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January 23, 2014

File: 191710624

Ms. Dana Kaplan
Environmental Engineer
Division of Environmental Remediation – Region 2
New York State Department of Environmental Conservation
Hunters Point Plaza
47-40 21st Street
Long Island City, NY 11101-5401

**Reference: Addendum to Interim Remedial Measures-Construction Completion Report
Belle Harbor Shopping Center, Queens (Far Rockaway), NY
VCP # V-00490**

Dear Ms. Kaplan:

Stantec Consulting Services Inc. (Stantec) submitted an Interim Remedial Measures-Construction Completion Report (IRM-CCR) on behalf of the Great Atlantic & Pacific Tea Company, Inc. (A&P) to the NYSDEC on July 2, 2013. The IRM-CCR described remedial activities conducted within the former Bell Boy Dry Cleaner lease unit (now doing business as Sofia's Nail Salon). These activities included excavating soils impacted with chlorinated volatile organic compounds and installing a sub-slab depressurization system (SSDS) in this tenant unit. Additional activities included installing permanent sub-slab soil gas (SSSG) points, or probes, in the two tenant units located adjacent to Sofia's Nail Salon (Ciros Pizza to the north and a vacant unit to the south), and in the Citibank unit located on the other side of Ciros Pizza. SSSG and indoor air quality samples were also collected from the four tenant units. The SSSG points were installed and samples collected in accordance with NYS Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006. As part of the vapor intrusion work, and in accordance with the Guidance, Stantec conducted a pressure field extension test by drilling holes through the sub slab in the vacant unit and observing smoke (from a smoke stick) being pulled downward due to the operation of the SSDS. A smoke test showing positive results (indicating downward movement) was also conducted on the permanent SSSG point in Ciros Pizza.



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NYSDEC and NYSDOH subsequently reviewed the IRM-CCR and responded with a comment letter dated July 25, 2013. This letter, along with subsequent conversations (via email and telephone) between Stantec and NYSDEC, indicated that additional quantitative pressure field readings be performed within Sophia's Nail Salon and in the adjacent tenant units to document the SSDS range of influence. This work was conducted as outlined below. In addition, the subject NYSDEC letter requested an Electronic Data Deliverable (EDD) package for the IRM excavation endpoint samples. This EDD package was submitted to NYSDEC on October 24, 2013.

WORK PERFORMED

Stantec mobilized to Sofia's Nail Salon unit on October 30, 2013 and met with the store owner to determine locations for four SSSG points in areas that were least disruptive to operations (i.e., back room closet, under sink, etc.). Each point was installed by drilling a 3.5-inch diameter hole through the concrete slab and into the underlying soils. Each sub-slab probe was constructed of stainless steel with six inches of slotted area, which was set approximately six inches to one foot below the bottom of the concrete slab. A small diameter road-box with locking cap was then set and grouted flush to the concrete floor to prevent potential vapors from seeping into the lease units. The locations of the four SSSG points (identified as SV-101 to SV-104) are shown on the attached figure. Note that locations of previous investigations conducted inside the other tenant units are also depicted on the figure.

On the following day (October 31, 2013), Stantec conducted tests at each point utilizing a helium shroud technique to confirm there was no leakage. Once it was confirmed that there was no leakage, Stantec then recorded differential pressure readings (in-Hg) with a Velocicalc Multi-Function Ventilation Meter at the four newly installed points (SV-101 to SV-104), at the point in Ciro's Pizza (SVP-11), and at the point in the Citibank unit (SVP-6). Readings were not measured at the two points (SVP-9 and SVP-10) in the vacant unit due to this unit not being accessible at that time.

RESULTS

Measured differential pressure readings are presented on the attached Table 1 and figure. As shown, readings at the four points within the Sofia's Nail Salon unit ranged from -0.003 in-Hg at SV-101 to -0.481 in-Hg at SV-102. The reading at SVP-11 in the adjacent Ciro's Pizza unit was -0.211 in-Hg. The reading at SVP-6 in the Citibank unit was -0.0004 in-Hg. The readings indicate that the SSDS is creating a vacuum beneath the entire slab at the Sofia's Nail Salon unit, which extends to the Ciro's Pizza unit and Citibank unit. Based



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on these data, and those from the smoke test, the range of influence of the operating SSDS is estimated at 50 feet.

Based on these favorable results and the EDD submitted previously, we believe we have fulfilled the requirements of your July 25, 2013 letter and request that you approve the IRM-CCR at this time.

We trust that this information meets your needs.

Sincerely

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Attachments

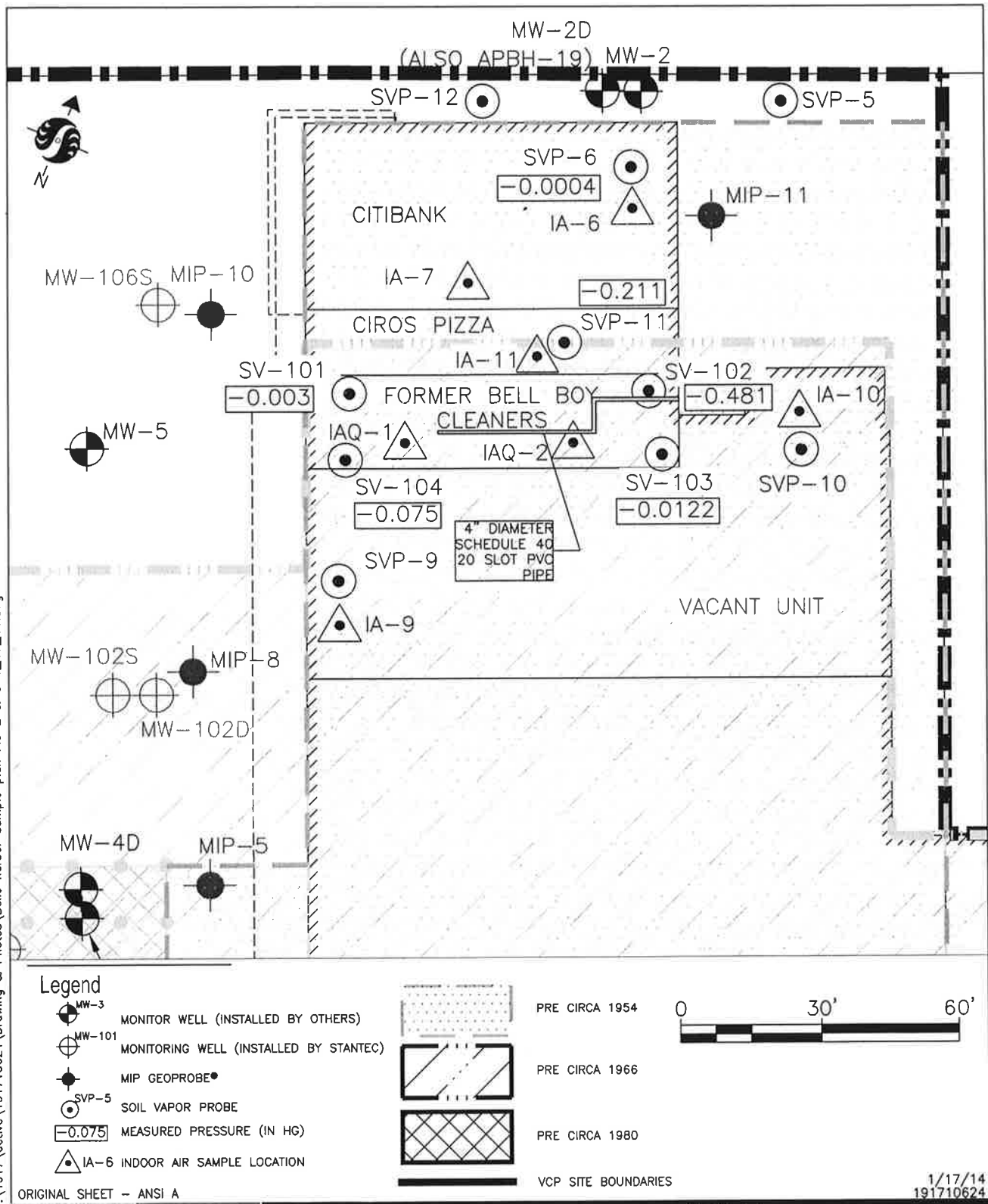
CC Mr. Craig Feldman, A&P

TABLE 1
 Summary of Pressure Readings
 A&P Shopping Center
 Belle Harbor, New York

Location	SSSG Location	Micro-manometer Differential Pressure Readings (in-Hg)
Sofias Nail Salon	SV-101	-0.003
	SV-102	-0.481
	SV-103	-0.0122
	SV-104	-0.075
Ciros Pizza	SVP-11	-0.211
Citbank	SVP-6	-0.0004

SSSG = Sub-slab soil gas probe
 in-Hg = inches of mercury

V:\1917\active\191710624\Drawing & Photos\Belle harbor sample plan FIG 2 & 3 1_17_14.dwg



Legend

- MW-3 MONITOR WELL (INSTALLED BY OTHERS)
- MW-101 MONITORING WELL (INSTALLED BY STANTEC)
- MIP GEOPROBE
- SVP-5 SOIL VAPOR PROBE
- MEASURED PRESSURE (IN HG)
- IA-6 INDOOR AIR SAMPLE LOCATION

- PRE CIRCA 1954
- PRE CIRCA 1966
- PRE CIRCA 1980
- VCP SITE BOUNDARIES



ORIGINAL SHEET - ANSI A

1/17/14
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Client/Project

BELLE HARBOR SHOPPING CENTER
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QUEENS (FAR ROCKAWAY), NEW YORK

Figure No.

3

Title

INTERIOR
SAMPLE LOCATIONS