

March 7, 2011
File: 147-111388

Ms. Kim Myers, Postmaster
Scarsdale Post Office
29 Chase Rd
Scarsdale, NY 10583-4182

**Re: Former Mimi Cleaners: 58 Christie Place, Scarsdale, NY
VP Site No. V00306-3
Work Scope for Evaluating Current Sub-Slab Vapor Conditions
In the Area of the Former Mimi Cleaners Site**

Dear Ms. Myers:

Currently there are several sub-slab depressurization systems (SSDSs) in operation by the landlord of the former Mimi Cleaners ("the Site") to mitigate sub-slab vapors beneath the Site and in the vicinity of the former cleaners Site. The SSDS installed in the Scarsdale Post Office Building (SPOB) has been running for two years. The SSDS was installed as part of our investigation activities and mitigation requirements in accordance the New York State Department of Health (NYSDOH) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006*, and requirements from New York State Department of Environmental Conservation (NYSDEC) representatives overseeing the project

In accordance with an approved work scope submitted to NYSDEC and NYSDOH, HDR proposes to ascertain the current sub-slab vapor contaminant concentrations under the SPOB to determine if the SSDS or a portion thereof that has been operating for two years may be shut down or operated intermittently. Such refinements to the system operations are consistent with the NYSDEC green remediation policy as outlined in DER-31 (Green Remediation). They would substantially reduce the consumption of electricity. The assessment study would allow a refined interpretation of the PCE contaminant concentrations to determine temporal trends, possible sources, and mitigation effects. If conditions still exist that warrant the continued operation of the SSDS, HDR will recommend pulsed operation of the system, while maintaining consistency with NYSDOH and NYSDEC requirements. Currently the SSDS runs constantly at this location. Figure 1 shows an aerial photograph with the location of the former Mimi Cleaners and the SPOB.

Excavation of soils under the area of the dry cleaning equipment in the nearby Christie Place Building (CPB) in July-August 2000 removed as much of the contaminated soils as possible (72 tons) without compromising the building structure. Subsequent installation and operation of a soil vapor extraction (SVE) system in this area of the CPB between May 2001 and May 2005 removed residual contamination remaining in the soils. The removal of the source soils and operation of the SVE system and the SSDS in this building from 2001 to the present removed the sub-slab contaminant vapors in this

area. Recently, investigations downgradient from the Site have shown show higher concentrations of PCE under some of the building slabs when compared to the results of the samples collected in the CPB and adjacent Spencer Place Building (SPB) in 2004. It is our interpretation that the plume is dissipating in the area of the Site and/or the contaminant plume may be moving downgradient away from the Site.

Background Information

In June 2006 two (2) soil gas samples were collected from the Post Office parking lot adjacent to the CPB and the former Mimi Cleaners Site as shown on Figure 2. The PCE concentrations detected in these two soil gas samples were 1,400 and 430 $\mu\text{g}/\text{m}^3$. Based on these soil gas results, two (2) soil gas samples and two (2) sub-slab vapor samples were collected from within the SPOB in December 2007. Due to regulator malfunctions, two additional sub-slab vapor samples proposed for this location were not collected. The eastern portion of the basement in the SPOB had a dirt floor at the time of this sampling event; therefore, soil gas samples were collected in this area. The PCE results detected in these two soil gas samples were 2 and 270 $\mu\text{g}/\text{m}^3$, and the PCE concentrations detected in the two sub-slab vapor samples in the western portion of the basement were 1,700 and 1,800 $\mu\text{g}/\text{m}^3$. It should be noted that as part of the installation of the SSDS in the SPOB, the dirt floor portion of the basement was sealed with a geotextile membrane fabric.

Sub-Slab Vapor Assessment Procedures

To assess the current concentrations of contaminants in the SPOB, HDR proposes to shut down the SSDS for a 6-week interval. After allowing the sub-slab vapor conditions to equilibrate under natural conditions for six weeks, sub-slab vapor and co-located indoor air samples will be collected from two locations in the building to provide an assessment of the current vapor conditions under the slab and also in the indoor air at this location. The proposed sample locations are shown on Figure 3 with the sample locations highlighted. The locations selected for the assessment after the 6-week shutdown interval showed the highest sub-slab vapor concentrations of PCE during the previous investigations. Sampling procedures will be consistent with prior data collection procedures used for this project.

The sub-slab vapor and indoor air sample results will be compared to the NYSDOH Matrix 2 for PCE and Matrix 1 for trichloroethylene (TCE). If the results of the samples show that the sub-slab PCE & TCE concentrations are below 1,000 and 250 $\mu\text{g}/\text{m}^3$, respectively, and the indoor air concentrations of PCE & TCE are below 30 and 1 $\mu\text{g}/\text{m}^3$, respectively at both sample locations in the building then the SSDS at this location will remain shut down for an additional 20-week interval (6 months total) to assess the potential for contaminant vapors to accumulate under the slab over time. If PCE and TCE concentrations in the sub-slab vapor and indoor air samples remain below the NYSDOH criteria after the 6-month interval then the system at this location will be shut down permanently. If the system is shut down permanently, a sub-slab vapor s and an indoor air sample will be collected from one sample location in this building on an annual basis for two years to confirm that the concentration remains below the NYSDOH guidance values. After the two-year interval an assessment will be made to determine if additional sampling will be required.

If the sample results are above the NYSDOH criteria for PCE or TCE after the 6-week shut down interval, the SSDS will be turned back on and an assessment will be made to determine the feasibility of pulsing the system to conserve electricity and reduce the carbon footprint of the system while still meeting the NYSDOH and NYSDEC objectives for the mitigation system. The SPOB is not occupied on a continuous basis.

If sample results are below the NYSDOH criteria for PCE and TCE after the 6-week shut down interval, but above the NYSDOH criteria for PCE or TCE after the 6-month shut down interval, an assessment will be made as to what pulsing interval (e.g. one month on and one month off) would provide sufficient protection against potential migration of contaminant vapors into the building.

Sampling Procedures

For the sub-slab vapor sample locations, permanent sample ports have already been installed as part of previous investigation activities. The sample ports are constructed of a brass tube threaded to a brass coupler. The brass tube extends below the bottom of the slab so that the brass coupler is flush with the top of the slab. The brass coupler accepts a threaded plug to seal the port when it is not in use.

On the day of sampling, at each sub-slab location the threaded plug will be removed from the sub-slab vapor sample port and a temporary NPT thread to compression fitting coupler will be used to connect the probe to a section of Teflon® tubing outfitted with compression fittings. The tubing and point will be purged and attached to an air sample canister. For the purging process, the tubing will be connected to a personal air sampling pump which will be run at a flowrate of <0.2 L/min to purge a minimum of three volumes from the tubing and sample port. The air will be purged into a Tedlar bag so it cannot possibly contaminate the indoor air. After purging, the tubing will be connected to a laboratory-supplied flow control regulator attached to an air sample canister of appropriate size. Vacuum on the canister will be recorded, and the valve on the canister will be opened to collect the sub-slab vapor. The flow regulator will be set by the laboratory to collect the sample over a 4-5 hour period (~20-25 ml/min).

The indoor air samples will be collected using a laboratory-supplied flow control regulator attached to an air sample canister following the procedures listed in the NYSDOH October 2006 Guidance. The vacuum on each canister will be recorded, and the valve on the canister will be opened to collect the indoor air. The flow control valve on the air sample canister will be set by the laboratory to collect the sample over a 4-5 hour period (~20-25 ml/min).

During the sampling, the vacuum on each canister will be periodically recorded. At the end of the targeted 4-5 hour sampling period, but before the vacuum on the canister is completely exhausted, the canister valve will be closed. The final vacuum reading will be recorded, the tubing will be disconnected, and the canister will be prepared for shipment.

The field notes and documentation for the sampling will include the following, where applicable:

- sample identification,
- date and time of sample collection,
- sampling depth,
- identity of samplers,
- sampling methods and devices,
- volume of soil vapor extracted,
- canisters vacuum before and after samples collected,
- apparent moisture content (dry, moist, saturated, etc.) of the sampling zone, and
- chain of custody protocols and records used to track samples from sampling point to analysis.

Samples will be shipped via overnight courier under proper chain-of-custody to a NYSDOH-certified laboratory for VOC analyses (chlorinated solvents only) by EPA T0-15. Based on a 4-5 hour sample collection the practical quantitation limit is less than 1 $\mu\text{g}/\text{m}^3$ for PCE. Analytical results of the sub-slab vapor and indoor air sampling investigation will be summarized and submitted to NYSDEC and NYSDOH in a data summary report.

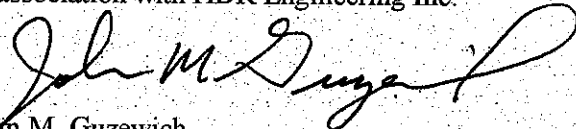
Schedule

Please expedite your review if possible, this assessment work scope has been approved by NYSDEC and NYSDOH and we would like to commence with the assessment as soon as possible.

If you have any questions, please feel free to contact me at (845) 735-8300.

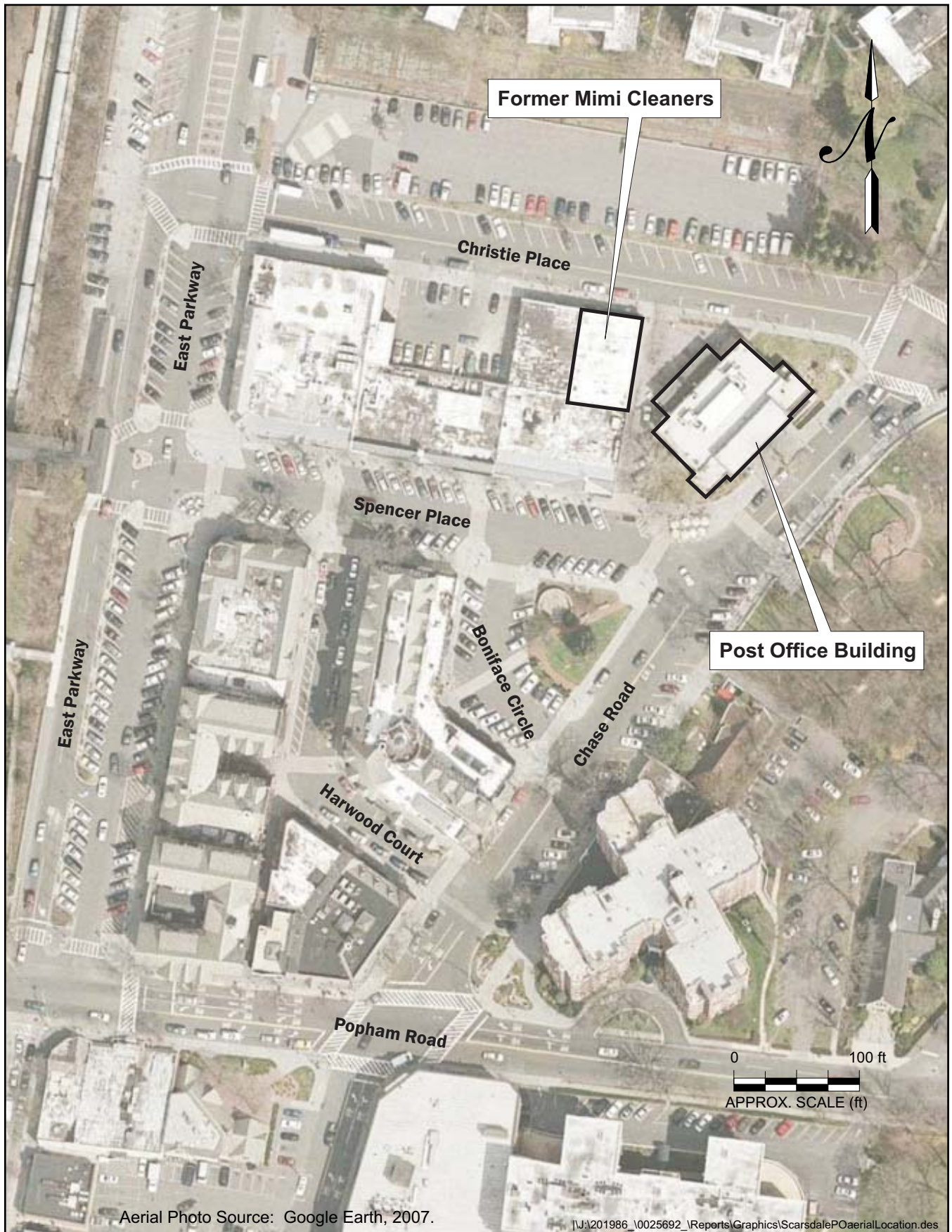
Very truly yours,

Henningson, Durham & Richardson Architecture and Engineering, P.C.
in association with HDR Engineering Inc.



John M. Guzewich
Project Manager

Cc: R. Filkins, NYSDEC
N. Walz, NYSDOH
B. Groden, West-Ex Associates
C. Leas, Esq. Sive, Paget & Riesel, P.C.
R. Orlusky, USPS, Environmental Specialist
C. Eberhart, USPS, Manager of Safety



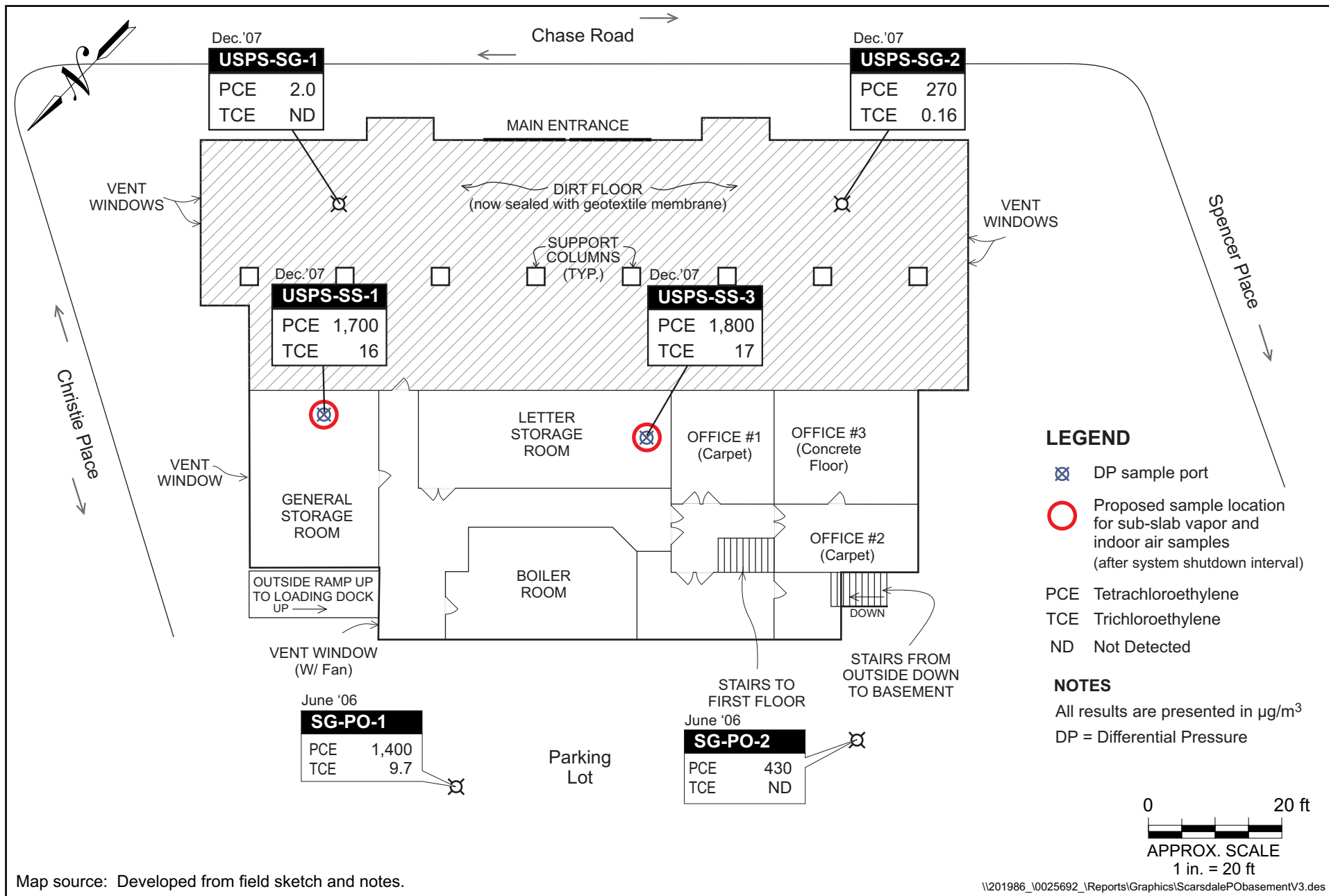
Henningson, Durham & Richardson
 Architecture and Engineering, P.C.
 One Blue Hill Plaza
 Pearl River, NY 10965

Location of Buildings in Study Area

Former Mimi Dry Cleaners

Scarsdale, NY

Figure
 1



Map source: Developed from field sketch and notes.

\\201986_0025692_1\Reports\Graphics\ScarsdalePObasementV3.des



Henningson, Durham & Richardson
Architecture and Engineering, P.C.
in association with HDR Engineering, Inc.
One Blue Hill Plaza
Pearl River, NY 10965

Former Mimi Dry Cleaners

Sub-Slab Vapor and Soil Gas Sampling (Post Office Building)

Scarsdale, NY

Figure
2