BROWNFIELD CLEANUP PROGRAM

INTERIM REMEDIAL MEASURE

CONSTRUCTION COMPLETION REPORT

FINAL

FOR

HNJ REALTY LLC.

FOR

SCHMUKLER'S CLEANERS

358 - 364 North Avenue, New Rochelle, New York

Site No.: C360088

Index No.: A3-0542-0306

PREPARED FOR

NEW YORK STATE DEPARTMENT OF

ENVIRONMENTAL CONSERVATION

625 Broadway

Albany, New York 12233-7016

PREPARED BY

JOHN V. SODERBERG P.E

PO BOX 263

STONY BROOK, NEW YORK

October 2013

TABLE OF CONTENTS

List of Figures

List of Appendices

Professional Engineer Certification

Certification:

I John V. Soderberg, PE, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER- 10.)

10/24/13

John Soderberg, P.E

Signature

SEAL:

NYS P.E License No.: 049975

Dated: October 24, 2013

Professional Engineer Certification

Certification:

I, John V. Soderberg, certify that I am currently a NYS registered professional engineer, I had primary direct responsibility for the implementation of the subject construction program, and I certify that the Construction Completion Report (CCR) was implemented and that all construction activities were completed in substantial conformance with the DER-approved CCR.

John Soderberg, P.E

Signature

SEAL:

NYS P.E License No.: 049975

Dated: October 24, 2013

1.0 INTRODUCTION

The following document is an Interim Remedial Measure Construction Completion Report (IRMCCR) developed for the subject property pursuant to the requirements of an executed Brownfield Cleanup Agreement (dated February 27, 2006), between the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation (DER) and HNJ Realty, LLC, the Volunteer. The Site is a commercial property located at 358 through 364 North Avenue, New Rochelle, New York (see Figures 1-2), fully described as Section 4 - Block 1206 - Lot 19 of the tax maps of City of New Rochelle.

As per NYSDEC correspondence dated January 23, 2008, the NYSDEC in conjunction with the New York State Department of Health (NYSDOH) have dictated that "*a mitigation plan for the building must be prepared for Department review, and should be installed as an IRM in lieu of additional sampling in the on-site building.*" Therefore, this IRMCCR is provided to detail the installation of an engineering control to mitigate present and potential future impacts to indoor air quality within the subject building. Based upon prior studies, the VOCs are associated with the former historic uses of the building (i.e dry cleaning).

This IRMCCR contains the following: a summary of previous site data; summary of IRM remedial objectives; pilot test data and the final design of the engineering control; a description of all work performed in order to initialize start-up; documentation and permits from the Westchester County

Department of Health (WCDOH) authorizing operation. The IRMCCR has been drafted in accordance with section 5.8 of technical guidance document DER-10.

2.0 PREVIOUS SITE INVESTIGATION

The primary purpose of the remedial investigation was to delineate the lateral and vertical extent of VOC contamination (tetrachloroethene and its breakdown products) in all media that may be emanating from the subject property. The dry-cleaning operations previously occurred in a self-contained small portion of the property, comprised of a small added-on extension to the main building.

The remedial site investigation was performed pursuant to the requirements of the Brownfield Cleanup Agreement between the NYSDEC DER and HNJ Realty, LLC, the Volunteer. Task 1a (Indoor Air Testing), Task 1b (Soil Gas Investigation), Task 2 (Soil Investigation), and Task 3 (Groundwater Investigation) of the approved BCP Work Plan were performed by Berninger Environmental Inc. (BEI) in August of 2007. Supplemental (SRI) activities including the installation of three (3) bedrock wells, bedrock coring and sampling of these wells was conducted based upon the results of the RIWP. Additional supplemental investigation work is proposed as part of the ongoing supplemental site investigation which includes: the installation of one (1) additional bedrock well; and one (1) additional overburden well in order to delineate groundwater contamination. Groundwater flow direction will also be determined as part of the SRI but

preliminary geological assessments insinuate a southwesterly flow. At this point in the investigation BEI has set two primary goals: the first to delineate PCE contamination in groundwater and the second to determine the source of the on-site petroleum related contamination in soil.

3.0 INTERIM REMEDIAL MEASURE (IRM)

The IRM implemented includes both mitigation and remediation of the soil conditions underneath the basement concrete slab and the former dry cleaning equipment room. The installation of an active Soil Vapor Extraction (SVE) / Sub-Slab Depressurization System (SSDS) has been installed to accomplish soil gas, soil and to some extent groundwater remediation. Installation construction occurred during November and December of 2008. Pilot testing of the system was conducted during February 2009. The official start-up date for the SVE/SSDS is June 16, 2010.

3.1 Soil Vapor Migration Pathways

Typical soil vapor migration pathways include entrance into a building through cracks or perforations in the slab or walls, and through openings around sump pumps or where pipes and electrical wires go through the foundation. The vapor movement is primarily a result of a difference between interior and exterior pressures. As established in the NYSDOH Vapor Intrusion Guidance, October 2006, the basic requirements that must be established with respect to a soil vapor mitigation program are as follows:

- Methods of mitigation;
- Pilot Testing, Installation and design of mitigation system;
- Post-mitigation testing;

- Operation, maintenance and monitoring of mitigation systems and;
- Termination of mitigation system operations

3.2 Methods of Mitigation

The most effective mitigation methods for soil vapors include a combination of sealing any infiltration points and actively manipulating the pressure differential between the building's interior and exterior. The Soil Vapor Extraction/Sub-slab Depressurization (SVE/SSDS) system installed at the site has accomplished both soil gas mitigation and remediation of contaminated media.

3.2.1 Sealing of Infiltration Points

The interior area(s) identified as requiring mitigation has been further inspected as to the integrity and condition of the poured concrete floor and any utility or other perforation or penetrations into the subgrade surface. The basement contains a pit and other small scale penetrations through the floor that have been sealed with plexiglass and cement covers. As part of the IRM activities, all cracks and "sealable" penetrations have been sealed utilizing hydraulic cement or equivalent sealing material. All joints, cracks and other penetrations of slabs, floor assemblies and foundation walls below or in contact with the ground surface have been sealed with materials that prevent air leakage. All areas were sealed prior to the pilot test or any other testing performed at the property in order to limit the generation of misleading site data.

3.2.2 Buildings with a Basement

Knowledge of the building's foundation design was essential to determine the appropriate method to use for soil vapor mitigation. The building has been identified as possessing a basement with a poured concrete floor construction. In conjunction with sealing potential subsurface vapor entry points, an active Sub-Slab Depressurization System has been installed within the basement of the building, in addition to four SVE wells within the main level (rear) of the building and within an exterior drywell structure (see Figure 3). Specifically, a horizontal-laid SVE (H-pattern) that is functioning as a Sub-Slab Depressurization System (SSDS) has been installed within the basement of the building to mitigate soil/ soil vapors. The horizontal H-pattern system had to be installed within the basement due to the close proximity of groundwater within 3-3.5 feet below the basement slab. The horizontal PVC slotted pipes have been set within one foot sub-grade of the concrete floor, via trenching, in a gravel-based bed. Three conventional vertical SVE wells were installed within the slab-on grade rear portion of the building (former dry-cleaning equipment room). One exterior SVE well has been installed in the footprint of the drywell located adjacent to the rear building wall. This drywell was clearly identified during the prior RI as being impacted from former site operations. An overflow drywell possibly associated with same could not be identified during the RI.

The most common approach to achieving the depressurization beneath the slab is to insert the piping through the floor slab into the crushed rock or soil underneath (i.e., essentially creating a vacuum beneath the slab) and vent to the atmosphere. However, at this property, an active SVE/SSDS system acts to both depressurize and remediate the shallow soils underneath that have been confirmed to possess VOC impacts. The combined SVE/SSDS uses a vacuum blower and piping to draw vapors from the soil beneath the building's slab. This system uses high flow rates, induced vacuum or both to collect and remove contamination. The SSDS/SVE system has resulted in lower air pressure in the sub-slab, relative to indoor air pressure, which has served to prevent the future infiltration of sub-slab vapors into the building, in addition to actual mitigation of soil contamination that is giving rise to soil vapors.

3.3 Remedial SVE/SSDS System Design

Given the size and shape of the basement, the horizontal piping has been constructed in an elongated "H" pattern. The legs of the "H" are two sets of 2-inch, schedule 40 PVC, 0.02 inch slotted pipe approximately 30 feet long. These two sets of pipes are connected and manifolded via solid 2-inch PVC riser. This resulted in two sets of 60 feet (total of 120 feet) of slotted screen piping, traversing the entire width of the basement, offset by a distance of approximately 30 feet. The horizontal screened piping has been manifolded together via solid PVC piping mounted to the interior wall located in the center of the basement. Each H-pattern unit contains a manifold consisting of two (2) sampling ports in order to isolate monitoring at select areas of the basement. Gate valves affixed to each manifold allow for the levels of influence in a particular area to be adjusted according to contamination levels.

The solid pipe from the basement passes through a moisture separator before joining up with the manifolded piping from the three vertical, schedule 40, SVE wells located in the former dry-cleaning equipment room. At that point, the piping exits at the rear of the building to an effluent air treatment system. The one exterior SVE well installed in the drywell location was also connected to the SVE system. Access/sampling ports have been installed on the main manifold to allow for monitoring/evaluating the effectiveness of the system. (Figure-6 V-1-5 construction specs)

The solid SVE riser piping has been extended from the main manifold, where the blower unit is located, in a shed unit at the rear of the building. The PVC piping has been connected to the blower intake using non-collapsible flexible ductwork. Non-collapsible hose has been connected to the blower outlet or exhaust to form an air emission treatment system using vapor phase carbon canisters.(Appendix-E for hose specs 1ZLR2) Schedule 80 PVC connects the carbon units to the schedule 40 PVC exhaust stack. In-line sample ports and airflow gauges have been installed at locations along the exhaust piping prior to and subsequent to the air emission treatment system to evaluate the concentration of VOCs being discharged. Ultimately the effluent air stack extends to a height of approximately 10 feet above the highest neighboring roofline. The exhaust point is located away from the openings of other buildings and HVAC air intakes. See Appendix-D for P.E as built drawings of the SVE/SSDS system.

In addition to the NYSDEC and NYSDOH requirements, the Westchester County Department of Health has been contacted and a permit for the air discharges associated with the SSDS/SVE has been applied for and accepted. On November 29, 2010 the WCDOH issued a renewal CTO (certificate to operate) which is valid until November 29, 2013. Relevant correspondence, monitoring requirements and the renewed permit is attached as Appendix-C.

The engineering control and power source of the system is a 5.0 Hp EN 6 ROTRON explosion-proof blower, formerly a 3.0 Hp EN 656 ROTRON. See Appendix-A for blower specs. This unit is used to create the vacuum for the SVE/SSDS system. The blower unit has been wired to an existing electric sub-panel and operated by a control box located in a secure area of the building. An alarm or system fault light has been installed to indicate times that the system becomes inoperable due to equipment malfunction or power outages. The alarm is located in an area readily visible to the building occupants. Venting in the form of door louvers have been installed to reduce heat within the control room shed. See Appendix-F for pictures of vents. A pressure gauge has also been included as a supplemental warning device of system malfunction or failure. See Appendix-B for a photographic log of the system installation.

3.3.1 Pilot Testing of SVE System

A one-day pilot-test of the sub-slab beneath the basement floor has been conducted and the data results are positive. The objective of the pilot testing was to establish the radius of influence (ROI) for the SVE system. The pilot test has been conducted via six small diameter shallow soil sub-slab permanent vapor wells (PV). Four have been installed within the basement (PV-3-6) and two within the former steam-press and dry cleaning equipment rooms (PV-1-2) (see Figure 5). Specifically, the PVs in the basement are at an approximate distance of fifteen feet away from the legs of the "H", installed approximately one foot deep within the poured concrete floor. Two PVs have been set inside the footprint of the "H" and two PVs to the east of the "H", toward North Avenue. Two additional PVs have been installed 15-20 feet (north-south) radial distances from the three SVE wells

in the former dry cleaning equipment room. The PV monitoring points have been used to record pressure responses during the pilot test as per the *Guidance for Evaluating Soil Vapor Intrusion in the State of New York. (NYSDOH, 2006) and the Radon Mitigation Standards (USEPA 402-R-03-078).* These PVs can also be used if necessary during other key phases of the project to check both on pressure as well as VOCs in soil gas. PVs are also referred to as SSVWs (Sub-Slab Vapor Wells)

A rotary coring tool was used to penetrate the concrete floor slab (in the basement and the first floor) to install ½ inch diameter PV monitoring points to an approximate depth of one foot below the concrete. These wells were installed as permanent points as per the NYSDOH guidance. A 3/8-inch diameter polyethylene tubing was affixed to the permanent soil vapor screen point which was installed to within one inch of the bottom of the hole at these monitoring locations. A permanent seal between the tubing and the concrete sub-floor was used to ensure that no air leaks are possible at the vacuum measuring point.(Figure-4 well log)

Air pressure (vacuum) measurements have been recorded at each of the six PV or SSVW monitoring points just before the start of each test to ensure that baseline sub-slab air pressures were within normal ranges. Air pressure measurements continued approximately once every 10 minutes while applying a continuous vacuum to the SVE/SSDS system. Air pressure has been measured with a Dwyer Magnehelic® vacuum meter, calibrated to atmospheric pressure prior to the test. The test has been run utilizing the Rotron blower, with the equivalent vacuum reading of 6 in/h2O and a vacuum flow rate of approximately 80 cubic feet per minute (CFM).

The first test period was conducted until equilibrium conditions were established and completed. BEI conducted vacuum readings on each of the permanent vapor points (PV-1-6) in order to establish the

system radius of influence or ROI. CFM and PID readings were measured from the vertical SVE wells (V-1-5) to ensure proper airflow and VOC concentrations.(Figure-5)

The following table below displays all data recorded during the pilot test:

Wells	Vacuum	CFM	PID (ppm)
PV-1	0.1 in/H_2O	n/a	0.0
PV-2	0.2 in/H_2O	n/a	0.0
PV-3	.16 in/H_2O	n/a	2.8
PV-4	.76 in/H_2O	n/a	3.9
PV-5	0.1 in/H_2O	n/a	0.0
PV-6	.48 in/H_2O	n/a	0.0
V-1	4.1 in/H_2O	44.9 ft^3/min	538
V-2	4.3 in/H_2O	48.42 ft^3/min	170
V-3	4.5 in/H_2O	44.35 ft^3/min	28.7
V-4	4.0 in/H_2O	50.88 ft^3/min	0.1
V-5	3.5 in/H_2O	43.52 ft^3/min	26.5

*n/a not available

The radius of influence appears to be approximately 15 feet from the center of each SVE well installed at the site. In the basement area impacted soils can be effected as far away as 15' from any point on the screened piping being that it is installed horizontally. Please refer to Figure-5 for the anticipated ROI of each vapor well.

3.4 Post-installation Testing

Routine airflow and concentration sampling of the SVE system has occurred on a monthly basis and BEI staff has collected airflow and bulk air concentration data over the last few years. Airflow

calculations for the SVE are generated using inline airflow rates and concentration data collected near the SVE well. In order to collect air concentration measurements, total VOC measurements have been measured with a Photoionization detector (PID) via a sample port installed in the solid PVC piping.

BEI has already started generating a database to store all data acquired during monthly monitoring. Quarterly reports to the Department include routine airflow and VOC concentration data collected during each monitoring event. Reports also detail any system repairs or alterations that occurred between sampling events. Generally, no continued indoor air quality monitoring is required because the system has been installed properly and is maintaining a vacuum beneath the entire slab. Drastic VOC reduction has been recorded since the early stages of the system's operation. This has led to a reduction in monitoring frequency approved by the Department. See Appendix-G for the frequency reduction letter.

3.5 Operation, Maintenance and Monitoring of SVE/SSDS

Based upon the mitigation system implemented at the site, the operation, maintenance and monitoring (OM&M) protocols for the system have been set forth in a site-specific OM&M plan. Subsequent to the initial installation and start-up of the system, weekly monitoring was conducted to evaluate the effectiveness of the system, as well as to ensure that the emission control system was operating effectively. Monthly vapor sampling (of the in-line sample ports) has been conducted to ensure that the system is adequately remediating VOC-impacted soils.

Routine maintenance has been conducted on a monthly basis with quarterly reporting being issued to the NYSDEC and WCDOH.

During routine maintenance, the following activities are conducted:

a. A visual inspection of the complete system (e.g., vent fan, piping, warning device, labeling on systems, etc.);

b. Identification and repair of leaks; and

c. Inspection of the exhaust or discharge point to verify no air intakes have been located nearby.

As necessary, preventive maintenance (e.g., replacing vent fans), repairs and/or adjustments are made to the system to ensure its continued effectiveness at mitigating exposures related to soil vapor intrusion. The need for preventive maintenance depends upon the life expectancy and warranty for the specific part, as well as visual observations over time. The need for repairs and/or adjustments depends upon the results of a specific activity compared to that obtained when system operations were initiated. If significant changes are made to the system or when the system's performance is unacceptable, the system may need to be redesigned and restarted.

Operation and maintenance of the SVE has also been performed by BEI, which consists of observation and documentation of system component operations and conditions. BEI has established a point of contact with the property manager in the event that the system becomes inoperable ("system fault condition"). If a major repair requires the system to be offline for longer than a 24-hour period, the representative of the owner will contact the NYSDEC to discuss the problem and offer a schedule for repair.

In addition to the routine OM&M activities described herein, the building's owner and tenants have been given information packages that explain the systems operation, maintenance and monitoring.

Therefore, at any time during the systems operation, the building's owner or tenants may check that the system is operating properly.

On July 13, 2012 BEI replaced the original 3 Hp Rotron blower with a 5 Hp Rotron blower. The original 3 Hp blower exhibited internal catastrophic failure as a result of normal "wear and tear." Typically these blowers only last 2 -3 years due to the strenuous nature of continuously running 24 hours a day seven days a week.

3.6 Termination of SVE Operations

The SVE will not be turned off without prior approval from the State and WCDH (if necessary), except in emergency situations. The SVE will remain operational until it is no longer needed to address current or potential exposures related to soil vapor intrusion. Termination of the mitigation system will comply with the procedures discussed in the NYSDOH guidance and with NYSDEC and NYSDOH concurrence. A petition for the termination of the SVE operation would be based upon the following:

a. Residual subsurface sources of contamination, if any, of VOCs in subsurface vapors have been remediated based upon an evaluation of appropriate post-remedial sampling results;

b. Residual contamination, if any, in subsurface vapors is not expected to affect indoor air quality significantly based upon indoor air, outdoor air and sub-slab vapor sampling results;

c. Residual contamination, if any, in subsurface vapors is not expected to affect indoor air quality significantly when the SVE is turned off based upon indoor air, outdoor air and sub-

slab vapor sampling results at representative structures: and

d. There is no "rebound" effect that requires additional mitigation efforts observed when the SVE system is turned off for prolonged periods of time. This determination is based upon indoor air, outdoor air and sub-slab vapor sampling from the building over a time period, which will depend upon site-specific conditions.

BEI will work with the property owner to make such a determination if any one of the above conditions has been satisfied and both the NYSDEC and NYSDOH will be petitioned on this matter for concurrence prior to system termination.

4.0 EVALUATION OF PROPOSED MITIGATION PROGRAM

4.1 Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375 Section 1.10, which governs the remediation of environmental restoration projects in New York State. The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection as follows:

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of the remedial alternative's ability to protect public health and the environment. The installation of engineering controls such as an SVE/SSDS has been recognized for a long time as the foremost means of achieving protection of public health, relative to sub-slab vapor migration and to address

residual soil contamination. Significant research on the successfulness of SVE and other types of sub- slab depressurization has been performed as a result of the mitigation of radon. The majority of technology regarding the installation of SVE and/or SSDS systems to mitigate volatile organic compounds is an outgrowth of radon research and VOCs. Furthermore, this technology is specifically recommended for use as per the *Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH 2006) and the Radon Mitigation Standards (USEPA 402-R-03-078).*

2. Compliance with New York State Standards. Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the NYSDEC has determined to be applicable on a case-specific basis. The installation and operation of a SVE fully complies with the New York State SCGs relative to VOC vapor migration as it will serve to mitigate or remove the potential for current and/or future potential exposure pathways. The remainder of the criteria set forth in Part 375 are five "primary balancing criteria" and are used to compare the positive and negative aspects of the remedial strategy.

3. Short-term Effectiveness. This criterion relates to the potential short-term adverse impacts of the remedial action upon the community, the workers and the environment during the construction and/or implementation of the SVE. As the SVE system can be both pilot-tested and installed within a quick independent time frame (several days), no short-term adverse impacts were identified relative to the workers, community or the environment. A Photoionization Detector was used to

monitor VOCs in air during the installation of the SSDS-SVE system, as part of normal health and safety provisions.

4. Long-term Effectiveness and Permanence. This criterion is used to evaluate the long-term effectiveness of the remedial alternative after implementation. The SVE system has been designed to address shallow soil conditions at the site. Therefore, this criterion looks at:1) the magnitude of the remaining risks; 2) the adequacy of the engineering and/or institutional controls intended to limit the risk; and 3) the reliability of these controls. As this system specifically addresses any shallow source of VOC contamination present below the basement and/or emanating from groundwater, concentrations will diminish over time. Therefore, the magnitude of remaining environmental risks can be considered to be addressed under this option. Furthermore, the implementation of an active SSDS will serve to mitigate and prevent any indoor air impacts from occurring. The basement of the structure is not occupied and no occupancy is proposed. The adequacy of the SVE (properly installed, operated, monitored, and maintained) to control sub-slab vapors, in addition to its reliability over time, are both considered to be excellent, due to the long-term track record established.

5. Reduction of Toxicity, Mobility or Volume. The ability of the remedial alternative to permanently and/or significantly reduce the toxicity, mobility or volume of the wastes is required to be evaluated. The SVE is specifically designed to significantly reduce the toxicity, mobility and volume over time of the shallow VOC contamination in soil. Furthermore, as there will be pressure changes, soil gas

will be routed exterior to the building, ultimately resulting in reduced volume over time. Monitoring and ongoing maintenance of the system provides the ability to measure changes in concentrations.

6. Implementability. The technical and administrative feasibility of implementing the remedial alternative must be considered . Again, as SVE is a widely used application for soil gas mitigation and soil remediation, implementability of the construction and use of this system is considered to be excellent.

7. Cost-Effectivness. Capital costs and operation, maintenance, and monitoring costs are also part of the evaluation criteria. The construction of a SVE is considered to be extremely cost-effective as it can be installed into existing structures (retrofit) without requiring widespread, difficult and costly building reconstruction. Furthermore, it can be used in the basement proximate to any shallow soil source areas.

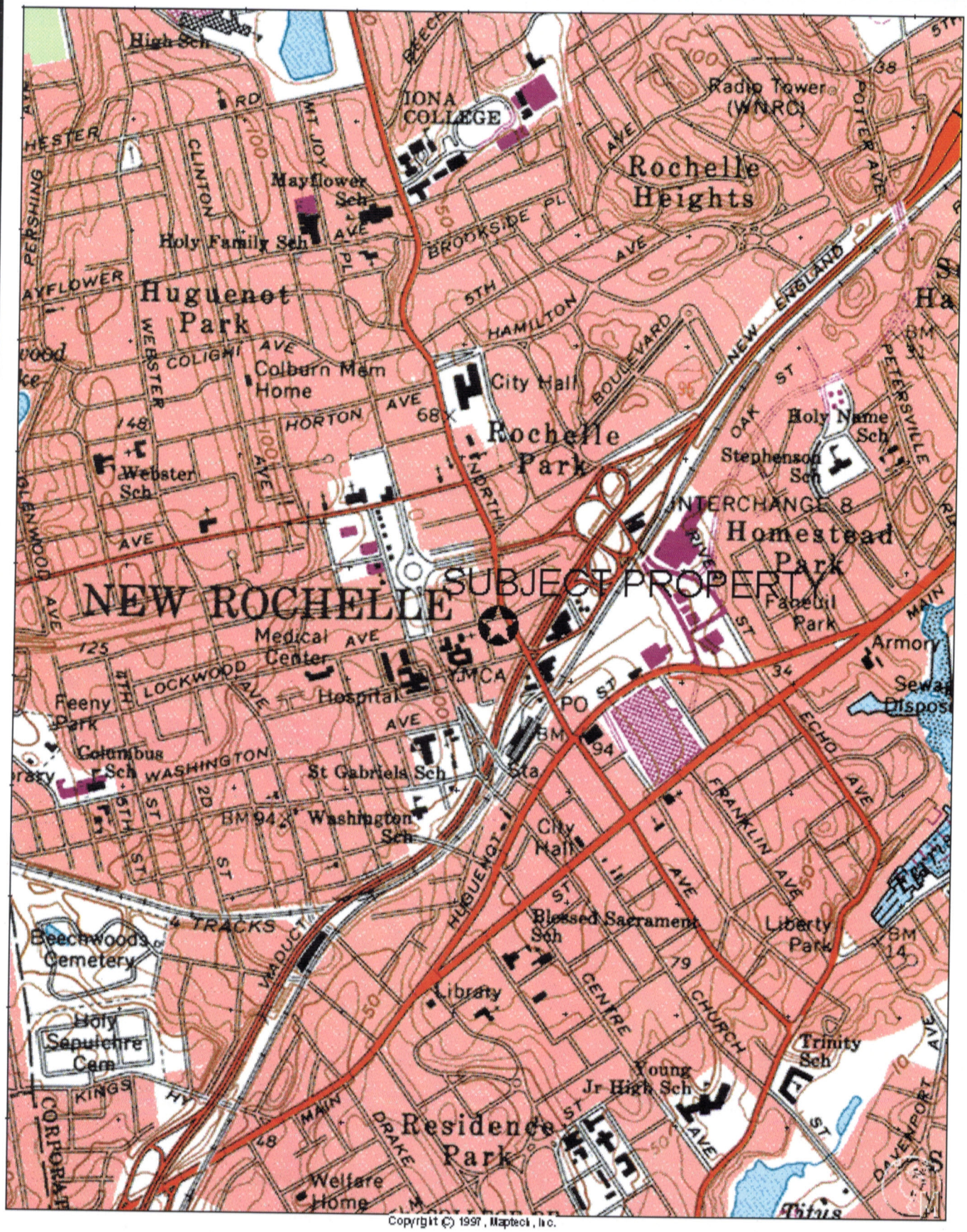
8. Community Acceptance. As the installation of an SVE system will generally not result in activities noticeable or that will affect the surrounding community, and as a SVE is generally considered to be a widely accepted presumptive remedy, community acceptance should be high.

5.0 CONCLUSION

Therefore, the installation of the SVE as an active SSDS at the subject property satisfies the threshold criteria and provides an excellent balance relative to the remainder of the criteria cited in Part 375. The installation of the SVE/SSDS will achieve the remediation goals for the site by addressing the future potential exposure pathway, involving sub-slab vapor migration that might pose a direct exposure pathway to property occupants. The SVE will also provide active remediation of shallow impacted soils.

Additional media such as groundwater will be addressed in separate documents. Although groundwater is not directly being remediated through the use of the SVE/SSDS BEI has evidence of reductions in groundwater contamination, which we surmise is a result of the continued operation of the system. Simply explained, the volatile contamination in the groundwater is being removed via the SVE/SSDS due to the shallow elevation of the water table.

FIGURES



Remedial Investigation Report November 2007

Figure 1- Site Location

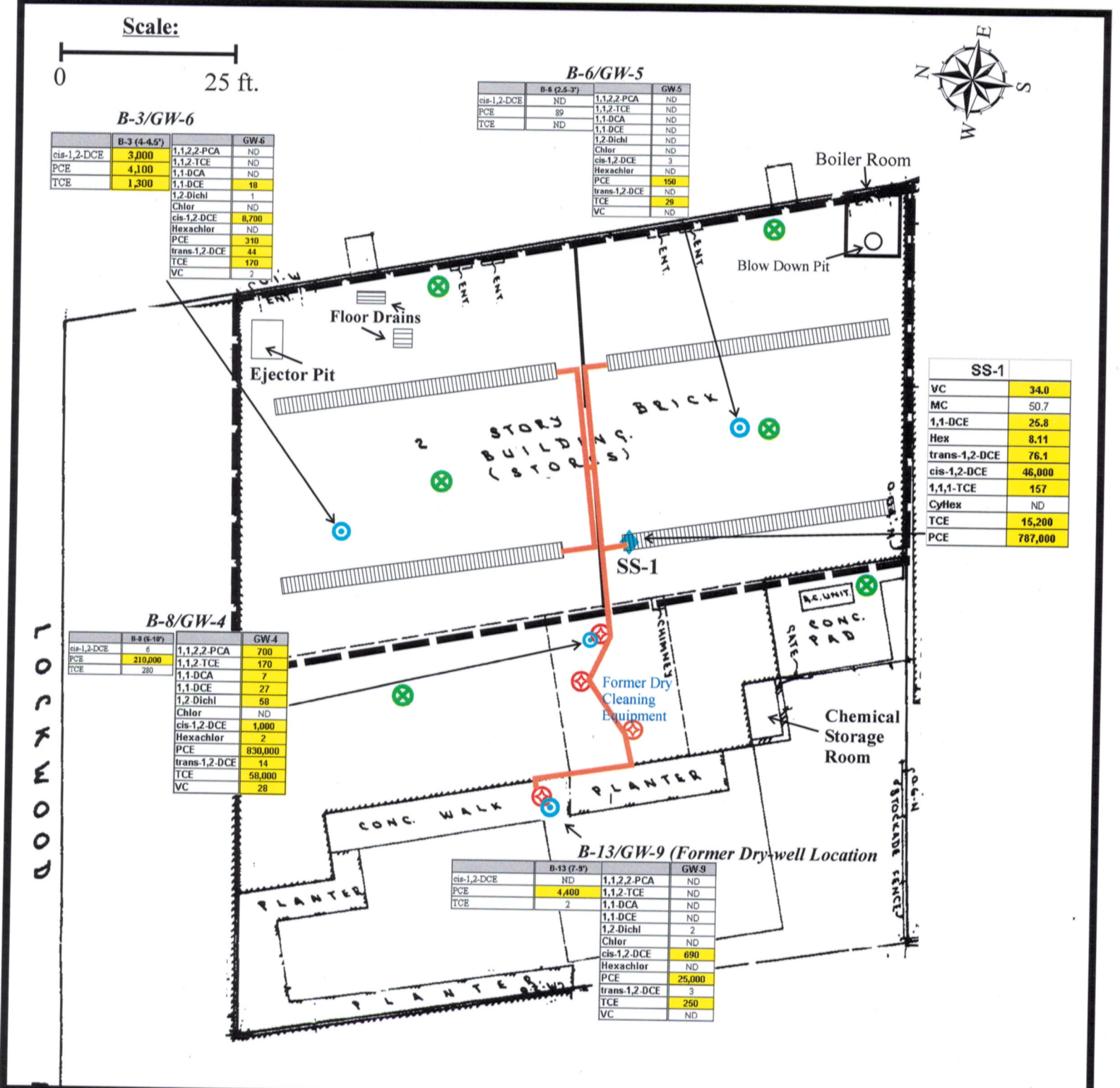
Schmuklers Cleaners
358 - 364 North Avenue
New Rochelle, NY
Site #C360088
Index# A3-0542-0306

John V. Soderberg, P.E.
PO BOX 263
Stony Brook, NY 11790
631-751-6458

Figure 2-Aerial Photograph

Schmuklers Cleaners
358 - 364 North Avenue
New Rochelle, NY
Site #C360088
Index# A3-0542-0306

John V. Soderberg, P.E.
PO Box 263
Stony Brook, NY 11760
631-751-6458



1,1,2,2-PCA- 1,1,2,2-Tetrachloroethane; **1,1,2-TCE-** 1,1,2-Trichloroethene; **1,1 - DCA** - 1,1-Dichloroethane; **1,1-DCE-** 1,1-Dichloroethene; **1,2-Dichl-** 1,2-Dichlorobenzene; **Chlor** - Chloroethene; **cis-1,2-DCE** - cis-1,2-Dichloroethene; **Hexachlor-** Hexachlorobutadine; **PCE-** Tetrachloroethene; **TCE** - Trichloroethene; **VC** - Vinyl chloride

Bolded and highlighted concentrations are indicative of VOC detected at concentration exceeding applicable NYSDEC Recommended Soil Clean-up Objectives, Class GA Groundwater Standards and/or Guidance Values, and/or NYSDEC/NYDOH Indoor Air Guidance Values

- Basement Portion of the Building *-August 2007 Soil and groundwater sampling locations* *-August 2007 Subslab Vapor Sample Location*

- Vapor Extraction Well *- Sub-slab Vent Piping* *- PV well or Sub-slab Vapor Well [SSVW] (monitoring)*

Figure 3 -August 2007 Halogenated VOC Concentrations and Proposed SSDS/SVE system

Schmuklers Cleaners
358 - 364 North Avenue
New Rochelle, NY
Site #C360088
Index# A3-0542-0306

John V. Soderberg, P.E.
PO Box 263
Stony Brook, NY 11790
631-751-6458

John V. Soderberg, P.E.
PO Box 263
Stony Brook, NY 11760
Phone:631-751-6458

Drawn By: JGH

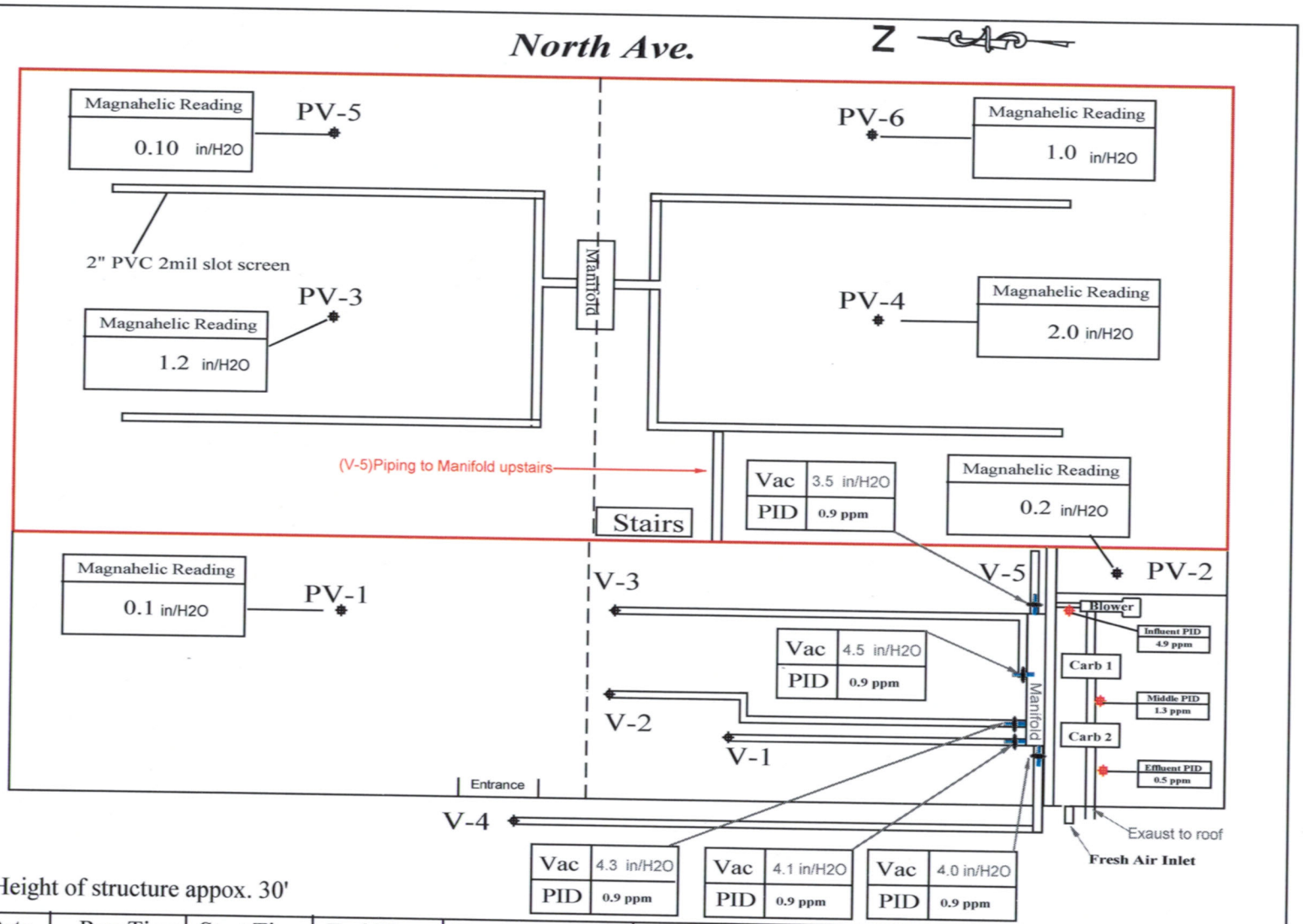
Figure-4

Well Log

Project: Schmuklers Dry Cleaners
Client: HNJ Realty LLC.
Location: 358-364 North Ave. New Rochelle, NY
Well No: PV-1-6 **Use:** Monitoring
Drilling Method: Geoprobe direct push
Casing Type: N/A **Casing Dia:** N/A **Casing Length:** N/A
Screen Type: N/A **Screen Dia:** N/A **Screen Length:** N/A
Screen Slot: N/A **Gravel Pack:** #2 Fil-pro
Casing Seal: Cement **Finish:** Cement 1" above grade

Date: 12/18/08
Be Job No:
Driller: Jon Jeffrey
Bore Hole Dia: 2.0"
Sample Method: N/A
Depth to Water: N/A
Total Depth: 1'
Security: 2" Manhole

Depth Below Grade	Sample Information	Well Design	Identification/Remarks
Hydrolic Cement Seal			2" Manhole cemented 1" above grade surface
	1/4" Poly-tube		
			Bentonite Seal
Fil-Pro Gravel Pack Material			
			Vapor Screen Point



* Height of structure appox. 30'

Date	Run Time	Start Time	End Time	Shut Down Time	Height of Stack	Vacuum Flow Rate	Exit Velocity	Exit Temp.
2/26/09	3 Hours	9:30am	12:30pm	12:30pm	10' above *Structure	7.59 ft3/min	397 ft/min 9.21 ft3/min	13 degrees C

John V. Soderberg, P.E.
PO Box 263
Stony Brook, NY 11790 Phone:631-751-6458

Figure-5

Schmuklers Cleaners
358-364 North Ave.
New Rochelle, NY
Site# C360088
SVE Pilot Test

Key

- Basement Area
- Check Valve
- Permanent Vapor Point
- Sample Point
- Vapor Extraction Well

Drawn by: JGH

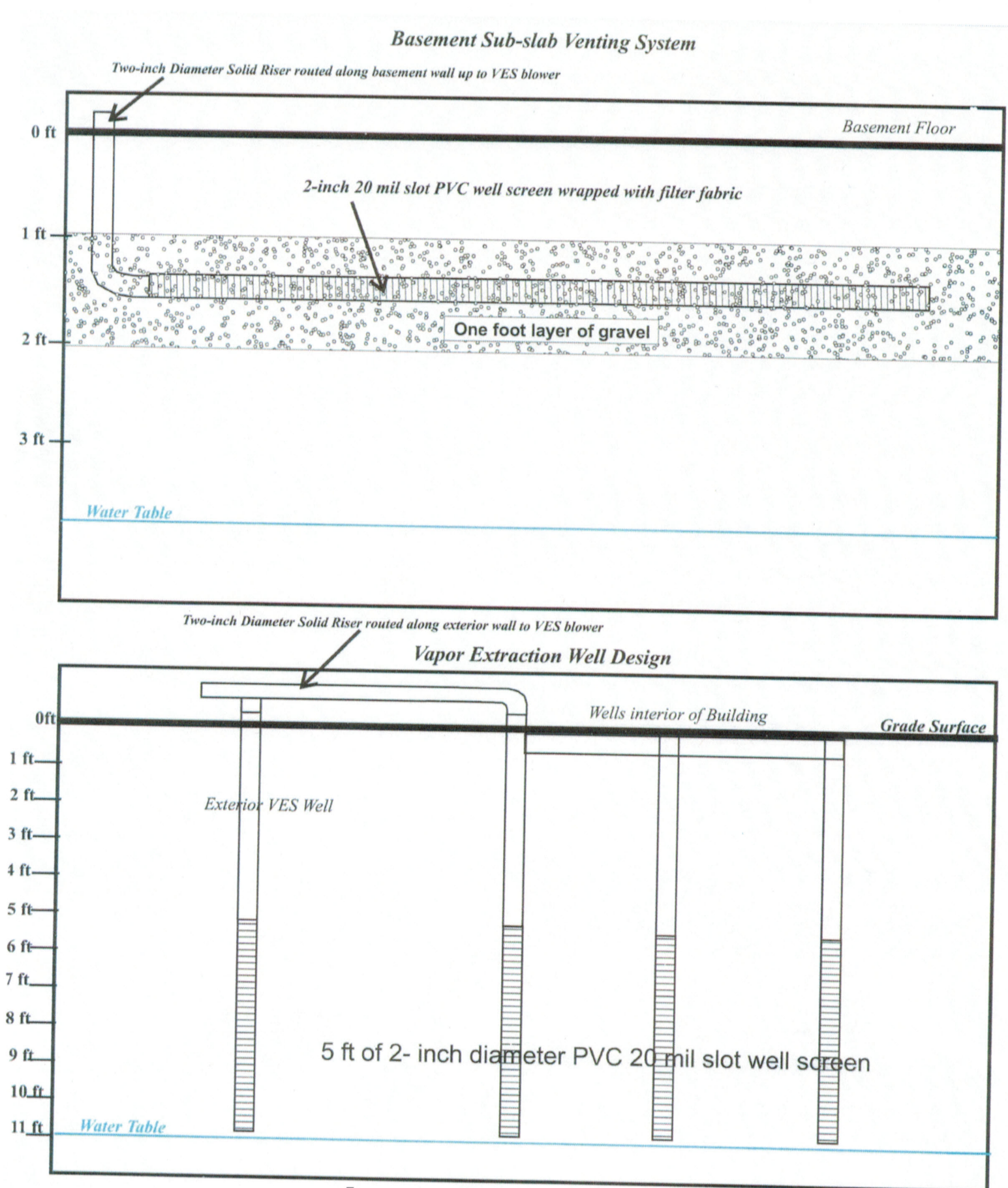


Figure-6 SVE/SSDS System Design

Schmuklers Cleaners
358 - 364 North Avenue
New Rochelle, NY
Site #C360088
Index# A3-0542-0306

John V. Soderberg, P.E.
PO Box 263
Stony Brook, NY 11760
631-751-6458

APPENDIX A

Specification Sheet for Rotron EN656 and EN 6 replacement

EN 656 & CP 656
Sealed Regenerative Blower w/Explosion-Proof Motor

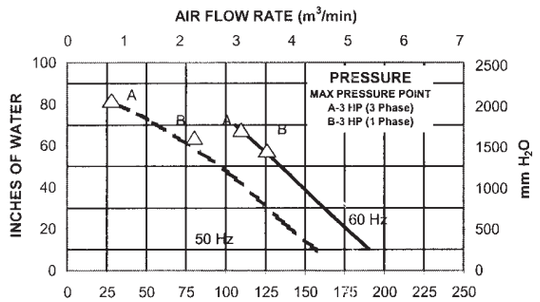
FEATURES
- Manufactured in the USA – ISO 9001 compliant
- Maximum flow: 212 SCFM
- Maximum pressure: 70 IWG
- Maximum vacuum: 70 IWG
- Standard motor: 3.0 HP, explosion-proof
- Cast aluminum blower housing, cover, impeller & manifold; cast iron flanges (threaded); teflon lip seal
- UL & CSA approved motor with permanently sealed ball bearings for explosive gas atmospheres Class I Group D minimum
- Sealed blower assembly
- Quiet operation within OSHA standards

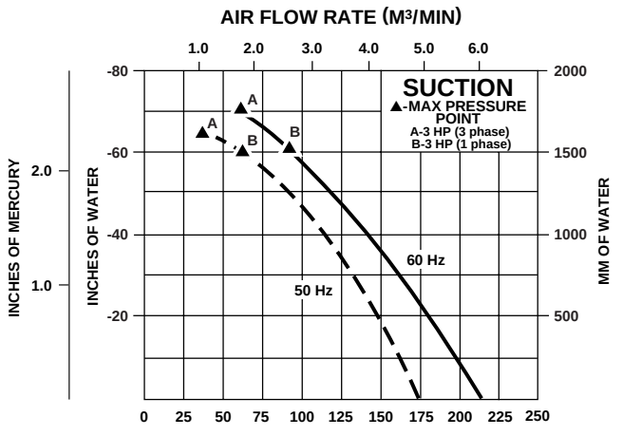
MOTOR OPTIONS
- International voltage & frequency (Hz)
- Chemical duty, high efficiency, inverter duty or industry-specific designs
- Various horsepowers for application-specific needs

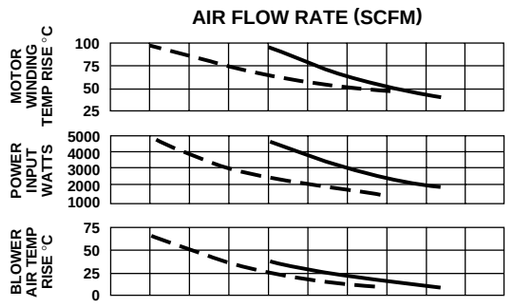
BLOWER OPTIONS
- Corrosion resistant surface treatments & sealing options
- Remote drive (motorless) models
- Slip-on or face flanges for application-specific needs

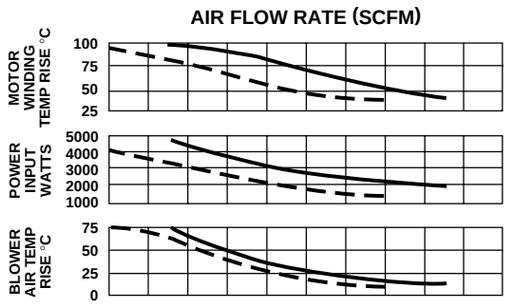
ACCESSORIES (See Catalog Accessory Section)
- Flowmeters reading in SCFM
- Filters & moisture separators
- Pressure gauges, vacuum gauges & relief valves
- Switches – air flow, pressure, vacuum or temperature
- External mufflers for additional silencing
- Air knives (used on blow-off applications)
- Variable frequency drive package

BLOWER PERFORMANCE AT STANDARD CONDITIONS







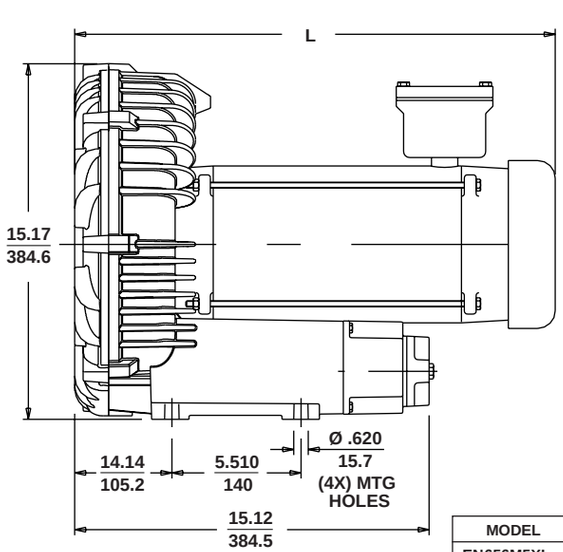


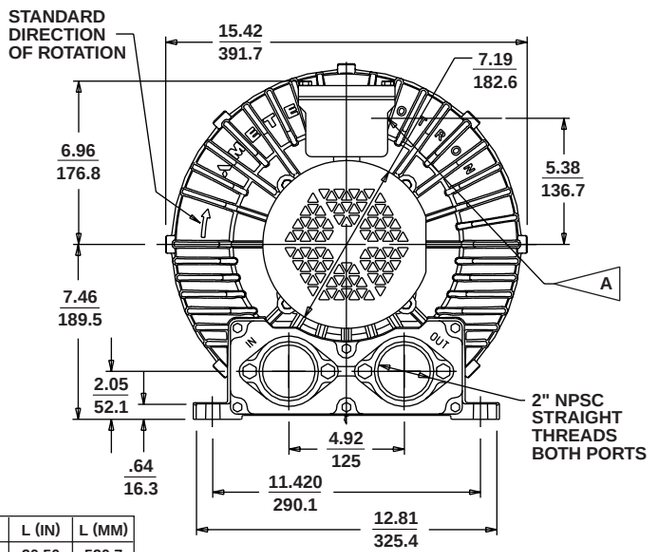
Rev. 2/04

AMETEK Technical and Industrial Products, Kent, OH 44240 • e mail: rotronindustrial@ametek.com • internet: www.ametektmd.com

EN 656 & CP 656
Sealed Regenerative Blower w/Explosion-Proof Motor

Scale CAD drawing available upon request.





DIMENSIONS: IN / MM
TOLERANCES: .XX ± .08/2
(UNLESS OTHERWISE NOTED)

MODEL	L (IN)	L (MM)
EN656M5XL	20.50	520.7
EN656M86XL	17.89	454.4
EN656M72XL	17.89	454.4
CP656M72XLR	17.89	454.4
CP656FU72XLR	17.89	454.4

A TERMINAL BOX CONNECTOR HOLE 3/4" NPT FEMALE THREAD

SPECIFICATIONS

MODEL	EN656M5XL	EN656M72XL		EN656M86XL	CP656FU72XLR
Part No.	080060	080059		080058	080142
Motor Enclosure – Shaft Material	Explosion-proof–**CS**	Explosion-proof–**CS**		Explosion-proof–**CS**	Chem XP – **SS**
Horsepower	3	3		3	Same as EN656M72XL 080059 except add Chemical Processing (CP) features from catalog inside front cover
Phase – Frequency [1]	Single - 60 Hz	Three - 60 Hz		Three - 60 Hz	
Voltage [1]	208-230	208-230	460	575	
Motor Nameplate Amps [3]	15.5-14.5	7.4	3.7	3.0	
Max. Blower Amps [3]	16.3-16.8	8.2	4.1	4.1	
Inrush Amps	95-86	54	27	21.6	
Starter Size	1	0	0	0	
Service Factor	1.0	1.0		1.0	
Thermal Protection [2]	Class B - Pilot Duty	Class B - Pilot Duty		Class B - Pilot Duty	
XP Motor Class – Group	I-D, II-F&G	I-D, II-F&G		I-D, II-F&G	
Shipping Weight	135 lb (64 kg)	110 lb (50 kg)		110 lb (50 kg)	

[1] Rotron motors are designed to handle a broad range of world voltages and power supply variations. Our dual voltage 3 phase motors are factory tested and certified to operate on both: **208-230/415-460 VAC-3 ph-60 Hz** and **190-208/380-415 VAC-3 ph-50 Hz**. Our dual voltage 1 phase motors are factory tested and certified to operate on both: **104-115/208-230 VAC-1 ph-60 Hz** and **100-110/200-220 VAC-1 ph-50 Hz**. All voltages above can handle a ±10% voltage fluctuation. Special wound motors can be ordered for voltages outside our certified range.

[2] Maximum operating temperature: Motor winding temperature (winding rise plus ambient) should not exceed 140°C for Class F rated motors or 120°C for Class B rated motors. Blower outlet air temperature should not exceed 140°C (air temperature rise plus inlet temperature). Performance curve maximum pressure and suction points are based on a 40°C inlet and ambient temperature. Consult factory for inlet or ambient temperatures above 40°C.

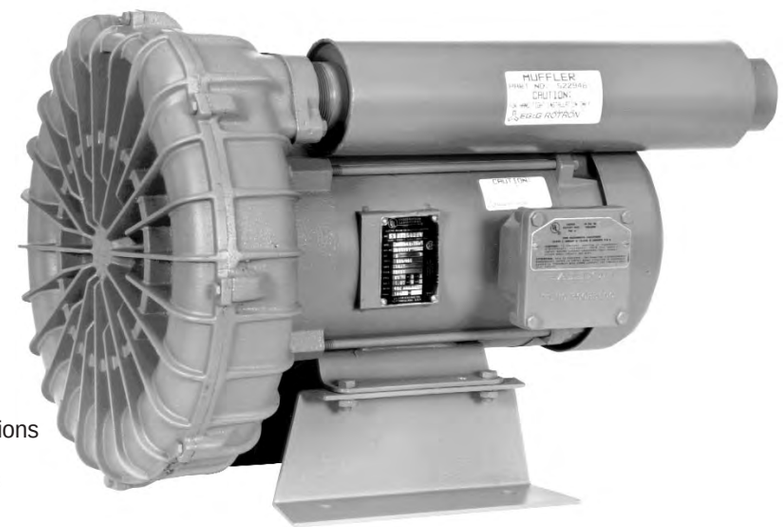
[3] Maximum blower amps corresponds to the performance point at which the motor or blower temperature rise with a 40°C inlet and/or ambient temperature reaches the maximum operating temperature.

Specifications subject to change without notice. Please consult your Local Field Sales Engineer for specification updates.

Rev. 2/04

EN 6 & CP 6
Sealed Regenerative Blower w/Explosion-Proof Motor

FEATURES
- Manufactured in the USA – ISO 9001 compliant
- Maximum flow: 225 SCFM
- Maximum pressure: 104 IWG
- Maximum vacuum: 85 IWG
- Standard motor: 5.0 HP, explosion-proof
- Cast aluminum blower housing, cover, impeller & manifold; cast iron flanges (threaded); teflon lip seal
- UL & CSA approved motor with permanently sealed ball bearings for explosive gas atmospheres Class I Group D minimum
- Sealed blower assembly
- Quiet operation within OSHA standards

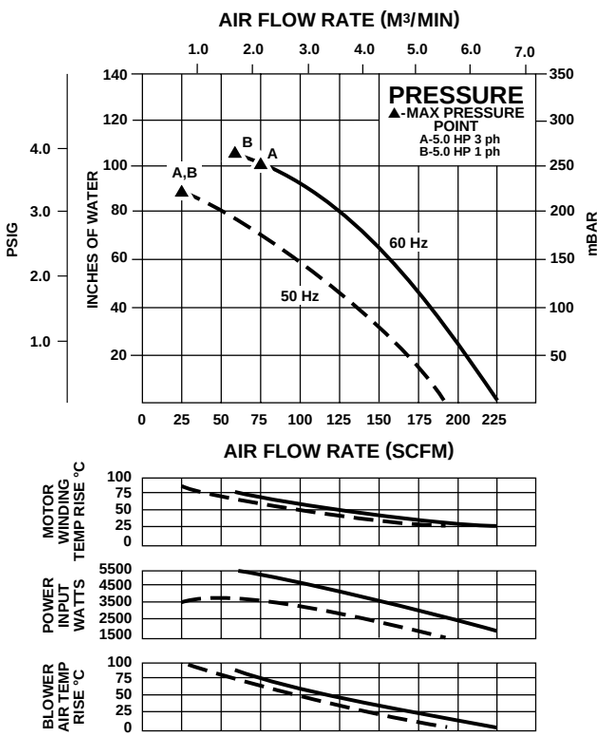


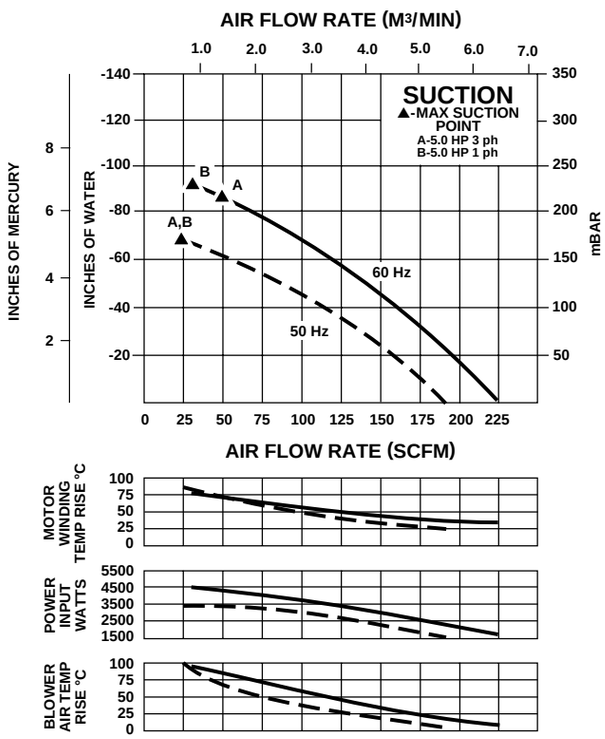
MOTOR OPTIONS
- International voltage & frequency (Hz)
- Chemical duty, high efficiency, inverter duty or industry-specific designs
- Various horsepowers for application-specific needs

BLOWER OPTIONS
- Corrosion resistant surface treatments & sealing options
- Remote drive (motorless) models
- Slip-on or face flanges for application-specific needs

ACCESSORIES (See Catalog Accessory Section)
- Flowmeters reading in SCFM
- Filters & moisture separators
- Pressure gauges, vacuum gauges & relief valves
- Switches – air flow, pressure, vacuum or temperature
- External mufflers for additional silencing
- Air knives (used on blow-off applications)
- Variable frequency drive package

BLOWER PERFORMANCE AT STANDARD CONDITIONS



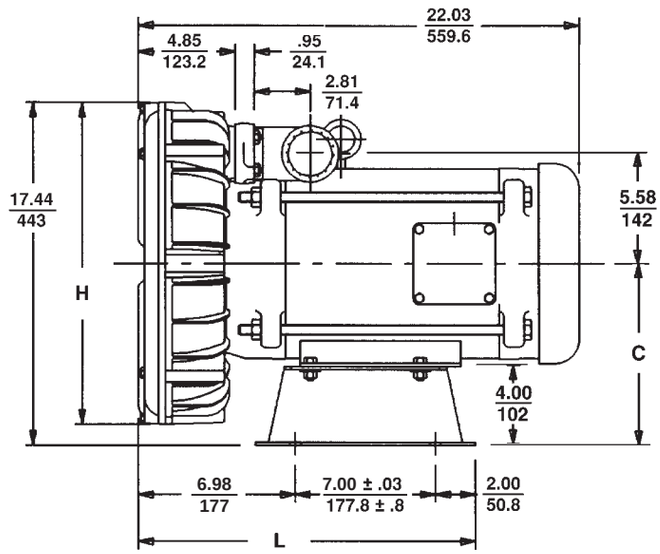


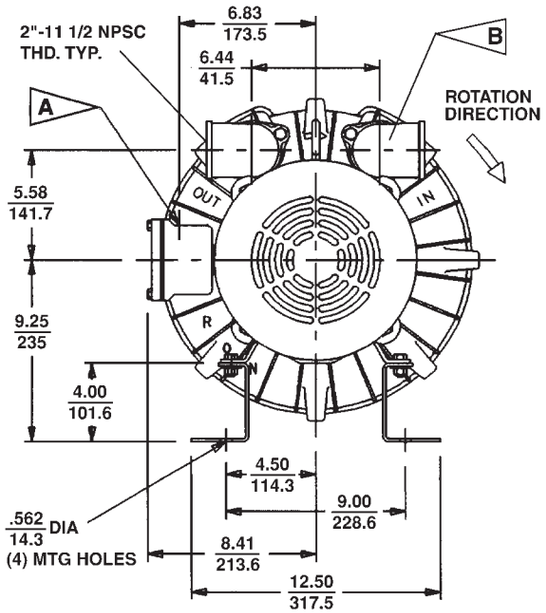
Rev. 2/04

AMETEK Technical and Industrial Products, Kent, OH 44240 • e mail: rotronindustrial@ametek.com • internet: www.ametektmd.com

EN 6 & CP 6
Sealed Regenerative Blower w/Explosion-Proof Motor

Scale CAD drawing available upon request.





DIMENSIONS: IN / MM
TOLERANCES: .XX ± .12/3
(UNLESS OTHERWISE NOTED)

MODEL	L (IN/MM)	C (IN/MM)	H (IN/MM)
EN/CP6F72L	20.37/517	8.5/216	16.7/424
EN/CP6F5L	22.0/560	10.21/259	17.5/443

A — 0.75" NPT CONDUIT CONNECTION AT 12 O'CLOCK POSITION

B — 90° ELBOW SUPPLIED ON 1 PHASE MODEL ONLY

SPECIFICATIONS

ALL PRODUCTS LISTED INCLUDE MUFFLER PN 522948

MODEL	EN6F5L	EN6F72L		EN6F86L	CP6FW5LR	CP6FW72LR
Part No.	038361	038180		038438	–	038978
Motor Enclosure – Shaft Material	Explosion-proof – **CS**	Explosion-proof – **CS**		Explosion-proof – **CS**	Chem XP – **SS**	Chem XP – **SS**
Horsepower	5.0	5.0		5.0	Same as EN6F5L – 038361 except add Chemical Processing (CP) features from catalog inside front cover	Same as EN6F72L – 038180 except add Chemical Processing (CP) features from catalog inside front cover
Phase – Frequency [1]	Single - 60 Hz	Three - 60 Hz		Three - 60 Hz		
Voltage [1]	230	230	460	575		
Motor Nameplate Amps	19.5	14	7	5.7		
Max. Blower Amps [3]	23	15.8	7.9	6.3		
Inrush Amps	175	152	76	38		
Starter Size	2	1	0	0		
Service Factor	1.0	1.0		1.0		
Thermal Protection [2]	Class B - Pilot Duty	Class B - Pilot Duty		Class B - Pilot Duty		
XP Motor Class – Group	I-D, II-F&G	I-D, II-F&G		I-D, II-F&G		
Shipping Weight	232 lb (105 kg)	160 lb (73 kg)		160 lb (73 kg)		

[1] Rotron motors are designed to handle a broad range of world voltages and power supply variations. Our dual voltage 3 phase motors are factory tested and certified to operate on both: **208-230/415-460 VAC-3 ph-60 Hz** and **190-208/380-415 VAC-3 ph-50 Hz**. Our dual voltage 1 phase motors are factory tested and certified to operate on both: **104-115/208-230 VAC-1 ph-60 Hz** and **100-110/200-220 VAC-1 ph-50 Hz**. All voltages above can handle a ±10% voltage fluctuation. Special wound motors can be ordered for voltages outside our certified range.

[2] Maximum operating temperature: Motor winding temperature (winding rise plus ambient) should not exceed 140°C for Class F rated motors or 120°C for Class B rated motors. Blower outlet air temperature should not exceed 140°C (air temperature rise plus inlet temperature). Performance curve maximum pressure and suction points are based on a 40°C inlet and ambient temperature. Consult factory for inlet or ambient temperatures above 40°C.

[3] Maximum blower amps corresponds to the performance point at which the motor or blower temperature rise with a 40°C inlet and/or ambient temperature reaches the maximum operating temperature.

Specifications subject to change without notice. Please consult your Local Field Sales Engineer for specification updates.

Rev. 2/04

APPENDIX B

Photo Log SVE/SSDS Installation

Installation of manifold for all SVE wells and SSDS

Trenching for SSDS in Basement of Schmukler's Cleaners

Basement piping manifold for each for North and South basement trenching

SVE/SSDS exhaust piping to 10' above roof line

System control room and carbon filtration units

SVE blower and system intake

Hand installation of permanent vapor point

Installed permanent vapor point with gravel pack

Hydrating bentonite to assure proper seal

Finished permanent vapor point sealed to grade surface

APPENDIX C

WCDOH Air Permit

Westchester gov.com

Robert P. Astorino
County Executive

Department of Health

Cheryl Archbald, MD, MPH
Acting Commissioner

December 8, 2010

HNJ Realty LLC
c/o Berninger Environmental, Inc.
90-B Knickerbocker Avenue
Bohemia, NY 11716
Attn: Walter Berninger

RE: Renewal Certificate to Operate
Schmukler's Cleaners
New Rochelle, NY

Dear Mr. Berninger:

Receipt of your fees for the above-referenced facility is hereby acknowledged. Please be advised that our records reveal that your facility is being operated in compliance with applicable County Laws and Regulations.

Enclosed please find your renewal Certificate to Operate, which is valid until December 31, 2013.

Very truly yours,

Paul Kutzy, P.E.
Assistant Commissioner
Bureau of Environmental Quality

PK:kf
Enclosure

cc: File

Bureau of Environmental Quality
145 Huguenot Street, 7th Floor
New Rochelle, NY 10801 Telephone: 914-813-5000 Fax: 914-813-5158

Westchester gov.com

Robert P. Astorino
County Executive

Department of Health
Cheryl Archbald, MD, MPH, FAAP
Acting Commissioner of Health

Westchester County Department of Health

Bureau of Environmental Quality

CERTIFICATE TO OPERATE SOURCES OF AIR CONTAMINATION

Facility Information:

Emission Point Number: 001

Facility Name: Schmuklers Cleaners

Facility Telephone:

Street Address: 358-364 North Avenue New Rochelle, NY 10801

Municipality:

Facility Owner Information:

Owner's Name: HNJ Realty LLC c/o Berninger Environmental, Inc.

Owner Telephone:(631) 589-6521

Mailing Address: 90-B Knickerbocker Avenue Bohemia, NY 11716

Description Process:

Sub slab depressurization system consisting of one (1) horizontal soil vapor extraction system and three (3) recovery wells, one (1) 3 hp, 200 acfm Rotron EN656 regenerative blower and two (2) 200 pound Siemen Vent-Scrub 200 vapor phase granular activated carbon (GAC) vessel in series. Emissions from the outlet of the GAC vessels are vented directly into atmosphere via a 2-inch diameter stack. Monitoring report, as required by NYSDEC, including air monitoring perchloroethylene and VOC concentrations at the inlet and outlet of each air pollution control system shall be submitted to the Department.

The Certificate supersedes any earlier Certificate to Operate issued for this source by the Department pursuant to Chapter 873, Article XIII, Section 873.1306.1 of the Laws of Westchester County.

That the operation of this source is in accordance with the source description, approved plans, and emission limits for this source on file with the Department.

The source of air contamination shall be operated in compliance with the provisions of Chapter 873, Article XIII of the Laws of Westchester County and 6NYCRRR.

This certificate shall be suspended or revoked as provided by the laws of Westchester County, if this source of air contamination is maintained or operated other than in compliance with the above.

Air contaminants collected by air cleaning devices shall be handled and disposed of in an approved manner.

FOR THE COMMISSIONER

BY: _____
Cheryl Archbald, MD, MPH, FAAP Acting Commissioner of Health

BY: _____
Paul Kutzy, P.E., Assistant Commissioner
Bureau of Environmental Quality

Certificate Issued: *01/01/2011*

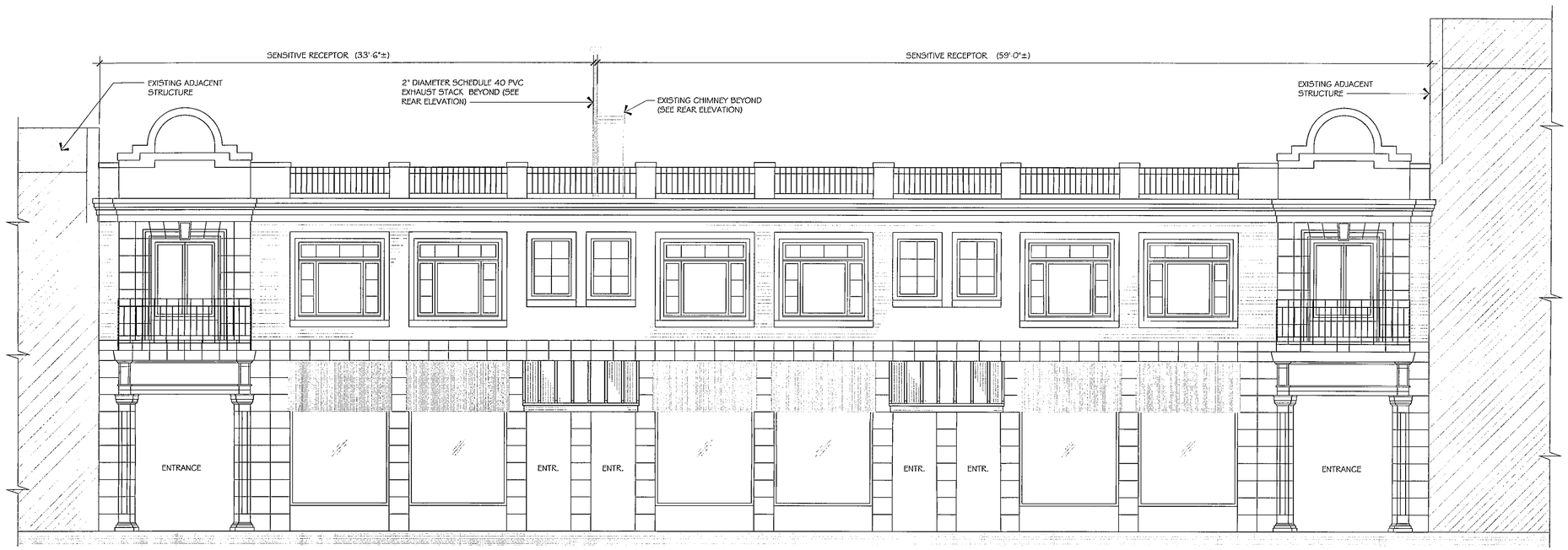
Certificate Expires: *12/31/2013*

145 Huguenot Street • 8th Floor New Rochelle, N.Y. 10801

THIS PERMIT MUST BE POSTED CONSPICUOUSLY

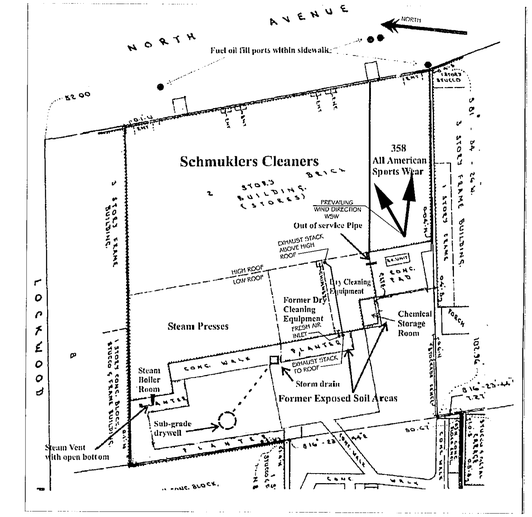
APPENDIX-D

P.E As-Built Drawings



FRONT ELEVATION - FACING NORTH AVENUE (LOOKING WEST)

SCALE: 1/4" = 1'-0"



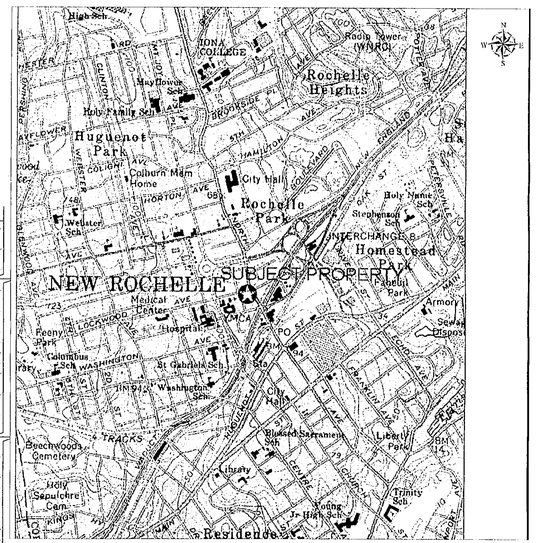
SCHEMATIC FLOOR PLAN AND SITE FEATURES

NO SCALE

INFORMATION SHOWN ON THIS PLAN IS TAKEN FROM 'BERNINGER ENVIRONMENTAL INC.' AIR PERMIT APPLICATION FIGURE 2b.

REAR ELEVATION - LOOKING EAST

SCALE: 1/4" = 1'-0"



LOCATION PLAN

NO SCALE

DRAWING ALTERATION

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, PROFESSIONAL ENGINEER, OR LAND SURVEYOR TO ALTER ANY ITEM ON THIS DOCUMENT IN ANY WAY.

ANY LICENSEE WHO ALTERS THIS DOCUMENT IS REQUIRED BY LAW TO AFFIX HIS OR HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND SPECIFIC DESCRIPTION OF THE ALTERATIONS.

Issued for Approval

Berninger Environmental Inc.
90 Knickerbocker Avenue
Bohemia, New York 11716

Michael W. Mckeown, P.E.
6 Oak Ridge Court
Manorville, New York, 11949

STATE OF NEW YORK · MICHAEL W. McKEOWN · LICENSED PROFESSIONAL ENGINEER · No. 062149
MICHAEL W. McKEOWN, P.E.

NO.	DATE	REVISION	BY
–	6-12-09	ISSUED FOR DEPARTMENT OF HEALTH APPROVAL	W.L.

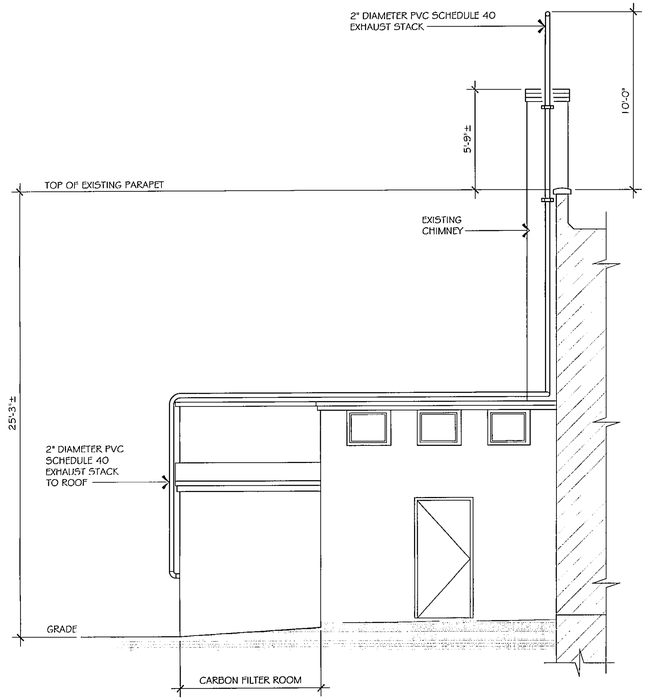
Air Permit Application for :
Schmuklers Cleaners
358-364 North Ave., New Rochelle, NY
Site # C360088

PROJECT NO.	052009
SCALE	AS NOTED
DATE	6-12-09
DRAWN BY	W.L.
CHECKED BY	M.W.M.

TITLE: Location Plan, Schematic Floor Plan and Building Elevations

DRAWING NO. AP-1

SH. 1 OF 4



PARTIAL LEFT SIDE ELEVATION - LOOKING NORTH

SCALE : ¼" = 1'-0"

Issued for Approval

DRAWING ALTERATION

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, PROFESSIONAL ENGINEER, OR LAND SURVEYOR TO ALTER ANY ITEM ON THIS DOCUMENT IN ANY WAY.

ANY LICENSEE WHO ALTERS THIS DOCUMENT IS REQUIRED BY LAW TO AFFIX HIS OR HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND SPECIFIC DESCRIPTION OF THE ALTERATIONS.

Berninger Environmental Inc.
90 Knickerbocker Avenue
Bohemia, New York 11716

Michael W. Mckeown, P.E.
6 Oak Ridge Court
Manorville, New York, 11949

STATE OF NEW YORK
MICHAEL W. McKEOWN
LICENSED PROFESSIONAL ENGINEER
NO. 082149
MICHAEL W. McKEOWN, P.E.

NO.	DATE	REVISION	BY
–	6.12.09	ISSUED FOR DEPARTMENT OF HEALTH APPROVAL	W.L.

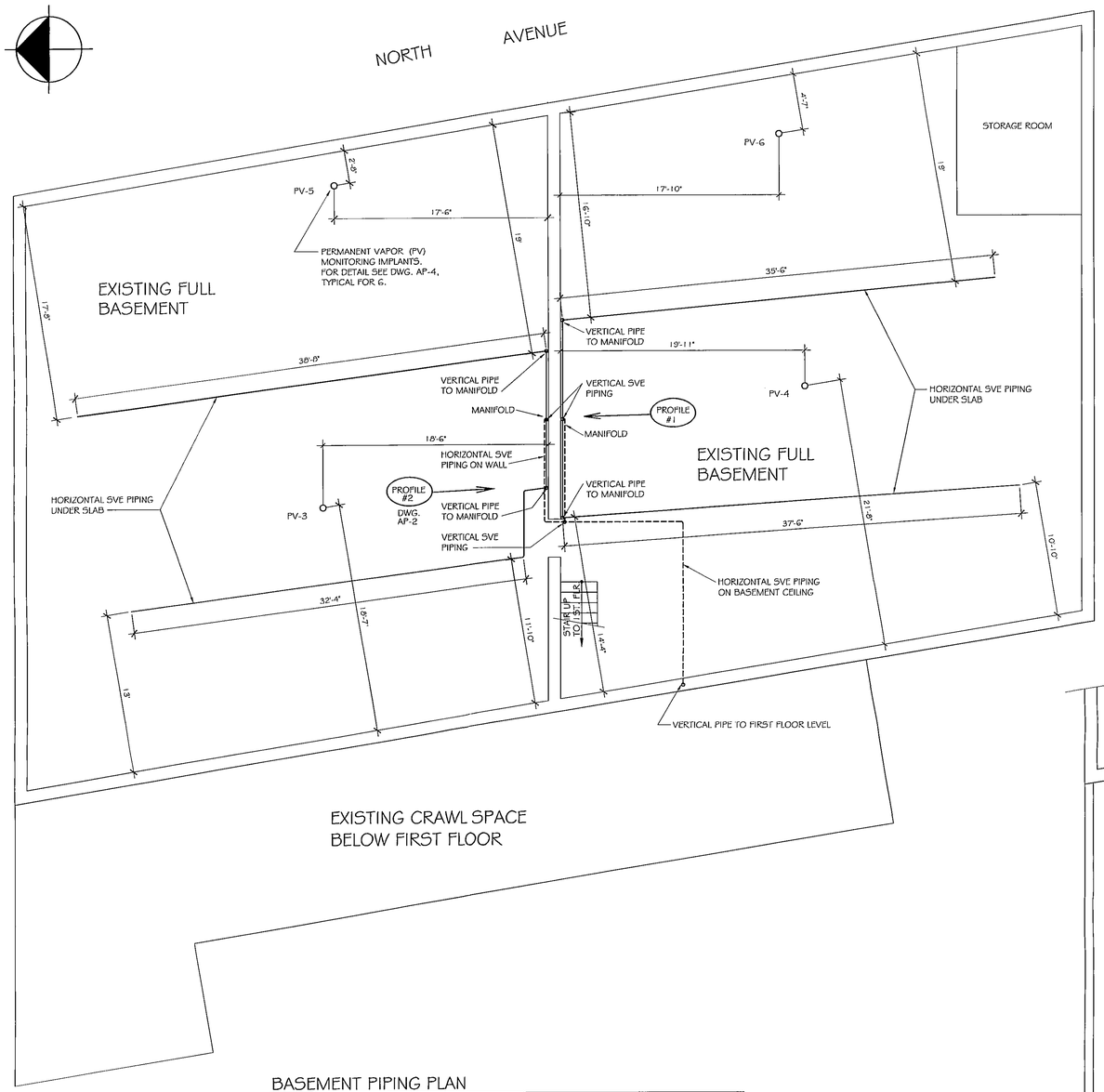
Air Permit Application for :
Schmuklers Cleaners
358-364 North Ave., New Rochelle, NY
Site # C360088

PROJECT NO. 052009
SCALE AS NOTED
DATE 6-12-09
DRAWN BY W.L.
CHECKED BY M.W.M.

TITLE
Building Elevations

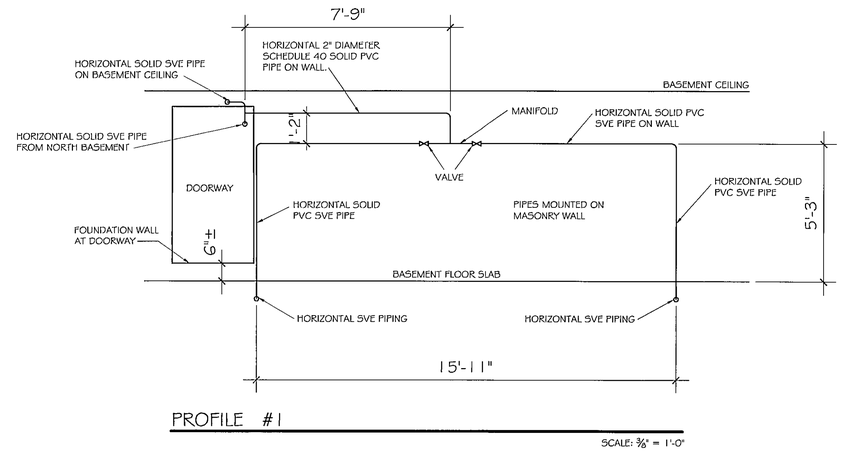
DRAWING NO.
AP-2

SH. 2 OF 4



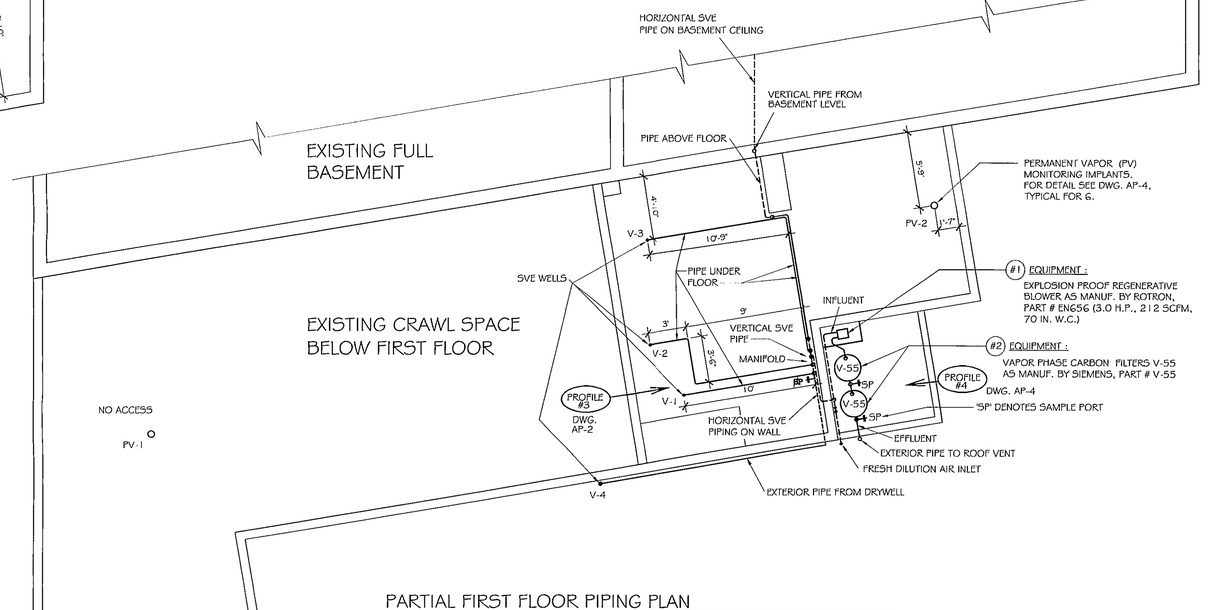
BASEMENT PIPING PLAN

SCALE: 3/16" = 1'-0"



PROFILE #1

SCALE: 3/8" = 1'-0"



PARTIAL FIRST FLOOR PIPING PLAN

SCALE: 3/16" = 1'-0"

DRAWING ALTERATION

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, PROFESSIONAL ENGINEER, OR LAND SURVEYOR TO ALTER ANY ITEM ON THIS DOCUMENT IN ANY WAY.

ANY LICENSEE WHO ALTERS THIS DOCUMENT IS REQUIRED BY LAW TO AFFIX HIS OR HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND SPECIFIC DESCRIPTION OF THE ALTERATIONS.

Issued for Approval

Berninger Environmental Inc.
90 Knickerbocker Avenue
Bohemia, New York 11716

Michael W. Mckeown, P.E.
6 Oak Ridge Court
Manorville, New York, 11949

STATE OF NEW YORK · MICHAEL W. McKEOWN · No. 082149 · LICENSED PROFESSIONAL ENGINEER

MICHAEL W. McKEOWN, P.E.

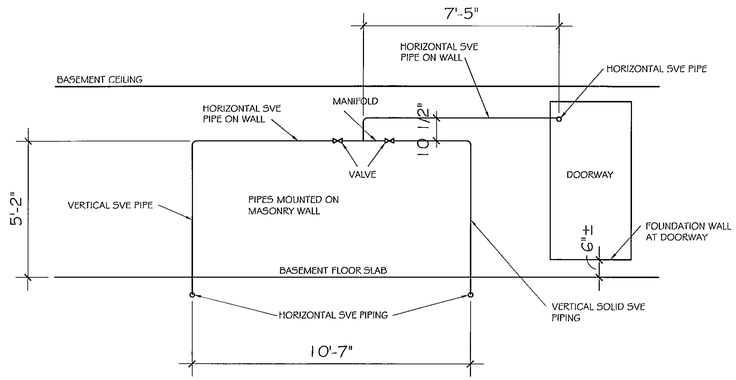
NO.	DATE	REVISION	BY
--	6.12.09	ISSUED FOR DEPARTMENT OF HEALTH APPROVAL	W.L.

Air Permit Application for :
Schmuklers Cleaners
358-364 North Ave., New Rochelle, NY
Site # C360088

PROJECT NO.	052009
SCALE	AS NOTED
DATE	6.12.09
DRAWN BY	SM
CHECKED BY	M.W.M.

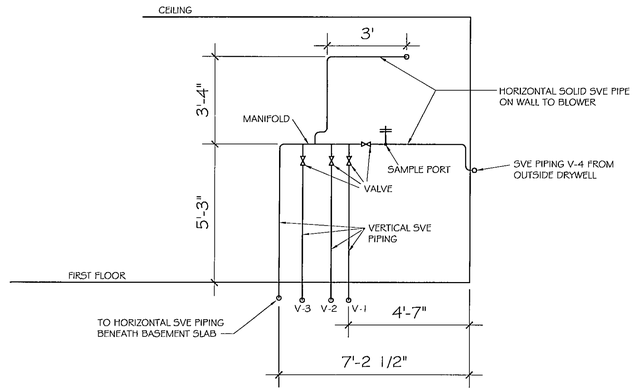
TITLE
Part Plans and Schematic Piping Elevations

DRAWING NO.
AP-3
SH. 3 OF 4



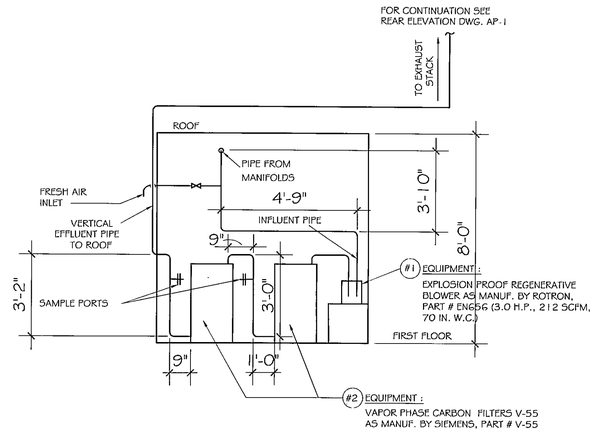
PROFILE #2

SCALE: 3/8" = 1'-0"



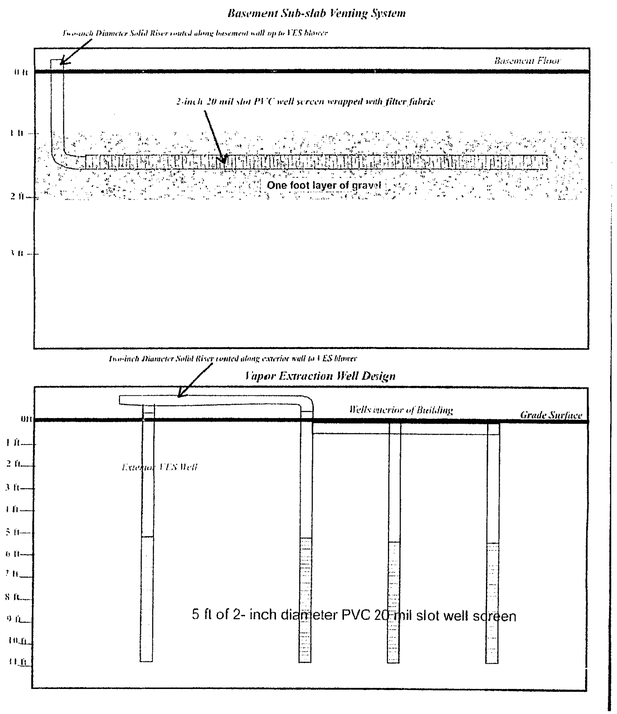
PROFILE #3

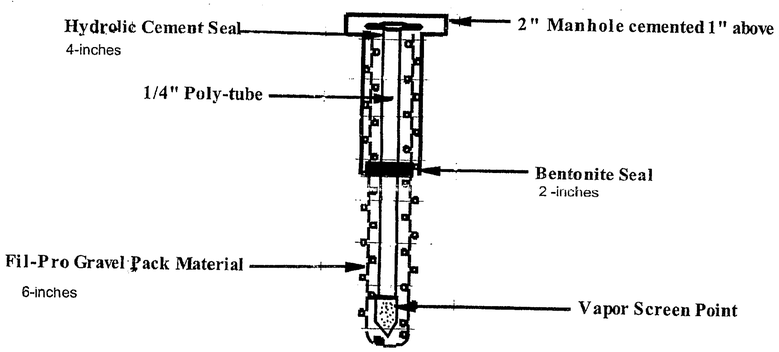
SCALE: 3/8" = 1'-0"



PROFILE #4

SCALE: 3/8" = 1'-0"





PERMANENT VAPOR (VP) MONITORING IMPLANTS

SCALE: NONE

Issued for Approval

DRAWING ALTERATION

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, PROFESSIONAL ENGINEER, OR LAND SURVEYOR TO ALTER ANY ITEM ON THIS DOCUMENT IN ANY WAY.

ANY LICENSEE WHO ALTERS THIS DOCUMENT IS REQUIRED BY LAW TO AFFIX HIS OR HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND SPECIFIC DESCRIPTION OF THE ALTERATIONS.

Berninger Environmental Inc.
90 Knickerbocker Avenue
Bohemia, New York 11716

Michael W. Mckeown, P.E.
6 Oak Ridge Court
Manorville, New York, 11949

STATE OF NEW YORK MICHAEL W. McKEOWN LICENSED PROFESSIONAL ENGINEER No. 082148
MICHAEL W. McKEOWN, P.E.

NO.	DATE	REVISION	BY
–	6.12.09	ISSUED FOR DEPARTMENT OF HEALTH APPROVAL	W.L.

Air Permit Application for :
Schmuklers Cleaners
358-364 North Ave., New Rochelle, NY
Site # C360088

PROJECT NO.	052009
SCALE	SCALE: 3/8"= 1'-0"
DATE	6.12.09
DRAWN BY	SM
CHECKED BY	M.W.M.

TITLE: Piping Profiles

DRAWING NO.: AP-4

SH. 4 OF 4

APPENDIX-E

Flex Hose Specs

All Weather EDPM/Polyethylene Suction/Discharge Hose

Made in U.S.A. GOODYEAR

No. 1ZMY4

No. 1ZMZ2

No. 1ZMZ8

No. 1ZLP9

- **Max. temperature: 180°F**
- **Max. vacuum: 29" Hg**

Goodyear Green Hornet® hose has unique material properties shared between PVC and rubber suction hose. It is lighter weight and lower cost than rubber, but more flexible in cold weather and more durable than PVC. Smooth bore tube minimizes material buildup and resists a variety of chemicals found in agricultural and sanitary industries. Slightly corrugated outer helix promotes abrasion resistance and extends hose life. Hose can be used in both suction and discharge applications.

Uses: For waste management, construction, agricultural, marine, and manufacturing applications.

Hose Inside Dia. (In.)	Hose Length (Ft.)	Fittings	Fitting Size (NPSM)	Hose Outside Dia. (In.)	Bend Radius (In.)	Max. Pressure (psi)	Item No.	$ Each	Shpg. Wt.
Aluminum/Brass Threaded M + F									
1½	20	Aluminum Male x Female w/Brass Swivel	1½	1.86	4.0	50	1ZMY3	65.40	8.0
2	20	Aluminum Male x Female w/Brass Swivel	2	2.40	5.0	50	1ZMY4	94.90	14.0
3	20	Aluminum Male x Female w/Brass Swivel	3	3.47	12.0	45	1ZMY5	179.50	24.0
4	20	Aluminum Male x Female w/Brass Swivel	4	4.67	18.0	40	1ZMY6	302.00	45.0
1½	25	Aluminum Male x Female w/Brass Swivel	1½	1.86	4.0	50	1ZMY7	76.70	10.0
2	25	Aluminum Male x Female w/Brass Swivel	2	2.40	5.0	50	1ZMY8	110.40	17.0
3	25	Aluminum Male x Female w/Brass Swivel	3	3.47	12.0	45	1ZMY9	224.25	31.0
Aluminum Quick Coupling x Nipple									
1½	20	1½" Aluminum Female Camlock x Steel MNPT	—	1.86	4.0	50	1ZMZ1	84.65	10.0
2	20	2" Aluminum Female Camlock x Steel MNPT	—	2.40	5.0	50	1ZMZ2	114.30	15.0
3	20	3" Aluminum Female Camlock x Steel MNPT	—	3.47	12.0	45	1ZMZ3	210.00	26.0
4	20	4" Aluminum Female Camlock x Steel MNPT	—	4.67	18.0	40	1ZMZ4	325.75	45.0
1½	25	1½" Aluminum Female Camlock x Steel MNPT	—	1.86	4.0	50	1ZMZ5	94.10	11.0
2	25	2" Aluminum Female Camlock x Steel MNPT	—	2.40	5.0	50	1ZMZ6	133.80	17.0
3	25	3" Aluminum Female Camlock x Steel MNPT	—	3.47	12.0	45	1ZMZ7	239.00	39.0
Aluminum Quick Coupler									
1½	25	1½" Aluminum Cam and Groove	—	1.86	4.0	50	1ZMZ8	96.50	11.0
2	25	2" Aluminum Cam and Groove	—	2.40	5.0	50	1ZMZ9	136.10	17.0
3	25	3" Aluminum Cam and Groove	—	3.47	12.0	45	1ZNA1	245.25	34.0
1½	50	1½" Aluminum Cam and Groove	—	1.86	4.0	50	1ZNA2	162.50	20.0
2	50	2" Aluminum Cam and Groove	—	2.40	5.0	50	1ZNA3	223.50	30.0
3	50	3" Aluminum Cam and Groove	—	3.47	12.0	45	1ZNA4	411.75	59.0
Bulk Hose Without Fittings									
1¼	100	—	—	1.50	3.0	50	1ZLP9	189.75	22.0
1½	100	—	—	1.80	4.0	50	1ZLR1	204.25	32.0
2	100	—	—	2.40	5.0	50	1ZLR2	287.75	54.0
3	100	—	—	3.50	9.0	45	1ZLR3	584.00	109.0
4	100	—	—	4.70	16.0	40	1ZLR4	953.50	198.0

Clear PVC Suction/Discharge Hose

Made in U.S.A. GOODYEAR

No. 1ZMX3

No. 1ZMX9

No. 4XR71

- **Temperature range: 15° to 158°F**

Clear PVC allows for visual confirmation of material flow and is lightweight for ease of handling. Corrugated cover provides increased flexibility. Smooth inner bore surface provides high flow rates and easy cleaning. Handles pressure, vacuum, and gravity flow applications. All fittings include gasket.

Uses: For agricultural, industrial, construction, and septic tank cleaning applications.

Hose Inside Dia. (In.)	Hose Length (Ft.)	Fittings	Fitting Size (NPSM)	Hose Outside Dia. (In.)	Bend Radius (In.)	Max. Pressure (psi)	Item No.	$ Each	Shpg. Wt.
Aluminum/Brass Threaded M + F									
1	20	Aluminum Male x Female w/Brass Swivel	1	1.23	1.5	60	1ZMW9	84.45	5.1
1¼	20	Aluminum Male x Female w/Brass Swivel	1¼	1.52	2.5	50	1ZMX1	90.85	7.0
1½	20	Aluminum Male x Female w/Brass Swivel	1½	1.78	3.0	50	1ZMX2	93.70	9.0
2	20	Aluminum Male x Female w/Brass Swivel	2	2.36	3.2	40	1ZMX3	132.30	14.0
3	20	Aluminum Male x Female w/Brass Swivel	3	3.48	6.5	35	1ZMX4	251.50	25.0
4	20	Aluminum Male x Female w/Brass Swivel	4	4.50	10.5	35	1ZMX5	369.50	41.0
Aluminum Quick Coupler									
1	20	1" Aluminum Female Camlock x Steel MNPT	—	1.23	1.5	60	1ZMX6	77.05	5.2
1¼	20	1¼" Aluminum Female Camlock x Steel MNPT	—	1.52	2.5	50	1ZMX7	92.15	8.2
1½	20	1½" Aluminum Female Camlock x Steel MNPT	—	1.78	3.0	50	1ZMX8	97.45	10.0
2	20	2" Aluminum Female Camlock x Steel MNPT	—	2.36	3.2	40	1ZMX9	139.80	15.0
3	20	3" Aluminum Female Camlock x Steel MNPT	—	3.48	6.5	35	1ZMY1	262.00	27.0
4	20	4" Aluminum Female Camlock x Steel MNPT	—	4.50	10.5	35	1ZMY2	382.25	42.0
Bulk Hose Without Fittings									
1	100	—	—	1.23	1.5	60	4XR68	119.00	17.6
1¼	100	—	—	1.52	2.5	50	4XR69	164.00	25.1
1½	100	—	—	1.78	3.0	50	4XR70	175.00	28.2
2	100	—	—	2.36	3.2	40	4XR71	249.00	49.0
3	100	—	—	3.48	6.5	35	4XR72	409.00	94.0
4	100	—	—	4.50	10.5	35	4XR73	579.00	123.0

APPENDIX-F

System Venting (Door Louvers)

APPENDIX - G

Monitoring frequency letter

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor
625 Broadway, Albany, New York 12233-7014
Phone: (518) 402-9662 • **Fax:** (518) 402-9679
Website: www.dec.ny.gov

Joe Martens
Commissioner

August 22, 2013

Mr. Hal Shapiro
HNJ Realty, LLC
364 North Avenue #107
New Rochelle, NY 10801

Re: Schmukler's Dry Cleaners
Brownfields Cleanup Project Site No. C360088
City of New Rochelle, Westchester County

Dear Mr. Shapiro:

The New York State Department of Environmental Conservation (Department) in consultation with the New York State Department of Health (NYSDOH) has reviewed your request to reduce the frequency of monitoring of the combined soil vapor extraction system/sub-slab depressurization system (SVES/SSDS) currently operating at the above-referenced site. The request, which was presented to the Department on July 29, 2013 via an email from your consultant Berninger Environmental, Inc., is for a reduction from monthly monitoring to quarterly monitoring of the SVES/SSDS.

Given that the monitoring data presented over the last three years demonstrates decreased contaminants of concern in the influent and pressure data indicates that the SVES/SSDS provides adequate negative pressure across the entire building slab, the Department grants the reduction in monitoring frequency from monthly to quarterly. The next monitoring report must be submitted in October 2013.

If you have any questions or concerns, please contact me at (518) 402-9662, or via email at kathomps@gw.dec.state.ny.us.

Sincerely,

Kiera Thompson

Kiera Thompson
Project Manager
Remedial Bureau C, Section B
Division of Environmental Remediation

cc: Natasha Court, WCDOH

ec: W. Berninger - BEI
J. Halpin – BEI
N. Walz/C. Bethoney – NYSDOH
D. Crosby, NYSDEC

Berninger Environmental Inc.
groundwater consultants and geologists
90-B Knickerbocker Avenue
Bohemia, New York 11716
Phone # (631) 589-6521
Fax # (631) 589-6528

July 29, 2013

Mrs. Kiera Thompson
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C
625 Broadway, 11th Floor
Albany, New York 12233-7015

Re: Schmukler's Dry Cleaners, SVE/SSDS Monitoring Frequency
Brownfield Cleanup Agreement Site No. C360088
City of New Rochelle, Westchester County, NY

Dear Mrs. Thompson,

Introduction

The following letter issued by Berninger Environmental Incorporated (BEI) on behalf of our client HNJ Reality LLC, is a request to obtain approval from the New York State Department of Environmental Conservation (NYSDEC) regarding the monitoring frequency at the above mentioned site. Currently, site monitoring is conducted on the previously installed Soil Vapor Extraction/ Sub-slab Depressurization System (SVE/SSDS) each month. BEI on behalf of HNJ Realty would like to request that monthly monitoring operations be reduced to quarterly monitoring operations as conclusive evidence in order to substantiate this request is provided below.

SVE/SSDS Historical Evidence

Over the last few years BEI has observed drastic influent PID reductions. PID readings that once averaged approximately 120 ppm to 150 ppm during the 2010 monitoring period now range from 45 ppm to 75 ppm in recent months. Please see the attached Figure-1 which demonstrates influent and effluent PID readings from the commencement of the SVE/SSDS system to the present day. PCE concentrations have also significantly declined according to certified lab data collected over the past several years on the influent. Please see Figure-2 for tabulated lab data showing the declination of influent PCE concentrations.

Overall, the system has been operating twenty-four (24) hours a day for seven (7) days a week since it's inception in November of 2009. Monthly influent and effluent sampling has been conducted since November 2009 and we feel that after three (3) years of continuous operation the active system has removed a substantial amount of vapors from the point source area. Reductions in groundwater contamination have also been noticed in the area known as the, "former dry cleaning equipment room" due to the volatilizing effects the system has had on the contaminated groundwater.

The system has also maintained adequate air flow readings throughout the operational period with vacuum readings on each individual vapor well ranging from approximately 4.0 - 4.5 in/H2O. Please refer to Figure-3 for more on the vacuum readings.

Frequency Request

Based upon the above mentioned historical data, BEI would like to request that the Department approve the monitoring and sampling reduction from monthly influent and effluent sampling to quarterly effluent sampling only. BEI perceives that the functioning of the system will remain adequate despite the monitoring and sampling reduction. The integrity of the on-going source removal is not expected to be compromised due to this frequency reduction nor will it have any effect on the systems ability to continually remove source material via vapor extraction.

Thank You ,

Justin Halpin
Project Manager

Walter Berninger
President/Env.Consultant

Schmukler's Cleaners, New Rochelle NY

PID Readings For Inf./Eff. Carbon Drum Sample Points ppm

				Before Drum Replaced		
Date	**INF.**	**Middle**	**EFF.**	**INF.**	**Middle**	**EFF.**
17-Sep-10	89.00	0.70	0.00			
11-Oct-10	156.00	0.80	0.00			
3-Nov-10	98.60	1.75	0.00			
3-Dec-10	145.10	2.30	0.00			
3-Jan-11	87.42	2.60	0.00			
4-Feb-11	38.70	4.20	0.00			
1-Mar-11	92.60	7.30	0.00			
4-Apr-11	165.00	3.30	0.00	166.00	3.30	0.10
9-May-11	18.04	0.00	0.00			
24-Jun-11	12.10	2.90	0.00			
21-Jul-11	34.00	0.70	0.00			
2-Aug-11	40.70	0.70	0.00			
13-Sep-11	18.10	1.40	0.00			
3-Oct-11	16.90	0.00	0.00			
11-Nov-11	42.34	0.00	0.00	50.00	5.60	0.20
5-Dec-11	37.40	2.30	0.00			
18-Jan-12	38.50	1.90	0.00			
9-Feb-12	40.23	0.50	0.00			
22-Mar-12	46.80	0.90	0.00			
30-Apr-12	54.60	1.30	0.00			
22-May-12	51.30	1.70	0.00			
13-Jul-12	59.93	4.20	0.20			
8-Aug-12	61.5	1.2	0.2			
6-Sep-12	74.3	4.5	1.1			
3-Oct-12	60.00	1.00	0.00	33.2	18.6	3.3
13-Nov-12	51.20	6.30	0.00			
6-Dec-12	45.60	5.30	0.00			
10-Jan-13	77.90	4.60	0.00			

* when carbon drum replaced PID readings are taken before and after replacement

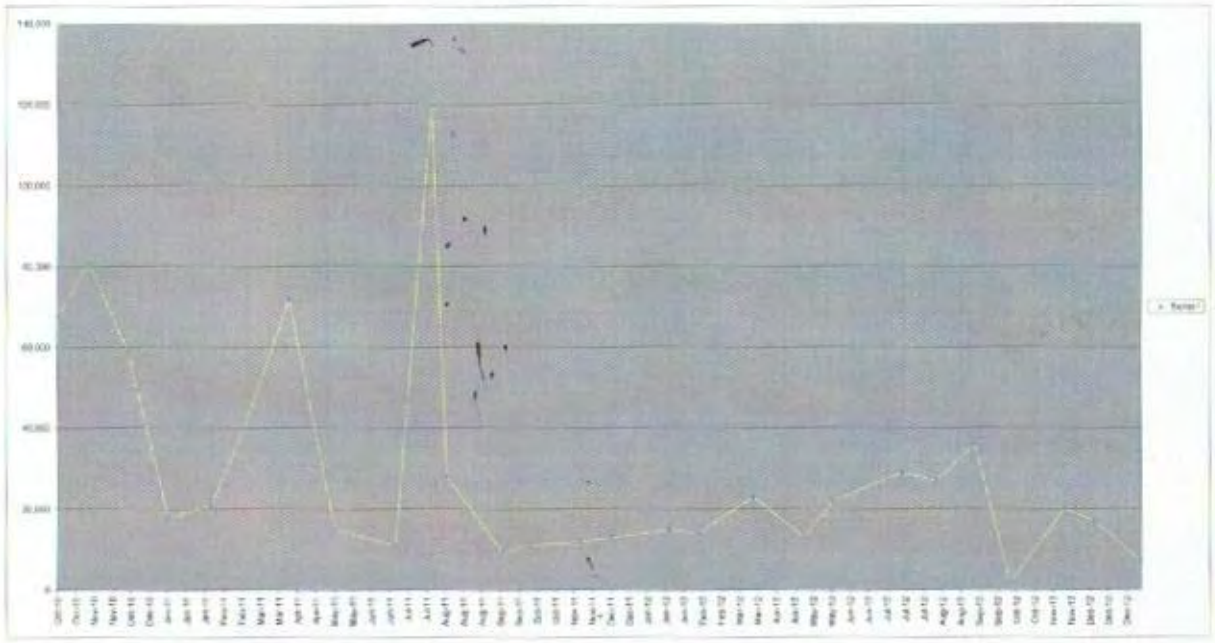
FIGURE-1

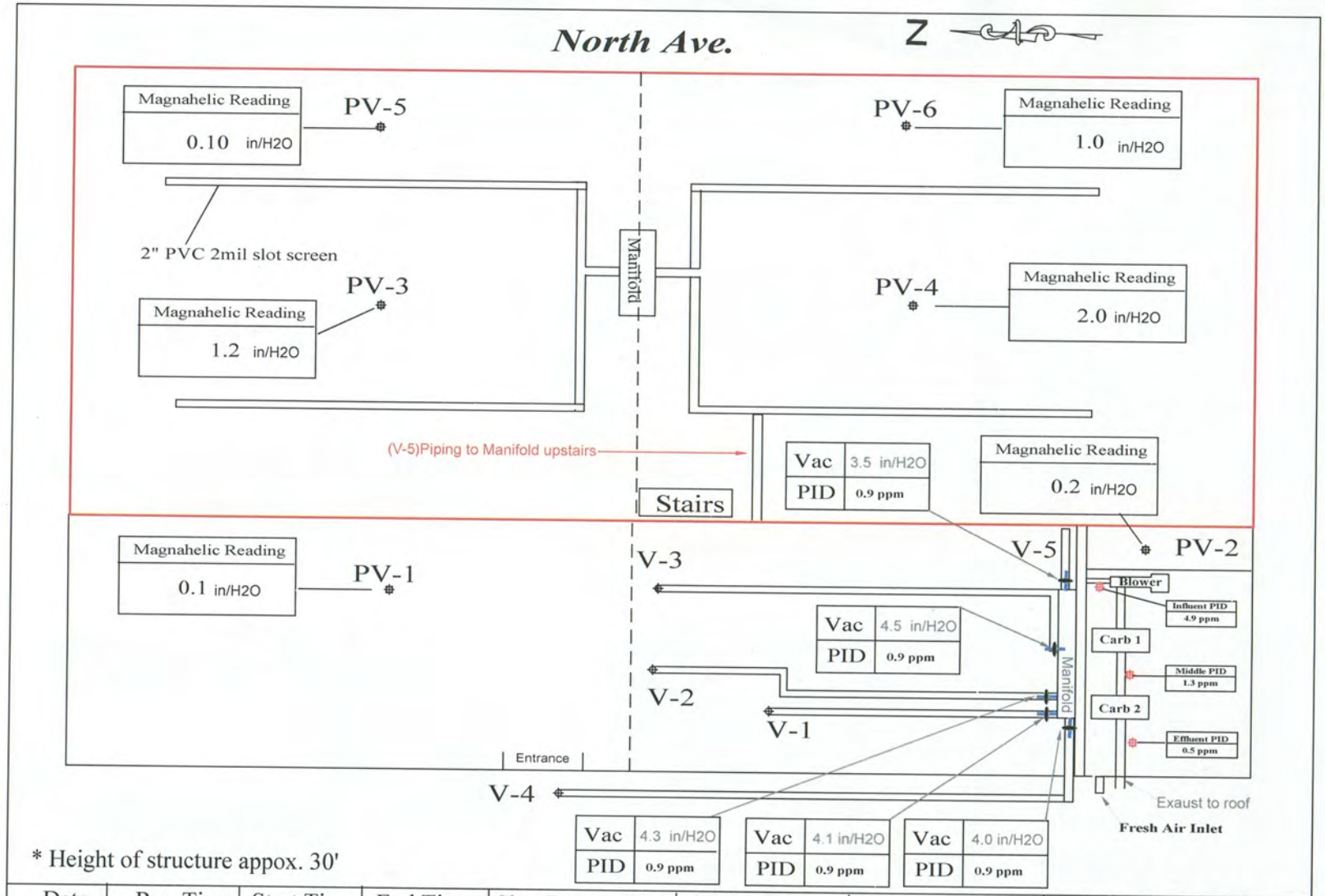
Schmukler's Cleaners, New Rochelle NY

Influent PCE Lab Concentrations ppbv

FIGURE-2

Date		Influent PCE ppbv	
Oct-10		68,000	
Nov-10		81,000	
Dec-10		59,000	
Jan-11		18,000	
Feb-11		21,000	
Mar-11		40,000	
Apr-11		72,000	
May-11		15,000	
Jun-11		11,000	
Jul-11		120,000	
Aug-11		28,000	
Sep-11		9,400	
Oct-11		11,000	
Nov-11		12,000	
Dec-11		13,000	
Jan-12		15,000	
Feb-12		14,000	
Mar-12		23,000	
Apr-12		13,000	
May-12		22,000	
Jul-12		29,000	
Aug-12		27,000	
Sep-12		36,000	
Oct-12		1,900	
Nov-12		20,000	
Dec-12		17,000	
Jan-13		7,200	





* Height of structure appox. 30'

Date	Run Time	Start Time	End Time	Shut Down Time	Height of Stack	Vacuum Flow Rate	Exit Velocity	Exit Temp.
2/26/09	3 Hours	9:30am	12:30pm	12:30pm	10' above *Structure	7.59 ft3/min	397 ft/min 9.21 ft3/min	13 degrees C

BERNINGER ENVIRONMENTAL INC.
groundwater consultants and geologists
90-B Knickerbocker Avenue Phone # (631) 589-6521
Bohemia, New York 11716 Fax #(631) 589-6528

Figure-3

Schmuklers Cleaners
358-364 North Ave.
New Rochelle, NY
Site# C360088
SVE Pilot Test

Key

- Basement Area
- Check Valve
- Permanent Vapor Point
- Sample Point
- Vapor Extraction Well

Drawn by: JGH