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December 13, 2018

Mr. Michael Belveg
Assistant Environmental Engineer
NYSDEC Region 7 – Division of Environmental Remediation
615 Erie Boulevard West
Syracuse, NY 13204-2400

Re: Proposed Work Plan Zip Zip Minimarket Brownfield Site
NYSDEC Site No. B00075

File: 119.412.009

Dear Mr. Belveg:

C&S Engineers, Inc. (C&S) is submitting this proposed scope of work for final field investigations and the determination of appropriate remediation at the Zip Zip Minimarket brownfield site on Erie Blvd. in the City of Syracuse. The objective of this work is to complete the investigative phase of the Environmental Restoration Program so that the City can complete its obligations under the existing State Assistance Contract (SAC). The proposed fieldwork and related reporting are ultimately being completed in order to provide a basis for the New York State Department of Environmental Conservation (NYSDEC) to issue a Record of Decision (ROD) for the site.

The scope of work described below was developed based on an email from you dated August 27, 2018, as well as our meeting on November 29, 2018.

Surface Soil Investigation

To supplement previous subsurface investigations, a site investigation will be performed which will include characterization of soils across the site. Four surface soil samples will be collected from the 0" to 2" interval below any vegetation layer across the site. Sample locations shall be determined in the field with concurrence from NYSDEC. For planning purposes, preliminary suggested locations are shown on Figure 1. Samples will be analyzed for USEPA Target Compound List (TCL) semi-volatile organic compounds (SVOCs) as well as Target Analyte List (TAL) metals. In addition, four soil samples will also be taken from the interval of 6" to 12" below the vegetative cover at the same locations. These samples will be analyzed for the USEPA TCL volatile organic compounds (VOCs), SVOCs, Herbicides/Pesticides, PCBs and TAL metals.

Subsurface Investigation

Prior to conducting this part of the field investigation program, C&S will contact Dig Safe New York to locate utilities along Erie Boulevard. The subsurface investigation at the site will be conducted using a GeoProbe™ unit (i.e., direct-push drilling method). Borings will not be advanced within a minimum of ten feet from any such utility identified.

Although the actual number of explorations to be made will be determined by field conditions, the objective of this effort is to make a reasonable and practical number of boreholes to determine if contaminated soil and groundwater remains on the site. A minimum of seven borings will be completed with a maximum of ten planned. (see Figure 1)

Based on our understanding of the site and previously completed RI and SSI investigations, the location of the boreholes will be located within and surrounding the footprint of the previous areas of removed petroleum-contaminated soil. A total of approximately 1,707 tons of contaminated soil was removed from the site as well as 10,422 gallons of petroleum-impacted liquid. Parameters of concern include VOCs, SVOCs and metals. We also plan to take soil vapor samples to see if there may be risk of soil vapor intrusion for future buildings.

The borings will be terminated at a maximum depth of approximately 25 feet. If screening of the retrieved soil samples suggests that VOCs are present at the 25 foot depth, the boring will be extended until the presence of such VOCs is no longer detected. Each borehole will be sampled continuously. Retrieved soil samples will be visually examined to assess subsurface conditions and physical properties of the strata. These properties include: color, moisture content, grain size, density and visual evidence of volatile organic vapors via conventional headspace analysis techniques using a photoionization detector (PID) equipped with a 10.6 eV lamp.

It was recently discovered that under a contract with the NYSDEC Central Office, GES installed five permanent 2" groundwater monitoring wells on the site. C&S will supplement these wells by installing an additional two 1" temporary groundwater monitoring wells (one along Erie Bouleavrd and one on the rear of the site). The wells will be temporary in nature and backfilled following sampling. The screened interval will not be encased with sand pack, nor will the wells be fully developed or sealed with bentonite. The five groundwater monitoring wells installed by GES will also be sampled.

Upon completion of this delineation program, each boring location will be located via hand-held GPS to allow accurate placement on the existing site plan.

Sampling and Analyses

Soil

A maximum of two soil samples (depending on field conditions) per borehole will be collected for analysis. The sampling interval will be determined in the field based on visual examination of the samples and the results of PID screening. Analysis of the soil samples at a subcontracted laboratory will be for USEPA TCL VOCs, SVOCs and TAL metals.

Groundwater

C&S will purge and sample the existing and proposed temporary monitoring wells installed at the site. Groundwater samples will be collected and submitted for analysis of USEPA TCL VOCs, SVOCs and TAL metals. Because of the temporary nature of the wells, metals analyses will include both filtered and unfiltered samples.

Quality Control

Additionally, Quality Assurance / Quality Control (QA / QC) samples will be collected, and the following describes the minimum number of samples per media type.

- Soil samples
    - Matrix Spike / Matrix Spike Duplicate (MS / MSD) – 5%

- Groundwater samples
    - Trip blank – 1 per shipment
    - Blind Duplicate – 5%
    - Matrix Spike / Matrix Spike Duplicate (MS / MSD) – 5%

C&S will utilize the services of a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory for analytical testing. The laboratory results for the samples will be reported in a Category B deliverables package to facilitate validation of the data, and a third party validator will review the laboratory data and prepare a Data Usability Summary Report (DUSR). The validator will evaluate the analytical results for the field samples and quality assurance / quality control samples and compare the findings to USEPA guidance to determine the accuracy and validity of the results.

Reporting

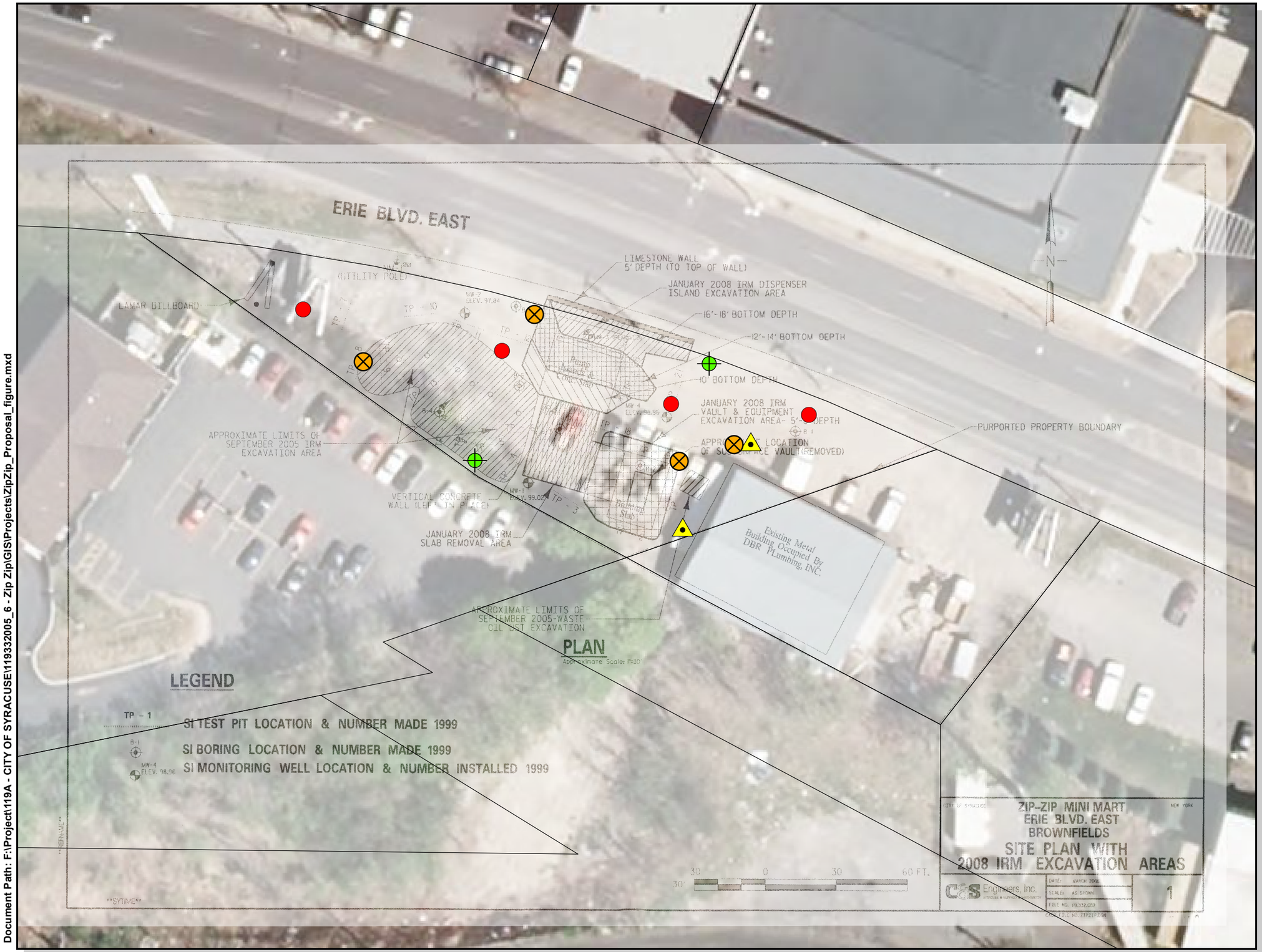
Subsequent to the completion of field work and the receipt of laboratory data, C&S will prepare a letter report for submittal to the NYSDEC summarizing the results of the investigation. Following Department review of that letter report, the previously submitted Remedial Alternatives Analysis (RAA) will be updated and submitted based on the new data generated. Note that we have assumed that a letter report will suffice to meet the NYSDEC requirements and that a rewrite of the previously submitted RI report will not be necessary.

Please contact us should you have any questions regarding this proposed scope of work.

Sincerely,
C&S ENGINEERS, INC.

Matthew L. Walker
Senior Project Environmental Scientist

cc: Owen Kearney, City of Syracuse
Harry Warner, NYSDEC Region 7
Richard E. Jones, NYSDOH



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Legend

Proposed Sample Type

- Soil Boring
- Soil Vapor Sample
- Surface Soil Sample
- Monitoring Well/Soil Boring

N

0 20 40 60 Feet

Zip Zip Mini Market
Brownfields Project
NYSDEC Site # B-00075-7

Proposed Sample Location Map

Figure 1