Division of Environmental Remediation

Phase II
Remedial Investigation
Scope of Work

Highland Plaza Off-Site Area
Tonawanda, Erie County, New York
Site Number C915293A

September 2023

New York State Department of Environmental Conservation
Region 9
700 Delaware Avenue
Buffalo, New York 14203

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1.0 OBJECTIVES

During the 2015 Remedial Investigation completed at the Highland Plaza BCP Site (Site no. C915293), significant concentrations of chlorinated volatile organic compounds (VOCs) were detected in soil and groundwater in the service alleyway behind the Highland Plaza BCP Site. The New York State Department of Environmental Conservation (NYSDEC) has assigned this off-site area site number C915293A and called it the Highland Plaza Off-Site Area. The BCP applicant, as a volunteer, was required to investigate off-site areas to determine if contaminants had migrated from the site, but was not required to complete a full remedial investigation or remediate off-site impacts.

The main elements of the NYSDEC Remedial Investigation were completed between May 1 and June 22, 2017, and included the following activities: (1) the completion of an initial site survey that included property boundaries, site features, and the locations of the fill samples, soil borings and monitoring wells collected/completed during the Remedial Investigation of the Highland Plaza BCP Site (Site C915293); (2) the completion of soil borings throughout the Highland Plaza Off-Site Area for purposes of characterizing the geology of the site and facilitating sample collection; (3) the collection of surface soil (0" to 2" depth), shallow fill (<2' depth) and subsurface soil samples from throughout the Highland Plaza Off-Site Area for chemical analysis; (4) the collection of a surface water sample from a shallow ditch in the alleyway for chemical analysis; (5) the collection of groundwater samples in 2017, 2019 and 2021 for chemical analysis; (6) the collection of sump water samples from residential and commercial buildings surrounding the Highland Plaza BCP Site and Off-Site Area; (7) the completion of data validation in the form of Data Usability Summary Reports; (8) the completion of a final site survey; and (9) the preparation of a Remedial Investigation Report.

The NYSDEC is preparing to begin a Phase II Remedial Investigation (RI) at the Highland Plaza Off-Site Area. The overall objective of the Phase II RI is to more fully delineate the nature and extent of contamination for purposes of evaluating and selecting a remedial alternative. The specific objectives of the Phase II RI are to:

- Further evaluate the nature and extent of shallow fill contamination documented during the NYSDEC Remedial Investigation;

- Further evaluate the nature and extent of shallow subsurface soil contamination documented during the NYSDEC Remedial Investigation; and

- Further evaluate the nature and extent of groundwater contamination documented during the BCP and NYSDEC Remedial Investigations.

The specific responsibilities of the NYSDEC and its Standby Spill Contractor are given in Section 3.0 of this Scope of Work. The NYSDEC is the lead agency for this investigation.

2.0 SITE HISTORY AND BACKGROUND

2.1 Site Description

The Highland Plaza BCP Site (Site C915293) is located at 215 Highland Parkway in the Town of Tonawanda, Erie County, New York (Figures 2-1 and 2-2). The site is bordered by Highland Parkway and commercial properties to the north, commercial properties to the east, a service alleyway and residential properties to the south, and a CITGO gas station and Colvin Boulevard to the west (Figure 2-2). The site is approximately 250 feet long by 100 feet wide, and covers an area of approximately 0.7 acres.

The Highland Plaza Off-Site Area (Site C915293A) is located behind the Highland Plaza BCP Site (Figure 2-2). The site is bordered by the Highland Plaza BCP Site to the north, commercial and residential properties to the east, residential properties and Grimsby Road to the south, and commercial properties and Colvin Boulevard to the west. The service alleyway is approximately 320 feet long by 25 feet wide, and covers an area of approximately 0.25 acres. The exact area of the C915293A site is unknown, however, as the extent of contamination has not been fully delineated.

2.2 Site Features

Approximately 50% of the Highland Plaza BCP Site is occupied by a one-story strip plaza, with most of the remaining space covered by concrete sidewalks and an asphalt parking lot (Figure 2-3). A soil cover exists over a 2.5-foot strip behind the plaza building, adjacent to the alleyway (Figure 2-3). The strip plaza consists of three separate but connected slab on grade cinder block buildings that are subdivided into eight commercial tenant spaces. The C915293A site is vacant, although a gravel service road runs through the center of the site (Figure 2-3). Overhead and underground utilities are also present in the alleyway. Narrow strips of vegetation are located between the plaza building and the service road (grass and weeds), and between the service road and fences that separate the alleyway from the adjacent residential properties to the south (grass, weeds, and brush). The topography of both sites is generally flat.

2.3 Site History & Ownership

Historic information concerning the Highland Plaza BCP Site and Off-Site Area is extremely limited and has largely been elucidated through a review of historic aerial photographs, Sanborn maps and city directories. A 1928 Sanborn map indicates that neither site was developed, although the C915293 property was subdivided into parcels for future residential development. By 1950 the C915293 site was fully developed into a strip plaza, and all of the homes on Grimsby Road had been constructed. Existing information suggests that the service alleyway (Site C915293A) was always vacant. Use of the Highland Plaza BCP Site (C915293) and Off-Site Area (C915293A) have remained unchanged to the present time.

One of the former tenants in the plaza was High Park Cleaners, which closed in March 2010. It is unknown when dry cleaning operations at the plaza began, but a Polk directory from 1963 indicates that High Park Cleaners was in operation at 231 Highland Parkway within the plaza. The Polk directory from 1973, however, indicates that the dry cleaner now occupied 235 Highland Parkway within the plaza, with the Rags to Riches fabric shop now located at 231 Highland Parkway. High Park Cleaners occupied 235 Highland Parkway until it closed.

2.4 Investigation History

In 2014, a Limited Site Investigation and Vapor Intrusion Study (SI-VIS) was completed to evaluate the strip plaza prior to its purchase by the current owner. During this study, twelve (12) soil borings were completed throughout the property to facilitate sample collection, while three (3) shallow (6" to 12" depth) fill samples were collected from the alleyway behind the plaza (Figure 2-4). In addition, a soil vapor intrusion investigation was completed in the former dry cleaner tenant space. Soil and fill samples collected from the plaza property contained trichloroethene and tetrachloroethene, while soil vapor contained elevated concentrations of dichloroethene, tetrachloroethene, and trichloroethene.

Based upon the results of the SI-VIS, the current owner applied to the NYSDEC's Brownfield Cleanup Program (BCP) in February 2015. The Highland Plaza property was accepted into the BCP in April 2015 and was assigned site number C915293 by the NYSDEC.

During the Remedial Investigation completed at the Highland Plaza BCP Site in the fall of

2015 and spring of 2016, soil outside the strip plaza building and on adjacent properties to the east and south were evaluated. In addition, monitoring wells were installed both on-site and off-site to evaluate groundwater quality and flow direction. The locations of the shallow soil and fill samples, soil borings and monitoring wells collected/completed during the RI are shown on Figure 2-5.

In 2017 the NYSDEC completed a Remedial Investigation at the Highland Plaza Off-Site Area to better define the nature and extent of contamination. During this investigation, twenty-four (24) soil borings were completed throughout the property to facilitate sample collection (Figure 2-6). In total, nine (9) shallow fill samples (Figure 2-7), one hundred forty (140) subsurface soil samples (Figure 2-8), and fifteen (15) groundwater samples (Figure 2-9) were collected.

The results of the previous investigations of the Highland Plaza BCP Site (SI-VIS and RI) as they pertain to the Highland Plaza Off-Site Area (Site no. C915293A) are summarized in the subsections below.

2.4.1 Shallow Fill Analytical Results

Twenty-eight (28) shallow fill samples were collected from the Highland Plaza Off-Site Area to evaluate the nature and extent of contamination of this material. The locations of these samples are shown on Figure 2-7. In summary, the following exceedances of the NYSDEC Part 375 unrestricted soil cleanup objectives were documented for chlorinated VOCs, the primary contaminants of concern: cis-1,2-dichloroethene (3 samples), tetrachloroethene (10 samples) and trichloroethene (4 samples). Tetrachloroethene (10 samples) and trichloroethene (1 sample) also exceeded the NYSDEC Part 375 residential soil cleanup objectives. These exceedances are summarized in Tables 2-1A thru 2-1D. The locations of the shallow fill samples that exceeded the residential soil cleanup objectives for the primary contaminants of concern are shown on Figure 2-10. This figure shows that primary contaminant exceedances were confined to a narrow strip of land between the gravel service road and fence line directly behind the former High Park Cleaners tenant space.

2.4.2 Subsurface Soil Analytical Results

One hundred fifty-three (153) subsurface soil samples were collected from the Highland Plaza Off-Site Area to evaluate the nature and extent of contamination at the site. The locations of these samples are shown on Figure 2-8. In summary, the following exceedances of the NYSDEC Part 375 unrestricted soil cleanup objectives were documented for the primary contaminants of concern: cis-1,2-dichloroethene (2 samples), tetrachloroethene (40 samples) and trichloroethene (3 samples). Tetrachloroethene (32 samples) also exceeded the NYSDEC Part 375 residential soil cleanup objectives. These exceedances are summarized in Tables 2-2A thru 2-2F. The locations of the subsurface soil samples that exceeded the residential soil cleanup objectives for the primary contaminants of concern are shown on Figure 2-11.

Figure 2-11 shows that chlorinated VOC contamination in subsurface soil, specifically tetrachloroethene, is largely confined to the service alleyway behind the former dry cleaner tenant space of Highland Plaza. The spatial distribution of the exceedances suggests that the spent dry-cleaning fluid was poured or thrown onto the ground surface behind the facility. The presence of tetrachloroethene in the shallow sample collected from soil boring SB-33 does not appear to be connected with the area of disposal (Figure 2-11). It should be noted, however, that a shallow ditch is present between the gravel service road and fence line, and it is possible that the spent dry-cleaning fluid flowed down this shallow ditch to the SB-33 location.

2.4.3 Groundwater Analytical Results

Five (5) overburden monitoring wells were installed during the Remedial Investigation of the Highland Plaza BCP Site. Three (3) of these wells are located on the Highland Plaza BCP Site with the other two (2) wells located on the Highland Plaza Off-Site Area. The locations of these wells are shown on Figure 2-9. Twenty (20) groundwater samples have been collected from these wells to evaluate the nature and extent of groundwater contamination at the site. In summary, the following exceedances of the NYSDEC groundwater standards and guidance values were documented for the primary contaminants of concern: 1,1-dichloroethene (1 sample), cis-1,2-dichloroethene (7 samples), trans-1,2-dichloroethene (2 samples), tetrachloroethene (6 samples), and trichloroethene (5 samples). These exceedances are summarized in Tables 2-3A thru 2-3C.

The most significant impact to groundwater by the primary contaminants of concern was documented in the off-site wells in the alleyway (wells MW-4 and MW-5), where the subsurface soil results suggest that the disposal of spent dry-cleaning fluid took place. Groundwater contamination decreases significantly as groundwater flows to the north under Highland Plaza. Tables 2-3A thru 2-3C also indicate that groundwater concentrations of the primary contaminants of concern have decreased over time in wells MW-4 and MW-5.

2.5 Site Geology and Hydrogeology

The entire Highland Plaza BCP Site (Site no. C915293) is covered by either 1 foot of asphalt and crushed stone (the parking lot area) or 0.5 feet of concrete (the building floor slab and sidewalks; Table 2-4). The service road in the Highland Plaza Off-Site Area consists of crushed stone and asphalt millings. The remaining areas of the service alleyway are covered with topsoil and/or reworked soil mixed with crushed stone and asphalt millings.

Native soil at both sites consists of very dense, reddish brown silty clay that has very low permeability. The thickness of this deposit is unknown but is greater than 32 feet (Table 2-4). At the Town of Tonawanda Landfill approximately 2.3 miles northwest of the Highland Plaza BCP Site, the reddish brown silty clay deposit ranges in thickness from 39.0 to 65.7 feet, while approximately 2.9 miles west-southwest of the site at the E.I. DuPont Yerkes Plant, the reddish brown silty clay deposit ranges from 43.5 to 76.0 feet thick.

During the Remedial Investigation completed at the Highland Plaza BCP Site, five (5) overburden groundwater monitoring wells were installed both on-site and off-site to evaluate groundwater quality and flow direction. Depth to groundwater at the site was found to range from 2.8 to 5.4 feet (Table 2-5). Groundwater appears to be mounded around off-site monitoring well MW-5 and flows in a radial pattern under Highland Plaza (Figure 2-12). Monitoring well construction details are given in Table 2-6, while the well construction diagrams are given in Appendix C.

The water level data in Table 2-5 shows that recharge of these wells is extremely slow. On December 18, 2015, each of the wells was purged dry during development. Water level data obtained on December 22, 2015 indicates that the wells had not yet recharged to their pre-development levels. The slow recharge of these wells supports the extremely low hydraulic

conductivities of this deposit (10^{-6} to 10^{-8} cm/s), suggesting that significant groundwater flow is not occurring.

Water levels were also measured in these wells during the NYSDEC Remedial Investigation. Depth to groundwater at the site was found to range from 0.05 to 7.7 feet (Table 2-5).

3.0 SCOPE OF WORK

To meet the Phase II Remedial Investigation objectives discussed in Section 1.0, the Phase II Remedial Investigation of the Highland Plaza Off-Site Area will include the following activities: (1) the completion of an initial survey to stake the locations of the proposed soil borings; (2) the completion of shallow soil borings for geologic logging and to facilitate sample collection; (3) the collection of shallow fill (<2' depth) and shallow subsurface soil (<8' depth) samples for chemical analysis; (4) the replacement of monitoring well MW-5 (and maybe MW-4) that was destroyed during snow plowing operations; (5) the installation of a new monitoring well in the vicinity of borings SB-32 or SB-34 to further evaluate groundwater contamination at the site; (6) the installation of a protective casing on well MW-6 that was installed in soil boring SB-43 during the DEC Remedial Investigation; (7) the collection of groundwater samples from all site monitoring wells for chemical analysis; (8) the completion of a final site survey; (9) the completion of Data Usability Summary Reports (DUSRs); (10) the preparation of electronic data deliverable (EDD) files for upload to the NYSDEC's Environmental Information Management System; and (11) the preparation of a Phase II Remedial Investigation Report.

The NYSDEC will task a Standby Spill Contractor (LiRo Engineers, Inc.) to complete the following activities as part of the Phase II Remedial Investigation. These activities are listed in the general order in which they should be completed:

- Subcontract with a surveyor licensed in the State of New York to complete an initial survey to stake the locations of the proposed soil borings;
- Subcontract with a driller to provide and mobilize to the site a direct-push drill rig capable of spinning augers to complete a series of shallow soil borings in the alleyway, and to install 2-inch diameter overburden monitoring wells;
- Provide a geologist to complete stratigraphic logs and well construction diagrams during the soil boring and well installation activities;
- Provide a technician during the soil boring and well installation activities to collect shallow fill and subsurface soil samples, complete the appropriate paperwork, and transport the samples and paperwork to a NYSDEC contract lab for analysis;

- Provide a technician and appropriate equipment to develop, purge and sample the new and existing monitoring wells at the site. The technician will also complete the appropriate paperwork, and transport the samples and paperwork to a NYSDEC contract lab for analysis;

- Subcontract with a surveyor licensed in the State of New York to survey the locations and elevations of all soil borings and monitoring wells completed during the Phase II Remedial Investigation;

- Subcontract with a company that is qualified to complete a Data Usability Summary Report (DUSR) to determine if the analytical data meets the criteria for data quality and use;

- Prepare the electronic data deliverable (EDD) files for upload to the NYSDEC's Environmental Information Management System; and

- Prepare a Phase II Remedial Investigation Report describing the results of the investigation. NYSDEC personnel will complete this task.

Specific details of the work to be completed during the Phase II Remedial Investigation, including those activities to be conducted by the Standby Spill Contractor, are described in the following subsections.

3.1 Initial Site Survey

A surveyor licensed in the State of New York will complete an initial survey to stake the locations of the proposed soil borings. Coordinates for these borings (NY State Plane Coordinate System, Zone NY W-3103) are provided in Table 3-1. This task is required because the original boring locations can no longer be observed in the field. The location of soil boring SB-30 will also be staked. The coordinate for this boring is provided in Table 2-4.

Additional survey requirements are discussed in Section 3.4.

3.2 Soil Boring Program

One of the objectives of the Phase II Remedial Investigation is to further evaluate the nature and extent of shallow fill and shallow subsurface soil contamination at the Highland Plaza Off-Site Area. To accomplish this objective, nine (9) soil borings will be completed at the locations shown on Figure 3-1.

Based upon visual and/or monitoring evidence (i.e., staining, elevated PID readings or odors), and at the direction of the NYSDEC field representative, additional soil borings may be completed to help delineate the areal extent of shallow contamination in the alleyway.

The Drilling Subcontractor will be responsible for identifying and avoiding all underground utilities in the areas where the soil borings will be completed.

3.2.1 Drilling Methods

Direct-push drilling is the most cost and time effective method of completing the soil borings shown on Figure 3-1. For the Phase II Remedial Investigation, a direct-push vehicle capable of turning augers will be required. A track mounted direct-push vehicle would be most effective but other direct-push vehicles can be used.

3.2.2 Shallow Fill & Subsurface Soil Sample Collection and Analysis

Continuous soil cores will be collected with dedicated acetate liners using a Geoprobe Dual Tube Sampling System, or equivalent. Dual tube sampling uses two sets of probe rods to collect continuous soil cores. One set of probe rods is driven into the ground as an outer casing. These probe rods receive the driving force from the hammer and provide a sealed hole from which soil samples may be recovered without the threat of cross contamination. The second, smaller set of probe rods are placed inside the outer casing. The smaller rods hold a sample liner in place as the outer casing is driven one sampling interval. The small probe rods are then retracted to retrieve the filled liner.

The Drilling Subcontractor will be responsible for opening the acetate liners. Each delineation soil boring (Figure 3-1) will be advanced to 8 feet depth for the purpose of geologic logging and sample collection. Soil borings to be completed as monitoring wells will be advanced

to 24 feet depth. Soil cores will be screened for organic vapors using a PID supplied by the Standby Spill Contractor.

At each boring location, samples will be collected from the following intervals:

- 1.0' – 1.5' depth;
- 2.0' – 2.5' depth;
- 3.5' – 4.0' depth;
- 5.0' – 5.5' depth;
- 6.0' – 6.5' depth; and
- 7.5' – 8.0' depth.

At locations where a black, gravelly fill is encountered (Figures 3-2 and 3-3), a sample should also be collected at the base of the black, gravelly fill where it overlies native or reworked reddish brown silty clay. Additionally, a sample should be collected from any interval that exhibits visual/olfactory indications of contamination and/or high (e.g., >2,000 ppm) PID readings that do not readily dissipate.

At monitoring well locations that will be completed to 24' depth, samples will be collected at the following intervals:

- Same intervals as above plus;
- 14.5' – 15.0' depth; and
- 23.5 – 24.0' depth.

Exiting information indicates that native reddish brown silty clay is typically encountered at depths ranging from 1.3' to 2.0' in the service alleyway (Table 2-4).

Samples will be collected by the Standby Spill Contractor in consultation with the NYSDEC field representative and placed into laboratory supplied, pre-cleaned sample jars. Please note that all samples should be discrete, non-homogenized grab samples. The jars will be labeled with a unique sample identification code, packed in a cooler with ice, and shipped under chain-of-custody control to a NYSDEC contract lab for analysis. The Standby Spill Contractor will

be responsible for obtaining the appropriate sample bottles from the lab. All invoicing from the lab will be completed in accordance with its Standby Contract with the NYSDEC.

All samples will be analyzed for TCL volatile organic compounds via USEPA method 8260C or newer.

3.2.3 Completion of the Soil Boring Program

Upon completion of each soil boring, the Drilling Subcontractor will backfill the boring with bentonite pellets to ground surface. Each soil boring will be staked or otherwise marked for future surveying (see Section 3.4 below). All excess soil from the borings will be containerized in 55-gallon drums for later off-site disposal at a NYSDEC approved facility. The Drilling Subcontractor will supply the drums.

To the extent possible, the site will be restored to conditions similar to those encountered prior to the start of the investigation.

3.2.4 Geologic Logging

All geologic logging will be completed by a geologist employed by the Standby Spill Contractor. At the completion of the Phase II Remedial Investigation field activities, the Standby Spill Contractor will computer generate these logs and provide them to the NYSDEC in pdf format.

3.2.5 Decontamination

The direct-push vehicle and sampling equipment will be decontaminated prior to arriving at the site as there is no on-site location available for decontaminating large equipment. Reusable sampling equipment (e.g., the sampling tubes) will be decontaminated between sampling locations using an appropriate detergent and 5-gallon buckets. Decontamination wash water will be containerized in 55-gallon drums separate from the excess soil drums for later off-site disposal at a NYSDEC approved facility. The Drilling Subcontractor will supply the drums.

Other decontamination wastes, such as used PPE, non-sampling equipment, and garbage

generated during the Soil Boring Program will be bagged and removed from the site at the end of each workday. Construction of a decon pad will not be required.

3.3 Overburden Monitoring Wells

Five (5) overburden monitoring wells have been installed at the Highland Plaza BCP Site and Highland Plaza Off-Site Area (Figure 2-9) and monitor the reddish brown silty clay deposit (Table 2-6). During the DEC Remedial Investigation a 1-inch well (MW-6) was installed in soil boring SB-43 but was never completed. During the Phase II Remedial Investigation, this well will be completed with a protective casing as described in Section 3.3.1.

On August 21, 2023, during a site visit with the Standy Spill Contractor, monitoring well MW-5 was found to be destroyed, presumably hit during snow plowing operations. In addition, monitoring well MW-4 could not be found. It is suspected that the well is buried by gravel from snow plowing activities in the alleyway.

During the Phase II Remedial Investigation, monitoring well MW-5 will be replaced, while monitoring well MW-4, if found, will be assessed for its continued usability. If not useable, well MW-4 will also be replaced. In addition, a new monitoring well be installed east of the disposal area in the vicinity of borings SB-32 or SB-34 (Figure 2-6) to further evaluate groundwater at the Highland Plaza Off-Site Area. The new well location may be modified during the investigation based upon access limitations posed by the presence of overhead and underground utilities.

The Drilling Subcontractor will be responsible for identifying and avoiding all overhead and underground utility lines in the areas where monitoring wells are to be installed.

3.3.1 Well Construction

Monitoring wells completed during the Phase II Remedial Investigation will be installed by advancing 4¼-inch diameter augers (or other appropriate size) with the direct-push vehicle. The depth of all wells will be 24 feet for consistency with the existing monitoring wells at the site.

Wells will be constructed of 2-inch diameter threaded/flush joint Schedule 40 PVC screen

(10 slot), threaded bottom plugs, and flush-threaded PVC riser pipe. The wells will be constructed with 10-feet long screens for consistency with the existing monitoring wells at the site. An appropriately graded silica sand filter pack will be placed around the screen and extend to approximately 2 feet above the screen. Bentonite will be placed above the filter pack and brought to within 1 foot of the ground surface. The wells will be completed with protective steel casings surrounded by concrete pads. In addition, a protective casing will be installed on well MW-6 that was installed in soil boring SB-43. The extent of the concrete pads toward the gravel service road should be limited to avoid being hit during future snow plowing activities.

3.3.2 Geologic Logging and Well Construction Diagrams

All geologic logging will be completed by a geologist employed by the Standby Spill Contractor. The geologist will also be responsible for completing well construction diagrams. At the completion of the Phase II Remedial Investigation field activities, the Standby Spill Contractor will computer generate these logs and diagrams and provide them to the NYSDEC in pdf format.

3.3.3 Well Development

Each newly installed monitoring well will be developed by bailing, pumping or other appropriate method such as mechanical surging using a surge block device. During development the purged water will be monitored for pH, temperature, conductivity, ORP or Eh, and turbidity. These data will be recorded on Well Development Logs. Development water that shows evidence of contamination (elevated PID readings, sheens, product, odors, etc.) will need to be containerized in 55-gallon drums for later off-site disposal at a NYSDEC approved facility.

Well development activities will be completed by the Standby Spill Contractor. At the completion of the Phase II Remedial Investigation field activities, the Standby Spill Contractor will computer generate the Well Development Logs and provide them to the NYSDEC in pdf format.

3.3.4 Groundwater Sample Collection and Analysis

Groundwater samples will be collected from all newly installed and existing monitoring wells to evaluate groundwater impacts related to the site. Prior to sampling, the wells will be

purged of at least three (3) well volumes, with the purged water monitored for pH, temperature, conductivity, ORP or Eh, and turbidity. These data will be recorded on Well Purge and Sampling Logs. If it appears that turbidity, pH, and conductivity are stabilizing and will benefit from further purging, additional well volumes should be purged. If the turbidity is greater than 50 NTU after purging, the well will be sampled for all parameters except metals, which will be collected within 24 hours after the completion of purging to allow suspended sediment in the well to settle out. All purging activities will be completed by the Standby Spill Contractor using standard well purging procedures (e.g., disposable bailer or the low-flow method). At the completion of the Phase II Remedial Investigation field activities, the Standby Spill Contractor will computer generate the Well Purge and Sampling Logs and provide them to the NYSDEC in pdf format.

The groundwater samples will be collected by the Standby Spill Contractor using the low-flow sampling method and placed into laboratory supplied, pre-cleaned sample jars. The jars will be labeled with a unique sample identification code, packed in a cooler with ice, and shipped under chain-of-custody control to a NYSDEC contract lab for analysis. The Standby Spill Contractor will be responsible for obtaining the appropriate sample bottles from the lab. All invoicing from the lab will be completed in accordance with its Standby Contract with the NYSDEC.

All samples will be analyzed for TCL volatile organic compounds, TAL metals, and 1,4-dioxane using currently accepted analytical methods.

3.3.5 Decontamination

The direct-push vehicle and sampling equipment will be decontaminated prior to arriving at the site as there is no on-site location available for decontaminating large equipment. Reusable sampling equipment will be decontaminated between sampling locations using an appropriate detergent and 5-gallon buckets. Decontamination wash water will be containerized in 55-gallon drums separate from the excess soil drums for later off-site disposal at a NYSDEC approved facility. The Drilling Subcontractor will supply the drums.

Augers will be decontaminated between well locations using a pressure washer or steam cleaner. Soil removed from the augers will also be containerized for later off-site disposal.

Construction of a formal decon pad will not be required, but augers should be placed on a pallet prior to decontamination.

Other decontamination wastes, such as used PPE, non-sampling equipment, and garbage generated during well installation activities will be bagged and removed from the site at the end of each workday.

3.4 Final Site Survey and Mapping

The licensed surveyor retained by the Standby Spill Contractor will complete a final survey of the site after all Phase II Remedial Investigation field activities are complete. The final survey should include the following:

- Horizontal locations and ground surface elevations of all soil borings completed during the Phase II Remedial Investigation;
- Horizontal locations and vertical elevations of all monitoring wells installed during the Phase II Remedial Investigation. Elevations will include ground surface, top of the protective casing, and the inner PVC riser of each well; and
- Horizontal locations of the plaza building corners at the rear of the building.

Vertical control should be established to the nearest ±0.1 foot for all ground surface elevations, while monitoring well riser and top of casing elevations should be reported to the nearest ±0.01 foot. Elevations should be determined relative to the North American Vertical Datum of 1988 (NAVD 88 or newer), with reference made to an existing monument in the vicinity of the Subject Property. Horizontal coordinates should be surveyed to the NY State Plane Coordinate System, Zone NY W-3103 (in feet), North American Datum (NAD) of 1983 (or newer) to an accuracy of ±0.5 foot or better.

At the completion of all surveying activities, the surveyor will provide the survey data in Excel format to the NYSDEC. The survey data should include, but not be limited to, point numbers, northings, eastings, elevations (ft. amsl), point descriptions, latitudes (decimal degree), and longitudes (decimal degree).

3.5 Health & Safety

It is anticipated that all field work can be performed in Level D personal protective equipment. All field work will be conducted in accordance with the Standby Spill Contractor's Corporate Health & Safety Plan. The Standby Spill Contractor will provide appropriate personal protective equipment (PPE) suitable for working in and around contaminated liquids, wastes and soils.

All field personnel will be informed of the location of the hospital listed in the Generic Health and Safety Plan included as Appendix A and be made aware of the list of emergency contacts contained therein. Field supervisory personnel will become thoroughly familiar with the route to the hospital.

The Standby Spill Contractor will be responsible for clearly delineating the work area to prevent unauthorized access. During all intrusive activities, continuous air monitoring will be conducted for organic vapors by the Standby Spill Contractor to determine the necessity to upgrade personal protective equipment. The contractor will also comply with the NYSDOH Community Air Monitoring Plan (CAMP) during all intrusive activities. The CAMP is included as Appendix B.

3.6 Data Usability Summary Reports (DUSRs)

Data Usability Summary Reports (DUSRs) will be prepared for all analytical results by an Environmental Scientist having a bachelor's degree in a relevant natural or physical science or field of engineering and also having experience in environmental sampling, analysis and data review. The DUSRs provide a thorough evaluation of analytical data without the costly and time-consuming process of third-party data validation. The primary objective of the DUSRs is to determine if the analytical data meets the criteria for data quality and use. The Standby Spill Contractor will retain an individual qualified to complete a DUSR. The NYSDEC will provide the DUSR Subcontractor with the necessary analytical data.

DUSRs are developed by reviewing and evaluating the analytical data packages. During this review the following questions must be asked and answered:

- Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables?

- Have all holding times been met?

- Do all QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?

- Have all data been generated using established and agreed upon analytical protocols?

- Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?

- Have the correct data qualifiers been used?

Any Quality Control exceedances must be numerically specified in the DUSRs with the corresponding QC summary sheet from the data package attached to the DUSRs. All data that would be rejected by the EPA Region 2 Data Validation Guidelines must also be rejected in the DUSRs.

Once the data packages have been reviewed and the above questions asked and answered the DUSRs proceed to describe the samples and the analytical parameters. Data deficiencies, analytical protocol deviations and quality control problems are identified and their effect on the data will be discussed. The DUSRs will also include recommendations on resampling/reanalysis. All data qualifications must be documented following the NYSDEC ASP (2005 revision) guidelines.

3.7 EQuIS

Once the DUSRs are complete the Standby Spill Contractor will prepare the electronic data deliverable (EDD) files supplied by the lab and/or qualified by the data validator during the DUSR process for upload to the NYSDEC's Environmental Information Management System (EIMS). The EIMS currently uses the database software application EQuIS™ from EarthSoft® Inc.

3.8 Report Preparation

Following the completion of all Phase II Remedial Investigation activities, NYSDEC personnel will prepare a Phase II Remedial Investigation Report that details the results of the investigation.

FIGURES

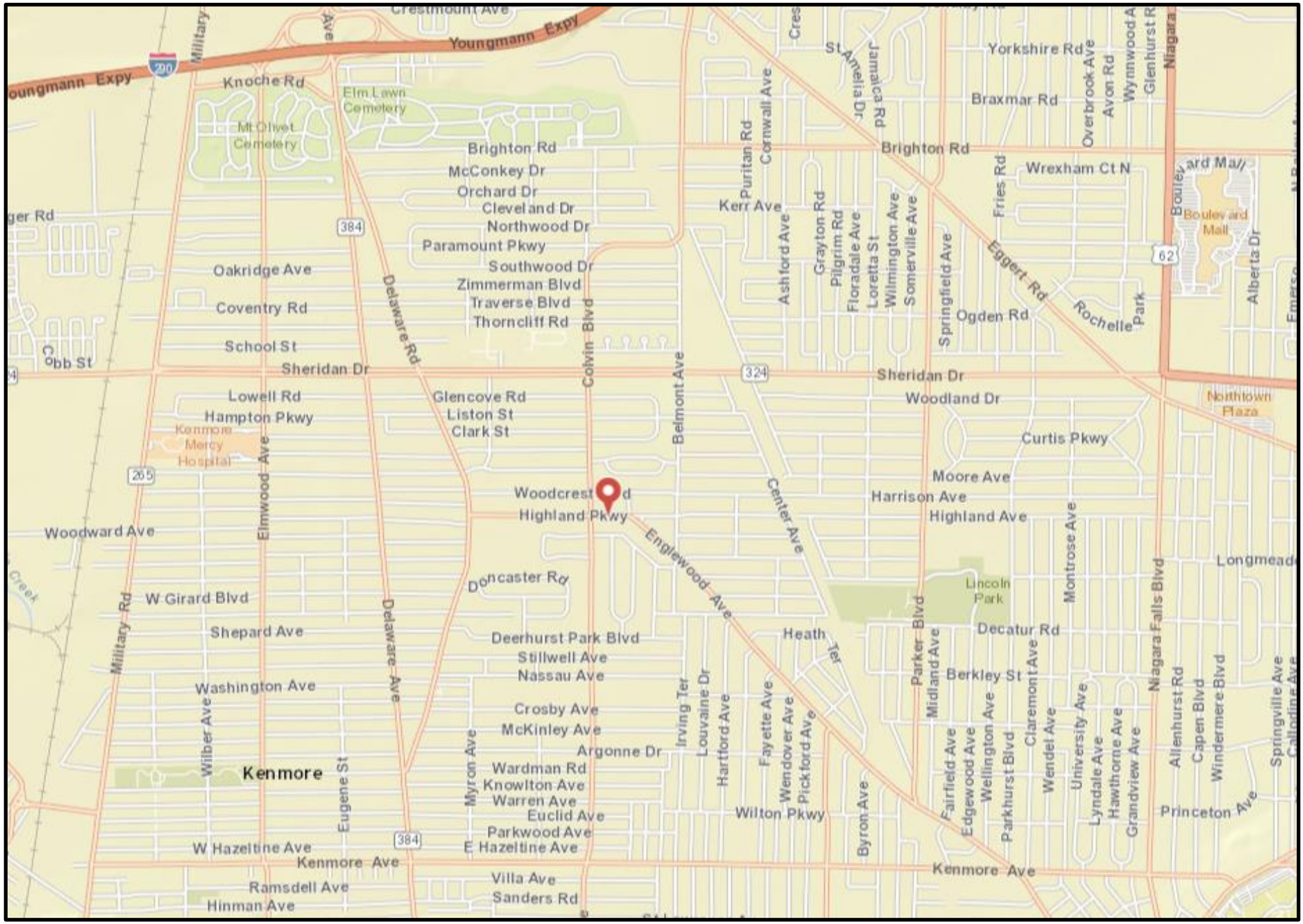


Figure 2-1. Location of the Highland Plaza BCP Site and Off-Site Area in Tonawanda, Erie County, New York.

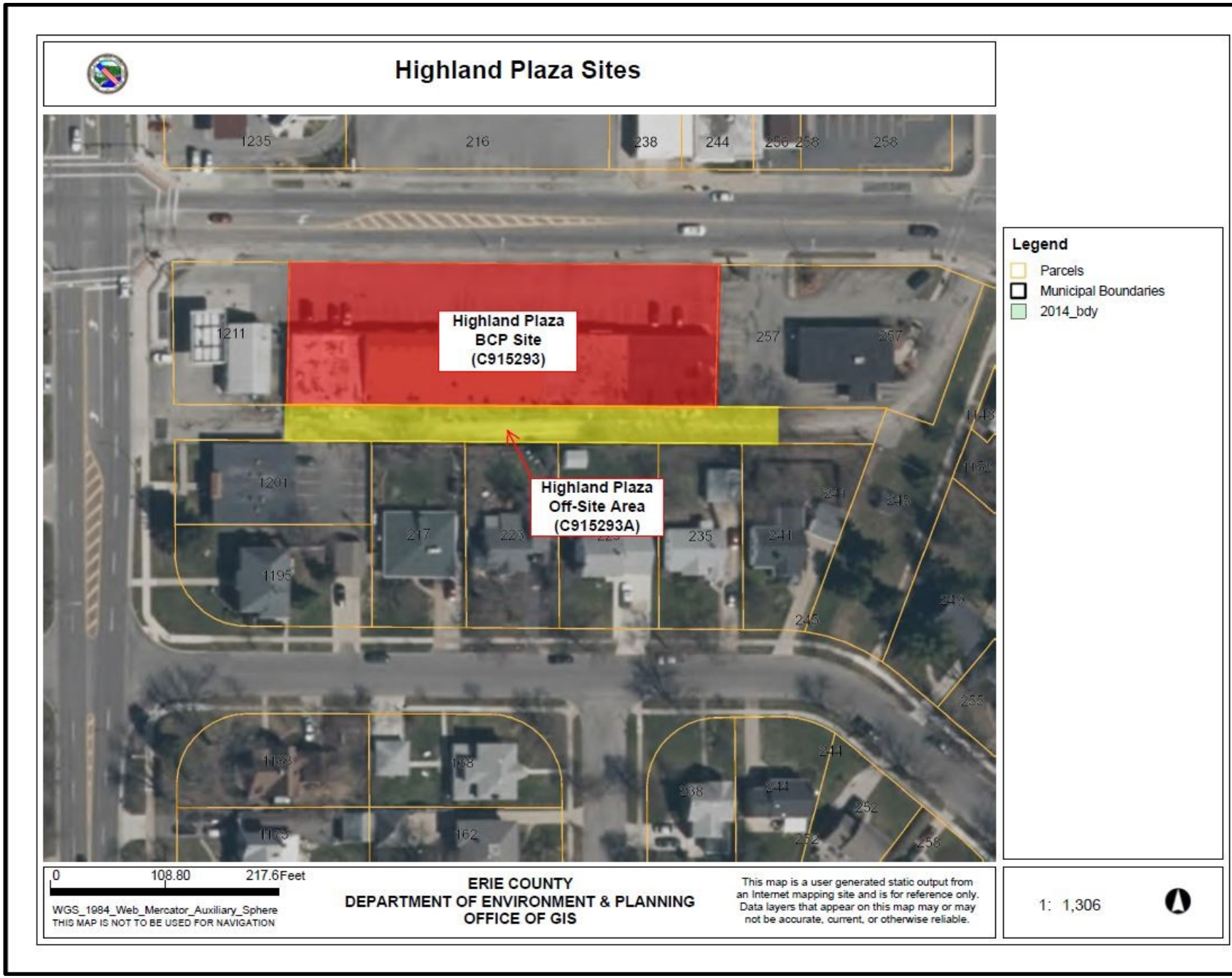


Figure 2-2. Highland Plaza BCP Sites with Surrounding Properties.

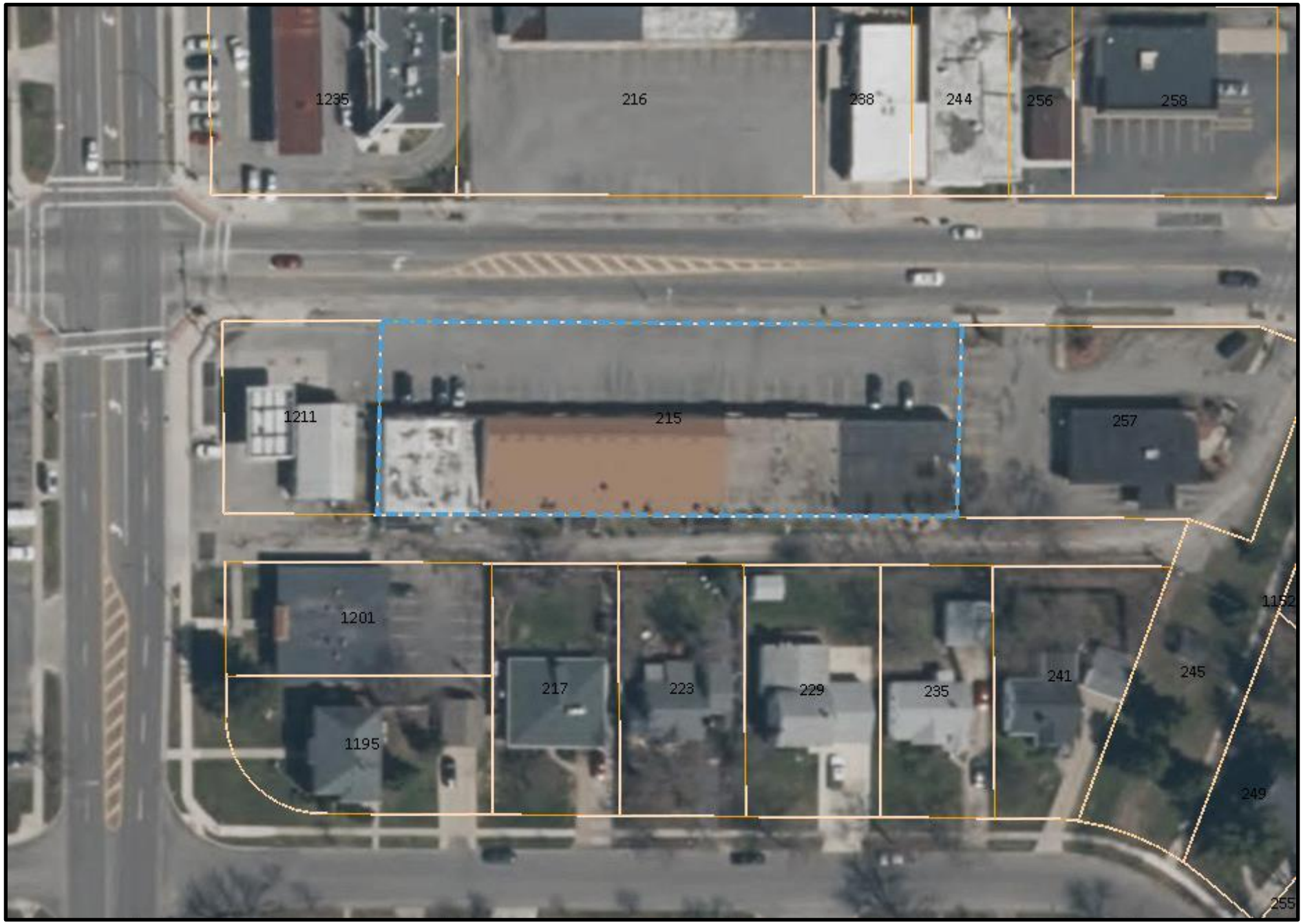
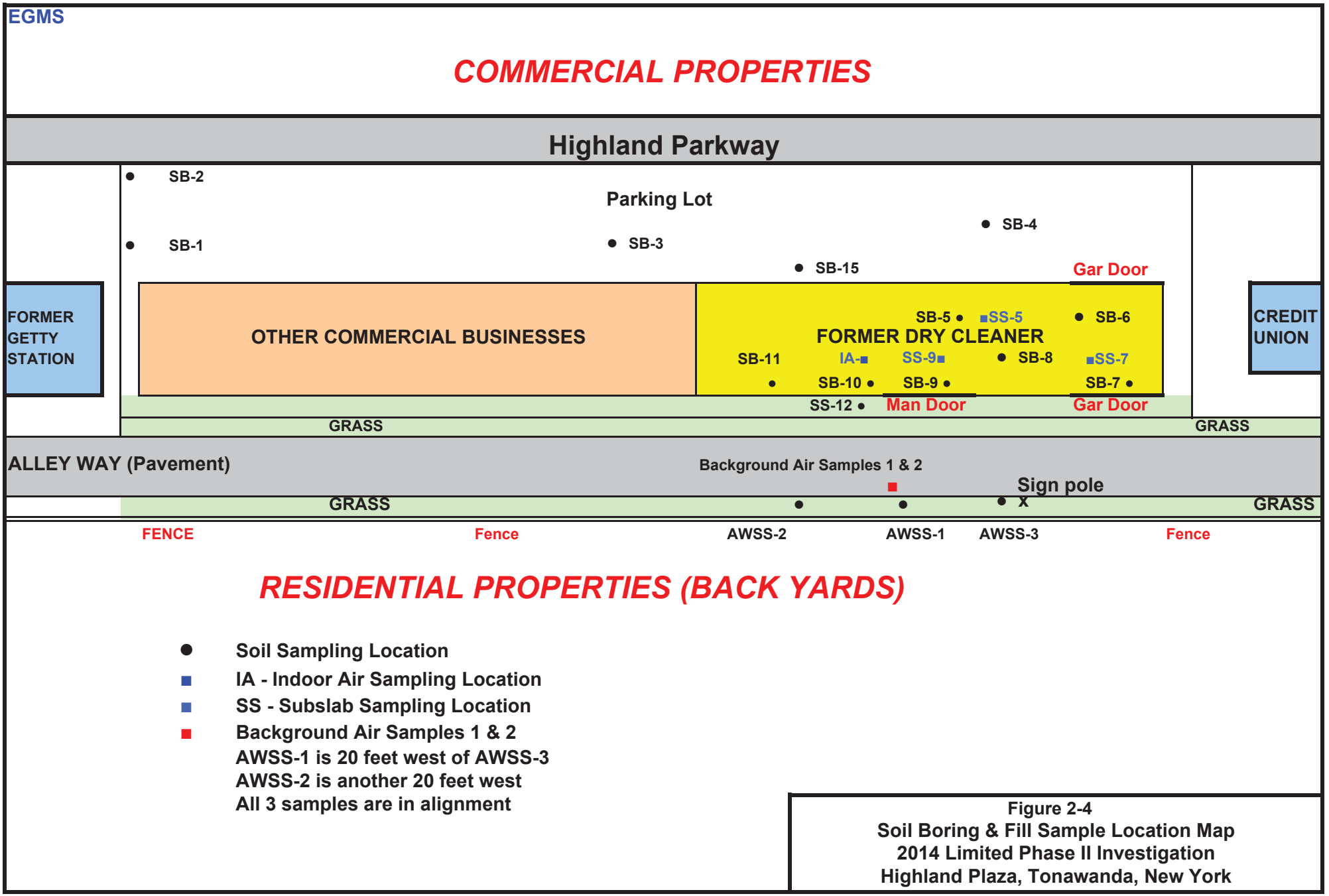


Figure 2-3. Detailed map of the Highland Plaza BCP Site showing site features. Note the service road behind the plaza.

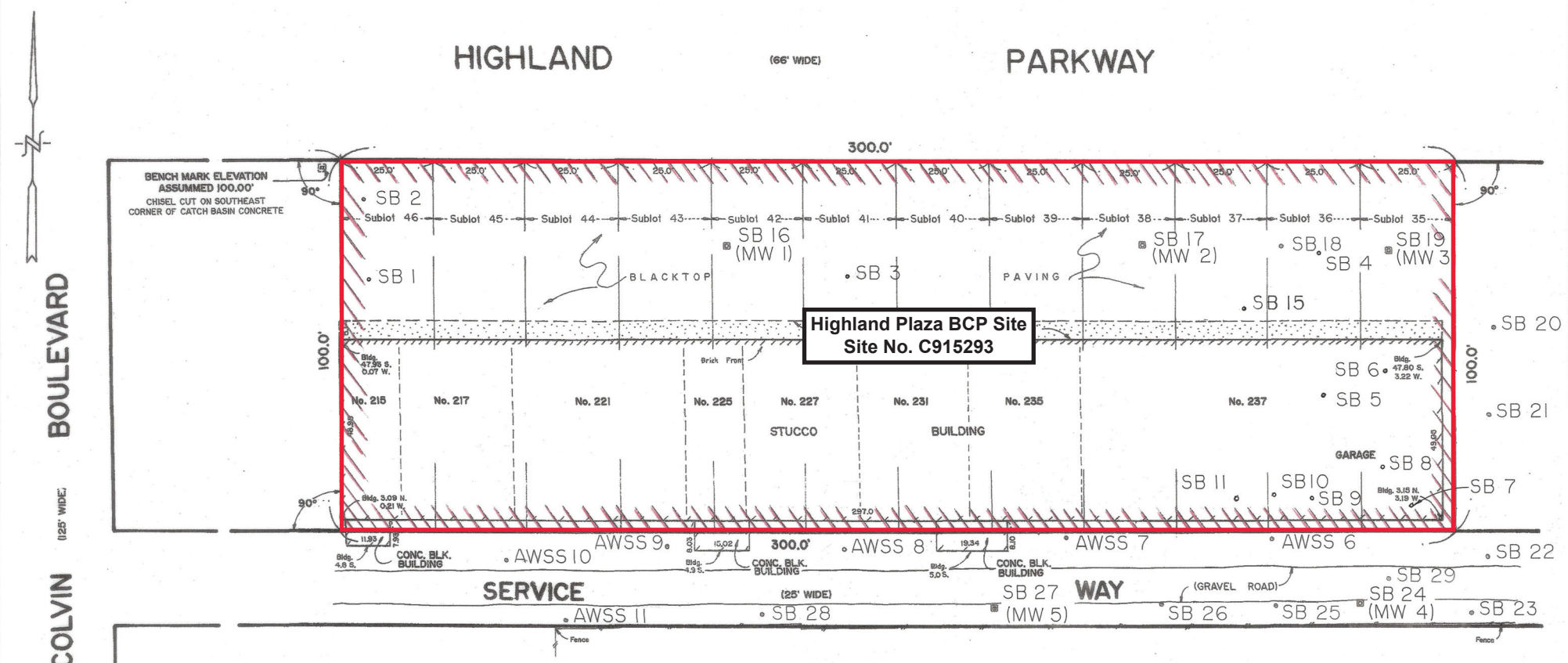
EGMS



- Soil Sampling Location
- IA - Indoor Air Sampling Location
- SS - Subslab Sampling Location
- Background Air Samples 1 & 2

AWSS-1 is 20 feet west of AWSS-3
AWSS-2 is another 20 feet west
All 3 samples are in alignment

Figure 2-4
Soil Boring & Fill Sample Location Map
2014 Limited Phase II Investigation
Highland Plaza, Tonawanda, New York



NOTE:
DELINEATES BROWNFIELD AREA BOUNDARY

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

NOTE:
SOIL BORING SB 1 WAS NOT SAMPLED

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

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

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

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

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

Figure 2-5
Soil Boring & Fill Sample Location Map
2015 Remedial Investigation

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

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

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

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

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

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

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

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

HIGHLAND PARKWAY

COLVIN BOULEVARD

SERVICE WAY

GRIMSBY ROAD

STONE DRIVE

Highland Plaza
BCP Site
(C915293)

1 STORY PLAZA

BLACKTOP PARKING

1 STORY BRICK BUILDING NO.1201

1 STORY BRICK BUILDING NO.257

BRICK GARAGE

1 STORY HOUSE NO.217

1½ STORY HOUSE NO.223

2 STORY HOUSE NO.229

1 STORY HOUSE NO.235

1 STORY HOUSE NO.241

FRAME GARAGE

FRAME SHED

TREE HOUSE

BRICK PILLAR

SB1 SB2 SB4 SB5 SB6 SB7 SB8 SB9 SB10 SB11 SB15 SB16 SB17 SB18 SB19 SB20 SB21 SB22 SB23 SB24 SB25 SB26 SB27 SB28 SB29 SB30 SB31 SB32 SB33 SB34 SB35 SB36 SB37 SB38 SB39 SB40 SB41 SB43 SB44 SB45 SB46 SB47 SB49 SB50 SB51 SB52 SB53 SB54

LEGEND

- PROPERTY BOUNDARY
- UNDERGROUND STORM SEWER
- FENCE
- GUARD RAIL
- CATCH BASIN
- UTILITY MANHOLE
- LIGHT POLE
- UTILITY POLE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD UTILITIES
- SOIL BORING (NON-GES OCTOBER, 2015)
- SOIL BORING (MAY-JUNE, 2017)

REV.	DESCRIPTION	DATE
1	X	XX

Soil Boring Location Map

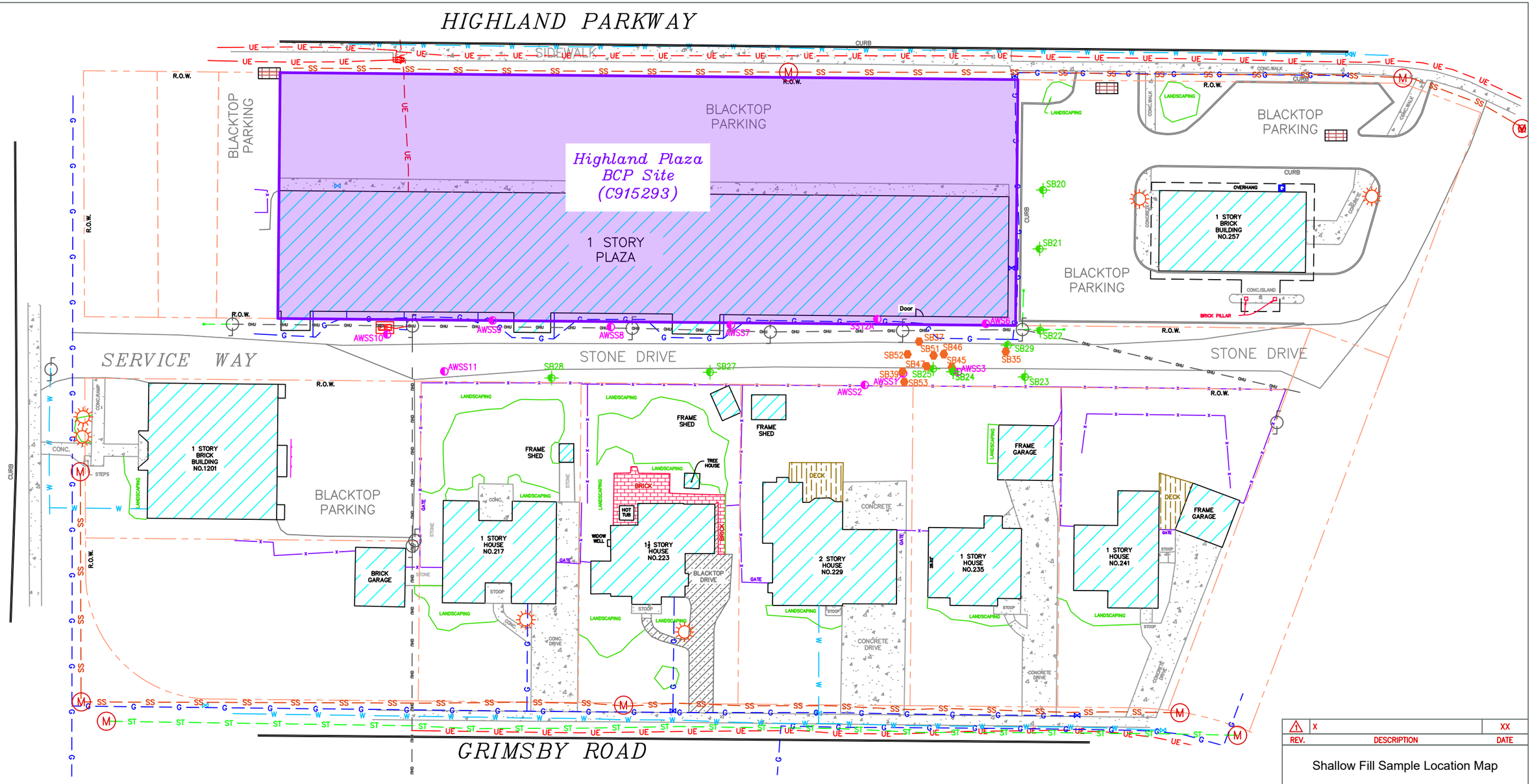
NYSDEC Off-Site Investigation
Highland Plaza, Site No. C915293A
215 Highland Parkway
Tonawanda, New York

Drawn W.G.S.
Designed
Approved

Date 8/4/22
Figure 2-6

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.



LEGEND

- PROPERTY BOUNDARY
- UNDERGROUND STORM SEWER
- FENCE
- GUARD RAIL
- CATCH BASIN
- UTILITY MANHOLE
- LIGHT POLE
- UTILITY POLE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD UTILITIES
- SHALLOW FILL SAMPLE (NON-GES OCTOBER, 2015)
- SHALLOW FILL SAMPLE (NON-GES 2014 & 2015)
- SHALLOW FILL SAMPLE (MAY-JUNE, 2017)

REV.	DESCRIPTION	DATE
1	X	XX

Shallow Fill Sample Location Map

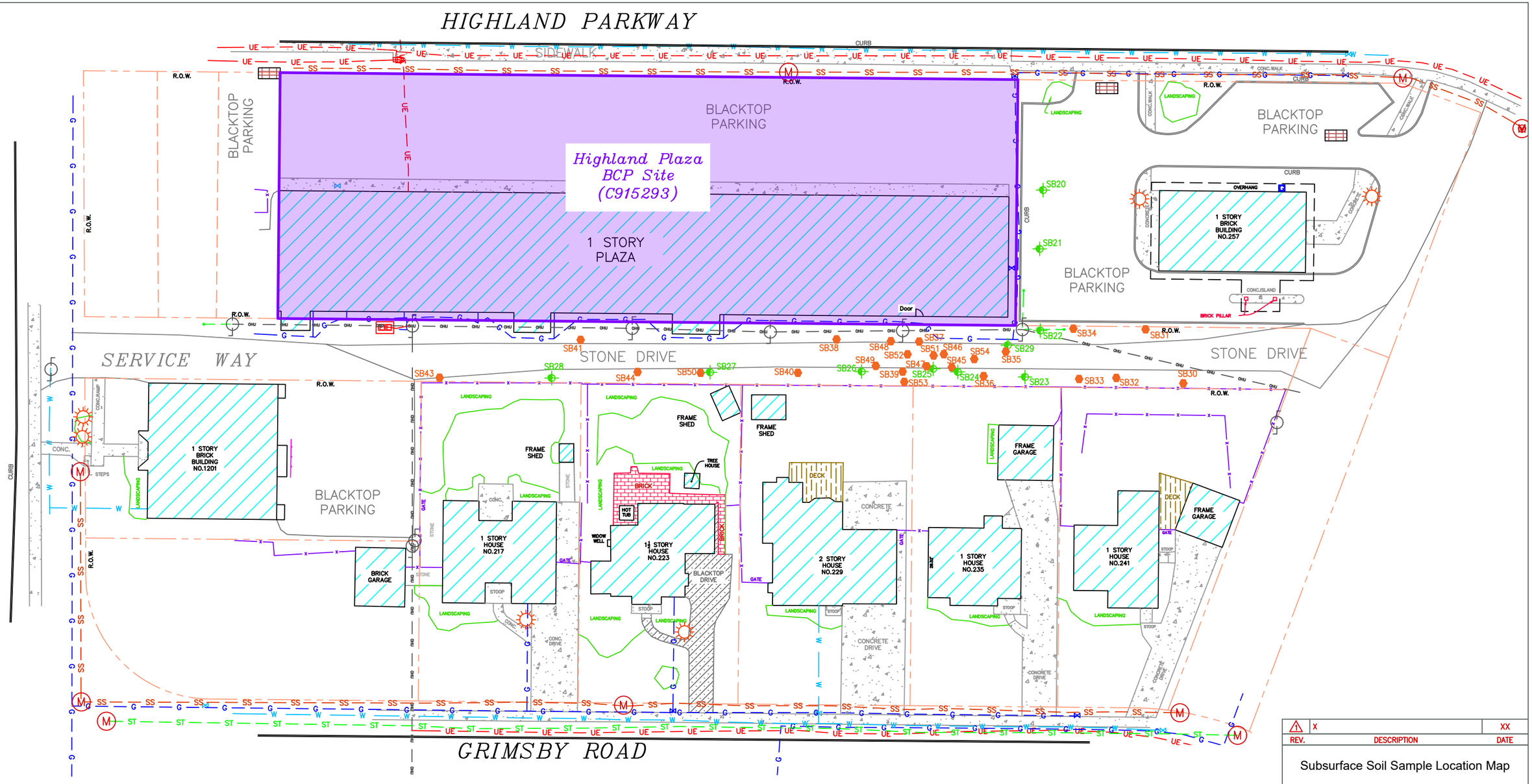
NYSDEC Off-Site Investigation
Highland Plaza, Site No. C915293A
215 Highland Parkway
Tonawanda, New York

Drawn W.G.S.
Designed
Approved

Date 8/4/22
Figure 2-7

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.



LEGEND

- PROPERTY BOUNDARY
- UNDERGROUND STORM SEWER
- FENCE
- GUARD RAIL
- CATCH BASIN
- UTILITY MANHOLE
- LIGHT POLE
- UTILITY POLE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD UTILITIES
- SUBSURFACE SOIL SAMPLE (NON–GES OCTOBER, 2015)
- SUBSURFACE SOIL SAMPLE (MAY–JUNE, 2017)

REV.	DESCRIPTION	DATE
1	X	XX

Subsurface Soil Sample Location Map

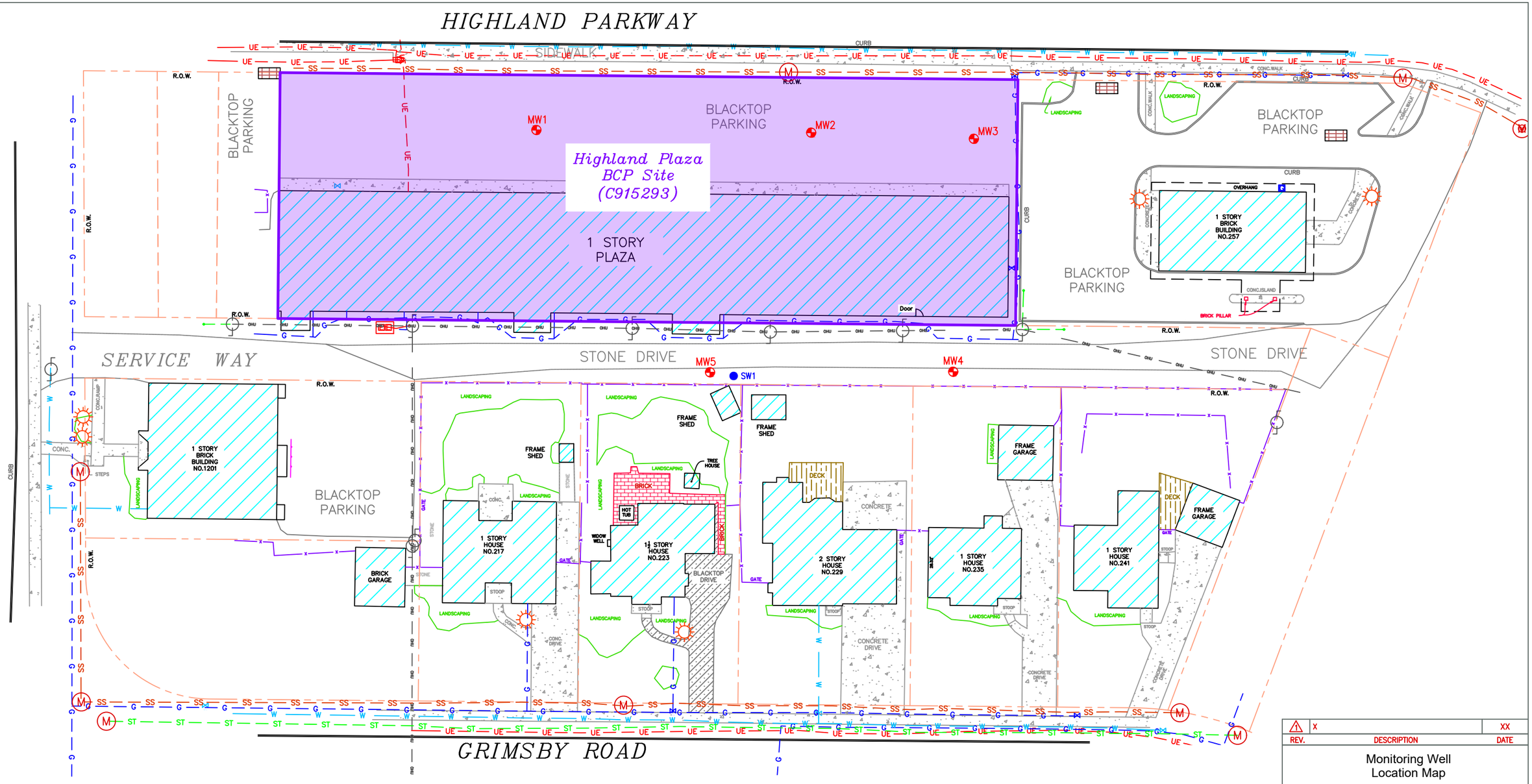
NYSDEC Off-Site Investigation
Highland Plaza, Site No. C915293A
215 Highland Parkway
Tonawanda, New York

Drawn W.G.S.
Designed
Approved

Date 8/4/22
Figure 2-8

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.



LEGEND

- PROPERTY BOUNDARY
- UNDERGROUND STORM SEWER
- FENCE
- GUARD RAIL
- CATCH BASIN
- UTILITY MANHOLE
- LIGHT POLE
- UTILITY POLE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD UTILITIES
- MONITORING WELL
- SURFACE WATER SAMPLE

REV.	DESCRIPTION	DATE
1	X	XX

Monitoring Well Location Map

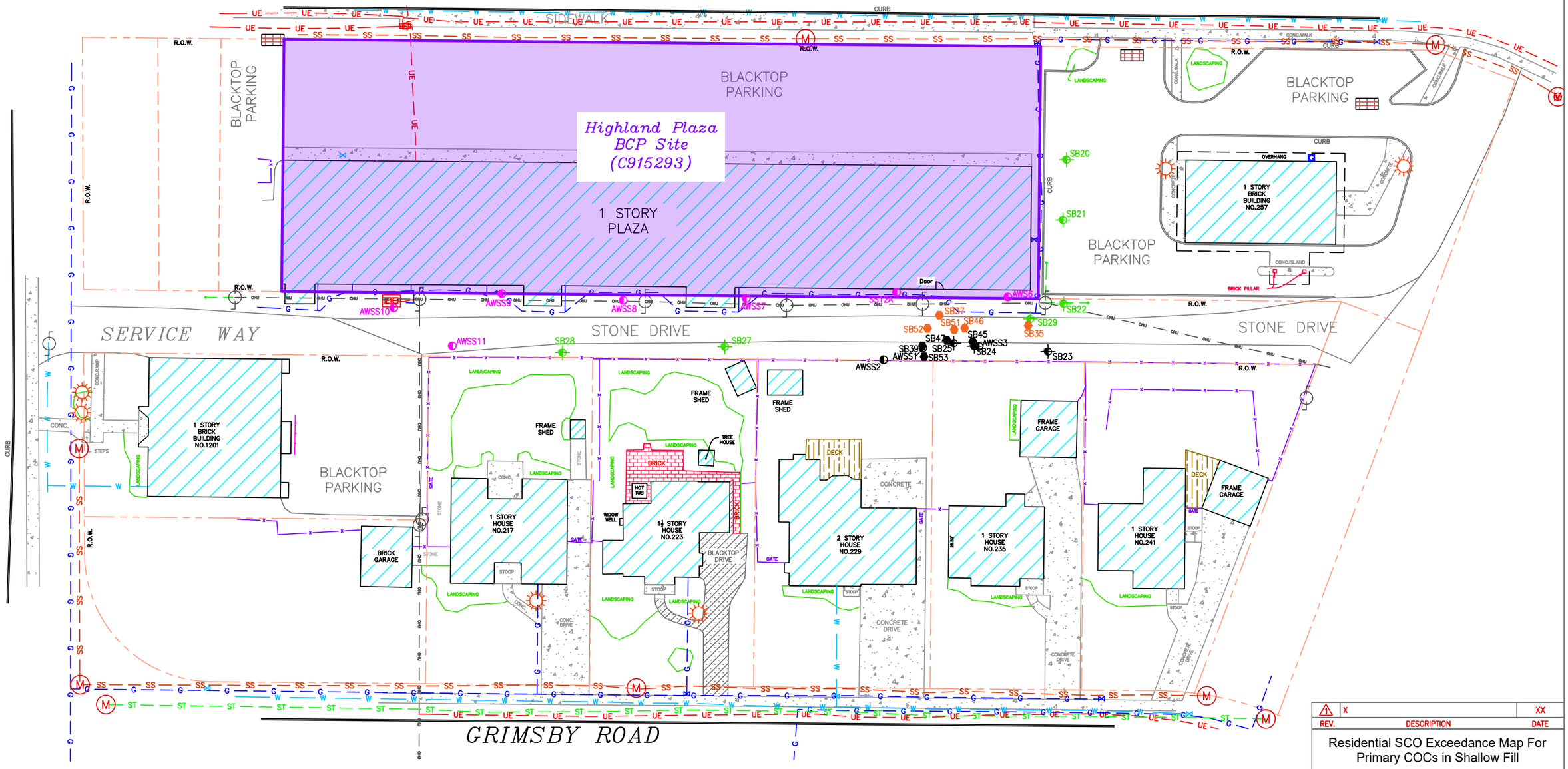
NYSDEC Off-Site Investigation
Highland Plaza, Site No. C915293A
215 Highland Parkway
Tonawanda, New York

Drawn W.G.S.
Designed
Approved

Date 8/4/22
Figure 2-9

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.



LEGEND

- PROPERTY BOUNDARY
- UNDERGROUND STORM SEWER
- FENCE
- GUARD RAIL
- CATCH BASIN
- UTILITY MANHOLE
- LIGHT POLE
- UTILITY POLE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD UTILITIES
- SHALLOW FILL SAMPLE (NON–GES OCTOBER, 2015)
- SHALLOW FILL SAMPLE (NON–GES 2014 & 2015)
- SHALLOW FILL SAMPLE (MAY–JUNE, 2017)

NOTE:

A SHALLOW FILL SAMPLE SHADED BLACK INDICATES A RESIDENTIAL SCO EXCEEDANCE FOR PRIMARY COCs.

REV.	DESCRIPTION	DATE
1	X	XX

Residential SCO Exceedance Map For Primary COCs in Shallow Fill

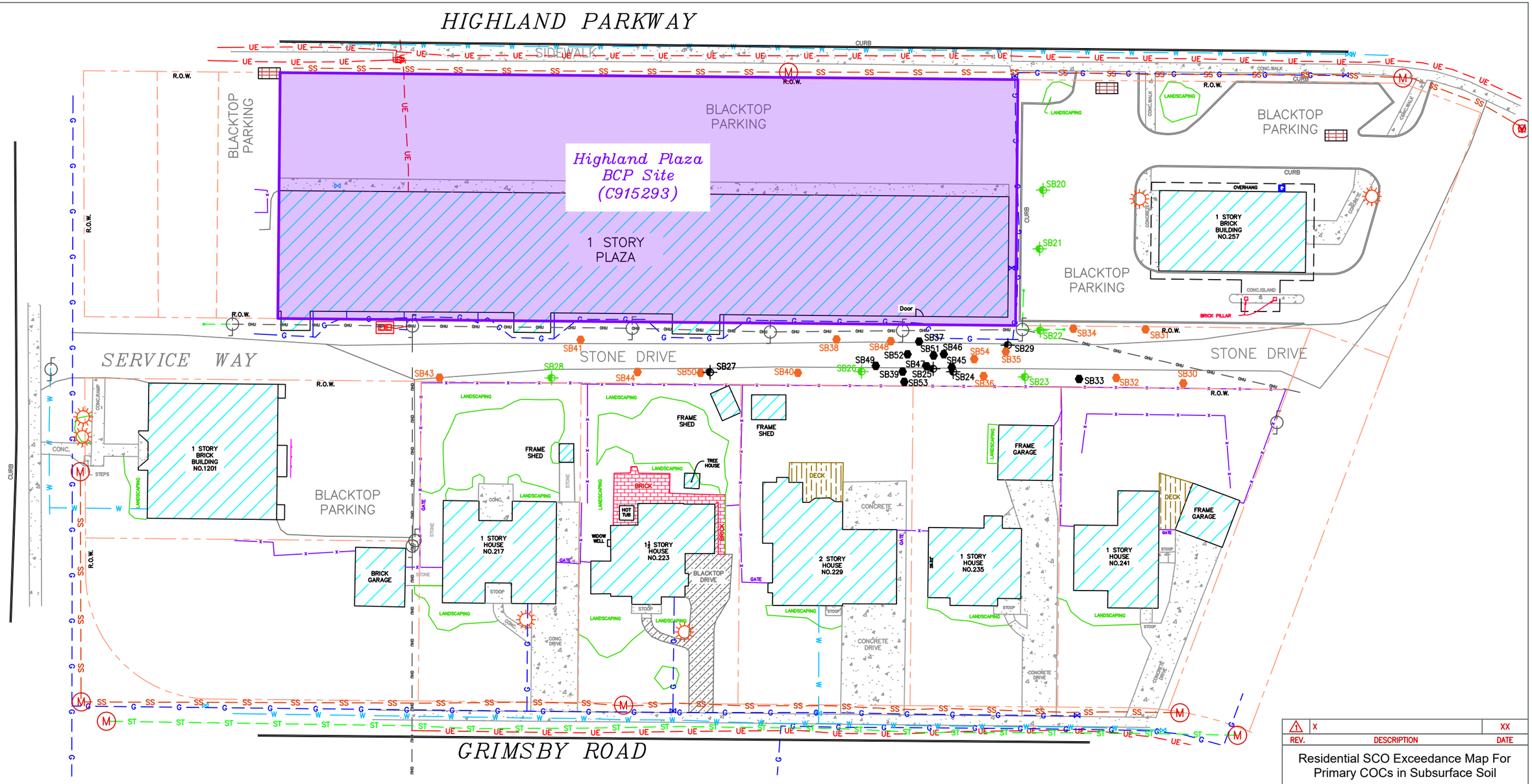
NYSDEC Off-Site Investigation
Highland Plaza, Site No. C915293A
215 Highland Parkway
Tonawanda, New York

Drawn W.G.S.
Designed
Approved

Date 8/4/22
Figure 2-10

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.



LEGEND

- PROPERTY BOUNDARY
- UNDERGROUND STORM SEWER
- FENCE
- GUARD RAIL
- CATCH BASIN
- UTILITY MANHOLE
- LIGHT POLE
- UTILITY POLE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD UTILITIES
- SUBSURFACE SOIL SAMPLE (NON–GES OCTOBER, 2015)
- SUBSURFACE SOIL SAMPLE (MAY–JUNE, 2017)

NOTE:

A SUBSURFACE SOIL SAMPLE SHADED BLACK INDICATES A RESIDENTIAL SCO EXCEEDANCE FOR PRIMARY COCs.

REV.	DESCRIPTION	DATE
1	X	XX

Residential SCO Exceedance Map For Primary COCs in Subsurface Soil

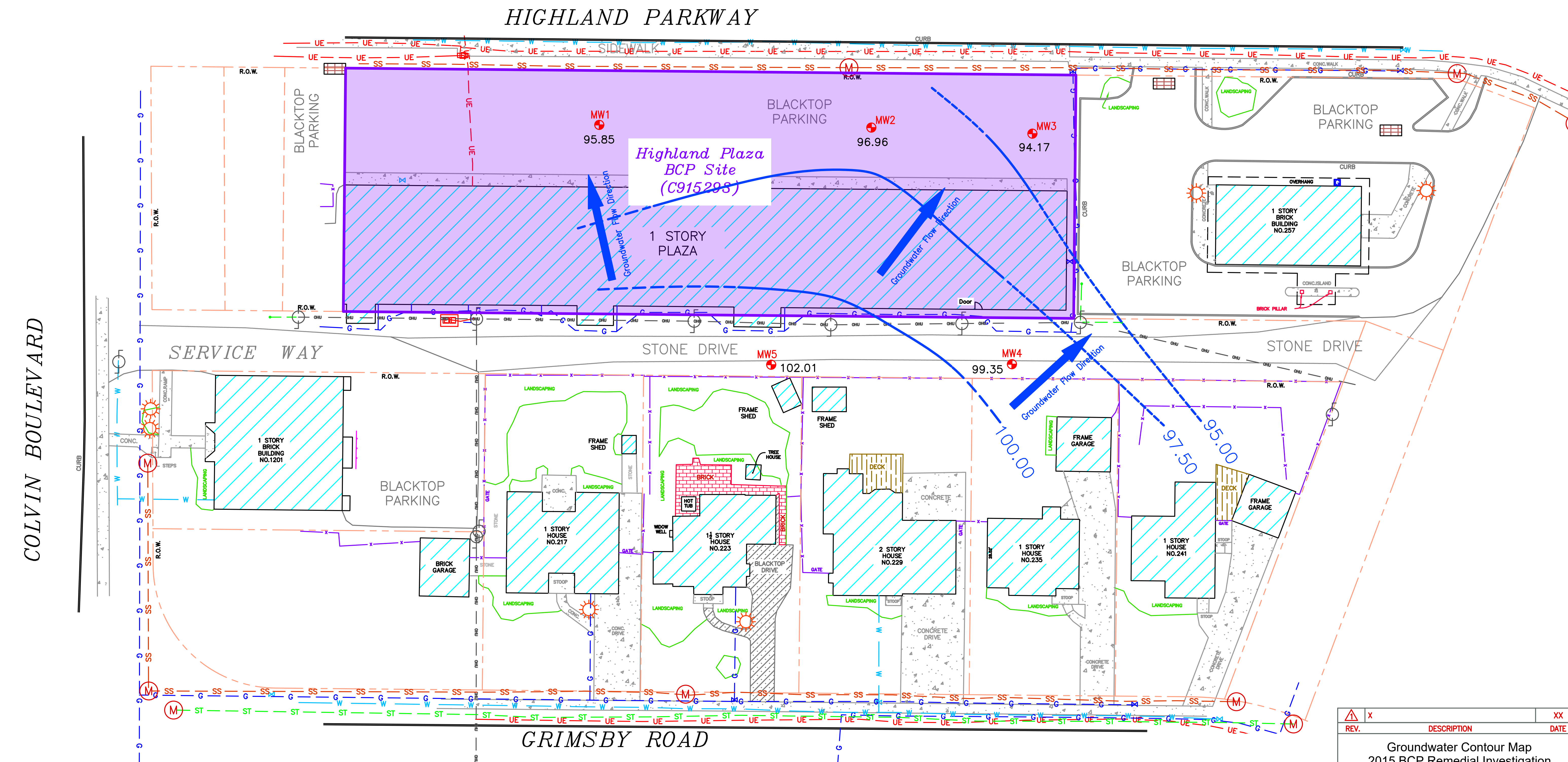
NYSDEC Off-Site Investigation
Highland Plaza, Site No. C915293A
215 Highland Parkway
Tonawanda, New York

Drawn W.G.S.
Designed
Approved

Date 8/4/22
Figure 2-11

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.



LEGEND

PROPERTY BOUNDARY	UNDERGROUND SANITARY SEWER LINE
UNDERGROUND STORM SEWER	UNDERGROUND ELECTRIC LINE
FENCE	UNDERGROUND WATER LINE
GUARD RAIL	UNDERGROUND GAS LINE
CATCH BASIN	OVERHEAD UTILITIES
UTILITY MANHOLE	MONITORING WELL WITH GROUNDWATER ELEVATION (feet)
LIGHT POLE	GROUNDWATER CONTOUR (feet)
UTILITY POLE	

REV.	DESCRIPTION	DATE
x		XX

Groundwater Contour Map
2015 BCP Remedial Investigation

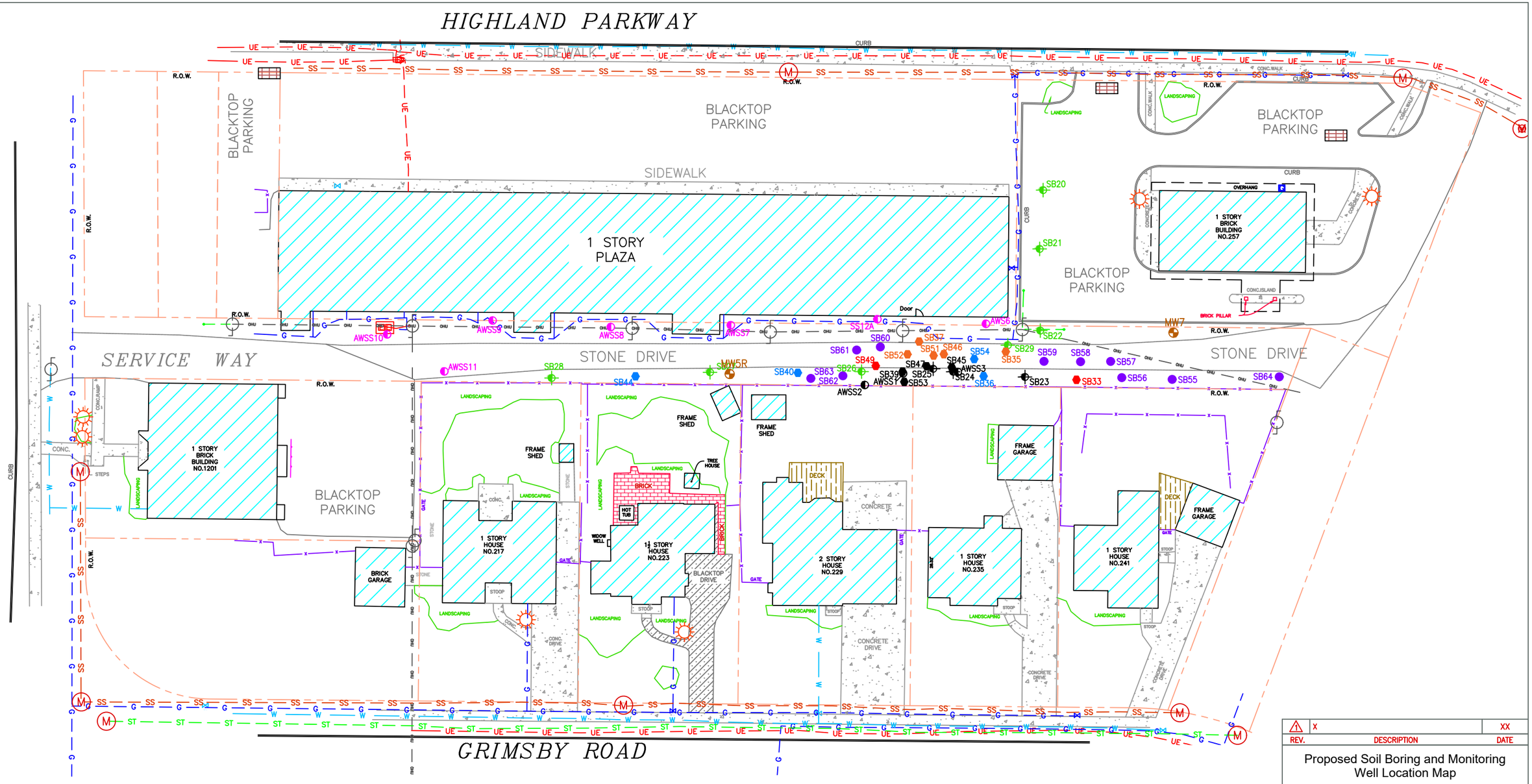
NYSDEC Off-Site Investigation
Highland Plaza, Site No. C915293A
215 Highland Parkway
Tonawanda, New York

Drawn W.G.S.
Designed
Approved

Date 8/4/22
Figure 2-12

Scale In Feet
0 60

GES
Groundwater & Environmental Services, Inc.



LEGEND

- PROPERTY BOUNDARY
- UNDERGROUND STORM SEWER
- FENCE
- GUARD RAIL
- CATCH BASIN
- UTILITY MANHOLE
- LIGHT POLE
- UTILITY POLE
- UNDERGROUND SANITARY SEWER LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- OVERHEAD UTILITIES
- SHALLOW FILL SAMPLE (NON-GES OCTOBER, 2015)
- SHALLOW FILL SAMPLE (NON-GES 2014 & 2015)
- SHALLOW FILL SAMPLE (MAY-JUNE, 2017)
- SHALLOW (<4' DEPTH) SUBSURFACE SOIL SAMPLE (MAY-JUNE, 2017)
- PROPOSED SHALLOW SOIL BORING
- PROPOSED MONITORING WELL

NOTE:

A SHALLOW FILL SAMPLE SHADED BLACK INDICATES A RESIDENTIAL SCO EXCEEDANCE FOR PRIMARY COCs.

A SHALLOW SUBSURFACE SOIL SAMPLE SHADED RED INDICATES A RESIDENTIAL SCO EXCEEDANCE FOR PRIMARY COCs.

REV.	DESCRIPTION	DATE
1	X	XX

Proposed Soil Boring and Monitoring Well Location Map

NYSDEC Off-Site Investigation
Highland Plaza, Site No. C915293A
215 Highland Parkway
Tonawanda, New York

Drawn W.G.S.
Designed
Approved

Date 8/31/23
Figure 3-1

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.

Figure 3-2. Photo showing the black, gravelly fill at the Highland Plaza Off-Site Area. Photo taken by Norm Wohlabaugh on October 18, 2015.

Figure 3-3. Close-up photo of the black, gravelly fill at the Highland Plaza Off-Site Area. Photo taken by Norm Wohlabaugh on October 18, 2015.

TABLES

Table 2-1A
Summary of Shallow Fill Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Unrestricted Soil Cleanup Objectives *	Residential Soil Cleanup Objectives *	SS-12A Fill 0" - 6" 05/13/14	AWSS-1 Fill 6" - 12" 07/08/14	AWSS-2 Fill 6" - 12" 07/08/14	AWSS-3 Fill 6" - 12" 07/08/14	AWSS-6 Fill 0" - 4" 10/18/15	AWSS-7 Fill 0" - 4" 10/18/15	AWSS-8 Fill 0" - 4" 10/18/15
Volatile Organic Compounds (µg/kg)									
1,1,1-Trichloroethane	680.0	100,000							
1,3-Dichlorobenzene	2,400	17,000							
1,4-Dichlorobenzene	1,800	9,800							
1,1-Dichloroethene	330.0	100,000							
cis-1,2-Dichloroethene	250.0	59,000							
trans-1,2-Dichloroethene	190.0	100,000							
Acetone	50.0	100,000							
Benzene	60.0	2,900							
Chloroform	370.0	10,000							
Cyclohexane	NS	NS							
Ethylbenzene	1,000	30,000							
Methylcyclohexane	NS	NS							
Methyl ethyl ketone	120.0	100,000							
Methylene chloride	50.0	51,000							3.5 JB
n-Propylbenzene	3,900	100,000							
Tetrachloroethene	1,300	5,500	25.8	**40,200**	**19,300**	**89,300**	2.0 J	6.3	6.2
Toluene	700.0	100,000							
1,2,4-Trichlorobenzene	NS	NS							
Trichloroethene	470.0	10,000	10.3						
1,2,4-Trimethylbenzene	3,600	47,000							1.4 J
1,3,5-Trimethylbenzene	8,400	47,000							
Vinyl chloride	20.0	210.0							
Xylene (Total)	260.0	100,000							1.5 JB

Notes:

*** = 6 NYCRR Part 375: Environmental Remediation Programs, Unrestricted & Residential Soil Cleanup Objectives, NYSDEC, 2006.**

µg/kg = micrograms per kilogram or parts per billion.

B = Analyte detected in the associated blank, as well as in the sample.

J = Compound is positively identified and reported at an estimated concentration.

NS = No standard given in 6 NYCRR Part 375 or Commissioner Policy CP-51.

Table 2-1A
Summary of Shallow Fill Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Notes (continued):

Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.

Yellow shaded values exceed the 6 NYCRR Part 375 unrestricted soil cleanup objectives but not the residential soil cleanup objecives.

Orange shaded values exceed the 6 NYCRR Part 375 unrestricted and residential soil cleanup objecives.

This table was modified on May 24, 2021 with the data validator's qualifiers.

Table 2-1B
Summary of Shallow Fill Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Unrestricted Soil Cleanup Objectives *	Residential Soil Cleanup Objectives *	AWSS-9 Fill 0" - 4" 10/18/15	AWSS-10 Fill 0" - 4" 10/18/15	AWSS-11 Fill 0" - 4" 10/18/15	SB-20 Fill 6" - 18" 10/15/15	SB-21 Fill 12" - 20" 10/15/15	SB-22 Fill 6" - 18" 10/15/15	SB -23 Fill 17" - 24" 10/15/15
Volatile Organic Compounds (µg/kg)									
1,1,1-Trichloroethane	680.0	100,000							
1,3-Dichlorobenzene	2,400	17,000							
1,4-Dichlorobenzene	1,800	9,800							
1,1-Dichloroethene	330.0	100,000							0.89 J
cis-1,2-Dichloroethene	250.0	59,000						0.79 J	230 J
trans-1,2-Dichloroethene	190.0	100,000							0.78 J
Acetone	50.0	100,000				47 JH	**84.0**	39.0	49.0
Benzene	60.0	2,900							
Chloroform	370.0	10,000							
Cyclohexane	NS	NS							
Ethylbenzene	1,000	30,000							
Methylcyclohexane	NS	NS							
Methyl ethyl ketone	120.0	100,000		16 J		6.5 JH	17 J		
Methylene chloride	50.0	51,000			9.7 JB				
n-Propylbenzene	3,900	100,000							
Tetrachloroethene	1,300	5,500	1.0 J	0.62 J		1.9 J	0.92 J	0.86 J	**19,000**
Toluene	700.0	100,000							
1,2,4-Trichlorobenzene	NS	NS							
Trichloroethene	470.0	10,000							**3,000**
1,2,4-Trimethylbenzene	3,600	47,000							
1,3,5-Trimethylbenzene	8,400	47,000							
Vinyl chloride	20.0	210.0							
Xylene (Total)	260.0	100,000			1.9 JB				

Notes:

*** = 6 NYCRR Part 375: Environmental Remediation Programs, Unrestricted & Residential Soil Cleanup Objectives, NYSDEC, 2006.**

µg/kg = micrograms per kilogram or parts per billion.

B = Analyte detected in the associated blank, as well as in the sample.

J = Compound is positively identified and reported at an estimated concentration.

JH = Compound is positively identified and reported at an estimated concentration that is probably high.

Table 2-1B
Summary of Shallow Fill Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Notes (continued):

NS = No standard given in 6 NYCRR Part 375 or Commissioner Policy CP-51.

Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.

Yellow shaded values exceed the 6 NYCRR Part 375 unrestricted soil cleanup objectives but not the residential soil cleanup objecives.

Orange shaded values exceed the 6 NYCRR Part 375 unrestricted and residential soil cleanup objecives.

This table was modified on May 24, 2021 with the data validator's qualifiers.

Table 2-1C
Summary of Shallow Fill Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Unrestricted Soil Cleanup Objectives *	Residential Soil Cleanup Objectives *	SB -24 Fill 6" - 14" 10/15/15	SB -25 Fill 16" - 20" 10/16/15	SB -27 Fill 17" - 22" 10/15/15	SB-28 Fill 10" - 22" 10/16/15	SB-29 Fill 17" - 22" 10/16/15	SB-35 Fill 1.5' - 2' 05/04/17	SB-37 Fill 1' - 1.5' 05/04/17
Volatile Organic Compounds (µg/kg)									
1,1,1-Trichloroethane	680.0	100,000							
1,3-Dichlorobenzene	2,400	17,000							
1,4-Dichlorobenzene	1,800	9,800							
1,1-Dichloroethene	330.0	100,000							
cis-1,2-Dichloroethene	250.0	59,000	**29,000**	**1,600**	3.9 J				7.8 J
trans-1,2-Dichloroethene	190.0	100,000							
Acetone	50.0	100,000					11 J		
Benzene	60.0	2,900							
Chloroform	370.0	10,000							
Cyclohexane	NS	NS							
Ethylbenzene	1,000	30,000							
Methylcyclohexane	NS	NS							
Methyl ethyl ketone	120.0	100,000							
Methylene chloride	50.0	51,000							
n-Propylbenzene	3,900	100,000							
Tetrachloroethene	1,300	5,500	**1,600,000**	**1,400,000**	29.0	6.5 J		210 J	11.0 J
Toluene	700.0	100,000	500 J						
1,2,4-Trichlorobenzene	NS	NS							
Trichloroethene	470.0	10,000	**15,000**	**1,400**	11.0				0.55 J
1,2,4-Trimethylbenzene	3,600	47,000							
1,3,5-Trimethylbenzene	8,400	47,000							
Vinyl chloride	20.0	210.0							
Xylene (Total)	260.0	100,000	**980 J**						

Notes:

*** = 6 NYCRR Part 375: Environmental Remediation Programs, Unrestricted & Residential Soil Cleanup Objectives, NYSDEC, 2006.**

µg/kg = micrograms per kilogram or parts per billion.

B = Analyte detected in the associated blank, as well as in the sample.

J = Compound is positively identified and reported at an estimated concentration.

NS = No standard given in 6 NYCRR Part 375 or Commissioner Policy CP-51.

Table 2-1C
Summary of Shallow Fill Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Notes (continued):

Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.

Yellow shaded values exceed the 6 NYCRR Part 375 unrestricted soil cleanup objectives but not the residential soil cleanup objecives.

Orange shaded values exceed the 6 NYCRR Part 375 unrestricted and residential soil cleanup objecives.

This table was modified on May 24, 2021 with the data validator's qualifiers.

Table 2-1D
Summary of Shallow Fill Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Unrestricted Soil Cleanup Objectives *	Residential Soil Cleanup Objectives *	SB-39 Fill 1.5' - 2' 05/04/17	SB-45 Fill 1.6' - 1.8' 06/20/17	SB-46 Fill 1.8' - 2.0' 06/20/17	SB-47 Fill 1.6' - 1.8' 06/21/17	SB-51 Fill 1.2' - 1.4' 06/22/17	SB-52 Fill 1.6' - 1.8' 06/22/17	SB-53 Fill 1.0' - 1.2' 06/22/17
Volatile Organic Compounds (µg/kg)									
1,1,1-Trichloroethane	680.0	100,000							
1,3-Dichlorobenzene	2,400	17,000							
1,4-Dichlorobenzene	1,800	9,800			1.2 JH				
1,1-Dichloroethene	330.0	100,000							
cis-1,2-Dichloroethene	250.0	59,000			36.0 JH		0.78 J	0.90 J	**290 J**
trans-1,2-Dichloroethene	190.0	100,000							0.92 J
Acetone	50.0	100,000							
Benzene	60.0	2,900			1.1 JH				
Chloroform	370.0	10,000			0.43 JH				
Cyclohexane	NS	NS			0.92 JH				
Ethylbenzene	1,000	30,000			0.87 JH		0.45 J	0.40 J	
Methylcyclohexane	NS	NS			2.5 JH				
Methyl ethyl ketone	120.0	100,000							
Methylene chloride	50.0	51,000			9.6 JH				
n-Propylbenzene	3,900	100,000							
Tetrachloroethene	1,300	5,500	**5,900,000 J**	**110,000**	87.0 JH	**820,000**	47.0	58.0 JH	**67,000**
Toluene	700.0	100,000			5.6 JH		1.0 J	1.4 J	0.62 J
1,2,4-Trichlorobenzene	NS	NS				6,900 J			
Trichloroethene	470.0	10,000			7.0 JH			1.3 J	**880.0**
1,2,4-Trimethylbenzene	3,600	47,000							
1,3,5-Trimethylbenzene	8,400	47,000							
Vinyl chloride	20.0	210.0							
Xylene (Total)	260.0	100,000			5.0 JH		2.5 J	1.7 J	1.6 J

Notes:

*** = 6 NYCRR Part 375: Environmental Remediation Programs, Unrestricted & Residential Soil Cleanup Objectives, NYSDEC, 2006.**

µg/kg = micrograms per kilogram or parts per billion.

B = Analyte detected in the associated blank, as well as in the sample.

J = Compound is positively identified and reported at an estimated concentration.

JH = Compound is positively identified and reported at an estimated concentration that is probably high.

Table 2-1D
Summary of Shallow Fill Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Notes (continued):

NS = No standard given in 6 NYCRR Part 375 or Commissioner Policy CP-51.

Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.

Yellow shaded values exceed the 6 NYCRR Part 375 unrestricted soil cleanup objectives but not the residential soil cleanup objecives.

Orange shaded values exceed the 6 NYCRR Part 375 unrestricted and residential soil cleanup objecives.

This table was modified on April 9, 2021 with the data validator's qualifiers.

Table 2-2A
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point			SB-20	SB-21	SB -22	SB -23	SB -25	SB -26		SB-28	SB-29
Sample Type	Unrestricted	Residential	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth (ft)	Soil Cleanup	Soil Cleanup	7' - 8'	7' - 8'	7' - 8'	6' - 7'	6' - 7'	17" - 22"	7' - 8'	7' - 8'	7' - 8'
Sample Date	Objectives *	Objectives *	10/15/15	10/15/15	10/15/15	10/15/15	10/16/15	10/16/15	10/16/15	10/16/15	10/16/15
Volatile Organic Compounds (µg/kg)											
1,1,1-Trichloroethane	680.0	100,000									
1,1-Dichloroethene	330.0	100,000					2.9 J				0.50 J
cis -1,2-Dichloroethene	250.0	59,000				82 J	**290 E**		0.57 J		**1,200**
trans-1,2-Dichloroethene	190.0	100,000					1.8 J				1.2 J
Acetone	50.0	100,000	3.3 J		4.4 J	10 J	45.0				3.5 J
Benzene	60.0	2,900									
Carbon Disulfide	NS	100,000 **									
Chloroform	370.0	10,000					1.3 J				
Ethylbenzene	1,000	30,000									
Methyl ethyl ketone	120.0	100,000									
Methylene chloride	50.0	51,000									
n-Propylbenzene	3,900	100,000					0.43 J				
Tetrachloroethene	1,300	5,500	0.95 J		0.63 J	**4,900**	**740,000**	220.0	5.4	0.62 J	**18,000**
Toluene	700.0	100,000					0.48 J				
Trichloroethene	470.0	10,000				**490.0**	210 E				**590.0**
1,2,4-Trimethylbenzene	3,600	47,000					1.5 J				250 J
1,3,5-Trimethylbenzene	8,400	47,000					0.71 J				
Vinyl chloride	20.0	210.0									
Xylene (Total)	260.0	100,000									

Notes:

*** = 6 NYCRR Part 375: Environmental Remediation Programs, Unrestricted & Residential Soil Cleanup Objectives, NYSDEC, 2006.**

**** = Residential soil cleanup objective from Commissioner's Policy CP-51 entitled "Soil Cleanup Guidance", NYSDEC, 2010.**

µg/kg = micrograms per kilogram or parts per billion.

B = Analyte detected in the associated blank, as well as in the sample (organics).

E = Result exceeded calibration range.

J = Compound is positively identified and reported at an estimated concentration.

Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.

Yellow shaded values exceed the 6 NYCRR Part 375 unrestricted soil cleanup objectives but not the residential soil cleanup objecives.

Table 2-2A
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Notes (continued):

Orange shaded values exceed the 6 NYCRR Part 375 unrestricted and residential soil cleanup objecives.

This table was modified on May 24, 2021 with the data validator's qualifiers.

This table was checked on August 30, 2023.

Table 2-2B
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point			SB-30	SB-31	SB-32	SB-33		SB-34	SB-35	SB-36	
Sample Type	Unrestricted	Residential	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth (ft)	Soil Cleanup	Soil Cleanup	7' - 8'	7' - 8'	7' - 8'	0' - 4'	7' - 8'	7' - 8'	7' - 8'	2' - 4'	4' - 6'
Sample Date	Objectives *	Objectives *	06/19/17	06/19/17	06/19/17	06/19/17	06/19/17	06/20/17	05/04/17	05/04/17	05/04/17
Volatile Organic Compounds (µg/kg)											
1,1,1-Trichloroethane	680.0	100,000									
1,1-Dichloroethene	330.0	100,000									
cis -1,2-Dichloroethene	250.0	59,000				8.8	0.79 J		0.57 J	0.74 J	1.5 J
trans-1,2-Dichloroethene	190.0	100,000									
Acetone	50.0	100,000								23.0 J	21.0 J
Benzene	60.0	2,900									
Carbon Disulfide	NS	100,000 **								0.96 J	
Chloroform	370.0	10,000									
Ethylbenzene	1,000	30,000					0.40 J				
Methyl ethyl ketone	120.0	100,000									
Methylene chloride	50.0	51,000				2.4 J				1.6 J	1.2 J
n-Propylbenzene	3,900	100,000									
Tetrachloroethene	1,300	5,500			5.9 JH	**10,000**	15 B		41.0 J	440 J	390 J
Toluene	700.0	100,000			0.38 J	0.54 JH	0.70 J				
Trichloroethene	470.0	10,000				120.0	1.2 J		0.72 J	0.40 J	4.7 J
1,2,4-Trimethylbenzene	3,600	47,000									
1,3,5-Trimethylbenzene	8,400	47,000									
Vinyl chloride	20.0	210.0									
Xylene (Total)	260.0	100,000		0.85 J			1.7 J				

Notes:

*** = 6 NYCRR Part 375: Environmental Remediation Programs, Unrestricted & Residential Soil Cleanup Objectives, NYSDEC, 2006.**

**** = Residential soil cleanup objective from Commissioner's Policy CP-51 entitled "Soil Cleanup Guidance", NYSDEC, 2010.**

µg/kg = micrograms per kilogram or parts per billion.

B = Analyte detected in the associated blank, as well as in the sample (organics).

E = Result exceeded calibration range.

J = Compound is positively identified and reported at an estimated concentration.

JH = Compound is positively identified and reported at an estimated concentration that is probably high.

Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.

Table 2-2B
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Notes (continued):

Yellow shaded values exceed the 6 NYCRR Part 375 unrestricted soil cleanup objectives but not the residential soil cleanup objecives.

Orange shaded values exceed the 6 NYCRR Part 375 unrestricted and residential soil cleanup objecives.

This table was modified on April 9, 2021 with the data validator's qualifiers.

This table was checked on August 30, 2023.

Table 2-2C
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point			SB-36	SB-37	SB-38	SB-39		SB-40		SB-41	
Sample Type	Unrestricted	Residential	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Depth (ft)	Soil Cleanup	Soil Cleanup	7' - 8'	7' - 8'	7' - 8'	2' - 4'	7' - 8'	0.5' - 2'	7' - 8'	7' - 8'	
Sample Date	Objectives *	Objectives *	05/04/17	05/04/17	06/21/17	05/04/17	05/04/17	05/03/17	05/03/17	06/22/17	
Volatile Organic Compounds (µg/kg)											
1,1,1-Trichloroethane	680.0	100,000									
1,1-Dichloroethene	330.0	100,000									
cis -1,2-Dichloroethene	250.0	59,000	1.1 J	2.4 J		2.2 J					
trans-1,2-Dichloroethene	190.0	100,000									
Acetone	50.0	100,000	9.9 J			35.0 J					
Benzene	60.0	2,900									
Carbon Disulfide	NS	100,000 **									
Chloroform	370.0	10,000									
Ethylbenzene	1,000	30,000									
Methyl ethyl ketone	120.0	100,000				11.0 J					
Methylene chloride	50.0	51,000	1.1 J								
n-Propylbenzene	3,900	100,000									
Tetrachloroethene	1,300	5,500	140 J	14.0 J	4.6 J	510 J	**23,000 J**	8.0 J	240 J	1.6 J	
Toluene	700.0	100,000			0.50 J						
Trichloroethene	470.0	10,000	2.6 J	3.2 J		1.4 J			2.3 J		
1,2,4-Trimethylbenzene	3,600	47,000									
1,3,5-Trimethylbenzene	8,400	47,000									
Vinyl chloride	20.0	210.0									
Xylene (Total)	260.0	100,000									

Notes:

*** = 6 NYCRR Part 375: Environmental Remediation Programs, Unrestricted & Residential Soil Cleanup Objectives, NYSDEC, 2006.**

**** = Residential soil cleanup objective from Commissioner's Policy CP-51 entitled "Soil Cleanup Guidance", NYSDEC, 2010.**

µg/kg = micrograms per kilogram or parts per billion.

B = Analyte detected in the associated blank, as well as in the sample (organics).

E = Result exceeded calibration range.

J = Compound is positively identified and reported at an estimated concentration.

JH = Compound is positively identified and reported at an estimated concentration that is probably high.

Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.

Table 2-2C
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Notes (continued):

Yellow shaded values exceed the 6 NYCRR Part 375 unrestricted soil cleanup objectives but not the residential soil cleanup objecives.

Orange shaded values exceed the 6 NYCRR Part 375 unrestricted and residential soil cleanup objecives.

This table was modified on April 9, 2021 with the data validator's qualifiers.

This table was checked on August 30, 2023.

Table 2-2D
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point			SB-44		SB-45		SB-46	SB-47		SB-48	
Sample Type	Unrestricted	Residential	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Depth (ft)	Soil Cleanup	Soil Cleanup	0.5' - 2'	7' - 8'	2.0' - 2.2'	7' - 8'	7' - 8'	3.5' - 4.0'	7' - 8'	7' - 8'	
Sample Date	Objectives *	Objectives *	05/03/17	05/03/17	06/20/17	06/20/17	06/20/17	06/21/17	06/21/17	06/21/17	
Volatile Organic Compounds (µg/kg)											
1,1,1-Trichloroethane	680.0	100,000									
1,1-Dichloroethene	330.0	100,000									
cis -1,2-Dichloroethene	250.0	59,000			61.0	90.0 J	36.0 J	11.0		48 J F1	
trans-1,2-Dichloroethene	190.0	100,000			0.75 J						
Acetone	50.0	100,000			**200 JH**						
Benzene	60.0	2,900									
Carbon Disulfide	NS	100,000 **									
Chloroform	370.0	10,000									
Ethylbenzene	1,000	30,000						0.38 J			
Methyl ethyl ketone	120.0	100,000			35.0						
Methylene chloride	50.0	51,000									
n-Propylbenzene	3,900	100,000									
Tetrachloroethene	1,300	5,500	2.5 J	190 J	62.0	**11,000**	**7,100**	190 JH	**7,200 JH**	**1,400**	
Toluene	700.0	100,000						0.66 J			
Trichloroethene	470.0	10,000		1.3 J	50.0			15.0		100 J F1	
1,2,4-Trimethylbenzene	3,600	47,000									
1,3,5-Trimethylbenzene	8,400	47,000									
Vinyl chloride	20.0	210.0									
Xylene (Total)	260.0	100,000						1.7 J			

Notes:

*** = 6 NYCRR Part 375: Environmental Remediation Programs, Unrestricted & Residential Soil Cleanup Objectives, NYSDEC, 2006.**

**** = Residential soil cleanup objective from Commissioner's Policy CP-51 entitled "Soil Cleanup Guidance", NYSDEC, 2010.**

µg/kg = micrograms per kilogram or parts per billion.

B = Analyte detected in the associated blank, as well as in the sample (organics).

E = Result exceeded calibration range.

F1 = MS and/or MSD recovery is outside accptance limits.

J = Compound is positively identified and reported at an estimated concentration.

JH = Compound is positively identified and reported at an estimated concentration that is probably high.

Table 2-2D
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Notes (continued):

Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.

Yellow shaded values exceed the 6 NYCRR Part 375 unrestricted soil cleanup objectives but not the residential soil cleanup objecives.

Orange shaded values exceed the 6 NYCRR Part 375 unrestricted and residential soil cleanup objecives.

This table was modified on April 9, 2021 with the data validator's qualifiers.

This table was checked on August 30, 2023.

Table 2-2E
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point			SB-49		SB-50	SB-51		SB-52			
Sample Type	Unrestricted	Residential	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Duplicate	
Depth (ft)	Soil Cleanup	Soil Cleanup	2' - 4'	7' - 8'	7' - 8'	3.8' - 4.0'	7' - 8'	3.8' - 4.0'	7' - 8'	7' - 8'	
Sample Date	Objectives *	Objectives *	06/21/17	06/21/17	06/22/17	06/22/17	06/22/17	06/22/17	06/22/17	06/22/17	
Volatile Organic Compounds (µg/kg)											
1,1,1-Trichloroethane	680.0	100,000									
1,1-Dichloroethene	330.0	100,000									
cis -1,2-Dichloroethene	250.0	59,000	130.0	6.2	100.0	2.6 J	15.0 J	3.8 J	23.0 JH	16.0	
trans-1,2-Dichloroethene	190.0	100,000									
Acetone	50.0	100,000				12.0 JH				5.7 JH	
Benzene	60.0	2,900									
Carbon Disulfide	NS	100,000 **									
Chloroform	370.0	10,000									
Ethylbenzene	1,000	30,000							0.44 J	0.44 J	
Methyl ethyl ketone	120.0	100,000									
Methylene chloride	50.0	51,000									
n-Propylbenzene	3,900	100,000									
Tetrachloroethene	1,300	5,500	**4,600**	96.0 JH	1,200 JH	80.0	**1,300 JH**	4.9 J	93.0 JH	120.0	
Toluene	700.0	100,000		0.47 J		0.43 J			0.55 J	0.67 J	
Trichloroethene	470.0	10,000	200.0	4.0 J	46 J	5.9	26.0 J	3.4 J	29.0	20.0	
1,2,4-Trimethylbenzene	3,600	47,000									
1,3,5-Trimethylbenzene	8,400	47,000									
Vinyl chloride	20.0	210.0									
Xylene (Total)	260.0	100,000		1.4 J		1.5 J			3.0 J	3.2 J	

Notes:

*** = 6 NYCRR Part 375: Environmental Remediation Programs, Unrestricted & Residential Soil Cleanup Objectives, NYSDEC, 2006.**

**** = Residential soil cleanup objective from Commissioner's Policy CP-51 entitled "Soil Cleanup Guidance", NYSDEC, 2010.**

µg/kg = micrograms per kilogram or parts per billion.

J = Compound is positively identified and reported at an estimated concentration.

JH = Compound is positively identified and reported at an estimated concentration that is probably high.

Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.

Yellow shaded values exceed the 6 NYCRR Part 375 unrestricted soil cleanup objectives but not the residential soil cleanup objecives.

Orange shaded values exceed the 6 NYCRR Part 375 unrestricted and residential soil cleanup objecives.

Table 2-2E
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Notes (continued):

This table was modified on May 24, 2021 with the data validator's qualifiers.

This table was checked on August 30, 2023.

Table 2-2F
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point			SB-53		SB-54						
Sample Type	Unrestricted	Residential	Soil	Soil	Soil	Soil					
Depth (ft)	Soil Cleanup	Soil Cleanup	3.6' - 3.8'	7' - 8'	1.8' - 2.0'	7' - 8'					
Sample Date	Objectives *	Objectives *	06/22/17	06/22/17	06/20/17	06/20/17					
Volatile Organic Compounds (µg/kg)											
1,1,1-Trichloroethane	680.0	100,000									
1,1-Dichloroethene	330.0	100,000									
cis -1,2-Dichloroethene	250.0	59,000	100 J	2.6 J	3.2 J						
trans-1,2-Dichloroethene	190.0	100,000									
Acetone	50.0	100,000		4.8 J	**150 JH**						
Benzene	60.0	2,900									
Carbon Disulfide	NS	100,000 **									
Chloroform	370.0	10,000									
Ethylbenzene	1,000	30,000		0.54 JH							
Methyl ethyl ketone	120.0	100,000		5.2 J	32.0						
Methylene chloride	50.0	51,000									
n-Propylbenzene	3,900	100,000									
Tetrachloroethene	1,300	5,500	**23,000**	**28,000**	11.0	**1,900**					
Toluene	700.0	100,000		0.61 JH	0.60 J						
Trichloroethene	470.0	10,000	71.0 J	30.0 JH	2.9 J						
1,2,4-Trimethylbenzene	3,600	47,000									
1,3,5-Trimethylbenzene	8,400	47,000									
Vinyl chloride	20.0	210.0									
Xylene (Total)	260.0	100,000		5.2 JH	1.0 J						

Notes:

*** = 6 NYCRR Part 375: Environmental Remediation Programs, Unrestricted & Residential Soil Cleanup Objectives, NYSDEC, 2006.**

**** = Residential soil cleanup objective from Commissioner's Policy CP-51 entitled "Soil Cleanup Guidance", NYSDEC, 2010.**

µg/kg = micrograms per kilogram or parts per billion.

J = Compound is positively identified and reported at an estimated concentration.

JH = Compound is positively identified and reported at an estimated concentration that is probably high.

Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.

Yellow shaded values exceed the 6 NYCRR Part 375 unrestricted soil cleanup objectives but not the residential soil cleanup objecives.

Orange shaded values exceed the 6 NYCRR Part 375 unrestricted and residential soil cleanup objecives.

Table 2-2F
Summary of Shallow Subsurface Soil Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Notes (continued):

This table was modified on April 9, 2021 with the data validator's qualifiers.

This table was checked on August 30, 2023.

Table 2-3A
Summary of Groundwater Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Well Number Well Location Well Screen Interval (feet bgs) Sample Date	NYSDEC Groundwater Standard ●	MW-1 On-Site 14.0 - 24.0 12/22/15	 12/21/17	 06/21/19	 05/17/21	MW-2 On-Site 14.0 - 24.0 12/22/15	 12/21/17	 06/21/19	 05/17/21
Volatile Organic Compounds (µg/L)									
1,1,1-Trichloroethane	5.0								
1,1-Dichloroethene	5.0								
cis -1,2-Dichloroethene	5.0								
trans-1,2-Dichloroethene	5.0								
Acetone	50.0	5.4 J		19.0					
Benzene	1.0								
Chloroform	7.0								
Methyl ethyl ketone	50 G								
Methylene chloride	5.0								
n-Propylbenzene	5.0								
Tetrachloroethene	5.0								
Toluene	5.0								
Trichloroethene	5.0								
1,2,4-Trimethylbenzene	5.0								
1,3,5-Trimethylbenzene	5.0								
Vinyl chloride	2.0								
Xylene (Total)	5.0								

Notes:

● = NYSDEC Ambient Water Quality Standards and Guidance Values, June 1998, with addenda through 2004.
µg/L = micrograms per liter or parts per billion.
G = Guidance value.
J = Compound reported at an estimated concentration.
Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.
Yellow shaded values exceed NYSDEC groundwater standards or guidance values.
This table was modified on April 29, 2021 with the data validator's qualifiers for the 2015, 2017 and 2019 results.
This table was modified on April 26, 2022 with the data validator's qualifiers for the the 2021 results.

Table 2-3B
Summary of Groundwater Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Well Number Well Location Well Screen Interval (feet bgs) Sample Date	NYSDEC Groundwater Standard ●	MW-3 On-Site 14.0 - 24.0 12/22/15	 12/20/17	 06/21/19	 05/17/21	MW-4 Off-Site 14.0 - 24.0 12/22/15	 12/20/17	 06/21/19	 05/17/21
Volatile Organic Compounds (µg/L)									
1,1,1-Trichloroethane	5.0								
1,1-Dichloroethene	5.0					**10.0 J**			**7.8 J**
cis -1,2-Dichloroethene	5.0	**24.0**	**5.7**		**5.8**	**900 J**	**2,300**		**1,500 J ♠**
trans-1,2-Dichloroethene	5.0								
Acetone	50.0				16.0				
Benzene	1.0								
Chloroform	7.0								
Methyl ethyl ketone	50 G								
Methylene chloride	5.0								
n-Propylbenzene	5.0								
Tetrachloroethene	5.0		0.49 J	0.47 J	**150.0 ♠**	**58,000 ♠**	**120,000 ♠**	**52,000**	**84,000 J ♠**
Toluene	5.0								
Trichloroethene	5.0	0.85 J			1.9	**740.0**	**1,900 J ♠**		**610.0 ♠**
1,2,4-Trimethylbenzene	5.0								
1,3,5-Trimethylbenzene	5.0								
Vinyl chloride	2.0								
Xylene (Total)	5.0								

Notes:

● = NYSDEC Ambient Water Quality Standards and Guidance Values, June 1998, with addenda through 2004.
µg/L = micrograms per liter or parts per billion.
♠ = Results of a diluted sample analysis.
G = Guidance value.
J = Compound reported at an estimated concentration.
Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.
Yellow shaded values exceed NYSDEC groundwater standards or guidance values.
This table was modified on April 29, 2021 with the data validator's qualifiers for the 2015, 2017 and 2019 results.
This table was modified on April 26, 2022 with the data validator's qualifiers for the the 2021 results.

Table 2-3C
Summary of Groundwater Analytical Results for VOCs
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Well Number	NYSDEC	MW-5						
Well Location	Groundwater	Off-Site						
Well Screen Interval (feet bgs)	Standard ●	14.0 - 24.0						
Sample Date		12/22/15	12/20/17	06/21/19	05/17/21			
Volatile Organic Compounds (µg/L)								
1,1,1-Trichloroethane	5.0							
1,1-Dichloroethene	5.0							
cis -1,2-Dichloroethene	5.0	**1,100**	**900.0**	**580.0**	**220 J ♠**			
trans-1,2-Dichloroethene	5.0	**34.0**		**18.0**	**5.3 J**			
Acetone	50.0							
Benzene	1.0							
Chloroform	7.0				0.61 J			
Methyl ethyl ketone	50 G							
Methylene chloride	5.0							
n-Propylbenzene	5.0							
Tetrachloroethene	5.0	**3,000 ♠**	**1,900**	**200.0**	**2,200 J ♠**			
Toluene	5.0							
Trichloroethene	5.0	**1,700**	**1,000**	**130.0**	**170 J ♠**			
1,2,4-Trimethylbenzene	5.0							
1,3,5-Trimethylbenzene	5.0							
Vinyl chloride	2.0							
Xylene (Total)	5.0							

Notes:

● = NYSDEC Ambient Water Quality Standards and Guidance Values, June 1998, with addenda through 2004.
µg/L = micrograms per liter or parts per billion.
♠ = Results of a diluted sample analysis.
G = Guidance value.
J = Compound reported at an estimated concentration.
Blanks = Contaminant analyzed for but not detected at or above the laboratory detection limit.
Yellow shaded values exceed NYSDEC groundwater standards or guidance values.
This table was modified on April 29, 2021 with the data validator's qualifiers for the 2015, 2017 and 2019 results.
This table was modified on April 26, 2022 with the data validator's qualifiers for the the 2021 results.

Table 2-4
Stratigraphic Summary of the Highland Plaza BCP Site and Off-Site Area
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Boring Number	Date Completed	NY State Plane Coordinate • System, Zone NY W-3103		Ground Surface Elevation (ft amsl)	Total Boring Depth (ft bgs)	Asphalt, Concrete and/or Crushed Stone			Reworked Soil and Industrial Fill			Reddish Brown Silty Clay		
		Northing (y)	Easting (x)			Depth (ft bgs)	Surface * Elevation	Thickness (ft)	Depth (ft bgs)	Surface * Elevation	Thickness (ft)	Depth (ft bgs)	Surface * Elevation	Thickness (ft)
Highland Plaza On-Site (C915293)														
SB-1	05/13/14	1083792.1161	1074824.8078	614.67	8.0	0.0	614.67	1.0	----	-------	----	1.0	613.67	>7.0
SB-2	05/13/14	1083815.2401	1074825.1130	613.68	8.0	0.0	613.68	1.0	----	-------	----	1.0	612.68	>7.0
SB-3	05/13/14	1083791.8456	1074954.4457	614.03	8.0	0.0	614.03	1.0	----	-------	----	1.0	613.03	>7.0
SB-4	05/13/14	1083798.4048	1075081.7003	613.28	12.0	0.0	613.28	1.0	----	-------	----	1.0	612.28	>11.0
SB-5	05/13/14	1083759.6404	1075084.2441	NS	12.0	0.0	N/A	1.0	1.0	N/A	0.5	1.5	N/A	>10.5
SB-6	05/13/14	1083766.5743	1075101.2409	NS	8.0	0.0	N/A	0.5	0.5	N/A	1.5	2.0	N/A	>6.0
SB-7	05/13/14	1083730.5000	1075108.0151	NS	8.0	0.0	N/A	0.5	0.5	N/A	1.0	1.5	N/A	>6.5
SB-8	05/13/14	1083740.5821	1075100.0478	NS	8.0	0.0	N/A	0.5	0.5	N/A	1.5	2.0	N/A	>6.0
SB-9	05/13/14	1083731.7402	1075080.9503	NS	8.0	0.0	N/A	0.5	0.5	N/A	1.5	2.0	N/A	>6.0
SB-10	05/13/14	1083732.9823	1075070.8893	NS	8.0	0.0	N/A	0.25	0.25	N/A	0.25	0.5	N/A	>7.5
SB-11	05/13/14	1083731.8947	1075060.8383	NS	8.0	0.0	N/A	0.5	0.5	N/A	1.5	2.0	N/A	>6.0
SB-15	05/13/14	1083784.2726	1075063.5955	614.05	8.0	0.0	614.05	1.0	1.0	613.05	0.5	1.5	612.55	>6.5
SB-16/MW-1	10/14/15	1083801.6159	1074924.1268	613.71	24.0	0.0	613.71	1.0	----	-------	----	1.0	612.71	>23.0
SB-17/MW-2	10/14/15	1083800.5123	1075035.8760	613.40	24.0	0.0	613.40	1.0	----	-------	----	1.0	612.40	>23.0
SB-18	10/14/15	1083799.5680	1075073.2681	613.26	8.0	0.0	613.26	1.0	1.0	612.26	0.33	1.33	611.93	>6.67
SB-19/MW-3	10/14/15	1083798.0134	1075102.0221	613.28	24.0	0.0	613.28	1.0	----	-------	----	1.0	612.28	>23.0
Highland Plaza Off-Site (C915293A)														
SB-20	10/15/15	1083777.1553	1075130.1884	613.38	8.0	0.0	613.38	0.5	0.5	612.88	1.0	1.5	611.88	>6.5
SB-21	10/15/15	1083753.2409	1075128.7925	613.81	8.0	0.0	613.81	0.67	0.67	613.14	1.0	1.67	612.14	>6.33
SB-22	10/15/15	1083720.0351	1075129.0446	614.07	8.0	0.0	614.07	0.83	0.83	613.24	0.75	1.58	612.49	>6.42
SB-23	10/15/15	1083701.1561	1075122.8239	614.07	8.0	----	-------	----	0.0	614.07	2.0	2.0	612.07	>6.0
SB-24/MW-4	10/15/15	1083703.0877	1075093.3379	614.69	24.0	0.0	614.69	1.0	1.0	613.69	1.0	2.0	612.69	>22.0
SB-25	10/16/15	1083704.4791	1075085.4925	614.83	8.0	0.25	614.58	1.25	1.5	613.33	0.33	1.83	613.00	>6.17
SB-26	10/16/15	1083703.3452	1075056.3834	615.10	8.0	0.25	614.85	1.13	----	-------	----	1.38	613.73	>6.63
SB-27/MW-5	10/16/15	1083703.0659	1074994.7435	615.18	24.0	0.5	614.68	0.5	1.0	614.18	0.58	1.58	613.60	>22.42
SB-28	10/16/15	1083700.7368	1074930.3275	615.08	8.0	0.25	614.83	1.17	1.4	613.68	0.02	1.42	613.66	>6.58
SB-29	10/16/15	1083714.0932	1075115.8638	614.20	8.0	0.0	614.20	1.33	1.33	612.87	0.84	2.17	612.03	>5.83
SB-30	06/19/17	1083699.8602	1075186.3294	613.56	32.0	----	-------	----	0.7	612.86	0.8	1.5	612.06	>30.5
SB-31	06/19/17	1083719.9747	1075170.2041	613.30	32.0	----	-------	----	0.4	612.90	0.9	1.3	612.00	>30.7
SB-32	06/19/17	1083700.7697	1075158.2055	613.76	32.0	----	-------	----	----	-------	----	0.7	613.06	>31.3
SB-33	06/19/17	1083700.0176	1075143.7592	614.04	32.0	0.0	614.04	1.0	----	-------	----	1.0	613.04	>31.0
SB-34	06/20/17	1083721.5873	1075141.3614	613.87	32.0	0.3	613.57	1.0	----	-------	----	1.3	612.57	>30.7

Table 2-4
Stratigraphic Summary of the Highland Plaza BCP Site and Off-Site Area
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Boring Number	Date Completed	NY State Plane Coordinate ● System, Zone NY W-3103		Ground Surface Elevation (ft amsl)	Total Boring Depth (ft bgs)	Asphalt, Concrete and/or Crushed Stone			Reworked Soil and Industrial Fill			Reddish Brown Silty Clay		
		Northing (y)	Easting (x)			Depth (ft bgs)	Surface * Elevation	Thickness (ft)	Depth (ft bgs)	Surface * Elevation	Thickness (ft)	Depth (ft bgs)	Surface * Elevation	Thickness (ft)
Highland Plaza Off-Site (continued)														
SB-35	05/04/17	1083711.4631	1075115.0101	614.23	32.0	0.0	614.23	1.5	1.5	612.73	0.5	2.0	612.23	>30.0
SB-36	05/04/17	1083701.4947	1075105.9957	614.42	32.0	----	-------	----	----	-------	----	0.0	614.42	>32.0
SB-37	05/04/17	1083715.5736	1075079.7731	615.50	32.0	0.0	615.50	1.0	1.0	614.50	1.0	2.0	613.50	>30.0
SB-38	06/21/17	1083716.4562	1075046.1924	615.13	32.0	0.0	615.13	1.7	----	-------	----	1.7	613.43	>30.3
SB-39	05/04/17	1083703.3605	1075073.0628	614.79	32.0	0.0	614.79	1.5	1.5	613.29	0.5	2.0	612.79	>30.0
SB-40	05/03/17	1083702.8759	1075030.4663	615.11	32.0	----	-------	----	----	-------	----	0.0	615.11	>32.0
SB-41	06/22/17	1083716.4538	1074942.3938	615.23	24.0	0.0	615.23	1.4	----	-------	----	1.4	613.83	>22.6
SB-43	05/03/17	1083700.7705	1074890.7442	615.50	32.0	----	-------	----	----	-------	----	0.0	615.50	>32.0
SB-44	05/03/17	1083701.4387	1074964.4378	615.11	32.0	----	-------	----	----	-------	----	0.5	N/A	>31.5
SB-45	06/20/17	1083705.1018	1075093.0471	614.78	32.0	0.0	614.78	1.7	1.7	613.08	0.6	2.3	612.48	>29.7
SB-46	06/20/17	1083710.4385	1075089.8038	614.93	32.0	----	-------	----	0.0	614.93	2.0	2.0	612.93	>30.0
SB-47	06/21/17	1083705.5171	1075082.8389	614.85	32.0	----	-------	----	0.0	614.85	1.8	1.8	613.05	>30.2
SB-48	06/21/17	1083715.7161	1075068.2705	615.04	32.0	0.0	615.04	1.7	----	-------	----	1.7	613.34	>30.3
SB-49	06/21/17	1083705.6864	1075062.1370	614.91	32.0	0.0	614.91	1.8	----	-------	----	1.8	613.11	>30.2
SB-50	06/22/17	1083703.2777	1074991.3167	615.13	32.0	0.0	615.13	1.4	1.4	613.73	0.7	2.1	613.03	>29.9
SB-51	06/22/17	1083709.8633	1075085.6527	614.95	24.0	0.0	614.95	1.4	1.4	613.55	0.6	2.0	612.95	>22.0
SB-52	06/22/17	1083710.3817	1075075.0607	614.94	24.0	----	-------	----	0.0	614.94	1.8	1.8	613.14	>22.2
SB-53	06/22/17	1083699.1706	1075073.7223	614.70	24.0	----	-------	----	----	-------	----	0.5	614.20	>23.4
SB-54	06/20/17	1083708.4580	1075102.1742	614.56	32.0	0.0	614.56	1.5	----	-------	----	1.5	613.06	>30.5

Notes:

● = Coordinates were obtained by GMM in August 2023 from the final AutoCAD drawing that was produced for the site. All DEC soil boring coordinates are estimated as surveys were not completed. Instead, the locations were measured from building corners. These measurements were added to the detailed survey map that was completed for the NYSDEC Remedial Investigation.

*** = Surface elevations in feet above mean sea level.**

bgs = Below ground surface.

NS = Not Surveyed.

N/A = Not Applicable.

There are no soil borings with the numbers SB-12, SB-13 or SB-14.

The field notes for the Phase I Remedial Investigation did not distinguish between the gravel of the roadway and the underlying reworked soil. Data was assigned to the Asphalt, Concrete and/or Crushed Stone column if the boring was completed through the gravel roadway or the sample was described as having >30% gravel.

Yellow Shading = Ground surface elevations were estimated from the contour lines of a topographic map generated with Surfer™ using ground surface elevations from samples or borings that were surveyed during the initial DEC RI survey activities.

Orange Shading = Soil boring where the shaded deposit was overlain by a thin topsoil layer. The thickness of the topsoil equals the shaded value.

Table 2-5
Summary of Groundwater Elevations in Overburden Monitoring Wells
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Well Number	Top of Riser Elevation	Depth to Water	Water Elevation	Depth to Water *	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation
		12/04/15		12/22/15		12/21/17		06/21/19		05/05/21	
Highland Plaza BCP Site (C915293)											
MW-1	613.56	3.80	609.76	12.76	600.80	4.65	608.91	4.66	608.90	3.08	610.48
MW-2	613.25	2.80	610.45	8.60	604.65	3.22	610.03	3.22	610.03	3.65	609.60
MW-3	613.12	5.40	607.72	11.05	602.07	5.91	607.21	5.91	607.21	7.70	605.42
Highland Plaza Off-Site Area (C915293A)											
MW-4	614.47	3.10	611.37	8.42	606.05	2.20	612.27	2.10	612.37	2.65	611.82
MW-5	615.08	2.80	612.28	4.18	610.90	0.50	614.58	0.05	615.03	1.21	613.87

Notes:

NA = Not Applicable.
NI = Not Installed.
NM = Not Measured.
Elevations are referenced to Datum NAVD 88 and given in feet above mean sea level.
Depths are given in feet.
*** = The wells were developed on December 18, 2015.**

Table 2-6
Monitoring Well Construction Summary
Highland Plaza Off-Site Area, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Well Number	Ground Surface Elevation (ft. amsl)	Top of Riser Elevation (ft. amsl)	Total Boring Depth (feet)	Sandpack Interval (ft. bgs)	Sandpack Interval (ft. amsl)	Well Screen Interval (ft. bgs)	Well Screen Interval (ft. amsl)	Screened Water-Bearing Zone
Highland Plaza BCP Site (C915293)								
MW-1	613.71	613.56	24.0	4.0 to 24.0	609.71 to 589.71	14.0 to 24.0	599.71 to 589.71	Reddish-Brown Silty Clay
MW-2	613.40	613.25	24.0	4.0 to 24.0	609.40 to 589.40	14.0 to 24.0	599.40 to 589.40	Reddish-Brown Silty Clay
MW-3	613.28	613.12	24.0	4.5 to 24.0	608.78 to 589.28	14.0 to 24.0	599.28 to 589.28	Reddish-Brown Silty Clay
Highland Plaza Off-Site Area (C915293A)								
MW-4	614.69	614.47	24.0	4.5 to 24.0	610.19 to 590.69	14.0 to 24.0	600.69 to 590.69	Reddish-Brown Silty Clay
MW-5	615.18	615.08	24.0	4.5 to 24.0	610.68 to 591.18	14.0 to 24.0	601.18 to 591.18	Reddish-Brown Silty Clay

Notes:

ft. amsl = feet above mean sea level.

ft. bgs = Feet below ground surface.

Table 3-1
Proposed Soil Boring Coordinates
Highland Plaza Off-Site, Site No. C915293A
Tonawanda, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Proposed Boring Number	Date Completed	NY State Plane Coordinate ● System, Zone NY W-3103		Ground Surface Elevation (ft amsl)	Proposed Boring Depth (ft bgs)
		Northing (y)	Easting (x)		
Highland Plaza On-Site (C915293)					
SB-55		1083700.1813	1075182.6630		8.0
SB-56		1083700.9023	1075162.1784		8.0
SB-57		1083707.4896	1075157.6474		8.0
SB-58		1083707.3876	1075145.4141		8.0
SB-59		1083707.5158	1075130.5346		8.0
SB-60		1083713.3867	1075063.9918		8.0
SB-61		1083712.1157	1075054.3655		8.0
SB-62		1083701.6388	1075048.7523		8.0
SB-63		1083700.5879	1075035.7300		8.0

Notes:

● = Coordinates were obtained from the final AutoCAD drawing that was produced for the site.
ft amsl = feet above mean sea level.
bgs = Below ground surface.