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May 2, 2025 Revised May 20, 2025

Mr. Shawn Roberts, E.I.T., Project Manager New York State Department of Environmental Conservation Division of Environmental Remediation 625 Broadway Albany, NY 12233

RE: Pre-Design Investigation Work Plan (PDIWP) - Groundwater 252-258 Third Avenue
New York City, New York 10010
NYSDEC BCP Site #C231154
SESI Project No. Project #13542

Dear Mr. Roberts:

On behalf of Gramercy 252 Owner LLC (the Volunteer), SESI Consulting Engineers (SESI) has prepared this letter to request approval for proposed Pre-Design Investigation (PDI) activities at the property located at 252-258 Third Avenue, New York City, New York (the "Site"). The Site is identified as New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C231154. This work plan is prepared to propose additional design activities to attempt to further refine the groundwater remedy, characterize the bedrock features and evaluate the movement of water throughout the bedrock regime at the Site.

## 1. PREVIOUS GROUNDWATER INVESTIGATIONS AND FINDINGS

As further detailed in the Remedial Investigation Report submitted to the Department in April 2025, between June and July 2024, as part of an RI that was completed per the approved July 2023 RI work plan (RIWP) prepared by AKRF, 11 monitoring wells were installed and sampled to assess groundwater conditions at the site. Groundwater samples were collected from depths of approximately 16 to 24 feet below the grade (ft-bgs) and analyzed for Target Compound List + 30/Target Analyte List (TCL+30/TAL), dissolved TAL metals, per- and polyfluoroalkyl substances (PFAS), and 1,4-dioxane. The groundwater sample results are presented in Fig-1.

The results from the monitoring wells installed in June and July 2024 indicated elevated concentrations of chlorinated volatile organic compound (CVOCs) in the western section of 256 and 258 Third Avenue (Lots 30 and 29, respectively), near the property

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boundary with 38 Gramercy Park North (Lot 26). Specifically, tetrachloroethylene (PCE) was observed as high as 340,000 ug/L in RI-MW-02, indicative of possible dense non-aqueous phase liquid (DNAPL). RI-MW-01 and RI-MW-03 also has elevated levels of PCE (~85,000 ug/L). Wells were installed at depths ranging from 19 to 24 ft-bgs and just above the bedrock per the approved RIWP. The site at 258 Third Avenue (Lot 29) historically housed a dry cleaner in the 1970s, which is the likely source of the chlorinated solvent contamination.

Based on the results presented in Fig-1, additional wells are proposed to better characterize the bedrock features and the potential for contaminated groundwater to flow through bedrock.

Although the onsite monitoring wells have not been surveyed, groundwater is expected to flow eastward, toward the East River, located approximately 2,800 feet to the east. According to the Rock Data Map of Manhattan, published by the Borough of Manhattan in 1944 (Attachment 1), the competent bedrock surface beneath the site is anticipated to dip toward the east.

## 2. PROPOSED SCOPE OF WORK

SESI proposes to install five (5) bedrock boreholes / monitoring wells at the Site to advance vertical delineation of CVOCs in groundwater and to better characterize the bedrock features and flow patterns of groundwater through bedrock (it is understood that additional wells may be required after evaluating the data generated from these five boreholes/wells). Three (3) of the proposed boreholes are near and side gradient of the source of the contamination, one (1) is proposed upgradient and one (1) is proposed downgradient and downdip, with the goal of capturing the plume at depth while minimizing the risk of potential vertical cross-contamination. Fig-2 illustrates the proposed locations of the monitoring wells.

The proposed monitoring wells will be installed and sampled using the following methodology:

- Each borehole will be advanced approximately 85 ft-bgs and 60 feet into bedrock.
- To prevent vertical cross-contamination during drilling, the borehole will be double-cased
  into at least one foot of competent rock, and the anulus between the inner case and outer
  case will be grouted.
- Measures will be taken to ensure there is a good seal where the casing meets competent rock and the borehole is not left open for an extended period.
- Once the grout has been given at least 24 hours to cure, drilling will commence.
- During the drilling, the onsite SESI geologist/scientist/engineer will screen the work area with a photoionization detector (PID) and documenting water level changes observed. This information will be included on the corresponding borehole logs and summary report.
- Prior to well construction, a downhole geophysics contractor will be retained to gather information related to the bedrock features and fracture orientations, and this information, along with drilling observations will be used to determine the well construction details.
- Instrumentation will be employed to continuously log various parameters, including: temperature; single-point resistivity; spontaneous potential; fluid conductivity; natural gamma; caliper; optical and acoustic televiewer; and vertical flowmeter (under stressed and unstressed conditions).
- The geophysics contractor will provide the logs and an interpretation of the data obtained.
- The geophysics data will be reviewed to determine the fracture zones and their depths, the direction and angle of the fractures, and the rock layers to determine if any will act as a confining layer. This data will also be used to make recommendations for the most appropriate well construction details and this will be determined in consultation with the NYSDEC.

- These observations will guide the installation of the well (targeted screening interval and depth), inform if there are confining layers that may be limiting the vertical extent of CVOC impacts, and provide information to determine the location for additional wells, if necessary.
- All decisions made regarding the well placement and construction will be made in consultation with the NYSDEC.
- The final depth and screening intervals will be determined based on geophysics findings, condition of the rock encountered during drilling and in consultation with the NYSDEC.
- It is anticipated that the boreholes will be converted to permanent monitoring wells using 2" PVC riser and screen. Well screens will likely be five or ten feet in length, pending approval by the NYSDEC.
- In the event that the well screen interval does not extend to the base of the borehole, concrete/grout will be filled in the bottom of the borehole to match the depth of the well screen bottom (Fig-3).
- Bentonite seal will be placed in the annular space around the well from above the sand pack to at least five (5) feet above competent rock.
- Grout will be added to the surface to complete the well (Fig-3 presents the proposed monitoring well construction).
- Once the grout cures for at least 24 hours, the wells will be developed by pumping until clear.
- The wells will then be sampled using the low flow technique for the analysis of VOCs.
- Any waste, including development/purge water and drill cuttings, will be managed in accordance with the July 2023 Remedial Investigation Workplan (RIWP) prepared by AKRF.
- Drilling and geophysics activities will be directed and overseen by a qualified SESI scientist, geologist or engineer.
- Measures will be employed to minimize the timing between activities (drilling to geophysics, geophysics to well installation) with the goal being a maximum timeline of 24 hours between activities for each borehole.
- Work proposed in this PDIWP will be performed in accordance with the Quality Assurance Project Plan (QAPP), Health and Safety Plan (HASP), and Community Air Monitoring Plan (CAMP) included in the July 2023 RIWP prepared by AKRF.
- If SESI's onsite geologist / scientist / engineer observes any conditions that may result in health and safety concerns or concerns related to the migration of contamination, they will be given the authority to stop work in order to assess the situation. The onsite inspector will then communicate with the project manager and the project manager with the NYSDEC to determine the path forward.
- Resumes of SESI personnel and the geophysics contractor and information related to the data deliverable and software used to evaluate the data will be provided for the NYSDEC's approval prior to conducting the field work.

If additional information is required after the installation and sampling of these wells, the bedrock geophysics data will be evaluated to determine additional well locations and depths to advance delineation. This will be accomplished by reviewing and extrapolating bedrock fractures, water bearing zones and flow direction to determine the best location(s) of additional well(s). These decisions will again be made in consultation with the NYSDEC.

We respectfully request concurrence with the proposed pre-design investigative activities before initiating the proposed scope of work described herein.

Should you have any questions about the enclosed, please do not hesitate to contact me at 201.452.2735.

Sincerely,

## **SESI CONSULTING ENGINEERS**

James Vander Vliet, PE Senior Project Engineer

Attachments:

Attachment 1: Rock Data Map of Manhattan (1944)

Figures:

Fig-1 Remedial Investigation Groundwater Sample Results

Fig-2 Proposed Monitoring Well Location Plan

Fig-3 Proposed Monitoring Well Schematic



Rock Data Map of Manhattan (1944)









