

November 12, 2021

Ms. Brianna Scharf  
Project Manager  
Division of Environmental Remediation, Remedial Bureau E, Section C  
New York State Department of Environmental Conservation  
625 Broadway, 12th Floor  
Albany, New York 12233-7015

**Re: Soil Vapor Extraction System Pulsed Restart Work Plan  
Jimmy's Dry Cleaners Site  
61 Nassau Road  
Roosevelt, New York 11575  
Section 55, Block 402, Lot 11602  
NYSDEC Site No.: 130080**

Dear Ms. Scharf:

This Soil Vapor Extraction (SVE) System Pulsed Restart Work Plan has been prepared for the Jimmy's Dry Cleaners Site, located at 61 Nassau Road, Roosevelt, New York 11575 (the "Site"). The primary objective of the SVE pulsed restart is to determine if the SVE system has reached the limit of its effectiveness of controlling soil vapor intrusion (VI) into the surrounding buildings.

### **Site Description and Background**

The Jimmy's Dry Cleaners Site (the "Site") is located at 61 Nassau Road in the Town of Roosevelt, Nassau County, New York and is approximately 0.25 acres in size. The Site is recognized as Section 55, Block 402, Lot 11602 on the Nassau County Tax Map. The Site consists of a soil vapor extraction system (SVE) system, its enclosure, and perimeter fencing. The remainder of the Site is used as a gravel parking area. No structures exist on Site other than the SVE enclosure. The Site is bounded by a vacant lot followed by Taylor Avenue to the north, Nassau Road to the east, and a private construction storage yard to the south and west. A Site Location Map is attached as **Figure 1**.

The Site formerly housed a commercial building that was occupied by Jimmy's Dry Cleaner and a delicatessen. Historical releases of hazardous wastes by Jimmy's Dry Cleaner have caused soil and groundwater contamination at the Site. Investigations at the Site have confirmed the presence of tetrachloroethene (PCE) and its degradation products in the groundwater, soil, soil vapor, and indoor air. Due to the extent of the contamination, the Site has been subdivided into two operable units, OU-1 and OU-2. OU-1 consists of the on-Site area and OU-2 consists of the off-Site groundwater plume.

Remedial actions have successfully achieved soil cleanup objectives for restricted residential use and residual contamination is being managed under a Site Management Plan. The SVE system is

operated at the Site to remediate PCE in soil and control vapor intrusion into the surrounding buildings. The SVE system is housed in a pre-manufactured shed and consists of nine SVE wells, five soil vapor monitoring probes (SVMs), underground piping, one moisture separator, two regenerative blowers, blower effluent discharge piping, and two granular activated carbon (GAC) vessels. Three of the SVE wells are located near the suspected source area on-Site and six SVE wells are located along the southern and western boundaries of the adjacent construction storage yard (Section 55, Block 402, Lot 356) to control vapor intrusion into the surrounding buildings. A layout and process flow diagram of SVE system components are shown in **Attachment A**.

SVE system influent sampling performed between January 2021 and March 2021 indicates concentrations of PCE and total volatile organic compounds (VOCs) detected in recovered soil vapor have been low [between 23 and 160 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) for PCE and between 209 and 241  $\mu\text{g}/\text{m}^3$  for total VOCs] since January 2021. The SVE system has recovered approximately 0.231 pounds of total VOCs between January 2021 and March 2021, and it's projected to remove approximately 0.924 pounds of VOCs in 2021. The results of the SVE system influent sampling indicate that the majority of VOC mass removal occurred prior to January 2021, and VOC removal rates have significantly diminished.

The SVE System Pulsed Restart Work Plan Scope of Work presented below has been prepared to determine if past SVE system operations have succeeded in reducing VOC contamination in soils to levels that are protective of vapor intrusion in nearby buildings, or if continued remediation is required. As described further below, soil vapor, indoor air, and ambient air samples will be collected following the shutdown of the SVE system and during the pulsed restart of the system.

### **SVE System Pulsed Restart Work Plan Scope of Work**

The activities described in this Work Plan will be performed in accordance with applicable Federal, State and local regulations, and the New York State Department of Environmental Conservation (NYSDEC)-approved generic Quality Assurance Project Plan (QAPP) and Health and Safety Plan (HASP).

#### *Initial Shutdown of SVE System*

TRC Engineers, Inc. (TRC), terminated the operation of the SVE system on October 12, 2021.

#### *Door-to-Door Access Request*

On October 15, 2021, site access letters were provided to nearby property owners to request access for vapor intrusion inspection and sampling. On October 25, 2021, TRC mobilized to the following nearby properties to follow up on the letters and attempt to confirm access for future building inspections and pre-sampling chemical inventories:

- 16 Davis Street, Freeport, NY – Residential (Single Family)

- 32 Dutchess Street, Freeport, NY – Residential (Single Family)
- 34 Dutchess Street, Freeport, NY – Residential (Single Family)
- 35 Taylor Avenue, Roosevelt, NY – Residential (Single Family)
- 40 Dutchess Street, Roosevelt, NY – Residential (Single Family)
- 44 Dutchess Street, Roosevelt, NY – Residential (Single Family)
- 48 Dutchess Street, Roosevelt, NY – Residential (Single Family)
- 497 North Main Street, Freeport, NY – Commercial (Car Dealership)

Executed Property Owner Acknowledgement and Permission for Air Sampling forms were returned by five of the eight property owners. The owner of 497 North Main Street returned an executed Property Owner Acknowledgement and Permission for Air Sampling form declining indoor air sampling at property. The owners of the following four properties agreed to allow for indoor air sampling:

- 16 Davis Street, Freeport, NY – Residential (Single Family)
- 32 Dutchess Street, Freeport, NY – Residential (Single Family)
- 34 Dutchess Street, Freeport, NY – Residential (Single Family)
- 44 Dutchess Street, Roosevelt, NY – Residential (Single Family)

In accordance with the site access letters provided to each property owner, the remaining properties will not be sampled due to the absence of responses by October 25, 2021.

#### *Building Inspection and Pre-Sampling Chemical Inventory*

TRC will perform a building inspection and pre-sampling chemical inventory at each of the four nearby properties listed above approximately two to three weeks prior to vapor intrusion sampling in accordance with the October 2006 “Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York” (NYSDOH Guidance Document) prepared by the New York State Department of Health (NYSDOH). The building inspection and pre-sampling chemical inventories will consist of a visual inspection and screening of the sample locations and adjacent spaces with a part per billion (ppb) range photoionization detector (PID) to determine if any materials with the potential to affect the indoor air quality are present (e.g., equipment, cleaning supplies, etc.). Additionally, the buildings will be inspected for cracks, penetrations, and other preferential pathways for soil vapor intrusion. If interfering conditions are noted, coordination will be made with the owners/tenants to implement mitigation measures, to the extent feasible. The results of the building inspection and pre-sampling chemical inventories will be recorded on the NYSDOH Guidance “Indoor Air Quality Questionnaire and Building Inventory” form, included as **Attachment B**. TRC will inspect the Site and the exterior portions of the surrounding properties for known and suspected SVE extraction wells and components during this mobilization.

### Vapor Intrusion Sampling

Soil vapor, indoor air, and ambient air samples will be collected in accordance with the applicable procedures described in the NYSDOH Guidance Document at least 30 days after the termination of operation of the SVE system. Two (2) indoor air samples and one (1) sub-slab soil vapor sample will be collected from each nearby building (total of eight [8] indoor air samples and four [4] sub-slab soil vapor samples), five (5) soil vapor samples will be collected from the SVMs, and two (2) ambient air samples will be collected concurrently and submitted for laboratory analysis. Generally, one indoor air sample will be collected from both the basement and lowest occupied story of the building. The sub-slab soil vapor samples will be co-located with the indoor air samples collected from the basement of each of the nearby buildings.

One soil vapor sample will be collected from each SVM (SVM-1 through SVM-5) located along the western and southern property boundaries of the adjacent construction storage yard (Section 55, Block 402, Lot 356) to evaluate subsurface soil gas conditions in the vicinity of the nearby buildings that declined access. If SVE wells or components are identified at the nearby properties during the pre-sampling inventories and building inspections, a soil vapor sample will be collected from each identified component. **Figure 2** shows proposed sub-slab soil vapor, indoor air, and ambient air sampling locations, and a map of the nearby properties.

The eight (8) indoor air, four (4) sub-slab soil vapor and two (2) ambient air samples collected from the residential properties and the five (5) soil vapor samples collected from the SVMs will be collected utilizing individually certified-clean 6-liter SUMMA® canisters equipped with 24-hour regulators.

The sub-slab soil vapor samples will be collected in accordance with the NYSDOH Guidance Document. One temporary soil vapor probe will be advanced through the basement floor slab at each nearby property utilizing a handheld hammer drill. A non-VOC emitting surface sealing material (e.g. hydrated bentonite) will be utilized to create an adequate surface seal to prevent ambient air infiltration and inert tubing will lead from the probe to the SUMMA® canister. Prior to sample collection, a shroud will be used to create an individual atmosphere around the soil vapor probe and an inert tracer gas (e.g. helium) will be introduced to the atmosphere. A helium detector will be used to confirm that the tracer gas has not infiltrated into the subsurface. Following the installation of the soil vapor probe and the tracer gas test, one to three volumes of soil vapor will be purged, and the sub-slab soil vapor sample will be collected.

The indoor and ambient air samples will be collected at a height of approximately 3 to 5 feet to simulate a typical breathing zone. Immediately after opening each SUMMA® canister, the initial vacuum (inches of mercury) in each canister will be recorded. Final vacuum readings (inches of mercury) will be recorded and the SUMMA® canisters will be closed after approximately twenty-four (24) hours.

The SUMMA® canisters will be properly labeled and shipped to a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified analytical laboratory and analyzed for VOCs utilizing United State Environmental Protection Agency (USEPA) Method TO-15. NYSDEC

Analytical Services Proposal (ASP) Category B data deliverables will be obtained and submitted to NYSDEC along with Data Usability Summary Reports (DUSRs). The results of the vapor intrusion sampling will be compared to the NYSDOH Air Guidance Values (AGVs).

*SVE System Pulsing Assessment*

The assessment will follow the procedure described below for 4 rounds of pulsing. Each pulsing round will have a shorter down-time interval, with the initial pulsing test having 4 weeks of down time and the final pulsing test having only one week of down time. It is important that each SVE well and SVM is accessible during each step of the test.

The procedure for the 4 rounds of pulse testing is provided below:

1. Turn off system and allow to equilibrate over 1 month.
2. Return to the Site to collect PID readings and soil vapor samples:
  - a. Collect a round of VOC concentration readings at all SVE wells and SVMs with a PID.
  - b. One (1) soil vapor sample will be collected from each SVM (five [5] samples total).
    - i. Set up one 6-liter SUMMA® canister with 24-hour flow controller at each SVM and begin soil vapor sampling.
    - ii. The soil vapor samples can be collected concurrent to the sub-slab soil vapor and indoor air samples described above.
    - iii. An adaptor will be placed over each SVM to ensure no ambient air leaks into the sample container. No PVC primer or glue will be used to assemble or install the adaptor.
3. Return the following day and restart the SVE treatment system.
  - a. Prior to SVE treatment system restart, terminate vacuum of the SUMMA® canisters at each SVM and submit the soil vapor samples for VOC analysis by USEPA Method TO-15.
  - b. Monitor influent SVE system VOC concentrations using a PID every 15 minutes for the first hour and then hourly for 2 more readings.
  - c. Collect full round of SVE system readings (applied and induced vacuum, flow rates, influent, mid treatment and effluent PID).
  - d. Collect a round of PID readings from each SVM and SVE well after the initial hour of operation. An air sampling pump and Tedlar bag should be used for the SVE well manifold lines in the treatment system enclosure to control the excess moisture encountered during the routine inspection visits.
  - e. Collect one SVE influent air sample for VOC analysis by USEPA Method TO-15 from the SVE system using a 6-liter SUMMA® canister equipped with a 30-minute flow controller during the Site visit.
4. Leave the SVE system operating for 1 week.

5. Return to the Site and with the SVE system on:
  - a. Collect full round of SVE system readings (applied and induced vacuum, flow rates, influent, mid treatment and effluent PID).
  - b. Collect one influent air sample for VOC analysis by USEPA Method TO-15 from the SVE system using a 6-liter SUMMA® canister with a 30-minute flow controller.
  - c. Collect a round of VOC concentration readings at all SVE wells and SVMs with a PID.
  - d. Shut-off the SVE system prior to leaving the site.
6. Leave SVE system off for 3 weeks.
7. Repeat steps 2 through 5 above for the second, third and fourth rounds of pulsing readings, with the systems down time diminishing by one week for each round. The SVM sampling described in Step 2b will not be repeated in subsequent pulsing rounds.

The SUMMA® canisters will be properly labeled and shipped to a NYSDOH ELAP-certified analytical laboratory and analyzed for VOCs utilizing USEPA Method TO-15. NYSDEC ASP Category B data deliverables will be obtained and submitted to NYSDEC along with DUSRs. Immediately after opening each SUMMA® canister, the initial vacuum (inches of mercury) in each canister will be recorded. After approximately 30 minutes for influent samples and approximately 24 hours for SVM soil vapor samples, final vacuum readings (inches of mercury) will be recorded and the SUMMA® canisters will be closed.

A second round of co-located sub-slab soil vapor and indoor air samples, and SVM samples will be collected upon completion of the pulsing tests. The samples will be collected after the last shutdown period, but before the SVE system is re-started. The same procedures described above will be used for the second round of soil vapor and indoor air samples. The soil vapor and indoor air samples will be collected from the same locations as the initial sampling event.

#### *SVE System Pulsing Data Assessment*

TRC will review the results of the pulsing data assessment, with a focus on the VOC concentrations from PID readings and TO-15 analysis. The assessment will look for evidence of significant VOC concentration rebound in the SVE wells and SVMs. A high increase in VOC concentrations may indicate that source material is present near the SVE well or SVM, and that continued SVE system operation may be needed.

The assessment will use the PID data for each SVE well and SVM. Graphs for each monitoring point will be developed and analyzed to identify trends in the data. The presence of any significant “slug” of remaining source material should be evident by a significant and sustained rebound in VOC concentrations at the local monitoring points, which should persist through each

of the pulsing events. Monitoring points may be grouped by location or clusters on the graphs to identify areas where residual source material may be present.

The data assessment will look for increases in VOC contaminant concentrations during the shutdown periods. The decreasing time frame between shutdown events will determine if any concentration increases occur rapidly or more slowly. A rapid increase may indicate that a strong local source is present which is able to replenish VOC concentrations quickly. Continued operation of the SVE system, at least for a subset of SVE wells, would be recommended if rapid increases of VOC concentrations are observed. Conversely, a slow increase in VOC concentrations may indicate that a limited amount of VOC source material is present which takes longer to reach equilibrium. The ability to remove soil vapor at a slower flow rate while continuously depleting VOC concentrations in soil gas, and thus mitigating vapor intrusion potential, would provide a more sustainable remedial action while providing equivalent protection.

The laboratory analytical data will also be graphed for the samples collected from the SVE system influent and each of the five SVMs. Total VOC and PCE concentrations will be displayed on the graph. Trend lines will be developed for the analytical data to determine if the concentrations are decreasing, increasing or generally stable over the pulsing timeframe.

The SVE system influent PID readings will be plotted with the individual SVE well PID readings to assess the difference between no-flow/equilibrium concentrations at the SVE wells and SVE influent concentrations during active operations. If SVE system influent PID readings are significantly below the non-operational SVE well PID readings, then the SVE system flow rate may be larger than needed at this phase of operation.

The PID data assessment will also be used to determine if any of the SVE wells have a significantly “richer” VOC concentration which may be obscured by typical system operations and sampling. It should be noted that the soil vapor extraction flow rate for the SVE system is typically greater than 200 cubic feet per minute, which is high enough to dilute the flow from any one well, or a cluster of wells.

#### Continued SVE System Operation

Based on the results of pulsing the SVE system, a determination will be made whether the SVE system should continue operation, operate in a revised manner or be shutdown permanently. TRC will propose terminating SVE system operations if SVE system influent concentrations are observed to be low upon re-starting the system and if the soil vapor and indoor air samples demonstrate that vapor intrusion is no longer a concern at the Site or surrounding properties. If TRC proposes termination of SVE system operations, one additional round of sub-slab soil vapor

samples and indoor air samples will be collected after 3 months of system dormancy to confirm that vapor intrusion is no longer occurring at the surrounding properties.

TRC may propose continued operation of the SVE system or revisions to system operations, depending on the results of the pulsing assessment. For example, the assessment may show that operation of one or more SVE wells still provides soil vapor with elevated VOC concentrations. These elevated concentrations could represent portions of the treatment zone where SVE operation should continue. SVE system operation can also be focused in these areas by closing control valves to limit vapor extraction from wells where asymptotic conditions have been reached. Additionally, the SVE system operation may continue in a pulsed mode for a sustained period of time if the testing shows that VOC concentrations rebound after system shutdowns, but then quickly dissipate after operation resumes. TRC may recommend the installation of a timer to reduce system operating hours, or a variable frequency drive to decrease the blower flowrate, vacuum and electrical consumption if the test suggests that operating at a lower flow rate will provide equivalent protection.

Typically, the comparison of eight approved data sets is necessary to statistically demonstrate within 95% confidence limits that asymptotic conditions have been reached, additional sampling and monitoring may be proposed if the pulse testing results are not conclusive. The following should be considered when making the final determination on the continued operation of the SVE system:

- 1) The variable pressures imposed on the soil matrix through pulsing of the SVE system may result in the volatilization of a “slug” of source material into the soil vapor, which would result in an increase in VOC concentrations in soil vapor.
- 2) Minor increases in VOC concentrations after shutdowns are expected as the subsurface achieves equilibrium. Increases of an order or magnitude or higher would indicate potential source mass near the extraction point.
- 3) The post-shutdown air sample results from SVE wells or SVMs will be compared with NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, Matrix B. Subsurface and indoor air PCE concentrations will be reviewed against this matrix to determine if vapor intrusion potential remains.
- 4) If the post-shutdown removal concentrations are the same as the pre-shutdown concentrations, then the system can be considered to no longer be removing a significant level of contaminants, and it may be appropriate to consider shutdown of the system.
- 5) A decrease or absence of detectable contaminant concentrations in indoor air following the shutdown may indicate that the threat of vapor intrusion has been eliminated and the permanent shutdown of the system may be appropriate.
- 6) Testing may show that continued SVE operation is needed only for a sub-set of extraction wells, or that extraction at a lower flow rate may be needed to control vapor intrusion. If a lower flow rate can provide equal protection, TRC may recommend the installation of a smaller blower (i.e. a radon fan or lower horse power single phase blower), a variable

frequency drive or a system timer (to reduce blower run time) to reduce the SVE system power consumption.

### **Report Preparation**

After completion of the post-shutdown vapor intrusion sampling, pulsing of the SVE system, OM&M events, post-pulsing vapor intrusion sampling, and receipt of validated laboratory results, a SVE System Pulsing Completion Report will be prepared. The SVE System Pulsing Completion Report will be prepared in accordance with NYSDEC Division of Environmental Remediation Technical Guidance for Site Investigation and Remediation (DER-10), and will contain a description of field activities, sampling results, and a determination on the continued use or termination of operation of the SVE system. The report will include an evaluation of the quality of the analytical data and the reliability of the data for its intended use. The report will contain NYSDEC ASP Category B data deliverables and DUSRs. The SVE System Pulsing Completion Report will be signed and sealed by a licensed New York State Professional Engineer. The data deliverables package will be submitted to NYSDEC in approved electronic data deliverable (EDD) format.

### **Schedule**

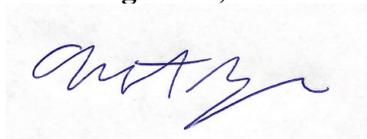
TRC anticipates scheduling of the post-shutdown vapor intrusion sampling approximately 30 days following the shutdown of the SVE systems, which was completed on October 12, 2021. It is anticipated that the SVE System Pulsing activities will be completed within fourteen weeks and the SVE System Pulsing Completion Report will be submitted to NYSDEC within approximately three weeks of receipt of final validated data (expected by early February 2022). A project schedule is included as **Attachment C**.

### **Certification**

I, Anthony Raposo, certify that I am currently a Qualified Environmental Professional and that this Soil Vapor Extraction System Pulsed Restart Work Plan was prepared in accordance with applicable statutes and regulations and in substantial conformance with DER-10.

Please contact me via email at [ARaposo@TRCcompanies.com](mailto:ARaposo@TRCcompanies.com), in the office at (212) 221-7822, or on my mobile phone at (646) 899-5710 with any questions or comments.

Sincerely,  
**TRC Engineers, Inc.**



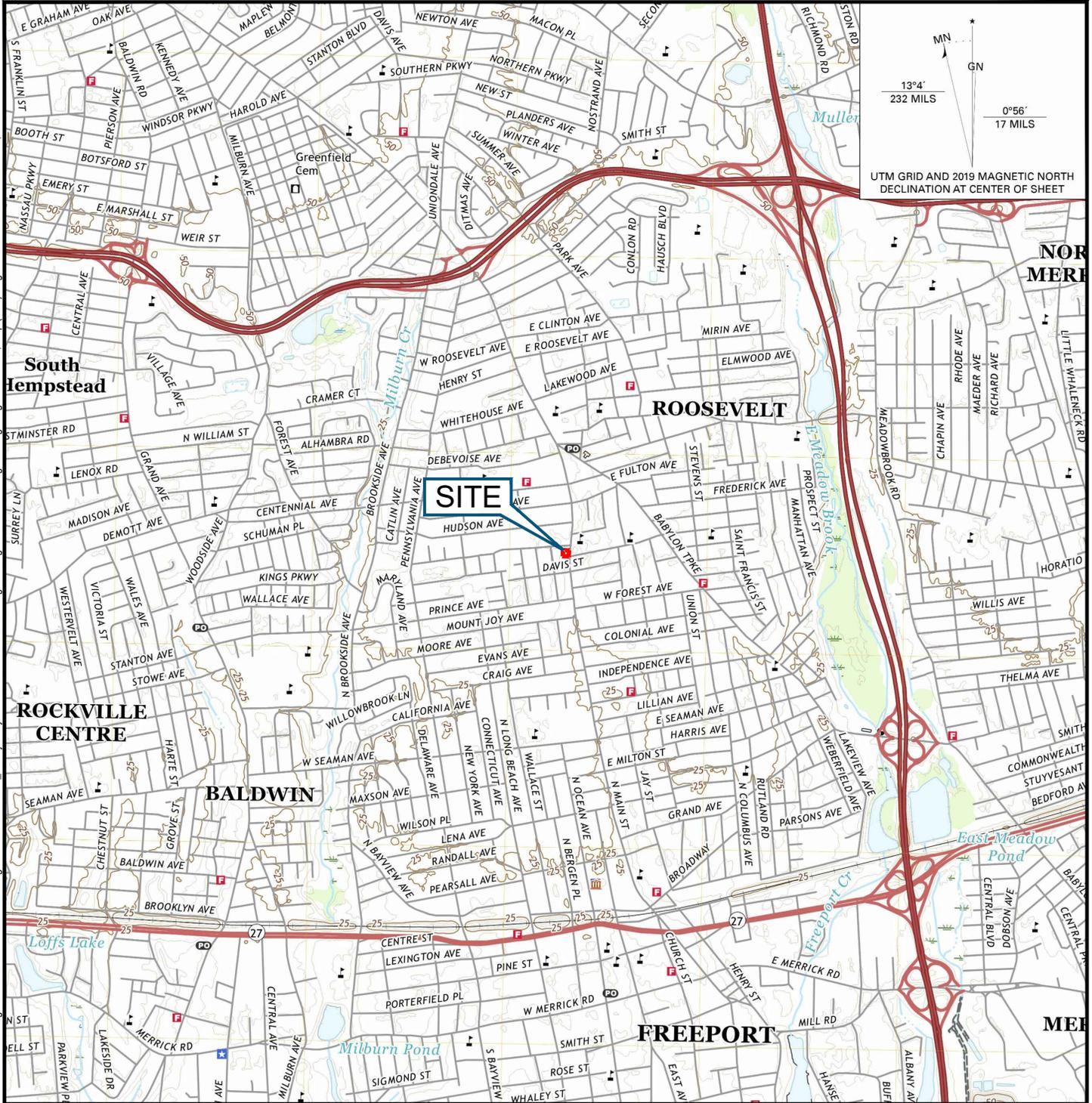
Anthony Raposo, PE  
Project Manager

cc: S. Saucier, NYSDEC  
A. Perretta, NYSDOH  
D. Warren, TRC  
H. Nichols, TRC  
N. Kranes, TRC  
J. Magda, TRC

Enclosures: Figure 1 – Site Location Map  
Figure 2 – Proposed Vapor Intrusion Sampling Location Plan  
Attachment A – SVE System Layout and Process Flow Diagram  
Attachment B – Indoor Air Quality Questionnaire and Building Inventory Form  
Attachment C – Project Schedule

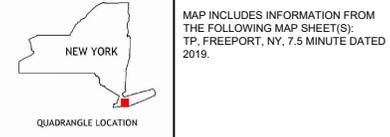
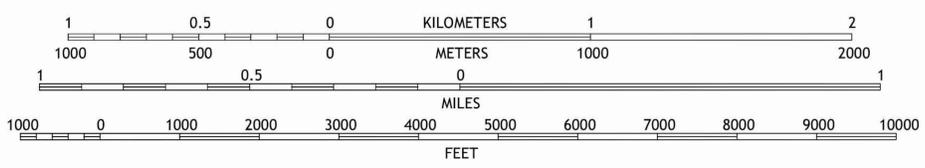
## Figures

6.5x11 --- ATTACHED REFERENCE --- ATTACHED IMAGES: NY, Freeport, 20190205.TM; DRAWING NAME: \\CLIFTONPARK\VF\cliftonpark\TRC\Projects\NYS\DEC\009812\Work Assignments\009812\04\_Site Management\Portfolio B04\_Jimmy's Dry Cleaners\130080\SVE\_Plus\Plan\Figures\TRC Working Drawings\Fig. 1 - Site Loc. Map (JDC).dwg --- PLOT DATE: November 01, 2021 - 4:02PM --- LAYOUT: 8.5x11P



13°4' 232 MILS  
0°56' 17 MILS  
UTM GRID AND 2019 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE: 1:2400



MAP INCLUDES INFORMATION FROM THE FOLLOWING MAP SHEET(S): TP, FREEPORT, NY, 7.5 MINUTE DATED 2019.  
MAP OBTAINED THROUGH USE OF TOPOVIEW WITH THE INTERFACE CREATED BY THE NATIONAL GEOLOGIC MAP DATABASE PROJECT (NGMDB), IN SUPPORT OF THE TOPOGRAPHIC MAPPING PROGRAM, MANAGED BY THE USGS NATIONAL GEOSPATIAL PROGRAM (NGP).

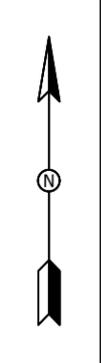
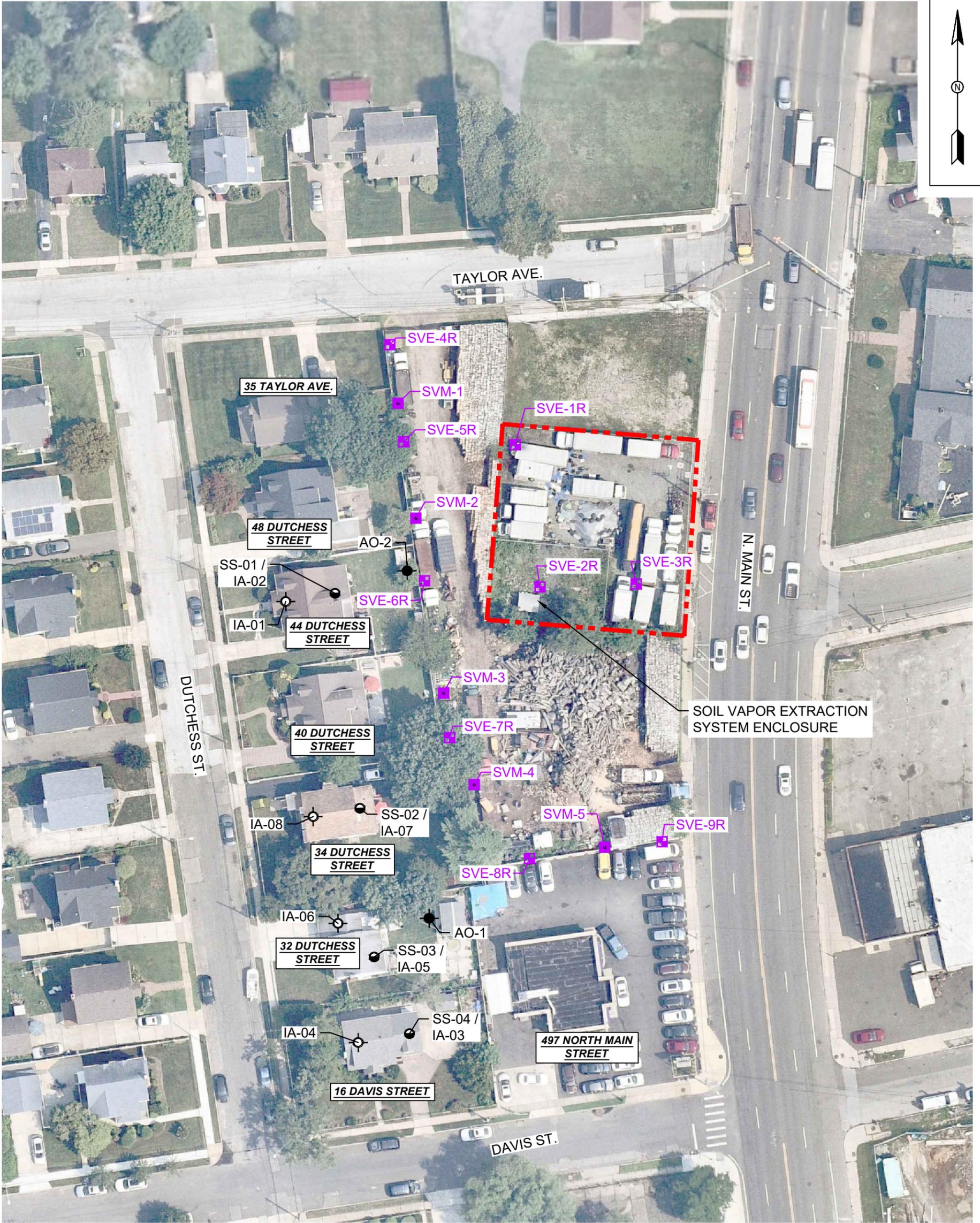
**TRC**  
1430 Broadway, 10th Floor  
New York, NY 10018  
Phone: 212.221.7822  
www.TRCompanies.com

PROJECT:  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
SITE MANAGEMENT PORTFOLIO B  
TASK NO. 4 - JIMMY'S DRY CLEANERS - SITE NO. 130080  
61 NASSAU ROAD, ROOSEVELT, NASSAU COUNTY, NEW YORK**

TITLE:  
**SITE LOCATION MAP**

DRAWN BY: H. DELGADO  
CHECKED BY: A. RAPOSO  
APPROVED BY: D. WARREN  
DATE: NOVEMBER 2021  
PROJ. NO.: 386554.0004.0000  
FILE: Fig. 1 - Site Loc. Map (JDC).dwg

**FIGURE 1**



**LEGEND (SYMBOLS NOT TO SCALE):**

- - - - - SITE BOUNDARY
- PROPOSED INDOOR AIR SAMPLE LOCATION AND IDENTIFICATION NUMBER  
IA-##
- PROPOSED AMBIENT AIR SAMPLE LOCATION AND IDENTIFICATION NUMBER  
AO-##
- VAPOR MONITORING POINT LOCATION AND IDENTIFICATION NUMBER  
SVM-##
- SOIL VAPOR EXTRACTION WELL LOCATION AND IDENTIFICATION NUMBER  
SVE-##
- PROPOSED SUB-SLAB SOIL VAPOR AND INDOOR AIR SAMPLE LOCATION AND IDENTIFICATION NUMBER  
SS-## / IA-##

**NOTES:**

1. LOCATIONS AND DIMENSIONS OF PHYSICAL FEATURES AND BOUNDARIES ARE APPROXIMATE, UNLESS STATED OTHERWISE.
2. BASEMAP IMAGERY SOURCED FROM NEARMAP DATED JULY 6, 2021.
3. SOIL VAPOR EXTRACTION WELL AND VAPOR MONITORING POINT LOCATIONS TAKEN FROM THE FEBRUARY 2, 2017 ALTA/NSPS LAND TITLE SURVEY OF PROPERTY OF BREEN CAPITOL INVESTMENT CORPORATION PREPARED BY L. K. MCLEAN ASSOCIATES, P.C.



PROJECT: NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SITE MANAGEMENT PORTFOLIO B TASK NO. 4 - JIMMY'S DRY CLEANERS - SITE NO. 130080 61 NASSAU ROAD, ROOSEVELT, NASSAU COUNTY, NEW YORK	
<b>TITLE:</b> <b>PROPOSED VAPOR INTRUSION SAMPLING LOCATION PLAN</b>	
DRAWN BY: H. DELGADO	PROJ NO.: 386554.0004.0000
CHECKED BY: A. RAPOSO	<b>FIGURE 2</b>
APPROVED BY: D. WARREN	
DATE: NOVEMBER 2021	
FILE NO.:	Fig. 2 - Prop. VI Samp. Loc. Plan (JDC).dwg

1430 Broadway, 10th Floor  
 New York, NY 10018  
 Phone: 212.221.7822  
 www.TRCCompanies.com

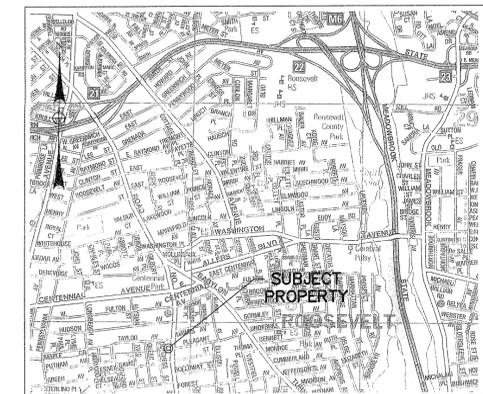
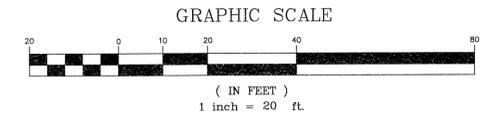
**Attachment A**  
**SVE System Layout and Process Flow Diagrams**

OPERABLE UNITS 1&2  
NYSDEC DIVISION OF ENVIRONMENTAL REMEDIATION  
REMEDIAL CONSTRUCTION PROJECT  
CONTRACT NO. D009345  
SITE NO. 130080

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the New York Environmental Conservation Law.

THE ENGINEERING AND INSTITUTIONAL CONTROLS for the Easement are set forth in more detail in the Site Management Plan ("SMP"). A copy of the SMP must be obtained by any party with an interest in the property. The SMP may be obtained from the New York State Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@gw.dec.state.ny.us.

ALTA/NSPS LAND TITLE SURVEY OF  
PROPERTY OF  
BREEN CAPITOL INVESTMENT CORPORATION  
PART OF PLOT H ON SUBDIVISION MAP ENTITLED  
"REVISED MAP OF A PORTION OF FREEPORT LAWN'S"  
FILED OCTOBER 17, 1934 AS MAP NO. 1006, CASE NO. 2972  
LOCATED AT  
61 NASSAU ROAD  
ROOSEVELT  
TOWN OF HEMPSTEAD  
NASSAU COUNTY, NEW YORK



DEED(S) REFERENCES:

Deed from Wachovia Bank, N.A. to Breen Capital Investment Corporation, recorded on March 28, 2003 in Liber 11602 at page 279; and from County of Nassau to Town of Hempstead, recorded on March 11, 1997 in Liber 10755 at page 993; and from Lawrence Garafola to Jose A. Echeverria, recorded on April 18, 2007 in Liber 12256 at page 89; and from Celestial Wills-Jackson, Crystal D. Wills, Cleavon Wills and Clarence D. Wills to Crystal D. Wills (50%) and Briven D. Jackson and Celestial Wills-Jackson (50%), recorded on December 6, 2006 in Liber 12205 at page 258; and from Juan Perez to Jorge Armando Gonzalez and Evelyn Gonzalez recorded on October 15, 1984 in Liber 9590 at page 321 as all can be found in the Nassau County Clerk's Office.

DESCRIPTION OF THE ENVIRONMENTAL EASEMENT

Subject Property as described in Liber 11602 of Deeds at Page 279:

All that certain plot, piece, or parcel of land, situate, lying and being in Roosevelt, Town of Hempstead, County of Nassau, State of New York, being part of Plot H on the subdivision map entitled "Revised Map of a Portion of Freeport Lawns," filed October 17, 1934 as Map No. 1006, Case No. 2972; said property being more particularly bounded and described as follows:

Beginning at a point on the westerly boundary line of Nassau Road (North Main Street), said point being South 15° 10' 24" West, a distance of 67.64 feet from the point formed by the intersection of the southerly boundary line of Taylor Avenue (Maple Avenue) and said westerly boundary line of Nassau Road (North Main Street);

Thence, from said point of beginning, continuing along said westerly boundary line of Nassau Road (North Main Street) the following two (2) courses and distances:

- 1. South 15° 10' 24" West, a distance of 48.01 feet to a point of curvature; thence
- 2. Southerly, along the arc of a curve to the left having a radius of 1300.00 feet and an arc length of 52.00 feet to a point on the division line between the Subject Property on the north and land now or formerly of Jose A. Echeverria on the south and east;

Thence, North 74° 49' 36" West, along said division line, a distance of 101.04 feet to a point;

Thence, South 15° 10' 24" East, continuing along said division line, a distance of 100.00 feet to a point on the division line between the Subject Parcel on the south and land now or formerly of Town of Hempstead on the north;

Thence, South 74° 49' 36" East, along said division line, a distance of 100.00 feet to the point or place of beginning.

Subject Property area being 10,018 square feet or 0.230 acre, more or less.

Subject Property is also designated as Nassau County Tax Lot 353 in Block 402 of Section 55.



MADE BY: TLS DATE: 2/01/2017  
COMPILED BY: TLS DATE: 7/30/2015  
CHECKED BY: DPJ DATE: 2/02/2017

LEGEND

- GUY WIRE
- UTILITY LIGHT POLE
- UTILITY POLE
- TRAFFIC SIGNAL POLE
- TRAFFIC CONTROL BOX
- GAS VALVE
- UNDERGROUND GAS
- OVERHEAD WIRES
- UNDERGROUND ELECTRIC
- UNDERGROUND TRAFFIC
- FIRE HYDRANT
- BOLLARD
- PHONE BOOTH
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- ROUND DRAIN INLET
- CURB INLET (NO GRATE)
- MONITORING WELL
- SAMPLE SITE
- DECIDUOUS TREE

SURVEYOR'S CERTIFICATION:  
Certified to: (1) The People of the State of New York acting through their Commissioner of the Department of Environmental Conservation and (2) The Town of Hempstead

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and does not include any optional items of Table A. Pursuant to the accuracy standards as adopted by ALTA and NSPS and in effect on the date of this certification, undersigned further certifies that in my professional opinion, as a land surveyor registered in the state of New York, the relative positional accuracy of this survey does not exceed that which is specified therein.

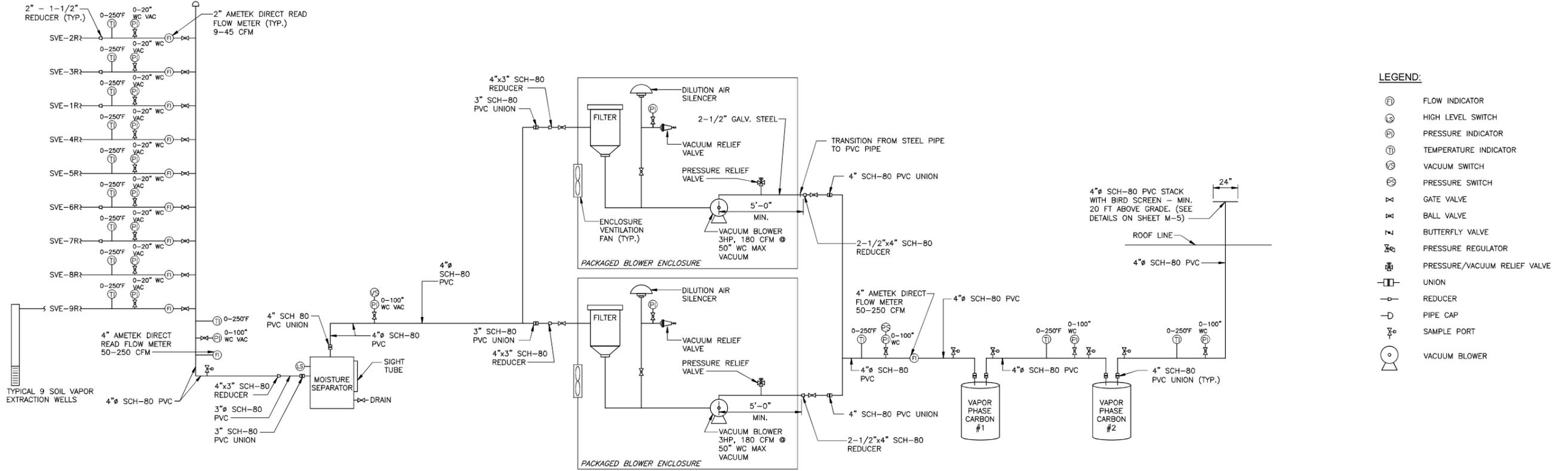
I hereby certify that this map was made from an actual survey completed by me on 01/27/2017.  
Daniel P. Jedlicka, P.L.S.  
NYSPLS No. 50098

NOTES

- 1. MEASUREMENTS ARE IN ACCORDANCE WITH U.S. STANDARDS.
- 2. BEARINGS SHOWN ARE REFERENCED TO A MAP ENTITLED "REVISED MAP OF A PORTION OF FREEPORT LAWN'S," FILED IN THE NASSAU COUNTY CLERK'S OFFICE ON OCTOBER 17, 1934 AS MAP NO. 1006, CASE NO. 2792. THE SUBJECT PROPERTY IS PART OF PLOT H ON SAID MAP.
- 3. VERTICAL DATUM IS NGVD29 AS SHOWN IN CONTRACT PLANS ENTITLED "REMEDIAL CONSTRUCTION PROJECT, CONTRACT D009345," SUPPLIED BY CONTRACTOR PRIOR TO FIELD SURVEY.
- 4. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.
- 5. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S "EMBOSS" OR "INKED" SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.
- 6. CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATIONS SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON AND TO THE ASSIGNEES OF THE LENDING INSTITUTION. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
- 7. RIGHTS-OF-WAY NOT SHOWN ARE NOT CERTIFIED.
- 8. THE SURVEY CLOSES MATHEMATICALLY.

L. K. McLEAN ASSOCIATES, P.C.  
CONSULTING ENGINEERS & SURVEYORS  
437 SOUTH COUNTRY ROAD  
BROOKHAVEN, NEW YORK 11719  
(631)286-8668



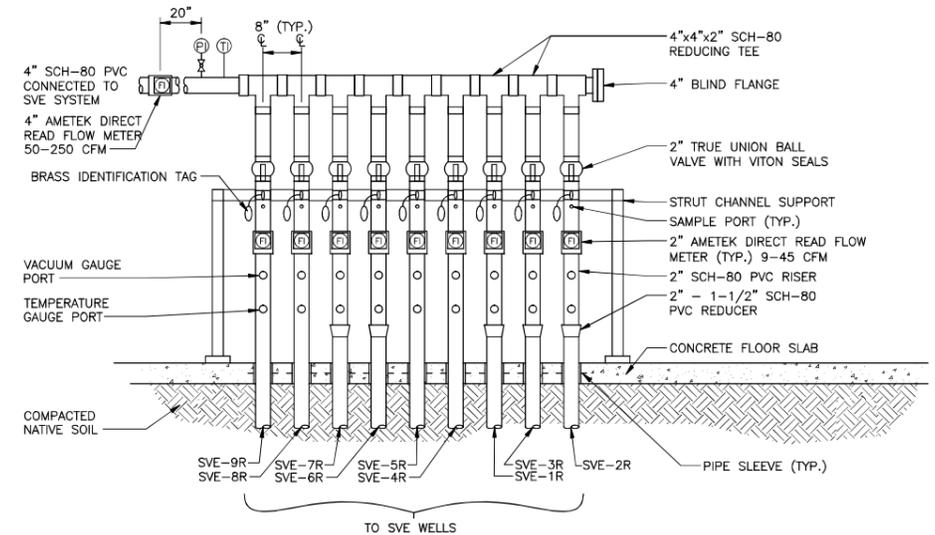


- LEGEND:**
- ⊕ FLOW INDICATOR
  - ⊕ HIGH LEVEL SWITCH
  - ⊕ PRESSURE INDICATOR
  - ⊕ TEMPERATURE INDICATOR
  - ⊕ VACUUM SWITCH
  - ⊕ PRESSURE SWITCH
  - ⊕ GATE VALVE
  - ⊕ BALL VALVE
  - ⊕ BUTTERFLY VALVE
  - ⊕ PRESSURE REGULATOR
  - ⊕ PRESSURE/VACUUM RELIEF VALVE
  - ⊕ UNION
  - ⊕ REDUCER
  - ⊕ PIPE CAP
  - ⊕ SAMPLE PORT
  - ⊕ VACUUM BLOWER

- NOTES:**
- LAYOUT OF SVE SYSTEM FOR CONCEPT ONLY. CONTRACTOR MAY ALTER SYSTEM THAT MEETS THE MINIMUM SPECIFIED REQUIREMENTS AT NO ADDITIONAL COST TO THE DEPARTMENT.
  - FLOW INDICATOR TO READ IN DIRECT CFM.

**PROCESS AND INSTRUMENTATION SCHEMATIC**

NOT TO SCALE



- NOTES:**
- LAYOUT OF SVE SYSTEM FOR CONCEPT ONLY. CONTRACTOR MAY ALTER SYSTEM THAT MEETS THE MINIMUM SPECIFIED REQUIREMENTS AT NO ADDITIONAL COST TO THE DEPARTMENT.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING NECESSARY PIPE HANGARS AND SUPPORTS FOR PIPING SYSTEM SPECIFIED CONSISTENT WITH THE REQUIREMENTS SET FORTH IN THE SPECIFICATIONS AND AS DIRECTED BY THE OWNER.

**SVE PIPE RISER/MANIFOLD SCHEMATIC**

NOT TO SCALE

- NOTES:**
- CONTRACTOR SHALL PROVIDE AN ENCLOSURE OR STRUCTURE THAT MEETS THE FOLLOWING REQUIREMENTS AND PROVIDES AN INSULATED, WEATHER TIGHT ENCLOSURE THAT WILL REMAIN WEATHER TIGHT FOR THE DURATION OF THE ANTICIPATED OPERATIONAL PERIOD OF TWO YEARS.
  - FOLLOW BUILDING MANUFACTURERS INSTRUCTIONS TO INSTALL THE BUILDING STRUCTURE.
  - CONCRETE CONSTRUCTION SHALL CONFORM TO CODE ACI 318.
  - CONCRETE SHALL BE CONTROLLED AIR ENTRAINED, WITH A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
  - REINFORCING SHALL BE DEFORMED BARS NEW BILLET STEEL CONFORMING TO ASTM-A615, GRADE 60.
  - DRAIN FOUNDATION EXCAVATION DURING CONSTRUCTION AS REQUIRED.
  - CONSTRUCTION JOINTS NOT SHOWN MUST BE SUBMITTED BY THE CONTRACTOR FOR THE APPROVAL OF THE ENGINEER.
  - ALL EXPOSED EDGES OF CONCRETE TO HAVE A 3/4" CHAMFER.
  - CONTRACTOR SHALL NOT DISTURB/CUT REINFORCING STEEL WHEN INSTALLING CONDUITS THROUGH FOUNDATION WALL. CONTRACTOR SHALL BE REQUIRED INSTALL STEEL SLEEVES WITH SILICONE CAULKING AS DIRECTED.
  - COORDINATE LOCATION WITH MECHANICAL EQUIPMENT.
  - CONTRACTOR TO SLEEVE THE FOUNDATION SLAB FOR SVE PIPING PENETRATIONS.

WARNING - IT IS A VIOLATION OF NEW YORK EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK LAW, SECTION 7209.2.



REVISIONS				
NO.	BY	DATE	REVISIONS	REMARKS

DES - TAM  
DWN - SMH  
CKD - DJL

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION  
DIVISION OF ENVIRONMENTAL REMEDIATION  
**JIMMY'S DRY CLEANERS SITE-OPERABLE UNITS 1&2**  
REMEDIAL CONSTRUCTION PROJECT

CONTRACT D009345  
**SVE SYSTEM SCHEMATICS AND NOTES**  
SCALE: AS SHOWN

COPYRIGHT 2014  
ARCADIS OF NY, INC.  
DATE: JULY 2014  
M SHEET 3 OF 4  
CAD REF. NO. 00266415-M03

**Attachment B**  
**Indoor Air Quality Questionnaire and Building Inventory Form**

**NEW YORK STATE DEPARTMENT OF HEALTH  
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY  
CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name \_\_\_\_\_ Date/Time Prepared \_\_\_\_\_

Preparer's Affiliation \_\_\_\_\_ Phone No. \_\_\_\_\_

Purpose of Investigation \_\_\_\_\_

**1. OCCUPANT:**

**Interviewed:** Y / N

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

Address: \_\_\_\_\_

County: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Office Phone: \_\_\_\_\_

Number of Occupants/persons at this location \_\_\_\_\_ Age of Occupants \_\_\_\_\_

**2. OWNER OR LANDLORD:** (Check if same as occupant \_\_\_ )

**Interviewed:** Y / N

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

Address: \_\_\_\_\_

County: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Office Phone: \_\_\_\_\_

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

Residential	School	Commercial/Multi-use
Industrial	Church	Other: _____

**If the property is residential, type?** (Circle appropriate response)

- |              |                 |                   |
|--------------|-----------------|-------------------|
| Ranch        | 2-Family        | 3-Family          |
| Raised Ranch | Split Level     | Colonial          |
| Cape Cod     | Contemporary    | Mobile Home       |
| Duplex       | Apartment House | Townhouses/Condos |
| Modular      | Log Home        | Other:_____       |

**If multiple units, how many?** \_\_\_\_\_

**If the property is commercial, type?**

Business Type(s) \_\_\_\_\_

Does it include residences (i.e., multi-use)? Y / N      If yes, how many? \_\_\_\_\_

**Other characteristics:**

Number of floors \_\_\_\_\_      Building age \_\_\_\_\_

Is the building insulated? Y / N      How air tight? Tight / Average / Not Tight

**4. AIRFLOW**

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

---

---

---

Airflow near source

---

---

---

Outdoor air infiltration

---

---

---

Infiltration into air ducts

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---

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**5. BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

- a. Above grade construction: wood frame concrete stone brick
- b. Basement type: full crawlspace slab other \_\_\_\_\_
- c. Basement floor: concrete dirt stone other \_\_\_\_\_
- d. Basement floor: uncovered covered covered with \_\_\_\_\_
- e. Concrete floor: unsealed sealed sealed with \_\_\_\_\_
- f. Foundation walls: poured block stone other \_\_\_\_\_
- g. Foundation walls: unsealed sealed sealed with \_\_\_\_\_
- h. The basement is: wet damp dry moldy
- i. The basement is: finished unfinished partially finished
- j. Sump present? Y / N
- k. Water in sump? Y / N / not applicable

**Basement/Lowest level depth below grade:** \_\_\_\_\_(feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)**

---



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**6. HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

- |                     |                  |                     |
|---------------------|------------------|---------------------|
| Hot air circulation | Heat pump        | Hot water baseboard |
| Space Heaters       | Stream radiation | Radiant floor       |
| Electric baseboard  | Wood stove       | Outdoor wood boiler |
|                     |                  | Other _____         |

**The primary type of fuel used is:**

- |             |          |          |
|-------------|----------|----------|
| Natural Gas | Fuel Oil | Kerosene |
| Electric    | Propane  | Solar    |
| Wood        | Coal     |          |

**Domestic hot water tank fueled by:** \_\_\_\_\_

**Boiler/furnace located in:** Basement Outdoors Main Floor Other \_\_\_\_\_

**Air conditioning:** Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

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**7. OCCUPANCY**

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

**Level** General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement	_____
1 <sup>st</sup> Floor	_____
2 <sup>nd</sup> Floor	_____
3 <sup>rd</sup> Floor	_____
4 <sup>th</sup> Floor	_____

**8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY**

- a. Is there an attached garage? Y / N
- b. Does the garage have a separate heating unit? Y / N / NA
- c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA  
Please specify \_\_\_\_\_
- d. Has the building ever had a fire? Y / N When? \_\_\_\_\_
- e. Is a kerosene or unvented gas space heater present? Y / N Where? \_\_\_\_\_
- f. Is there a workshop or hobby/craft area? Y / N Where & Type? \_\_\_\_\_
- g. Is there smoking in the building? Y / N How frequently? \_\_\_\_\_
- h. Have cleaning products been used recently? Y / N When & Type? \_\_\_\_\_
- i. Have cosmetic products been used recently? Y / N When & Type? \_\_\_\_\_

- j. Has painting/staining been done in the last 6 months? Y / N Where & When? \_\_\_\_\_
- k. Is there new carpet, drapes or other textiles? Y / N Where & When? \_\_\_\_\_
- l. Have air fresheners been used recently? Y / N When & Type? \_\_\_\_\_
- m. Is there a kitchen exhaust fan? Y / N If yes, where vented? \_\_\_\_\_
- n. Is there a bathroom exhaust fan? Y / N If yes, where vented? \_\_\_\_\_
- o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N
- p. Has there been a pesticide application? Y / N When & Type? \_\_\_\_\_

**Are there odors in the building?** Y / N  
 If yes, please describe: \_\_\_\_\_

**Do any of the building occupants use solvents at work?** Y / N  
 (e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? \_\_\_\_\_

If yes, are their clothes washed at work? Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

- Yes, use dry-cleaning regularly (weekly) No
- Yes, use dry-cleaning infrequently (monthly or less) Unknown
- Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y / N Date of Installation: \_\_\_\_\_  
**Is the system active or passive?** Active/Passive

**9. WATER AND SEWAGE**

**Water Supply:** Public Water Drilled Well Driven Well Dug Well Other: \_\_\_\_\_  
**Sewage Disposal:** Public Sewer Septic Tank Leach Field Dry Well Other: \_\_\_\_\_

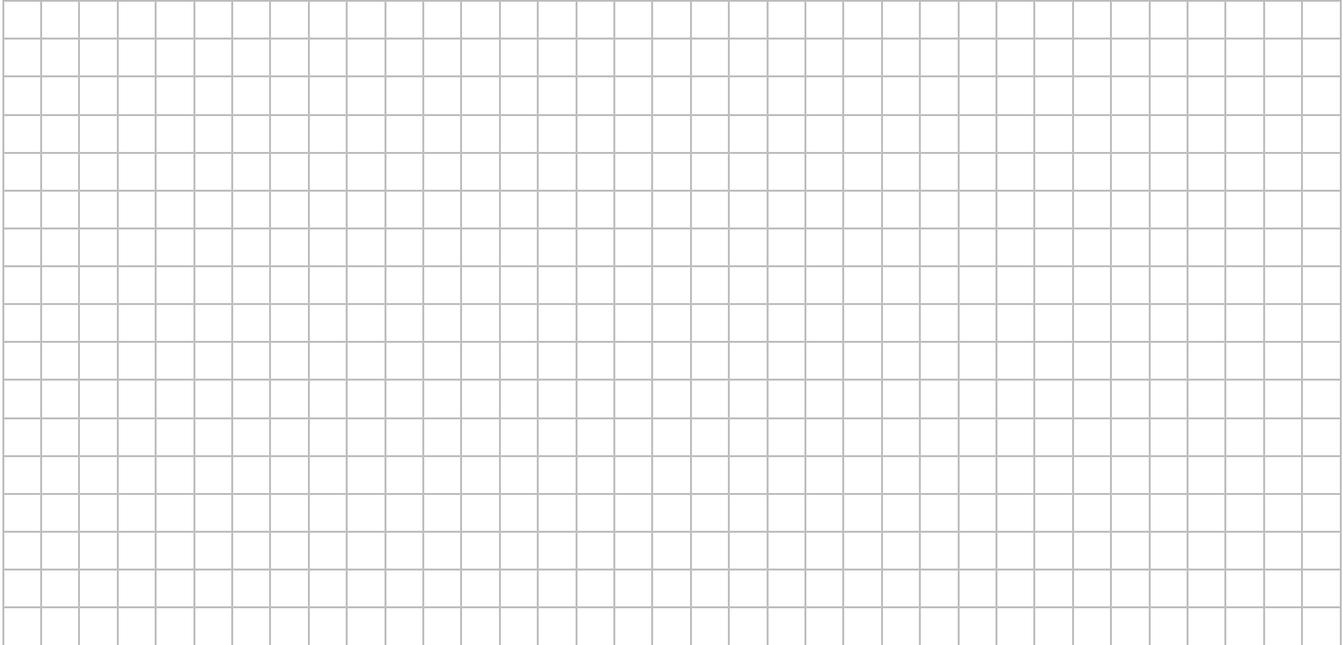
**10. RELOCATION INFORMATION (for oil spill residential emergency)**

- a. Provide reasons why relocation is recommended: \_\_\_\_\_
- b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained? Y / N
- d. Relocation package provided and explained to residents? Y / N

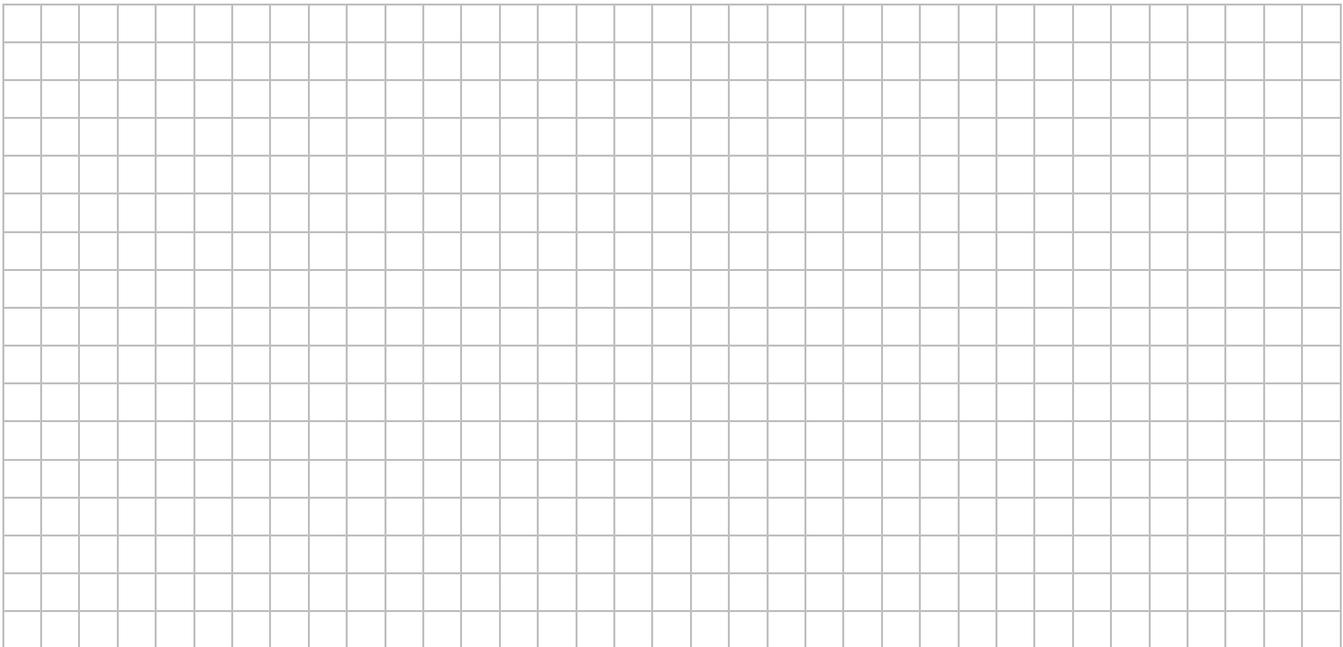
**11. FLOOR PLANS**

**Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.**

**Basement:**



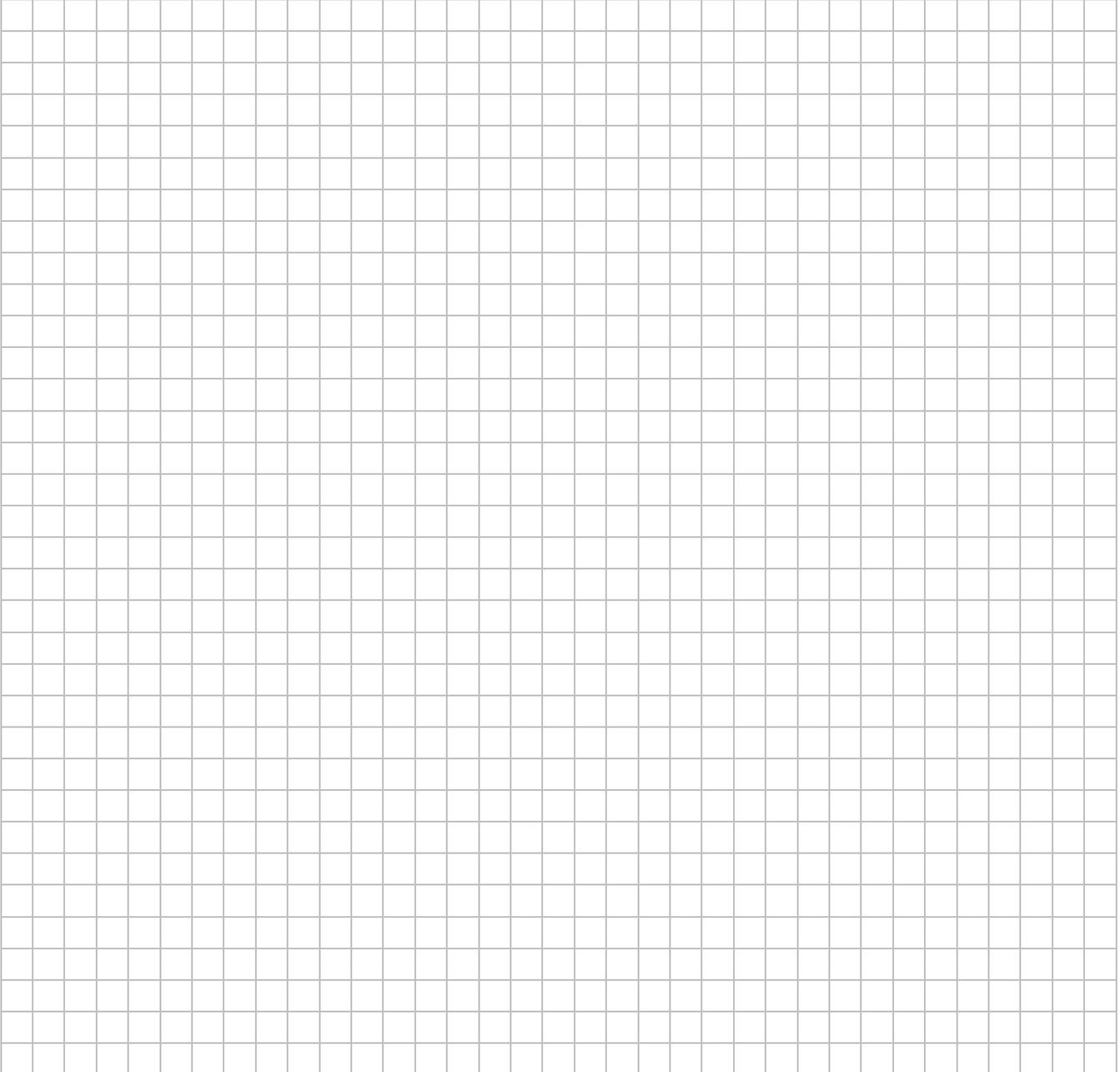
**First Floor:**



**12. OUTDOOR PLOT**

**Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.**

**Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.**





**Attachment C**  
**Project Schedule**

Attachment C  
 New York State Department of Environmental Conservation  
 SMP B - Jimmy's Dry Cleaners - Site No. 130080  
 Soil Vapor Extraction System Pulsed Restart Work Plan  
 Roosevelt, New York  
 Project Schedule

Task	Week															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
SVE Shutdown 1	█	█	█	█												
Pulse Operation 1					█											
SVE Shutdown 2						█	█	█								
Pulse Operation 2									█							
SVE Shutdown 3										█	█					
Pulse Operation 3												█				
SVE Shutdown 4													█			
Pulse Operation 4														█		
Data Assessment & Reporting															█	█