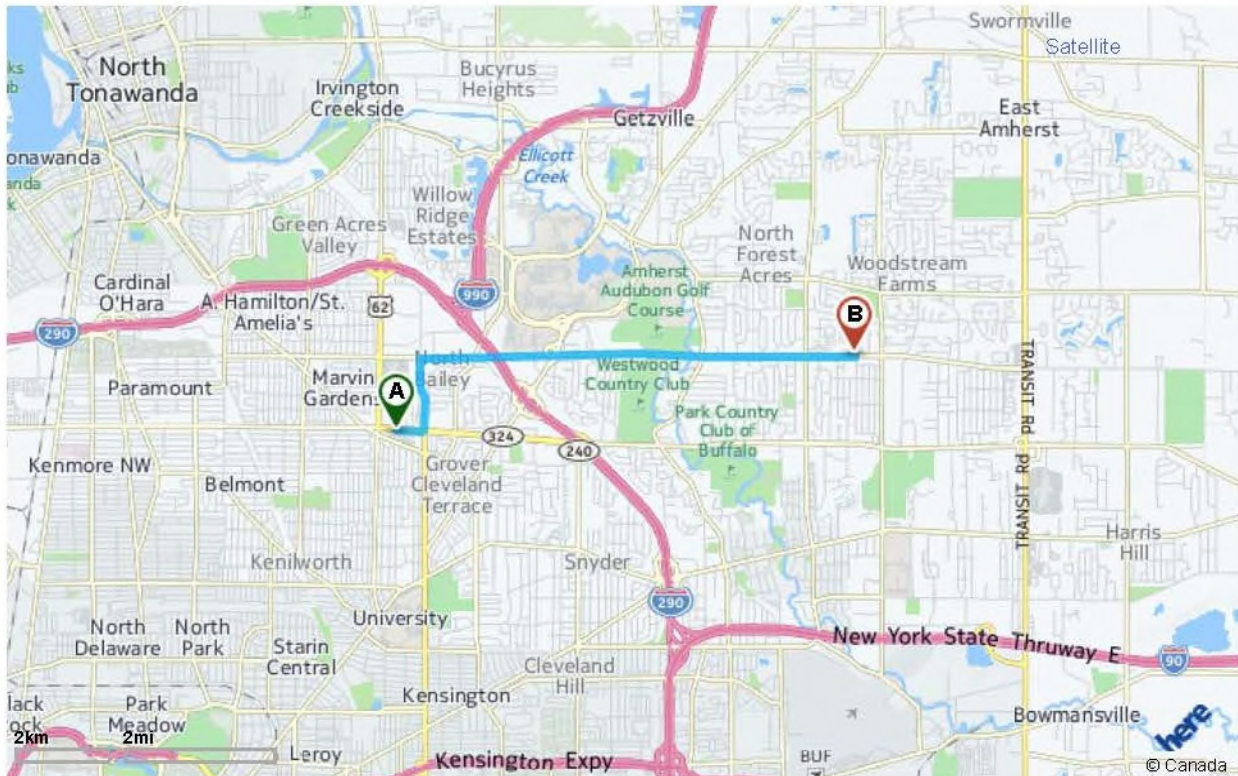
B 1540 Maple Rd, Buffalo, NY 14221-3647

Enter notes here

255

Total Distance: 5.3 mi— Total Time: 12 mins

Map Layout ☒ ☐ ☐



A 3097 Sheridan Dr, Amherst, NY 14226-1910

[Expand All](#)

Head east on Sheridan Dr (US-62)

Go for 0.3 mi

[Hide](#)



Turn left onto N Bailey Ave

Go for 0.7 mi

[Hide](#)



Turn right onto Maple Rd (CR-192)

Go for 4.3 mi

[Hide](#)

Arrive at Maple Rd (CR-192). Your destination is on the left.

[Hide](#)

New York State Department of Health Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

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

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

Community Air Monitoring Plan

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

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

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a **continuous** basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

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

Particulate Monitoring, Response Levels, and Actions

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

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

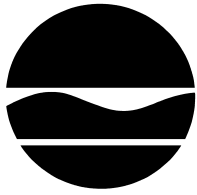
All readings must be recorded and be available for State (DEC and DOH) personnel to review.

June 20, 2000

P:\Bureau\Common\CommunityAirMonitoringPlan (CAMP)\GCAMPRI.DOC

APPENDIX D

Citizen Participation Plan



New York State Department of Environmental Conservation

Brownfield Cleanup Program

Citizen Participation Plan for Northtown Inc.

3097 Sheridan Drive
Town of Amherst
Erie County, New York
Site Number: C915292

May 2015

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* * * * *

Note: The information presented in this Citizen Participation Plan was current as of the date of its approval by the New York State Department of Environmental Conservation. Portions of this Citizen Participation Plan may be revised during the brownfield site’s remedial process.

Applicant: **Northtown Associates LLC (“Applicant”)**
Site Name: **Northtown Inc. (“site”)**
Site Address: **3097 Sheridan Drive**
Site County: **Erie County**
Site Number: **C915292**

1. What is New York’s Brownfield Cleanup Program?

New York’s Brownfield Cleanup Program (BCP) is designed to encourage the private sector to investigate, remediate (clean up) and redevelop brownfields. A brownfield is any real property where redevelopment or reuse may be complicated by the presence or potential presence of a contaminant. A brownfield typically is a former industrial or commercial property where operations may have resulted in environmental contamination. A brownfield can pose environmental, legal and financial burdens on a community. If the brownfield is not addressed, it can reduce property values in the area and affect economic development of nearby properties.

The BCP is administered by the New York State Department of Environmental Conservation (NYSDEC) which oversees Applicants that conduct brownfield site remedial activities.¹ An Applicant is a person whose request to participate in the BCP has been accepted by NYSDEC. The BCP contains investigation and remediation (cleanup) requirements, ensuring that cleanups protect public health and the environment. When NYSDEC certifies that these requirements have been met, the property can be reused or redeveloped for the intended use.

For more information about the BCP, go online at: <http://www.dec.ny.gov/chemical/8450.html> .

2. Citizen Participation Plan Overview

This Citizen Participation (CP) Plan provides members of the affected and interested public with information about how NYSDEC will inform and involve them during the investigation and remediation of the site identified above. The public information and involvement program will be carried out with assistance, as appropriate, from the Applicant.

Appendix A contains a map identifying the location of the site.

Project Contacts

Appendix B identifies NYSDEC project contact(s) to whom the public should address questions or request information about the site’s remedial program. The public’s suggestions about this CP

¹ “Remedial activities”, “remedial action”, and “remediation” are defined as all activities or actions undertaken to eliminate, remove, treat, abate, control, manage, or monitor contaminants at or coming from a brownfield site.

Plan and the CP program for the site are always welcome. Interested people are encouraged to share their ideas and suggestions with the project contacts at any time.

Document Repositories

The locations of the site's document repositories also are identified in Appendix B. The document repositories provide convenient access to important project documents for public review and comment.

Site Contact List

Appendix C contains the brownfield site contact list. This list has been developed to keep the community informed about, and involved in, the site's investigation and remediation process. The brownfield site contact list will be used periodically to distribute fact sheets that provide updates about the status of the project. These will include notifications of upcoming remedial activities at the site (such as fieldwork), as well as availability of project documents and announcements about public comment periods.

The brownfield site contact list includes, at a minimum:

- X chief executive officer and official(s) principally involved with relevant zoning and planning matters of each county, city, town and village in which the site is located;
- X residents, owners, and occupants of the site and properties adjacent to the site;
- X the public water supplier which services the area in which the site is located;
- X any person who has requested to be placed on the site contact list;
- X the administrator of any school or day care facility located on or near the site for purposes of posting and/or dissemination of information at the facility;
- X document repositories.

Where the site or adjacent real property contains multiple dwelling units, the Applicant will work with NYSDEC to develop an alternative method for providing such notice in lieu of mailing to each individual. For example, the owner of such a property that contains multiple dwellings may be requested to prominently display fact sheets and notices required to be developed during the site's remedial process. This procedure would substitute for the mailing of such notices and fact sheets, especially at locations where renters, tenants and other residents may number in the hundreds or thousands, making the mailing of such notices impractical.

The brownfield site contact list will be reviewed periodically and updated as appropriate. Individuals and organizations will be added to the site contact list upon request. Such requests should be submitted to the NYSDEC project contact(s) identified in Appendix B. Other additions to the brownfield site contact list may be made on a site-specific basis at the discretion of the NYSDEC project manager, in consultation with other NYSDEC staff as appropriate.

CP Activities

Appendix D identifies the CP activities, at a minimum, that have been and will be conducted during the site's remedial program. The flowchart in Appendix E shows how these CP activities integrate with the site remedial process. The public is informed about these CP activities through fact sheets and notices developed at significant points in the site's remedial process.

- X **Notices and fact sheets** help the interested and affected public to understand contamination issues related to a brownfield site, and the nature and progress of efforts to investigate and remediate a brownfield site.

- X **Public forums, comment periods and contact with project managers** provide opportunities for the public to contribute information, opinions and perspectives that have potential to influence decisions about a brownfield site's investigation and remediation.

The public is encouraged to contact project staff at any time during the site's remedial process with questions, comments, or requests for information about the remedial program.

This CP Plan may be revised due to changes in major issues of public concern identified in Section 6. or in the nature and scope of remedial activities. Modifications may include additions to the brownfield site contact list and changes in planned citizen participation activities.

3. Site Information

Site Description

The Northtown Plaza is located at 3097 Sheridan Drive in the Town of Amherst, Erie County, New York. Amherst is located approximately 10 miles east of Buffalo, New York. General adjoining land uses are residential and commercial. The proposed Brownfield Cleanup Program Area (BCP Area) consists of approximately 1.51 acres within a 19 +/- acre parcel (see Appendix A). The BCP Area consists of three Areas of Interest (AOIs). AOI-1 is located on the south-central portion of the parcel and is associated with an abandoned fuel oil underground storage tank (UST). AOI-1 is approximately 0.15-acres in size and has soil impacted by fuel oil. AOI-2 is located on the western portion of the parcel and is associated with another abandoned fuel oil UST. AOI-2 is approximately 0.05-acres in size and has soil impacted by fuel oil. AOI-3 is located on the western portion of the parcel in the vicinity of a former dry cleaning tenant space. AOI-3 is approximately 1.36-acres in size and is impacted by chlorinated volatile organic compounds (VOCs). The BCP Area is occupied by portions of the southern and western plaza buildings and associated paved parking areas.

Site History

The Site appears to have been agricultural land until it was developed for commercial use in the early 1950s. Site development occurred from the mid 1950s to 1983 when it reached a site configuration similar to today. Site occupant uses of environmental concern included a dry

cleaner. On-site dry cleaning operations ceased in the 1990s, but there currently is an active pick-up/drop-off dry cleaning tenant in the same location (cleaning is performed at an off-site facility). Dunn Tire and Total Automotive also currently occupy other portions of Northtown Plaza.

No USTs are currently used at the BCP Area or other portions of the Northtown Plaza. However, two USTs formerly used for heating oil remain at AOI-1 and AOI-2.

Environmental History

A Phase I Environmental Site Assessment (ESA) was completed by GZA for the entire Northtown Plaza property in accordance with ASTM 1527-05 identified Recognized Environmental Conditions (RECs). The RECs included the former use of USTs (see above) and the former on-site dry cleaning operations.

A Phase II ESA was completed by GZA to assess the identified RECs. The Phase II ESA included the following:

- The completion of 51 soil probes and the installation of three groundwater monitoring wells;
- The analyses of 53 soil samples for VOCs (Target Compound List (TCL)) via EPA Method 8260, semi-volatile organic compounds (SVOCs) (Spill Technology and Remediation (STARS) list) via EPA Method 8270, and Poly Chlorinated Biphenyls (PCBs) via EPA Method 8082;
- The analyses of three groundwater samples for VOCs (TCL) via EPA Method 8260;
- Indoor air and subslab soil vapor sampling at three tenant spaces;
- A camera survey of sewer lines associated with the dry cleaning unit; and,
- A GPR study of known current and former UST locations.

Soil impacts were detected at three discreet locations: proximate to the two abandoned fuel oil USTs and in the vicinity of the dry cleaner tenant space.

No VOCs were detected above NYSDEC Class GA Criteria in groundwater collected from the three monitoring wells completed at the Northtown Plaza.

Limited areas of visual and olfactory evidence of petroleum were encountered in the vicinity of the southern and western inactive heating oil USTs. NYSDEC was notified on May 9, 2014 and spill number 1401409 was assigned. The extent of the impact detected in the UST areas are immediately adjacent to the USTs and limited to the uppermost six to eight feet. Approximately 20 soil probes were completed on the west side of the dry cleaner's space. Fifty-three soil samples were analyzed for VOCs. Tetrachloroethene (PCE) was detected above the Unrestricted Soil Cleanup Objective (USCO) in 16 soil samples, above the Commercial Soil Cleanup Objective (CSCO) in two samples, and above the Industrial Soil Cleanup Objective (ISCO) in one sample. The PCE impacts were restricted to a depth of between six and 18 feet below ground surface. No surficial soil impacts were identified.

Monitoring wells installed in the area of the PCE soil impacts and two other locations did not show impacts to the groundwater in this area. Groundwater was encountered at approximately 50 feet below ground surface.

Soil vapor intrusion air sampling was completed in three strip plaza tenant spaces: the dry cleaners, the adjoining vacant unit (formerly occupied by Manhattan Bagel), and the basement of the Shoppers Choice store. Soil vapor intrusion air sampling was also completed in the Total Automotive building located near the western border of AOI-3. The air sampling was conducted in accordance with the New York State Department of Health (NYSDOH) guidelines.

PCE was detected above Air Guidance Values in the dry cleaning unit and the adjoining vacant unit. PCE was detected above Air Guidance Values in the Total Automotive building. No impacts to air quality were detected in the basement of the Shoppers Choice unit. It is noted that because PCE is used in the off-site business operations associated with the dry cleaning space (i.e. clothes dry cleaned off-site with solvents are stored here prior to pick-up), the NYSDOH guidance values may not be applicable. The levels observed were well below OSHA exposure levels.

The BCP Area consists of three AOIs totaling approximately 1.5-acres. AOI-1 is an abandoned fuel oil UST and is approximately 0.15-acres (6,480 square feet) and has soil impacted with fuel oil. AOI-2 is an abandoned fuel oil UST and is approximately 0.05-acres (2,215 square feet) and has soil impacted with fuel oil. AOI-3 is approximately 1.36-acres (65,600 square feet) and is located near the former dry cleaning space and has soil impacted with chlorinated VOCs.

To further characterize AOI-3, GZA completed a Pre-Design Field Characterization (PDFC) in March and April 2015. Twenty-five additional soil probes were advanced using direct push drilling methods; 18 of these soil probes were located at exterior areas of AOI-3, and seven were located within the vacant former Manhattan Bagel, which is directly north and adjacent to the dry cleaner space. GZA installed six, 1-inch diameter, shallow water monitoring wells at six of the soil probe locations.

The following field samples were collected as part of the PDFC:

- 30 subsurface soil samples;
- 7 sub-slab soil vapor samples;
- 7 indoor air samples, co-located with corresponding sub-slab soil vapor samples;
- 2 soil gas samples from beneath pavement; and
- 5 pore water samples, from the 5 wells that produced water of sufficient volume to sample.

All of the above samples were analyzed for chlorinated volatile organic compounds (CVOCs).

Results of the RDFC are summarized as follows:

- Two of the 30 subsurface soil samples contained PCE at a concentration greater than the CSCO, one of which also exceeded the ISCO.

- Soil vapor intrusion sampling performed at the six tenant spaces, north of the vacant which adjoins the drycleaner, did not detect significant CVOCs that would warrant further testing or mitigation.
- Pore water samples collected from the moist upper overburden at the two wells located within the known area of soil impact contained PCE at concentrations greater than the NYSDEC standard used for drinking water wells.
- Soil gas samples collected near the east and west boundaries of AOI-3 contained PCE at concentrations less than $10 \mu\text{g}/\text{m}^3$. The State of New York does not have standards, criteria or guidance values for concentrations of VOCs in subsurface soil vapors. For reference however, the concentrations detected were well below the NYSDOH indoor/outdoor air guidance values (AGV).

Hydrogeologic conditions encountered during the PDFC include:

- Subsurface soils to depths up to 24 feet consist of glacial till composed of clay with varying size and amounts of gravel and sand.
- The fine-grained compact nature of the subsurface soil inhibits flow of subsurface water and acts as a confining layer above the water bearing zone encountered during the Phase II investigation at significant depth (between 45 and 55 feet).
- The moist soils observed in the zero to 24 feet depth at the Site yielded no to little pore water.
- Water samples collected were of very high turbidity and are not representative of actual groundwater but are more so pore water or residual water maintained by capillary tension exerted by the soil pores.

Based on the results of the Phase II and PDFC, four areas of PCE impacted subsurface soil were identified at the western exterior of AOI-3. The extent of impact at each of these areas is of limited extent. The impacted depth intervals in exceedance of the CSCOs range from six feet to 17 feet. Soil samples collected from probes surrounding the four PCE impacted data points contained PCE at concentrations below the CSCO, illustrating the limited extent of the higher concentrations of PCE.

4. Remedial Process

Note: See Appendix E for a flowchart of the brownfield site remedial process.

Application

The Applicant has applied for acceptance into New York's Brownfield Cleanup Program as a Volunteer. This means that the Applicant was not responsible for the disposal or discharge of the contaminants or whose ownership or operation of the site took place after the discharge or disposal of contaminants. The Volunteer must fully characterize the nature and extent of contamination onsite, and must conduct a "qualitative exposure assessment," a process that characterizes the actual or potential exposures of people, fish and wildlife to contaminants on the site and to contamination that has migrated from the site.

The Applicant in its Application proposes that the site will be used for restricted purposes.

To achieve this goal, the Applicant will conduct remedial activities at the site with oversight provided by NYSDEC. The Brownfield Cleanup Agreement to be executed by NYSDEC and the Applicant sets forth the responsibilities of each party in conducting a remedial program at the site.

Investigation

If the Applicant conducts a remedial investigation (RI) of the site, it will be performed with NYSDEC oversight. The Applicant must develop a remedial investigation work plan, which is subject to public comment as noted in Appendix D. The goals of the investigation are as follows:

- 1) Define the nature and extent of contamination in soil, surface water, groundwater and any other impacted media;
- 2) Identify the source(s) of the contamination;
- 3) Assess the impact of the contamination on public health and/or the environment; and
- 4) Provide information to support the development of a Remedial Work Plan to address the contamination, or to support a conclusion that the contamination does not need to be addressed.

The Applicant will prepare an RI Report after it completes the RI. This report will summarize the results of the RI and will include the Applicant's recommendation of whether remediation is needed to address site-related contamination. The RI Report is subject to review and approval by NYSDEC. Before the RI Report is approved, a fact sheet that describes the RI Report will be sent to the site's contact list.

NYSDEC will determine if the site poses a significant threat to public health and/or the environment. If NYSDEC determines that the site is a "significant threat," a qualifying community group may apply for a Technical Assistance Grant (TAG). The purpose of a TAG is to provide funds to the qualifying community group to obtain independent technical assistance. This assistance helps the TAG recipient to interpret and understand existing environmental information about the nature and extent of contamination related to the site and the development/implementation of a remedy.

An eligible community group must certify that its membership represents the interests of the community affected by the site, and that its members' health, economic well-being or enjoyment of the environment may be affected by a release or threatened release of contamination at the eligible site.

For more information about the TAG Program and the availability of TAGs, go online at: <http://www.dec.ny.gov/regulations/2590.html> .

Remedy Selection

After NYSDEC approves the RI Report, the Applicant will be able to develop a Remedial Work Plan, if remediation is required. The Remedial Work Plan describes how the Applicant would address the contamination related to the site.

The public will have the opportunity to review and comment on the draft Remedial Work Plan. The site contact list will be sent a fact sheet that describes the draft Remedial Work Plan and announces a 45-day public comment period. NYSDEC will factor this input into its decision to approve, reject or modify the draft Remedial Work Plan.

A public meeting may be held by NYSDEC about the proposed Remedial Work Plan if requested by the affected community and if significant substantive issues are raised about the draft Remedial Work Plan. Please note that, in order to request a public meeting, the health, economic well-being or enjoyment of the environment of those requesting the public meeting must be threatened or potentially threatened by the site. In addition, the request for the public meeting should be made within the first 30 days of the 45-day public comment period for the draft Remedial Work Plan. A public meeting also may be held at the discretion of the NYSDEC project manager in consultation with other NYSDEC staff as appropriate.

Remedial Action

Approval of the Remedial Work Plan by NYSDEC will allow the Applicant to design and construct the alternative selected to remediate the site. The site contact list will receive notification before the start of site remediation. When the Applicant completes remedial activities, it will prepare a final engineering report that certifies that remediation requirements have been achieved or will be achieved within a specific time frame. NYSDEC will review the report to be certain that the remediation is protective of public health and the environment for the intended use of the site. The site contact list will receive a fact sheet that announces the completion of remedial activities and the review of the final engineering report.

Certificate of Completion and Site Management

Once NYSDEC approves the final engineering report, it will issue the Applicant a Certificate of Completion. This Certificate states that remediation goals have been achieved, and relieves the Applicant from future remedial liability, subject to statutory conditions. The Certificate also includes a description of any institutional and engineering controls or monitoring required by the approved remedial work plan. If the Applicant uses institutional controls or engineering controls to achieve remedial objectives, the site contact list will receive a fact sheet that discusses such controls.

An institutional control is a non-physical restriction on use of the brownfield site, such as a deed restriction that would prevent or restrict certain uses of the remediated property. An institutional control may be used when the remedial action leaves some contamination that makes the site suitable for some, but not all uses.

An engineering control is a physical barrier or method to manage contamination, such as a cap or vapor barrier.

Site management will be conducted by the Applicant as required. NYSDEC will provide appropriate oversight. Site management involves the institutional and engineering controls required for the brownfield site. Examples include: operation of a water treatment plant, maintenance of a cap or cover, and monitoring of groundwater quality.

5. Citizen Participation Activities

CP activities that have already occurred and are planned during the investigation and remediation of the site under the BCP are identified in Appendix D: Identification of Citizen Participation Activities. These activities also are identified in the flowchart of the BCP process in Appendix E. NYSDEC will ensure that these CP activities are conducted, with appropriate assistance from the Applicant.

All CP activities are conducted to provide the public with significant information about site findings and planned remedial activities, and some activities announce comment periods and request public input about important draft documents such as the Remedial Work Plan.

All written materials developed for the public will be reviewed and approved by NYSDEC for clarity and accuracy before they are distributed. Notices and fact sheets can be combined at the discretion, and with the approval of, NYSDEC.

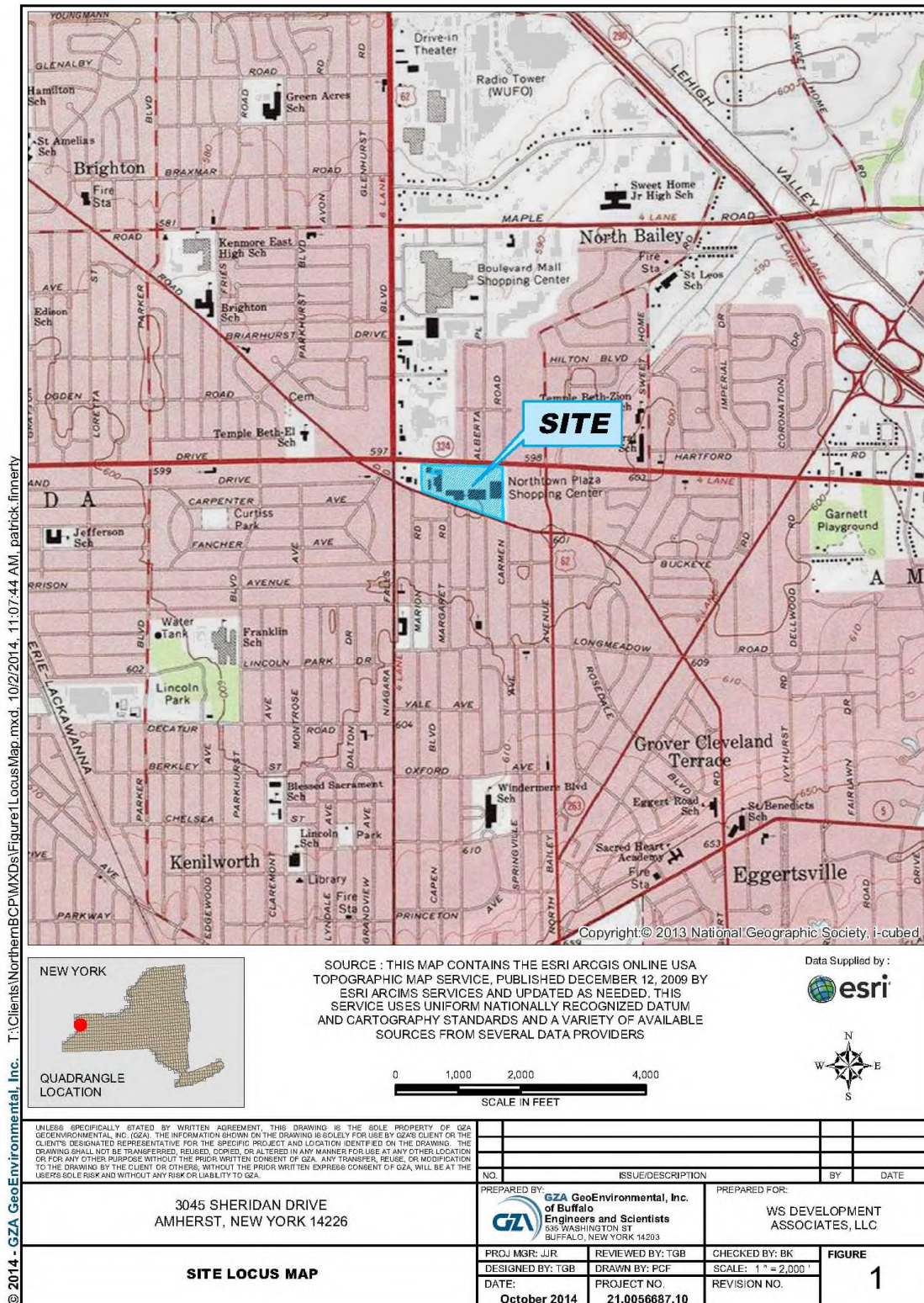
6. Major Issues of Public Concern

This section of the CP Plan identifies major issues of public concern, if any, that relate to the site. Additional major issues of public concern may be identified during the site's remedial process.

At this time, no Major Issues of Public Concern have been identified. Upon completion of the Interim remedial measures, this section may be revisited to determine if any major issues of public concern have been identified.

The Contact List in Appendix C will be used to keep the community informed of the Interim remedial process. It will be used periodically to distribute fact sheets that provide updates about the status of the BCP project. These will include availability of project documents and announcements about public comment periods.

Appendix A – Site Location Map



Appendix B – Project Contacts and Document Repositories

Project Contacts

For information about the site's remedial program, the public may contact any of the following project staff:

New York State Department of Environmental Conservation (NYSDEC):

Timothy Dieffenbach
Project Manager
NYSDEC 9
Division of Environmental Remediation
270 Michigan Avenue, Buffalo, NY 14203
716-851-7220

Mark Baetzhold
Citizen Participation Specialist
NYSDEC 9
270 Michigan Avenue, Buffalo, NY 14203
716-851-7220

New York State Department of Health (NYSDOH):

Brad Wenskoski
Project Manager
NYSDOH
Empire State Plaza, Corning Tower, Room
1787
Albany, New York 12237
518/486-7860

Document Repositories

The document repositories identified below have been established to provide the public with convenient access to important project documents:

Audubon Branch Library
350 John J. Audubon Parkway
Amherst, NY 14228
Attn: Roseanne Butler-Smith
Hours: Monday through Thursday 10 am to 9 pm
Fri & Sat: 10 am to 6 pm
Sunday: 12 pm to 5 pm
Phone: 716-689-4922

NYSDEC Region 9 Office
Attn: Tim Dieffenbach
Phone: 716-851-7220
(call for appointment)

Appendix C – Brownfield Site Contact List

<u>NYS Department of Conservation</u> Gregory Sutton, P.E. 270 Michigan Avenue Buffalo, NY 14203	<u>Town of Amherst – Council Members</u> Ramona D. Popowich 5583 Main Street Williamsville, NY 14221
<u>NYS Department of Health</u> Matthew Forcucci 584 Delaware Avenue Buffalo, NY 14203	<u>Town of Amherst – Council Members</u> Steven D. Sanders 5583 Main Street Williamsville, NY 14221
<u>Erie County – Executive</u> Mark Poloncarz 95 Franklin Street Buffalo, NY 14202	<u>Town of Amherst – Community Development</u> Susan DiVita 5583 Main Street Williamsville, NY 14221
<u>Erie County – Department of Environment & Planning</u> Maria R. Whyte 95 Franklin Street Buffalo, NY 14202	<u>Town of Amherst – Planning Department</u> Eric Gillert 5583 Main Street Williamsville, NY 14221
<u>Town of Amherst – Supervisor</u> Dr. Barry A. Weinstein 5583 Main Street Williamsville, NY 14221	<u>Town of Amherst – Building Department</u> Thomas Ketchum 5583 Main Street Williamsville, NY 14221
<u>Town of Amherst – Deputy Supervisor</u> Guy R. Marlette 5583 Main Street Williamsville, NY 14221	<u>Town of Amherst – Town Clerk</u> Marjory Jaeger 5583 Main Street Williamsville, NY 14221
<u>Town of Amherst – Council Members</u> Mark A. Manna 5583 Main Street Williamsville, NY 14221	<u>Roseanne Butler-Smith – Director</u> Audubon Branch Library 350 John J Audubon Parkway Amherst, NY 14228
<u>Town of Amherst – Town Comptroller</u> Darlene Carroll 5583 Main Street Williamsville, NY 14221	<u>Town of Amherst – Town Attorney</u> E. Thomas Jones 5583 Main Street Williamsville, NY 14221

<u>Branch Holdings LLC</u> Thompson Property Tax Services PO Box 460049 Houston, TX 77056	<u>Kavcon Development LLC</u> 2230 South Park Ave Buffalo, NY 14220
<u>Demakos & Co Trust</u> Peter Demakos 4568 N. Bailey Ave Amherst, NY 14226	<u>First Niagara Bank</u> 726 Exchange Street Buffalo, NY 14220
<u>3171 Sheridan Drive LLC</u> Keybank National Association PO Box 961009 Fort Worth, TX 76161	Norberto F. DiSante 15 Argosy Drive Amherst, NY 14226
<u>Ni's Family Inc.</u> 3173 Sheridan Drive Amherst, NY 14226	<u>Bailey Properties LLC</u> 4513 Bailey Ave Amherst, NY 14226
<u>Bailey Properties LLC</u> Dean Davis 47 Tee Ct. Williamsville, NY 14221	William & Margaret Guiher 141 Broadmoor Drive Tonawanda, NY 14150
<u>Amherst Bee – Advertising Dept.</u> 204-4934 Salesdept@BeeNews.com Advertising Sales Director: Mary Anne Cappon (716) 204-4937 macappon@BeeNews.com	<u>Colvin Brighton Child Care Center</u> P.K. Curtis Presbyterian Church 748 Woodland Drive Buffalo, NY 14223
Jonathan O'Rourke – Chairman Town of Amherst Planning Board 5583 Main Street, Williamsville, NY 14221	Erie County Water Authority 295 Main Street Buffalo, New York 14047

<u>FEDERAL MEAT</u> Federal Markets Co., Inc. 3366 Genesee Street Cheektowaga, New York 14225	<u>TREATS UNLEASHED</u> Treats Unleashed, Inc. 3057 Sheridan Drive Amherst, New York 14226
<u>MY BURGER BAR</u> My Tomato Pie, Inc. D.B.A. My Burger Bar 3085 Sheridan Drive Amherst, New York 14226	<u>RIVERSIDE MEN'S SHOP</u> Neumann-Zeal, Corp. 3063 Sheridan Drive Amherst, New York 14226
<u>SHOPPER'S CHOICE</u> Chapel Enterprises, Inc. 66 Fox Chapel Drive Orchard Park, New York 14127	<u>CUTTING EDGE SPORTS</u> Joe DiPietro, D.B.A. Cutting Edge Sports 1063 100th Street Niagara Falls, New York 14304
<u>JACKSON HEWITT TAX SERVICE</u> Jackson Hewitt Tax Service 3071 Sheridan Drive Amherst, New York 14226	<u>TOTAL AUTOMOTIVE, INC.</u> Total Automotive, Inc. 2125 Eggert Road Amherst, New York 14226
<u>GI-RO CLEANERS</u> GI-RO Cleaners 3079 Sheridan Drive Amherst, N.Y. 14226	<u>FANCY FLORIST</u> Lash Varadan 2119 Eggert Road Amherst, New York 14226
<u>CONOVER CHIROPRACTIC (DR. KEITH CONOVER)</u> Dr. Keith Conover 2107 Eggert Road Amherst, New York 14226	

ADJACENT PROPERTIES TO BE REMOVED FROM CPP CONTACT LIST THAT WILL GO TO THE DOCUMENT REPOSITORY

TABLE 1: ADJACENT PROPERTY OWNERS

SBL	Street Address	City	State	Property Description	Owner 1	Owner 2
67.10-1-2	3025 SHERIDAN DR	Amherst	NY	>1use sm bld	KAVCON DEVELOPMENT LLC	
67.10-1-4.1	3051 SHERIDAN DR	Amherst	NY	Bank	FIRST NIAGARA BANK	NATIONAL ASSOCIATION
67.10-1-5.1	2131 EGGERT RD	Amherst	NY	Auto body	KAVCON DEVELOPMENT LLC	
67.41-1-1	3171 SHERIDAN DR	Amherst	NY	Branch bank	3171 SHERIDAN DRIVE LLC	C/O ATTN: KEYBANK NATIONAL ASS
67.41-1-8	3173 SHERIDAN DR	Amherst	NY	>1use sm bld	NI'S FAMILY INC.	
67.41-1-19	4550 BAILEY AVE	Amherst	NY	>1use sm bld	DEMAKOS & CO TRUST	C/O ATTN: PETER DEMAKOS
67.41-1-4	1971 EGGERT RD	Amherst	NY	Apartment	DAVIS DEAN A	
67.41-1-5	1963 EGGERT RD	Amherst	NY	Apartment	DAVIS DEAN A	
67.41-1-6	1957 EGGERT RD	Amherst	NY	Apartment	DAVIS DEAN A	
67.41-1-10	1947 EGGERT RD	Amherst	NY	Apartment	DAVIS DEAN A	
67.41-1-11	1941 EGGERT RD	Amherst	NY	Apartment	DI SANTE NORBERTO F	
67.41-1-12	1935 EGGERT RD	Amherst	NY	Apartment	DI SANTE NORBERTO F &	DI SANTE JULIA H/W
67.41-1-14	4510 BAILEY AVE	Amherst	NY	1 use sm bld	BAILEY PROPERTIES LLC	
67.41-1-16	4524 BAILEY AVE	Amherst	NY	>1use sm bld	GUIHER WILLIAM &	GUIHER MARGARET

Appendix D – Identification of Citizen Participation Activities

Required Citizen Participation (CP) Activities	Timing of CP Requirement(s)
Application Process:	
<ul style="list-style-type: none"> • Prepare brownfield site contact list (BSCL) 	When Requestor prepares Application to participate in BCP
<ul style="list-style-type: none"> • Establish document repository • Place complete Application in document repository • Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day comment period • Publish notice in local newspaper • Mail notice to site contact list • Conduct 30-day public comment period on the complete Application 	When NYSDEC determines that Application is complete. Comment period begins on publication date of ENB notice. End date is as stated in ENB notice. ENB, newspaper, and site contact list notices should be provided at the same time. Notice should request comments on all appropriate documents included in Application package (RI Work Plan, RI Report and/or RWP)
After Execution of Brownfield Cleanup Agreement (BCA):	
<ul style="list-style-type: none"> • Prepare Citizen Participation (CP) Plan 	Draft CP Plan must be submitted to NYSDEC within 20 days of execution of BCA. CP Plan must be approved by NYSDEC before distribution
Before NYSDEC Approves Proposed Remedial Investigation (RI) Work Plan:	
<ul style="list-style-type: none"> • Place proposed RI Work Plan in document repository • Mail fact sheet to BSCL about proposed RI Work Plan and 30-day public comment period on the proposed RI Work Plan 	Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with Application, comment periods will be combined and public notice will include fact sheet. 30-day comment period begins/ends as per dates identified in fact sheet
<ul style="list-style-type: none"> • Place approved RI Work Plan in document repository 	When NYSDEC approves RI Work Plan
Before NYSDEC Approves Remedial Investigation Report:	
<ul style="list-style-type: none"> • Mail fact sheet to BSCL that describes RI results 	Before NYSDEC approves RI Report
<ul style="list-style-type: none"> • Place approved RI Report in document repository 	When NYSDEC approves RI Report
Significant Threat Determination:	
<ul style="list-style-type: none"> • Mail fact sheet to BSCL that discusses significant threat determination. Combine notice with another fact sheet where appropriate 	Determination may be made any time during remedial process but no later than 20 days after NYSDEC approves RI Report. A significant threat site is eligible for a Technical Assistance Grant
Before NYSDEC Approves Remedial Work Plan (RWP):	
<ul style="list-style-type: none"> • Place draft RWP in document repository • Mail fact sheet to BSCL that describes draft RWP and announces 45-day comment period • Conduct 45-day public comment period about draft RWP • Hold public meeting about draft RWP if site a significant threat and requested by community 	Before NYSDEC approves RWP. Comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 45-day comment period
<ul style="list-style-type: none"> • Place approved RWP and final Decision Document in document repository 	When NYSDEC approves RWP and finalizes Decision Document
(continued)	

Required Citizen Participation (CP) Activities	Timing of CP Requirement(s)
Before Applicant Starts Remedial Action (RA): <ul style="list-style-type: none"> • Mail fact sheet to BSCL that describes upcoming RA 	Before the start of RA at the site
Before NYSDEC Approves Final Engineering Report: <ul style="list-style-type: none"> • Mail fact sheet to BSCL that describes report, and any proposed institutional/engineering controls • Mail fact sheet to BSCL announcing issuance of Certificate of Completion (COC) 	Before NYSDEC approves Final Engineering Report
When NYSDEC Issues Certificate of Completion (COC): <ul style="list-style-type: none"> • Place notice of COC in document repository • Mail fact sheet to site contact list that announces issuance of COC 	Within 10 days after NYSDEC issues COC

Appendix E – Brownfield Cleanup Program Process

