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January 30, 2019

New York State Department of Environmental Conservation
Attn: Bryan Kowalewski
Assistant Engineer, Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203

via Email: bryan.kowalewski@dec.ny.gov

Reference: Groundwater Investigation
Southside Plaza
704-744 Foote Avenue, Jamestown, NY 14701

Dear Mr. Kowalewski:

ATC Group Services LLC (ATC) is pleased to provide the New York State Department of Environmental Conservation (NYSDEC) this work plan to conduct additional groundwater investigations at the above-referenced property.

Property Description

The property, Southside Plaza, is located at 704-744 Foote Avenue, Jamestown, New York and currently operates as a retail strip mall and a separate restaurant tenant space north of the strip mall. Paved parking is present to the east of the strip mall, and paved parking/access road is present west of the strip mall (hereafter referred to as "property"). The property adjoins the Southside Foote Avenue Plaza (SFAP), located at 748-780 Foote Avenue, to the south as a continuous retail strip mall (**Figure 1**). The property is surrounded by a mix of commercial and residential parcels.

Background

Several investigations have been completed on the property and the adjoining SFAP parcel from 2011 to 2015 by Apex Companies, LLC (Apex). Based on historical information, Apex reported that two historical drycleaners were present at the property from 1956 to at least 1969 at tenant space 736 Foote Avenue. In addition, Apex reported that two historical drycleaners occupied the adjacent and upgradient SFAP parcel in the 750 Foote Avenue tenant space from 1979 to 1994.

Ten (10) monitoring wells were installed on the property (MW-1 through MW-7 & MW-12 through MW-14) and four (4) monitoring wells were installed on the south adjoining parcel (MW-8 through MW-11). Depth to groundwater on the property and south adjoining parcel was reported to range from 2.4 feet below ground surface (bgs) to 9.4 feet bgs in December 2011. The groundwater flow direction was reported to the northeast. Groundwater analytical results

indicated the detections of typical drycleaning solvents and their degradation products, including perchloroethene (PCE) and trichloroethene (TCE). The PCE concentration ranged from non-detect to 32,000 micrograms per liter ($\mu\text{g/L}$) at MW-13, and TCE was reported at non-detect to 180 $\mu\text{g/L}$ at MW-13. Apex concluded that the previous soil, groundwater and soil vapor investigations completed to date suggest an off-site source of the PCE/TCE groundwater plume, specifically, the upgradient historical drycleaners at 750 Foot Avenue.

On October 1, 2018, the NYSDEC requested that the property owner collect and analyze samples of groundwater from the existing monitoring wells remaining at the property. The groundwater samples from all remaining monitoring wells are to be analyzed for Volatile Organic Compounds (VOCs) and three wells (one upgradient and two downgradient) were to be analyzed for emerging contaminants. Based on the results of this initial groundwater sampling event, the NYSDEC may request that at least three (3) temporary wells be installed and sampled for VOCs to further delineate the contaminant plume.

Groundwater Investigation Work Plan

Task 1 – Project Coordination, Preliminary Site Visit and Preparation of Health and Safety Plan

Preliminary work includes: coordinate access to the property and adjoining SFAP parcel; conducting a preliminary site visit to locate and identify remaining monitoring wells and scope potential locations of temporary wells; contacting Dig Safely New York at least 48 hours prior to conducting any subsurface work at the property; scheduling the geophysical and drilling subcontractors; and coordinating with laboratory for sampling containers, sample pick-up and drop-offs; and establishing adequate turn-around-times for sample results. ATC will prepare a Site-Specific Health and Safety Plan (SSHASP) consistent with applicable and appropriate requirements.

Task 2 – Monitoring Well Sampling and Analytical Analyses

As previously noted, there are up to (10) permanent monitoring wells installed by others that may be present on the property, and four wells (MW-8 through MW-10) located on the south adjoining SFAP parcel. Three wells (MW-12 through MW-14) are located within the tenant spaces and the remaining wells are located within the surrounding asphalt pavement.

Prior to the collection of groundwater samples, ATC will obtain water level measurements from the existing wells using an electronic interface probe. Following completion of the water level measurements, all identified wells will be sampled and the collected samples submitted to a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-approved analytical laboratory for Target Compound List (TCL) Volatile Organic Compound analysis (TCL-VOC) following USEPA Method 624/8260B. In addition, the collected samples from three (3) wells (upgradient well MW-9 and two downgradient wells MW-1 & MW-2) will be analyzed for the emerging contaminants 1,4-dioxane per EPA Method 8270D and for the full list of Perfluoroalkyl Substances (PFASs), 21 analytes, per EPA Method 537M ID. In addition, one trip blank, one field blank and one duplicate will be analyzed for VOCs. ATC will obtain groundwater samples from said monitoring wells using the following procedures:

- Monitoring wells will be purged and sampled using a bladder pump and low-flow techniques;
- Intake depth of the pump will be the approximate two feet from the bottom of each monitoring well;
- Field indicator parameters will include pH, turbidity, conductivity, temperature, dissolved oxygen (DO) and oxidation/reduction potential (ORP). Field indicator parameters will be measured using a Horiba U-22 Water Quality Checker or equivalent device connected to a flow-through cell;

- Groundwater samples collected into the appropriate containers and placed in a cooler at 4°C for shipment to a NYSDOH-ELP laboratory and analyzed as noted above; and
- If purged groundwater is not grossly impacted and has no odor, it will be discharged to the ground surface in the area of the monitoring well. It will not be discharged to hardscape. If the purge water is grossly contaminated, it will be containerized pending proper disposal off-site.

The collected groundwater samples will be analyzed on a standard laboratory turnaround time of ten working days.

Task 3 – Installation of Temporary Wells and Sampling

Three to four temporary wells will be installed on-site and/or off-site based on the initial groundwater sampling results and consultation with the NYSDEC. Once the final placement of the wells is determined, ATC will coordinate access with the local municipality or county and/or property owners.

The wells will be installed using a Geoprobe® drilling rig (Geoprobe 6600 or similar). The wells will be advanced to refusal, a maximum depth of 20 feet bgs or to five feet below the groundwater interface. The borehole will be logged for lithology and continuous soil quality field screening will be performed at all boring locations. Visual and olfactory methods of screening will be used during the field efforts to identify evidence of contamination. Additionally, a portable photo ionization detector (PID), with a 10.6 eV lamp, will be used to obtain qualitative measurements of volatile organic vapors.

If a boring encounters refusal prior to advancing at least 5-feet into the groundwater surface, the boring will be attempted at a new location near the original point to achieve the desired depth and facilitate groundwater collection.

Prior to advancement of intrusive soil borings, a geophysical survey will be completed to investigate subsurface structures, utilities and anomalies in the areas of the proposed soil boring locations so that they can be avoided during drilling activities. Geophysical methods may include the use of radio-frequency equipment, magnetometer, and/or ground penetrating radar (GPR).

A temporary well consisting of a 1-inch PVC screen and riser pipe will be installed in each borehole, with the screen set a minimum of 1 foot above the water table. Prior to sampling the well will be purged a 3 to 5 well volumes, and a grab groundwater sample will be collected using a peristaltic pump and dedicated polyethylene tubing.

The groundwater samples will be collected into the appropriate containers, preserved as necessary, and submitted to a NYSDOH ELAP-approved analytical laboratory for VOC analysis per EPA Method 8260. In addition, one trip blank, one field blank and one duplicate will be analyzed for VOCs.

Drilling equipment will be decontaminated by scrubbing with a non-phosphate detergent (i.e., Alconox) and rinsing with fresh water prior to use at each sample location. Upon completion of sampling, the surface will be finished with a flush, bolt-down, manhole. No well decommissioning will be performed until ATC receives written notification from the NYSDEC to do so. In addition, existing on-site monitoring wells that are determined to be no longer needed by the NYSDEC shall be decommissioned. All well decommissioning will be performed in accordance with NYSDEC CP-43 Groundwater Monitoring Well Decommissioning Policy.



Task 4 - Report Preparation

ATC will prepare an electronic copy of the Groundwater Investigation Report (hard copy if requested), which will document the findings of the investigation, including data summary tables and figures.

Project Schedule

ATC anticipates initiation of fieldwork within three (3) weeks of NYSDEC approval of the work plan, subject to subcontractor availability. It is expected that all the fieldwork described in this proposal will be completed within three (3) field days with the draft report to follow within ten (10) business days after ATC receives all the analytical data.

ATC is pleased to have prepared this work plan for NYSDEC review and approval. If you have any questions or need any additional information, please contact me.

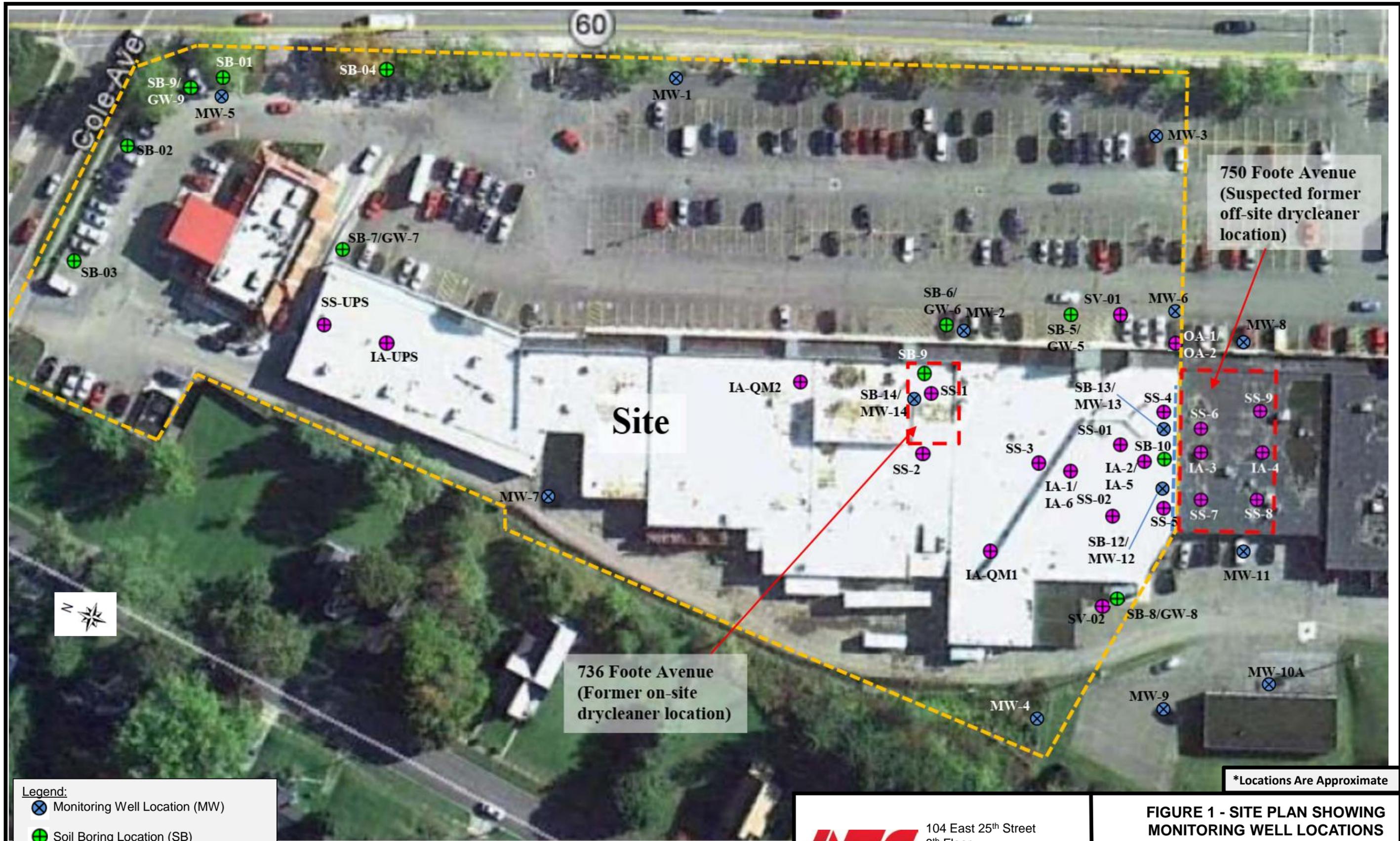
Sincerely,

ATC Group Services LLC

A handwritten signature in black ink, appearing to read 'Jed A. Myers', is written over a light blue horizontal line.

Jed A. Myers, PhD, PG
Senior Project Manager
Direct Line: 631-451-0617
Email: jed.myers@atcgs.com

CC: Hillary Williams, ATC
David Wazny, ATC
Helen Barnes, KMCL



750 Foote Avenue
(Suspected former
off-site drycleaner
location)

736 Foote Avenue
(Former on-site
drycleaner location)

*Locations Are Approximate

Legend:

- Monitoring Well Location (MW)
- Soil Boring Location (SB)
- Air Sampling Location
- Approximate Property Boundary
- Sub-Slab Depressurization System

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FIGURE 1 - SITE PLAN SHOWING MONITORING WELL LOCATIONS
Southside Plaza
704-744 Foote Avenue
Jamestown, New York

Source: Potential Source Area Investigation Report, prepared by Apex Companies, LLC, dated May 4, 2015

ATC PROJECT NUMBER

SCALE
N.T.S..