Periodic Review Report

149 Kent Avenue
Brooklyn, New York
Site Number C224159

February 17, 2020

Prepared for:

Kent & Wythe Owners LLC
149 Kent Avenue LLC
The Western Carpet and Linoleum Co. Inc.
149 Kent Avenue
Brooklyn, New York

Prepared by:

Roux Environmental Engineering and Geology, D.P.C.
209 Shafter Street
Islandia, New York 11749

2158.0001Y005.238/CV

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Executive Summary

This document is required as an element of the remedial program at 149 Kent Avenue in Brooklyn, New York (hereinafter referred to as the "Site") under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index #C224159-06-12, Site Number C224159, which was executed on August 21, 2012. High levels of tetrachloroethene (PCE) and trichloroethene (TCE) contamination in soil, soil vapor, and groundwater were observed on the northwestern portion of the Site, with contamination extending into offsite groundwater monitoring wells. Due to the nature and extent of contamination of the Site, the NYSDEC and NYS Department of Health (DOH) determined that this Site posed a significant threat to human health and the environment prior to remediation. An extensive remedial program was implemented from 2013 to 2015 before entering the Site Management phase of the project. The Site Management Plan (SMP), dated August 2015, was approved by NYSDEC on September 2, 2015. On November 4, 2016, NYSDEC approved the termination of the groundwater monitoring at the Site. In accordance with the SMP, annual Site-wide inspections and monthly operation and maintenance (O&M) inspections are being completed during the SMP monitoring phase. The reporting period for this Periodic Review Report (PRR) is January 19, 2019 to January 19, 2020. The components, data, and rationale included in this PRR demonstrate that the engineering and institutional controls are performing as designed, are effective, and are compliant with specifications described in the SMP. No changes to the monitoring plan are recommended by Roux Environmental Engineering and Geology, D.P.C. (Roux) at this time.

1. Introduction

This Periodic Review Report (PRR) documents post-remediation activities performed at the 149 Kent Avenue, Brooklyn, New York Site (Figure 1) from January 19, 2019 to January 19, 2020. Kent & Wythe Owners LLC/ 149 Kent Avenue LLC/ The Western Carpet and Linoleum Co. Inc. (collectively, Volunteer) entered into a Brownfield Cleanup Agreement with the New York State Department of Environmental Conservation (NYSDEC) in August 2012 (NYSDEC Site Number C224159) to investigate and remediate the 0.92-acre property located at the above address. The property was remediated to meet the NYSDEC Part 375 Restricted Residential Use Soil Cleanup Objectives (RRSCOs). The redevelopment plan included a seven-story mixed-use (retail, commercial, residential) building with a ventilated parking garage located in the basement and part of the first floor, and retail storage in the remaining portions of the basement level. The Site Management Plan (SMP), dated August 2015, was approved by NYSDEC on September 2, 2015 and the Certificate of Completion (COC) for the Site was received on October 19, 2015. The temporary certificate of occupancy (TCO) was issued in November 2016 and renewed several times prior to the final CO being issued on September 8, 2019. At the time of the required Site-wide inspection on January 2, 2020, the building was fully occupied with all commercial and residential spaces at capacity.

Site Management activities, reporting, and Institutional Control (IC)/ Engineering Control (EC) certification are scheduled on a certification period basis. This certification is based on the submission of a PRR (included herein), submitted to the NYSDEC every year beginning fifteen months after the COC was issued and once per year thereafter for the respective reporting periods. These PRRs will identify and asses all of the IC/ECs required by the remedy for the Site, any environmental monitoring data and/or information generated during the reporting period, and a complete Site evaluation which discusses the overall performance and effectiveness of the previous remedy.

2. Site Overview

2.1 Site Description and History

The Site is located in the Williamsburg Brooklyn neighborhood, County of Kings, New York and is identified as Block 2333 and Lots 1001 and 1002 on the Kings County Tax Map. The Site is an approximately 0.92-acre area bounded by multi-use commercial/ residential buildings to the north, North 5th Street to the south, Wythe Avenue to the east, and Kent Avenue to the west (see Figure 1). Historically, the Site was used as a rail terminal and a rail loading dock was located on the northwestern portion of the Site through 1987. After that, the Site was used as a carpet warehouse from 1987 until 2011, when the last user vacated the premises before entering it into the BCP. Remedial Investigation (RI) data suggest that what the NYSDEC considers to be "source material" (chlorinated volatile organic compound [CVOC] contamination in soil) was present on the upgradient 135 Kent Avenue property and the former rail loading dock. High levels of tetrachloroethene (PCE) and trichloroethene (TCE) contamination in soil, soil vapor, and groundwater were observed on the northwestern portion of the Site, with contamination extending into offsite groundwater monitoring wells.

2.2 Summary of Remedial Action

Following the BCP RI, and NYSDEC's approval of the Remedial Action Work Plan, the Volunteer began Site remediation in 2014. Since then, the Remedial Action has been fully implemented and completed the approved remedial program. All remedial work was done with oversight, understanding, and direction from the NYSDEC.

Based on the results of the RI, the Decision Document identified the following Remedial Action Objectives (RAOs) for this Site:

Remedial Action Objectives

RAOs for Public Health Protection

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer, to the extent practicable, to pre-disposal/pre-release conditions.
- Remove the source of ground water contamination.

Soil RAOs

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of, or exposure to, contaminants volatilizing from contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor RAOs

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site.

The following are the components of the selected remedy:

1. Excavation of soil/fill exceeding Part 375 Restricted Residential Soil Cleanup Objectives (RRSCOs);
2. Construction and maintenance of a Site cover system consisting of the following elements to prevent human exposure to remaining contaminated soil/fill remaining at the site:
    - Building Foundations (concrete slab/footings/ basement walls);
    - Waterproofing membrane;
    - Mud slab;
    - Gravel or recycled concrete aggregate (RCA) sub-base; and
    - Cement-bentonite slurry (at Hot Spots 1 and 2 only).
3. Groundwater remediation consisting of:
    - Temporary dewatering and water treatment during building construction;
    - *In situ* zero valent iron (ZVI) in the vicinity of former MW-4; and
    - ZVI permeable reactive barrier (PRB) treatment wall in the southwest corner of the Site.
4. Soil vapor remediation consisting of:
    - Sub-Slab Depressurization System (SSDS) beneath portions of the building.
5. Screening for indicators of contamination (by visual means, odor, and monitoring with photoionization detector [PID]) of all excavated soil during any intrusive site work.
6. Collection and analysis of confirmation/ documentation soil samples (prior to excavation) to evaluate the performance of the remedy with respect to attainment of Track 4 SCOs.
7. Appropriate offsite disposal of all material removed from the site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal.
8. Import of materials to be used for backfill and cover in compliance with: (1) chemical limits and other specifications listed in 6NYCRR Part 375-6.7(d), (2) all Federal, State and local rules and regulations for handling and transport of material, and (3) NYSDEC DER-10.
9. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the site.
10. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting.
11. Periodic certification of the institutional and engineering controls listed above.

Excavation of hot spots and soil/fill exceeding SCOs was completed between April 2014 and March 2015. Over 5,000 tons of hazardous soil and 37,000 tons of non-hazardous soil were removed and disposed during the project. Site groundwater treatment was completed in April 2014 with the installation of a PRB using ZVI

injections and in March 2014 with installation of a supplemental PRB injection round, targeted to improve the performance of a section of the original PRB.

Groundwater monitoring was performed throughout the project. After all remedial activities concluded, groundwater samples collected in 2016 demonstrated that CVOC concentrations were consistently reduced at the Site by over 90% (from the highest concentrations detected) for the constituents of concern. Based on the performance monitoring data, Remedial Engineering, P.C. requested the termination of groundwater monitoring at the Site and on November 4, 2016, NYSDEC approved the termination of the groundwater monitoring at the Site. As a note, due to a change in the law in New York which required companies providing geology and engineering services to be professional (or design professional) corporations, Roux Associates, Inc. and Remedial Engineering, P.C., were restructured and our company name was changed to Roux Environmental Engineering and Geology, D.P.C. as of March 2018.

2.3 Remaining Contamination

As described in the NYSDEC-approved SMP, materials exceeding the Part 375 restricted residential and protection of groundwater criteria (excluding VOCs) remain onsite. All of these materials have been contained under the Site Cover System comprised of the concrete slab/footings/ basement walls, vapor barrier/ waterproofing membrane, and a mud slab and sub base consisting of clean gravel or RCA. The demarcation layer for the Site Cover System is the underside of the cement-bentonite slurry in the areas of Hot Spots 1 and 2 and the underside of the sub-base for the concrete slab and footings and the outside face of the basement walls. A figure with additional information on Site Cover System components are include in Appendix A.

2.4 Institutional and Engineering Controls

Since residual contamination remains beneath the Site, ICs/ECs have been incorporated into the Site remedy as part of the NYSDEC-approved SMP, to provide proper management of residual contamination in the future to ensure protection of public health and the environment.

The Site has ECs consisting of:

- SSDS; and
- Site Cover System.

The goal of the SSDS is to mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site. The goal of the Site Cover System is to prevent exposure to remaining contamination in soil/fill at the Site. The SSDS and Site Cover System ECs are fully in place and effective at meeting their objectives.

A Site-specific Environmental Easement has been recorded with the Kings County Clerk that provides an enforceable means to manage the remaining contamination at the Site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. The ICs presented in the SMP consist of the following:

- Compliance with the Environmental Easement and SMP by the Grantor and the Grantor's successors and assigns.
- All ECs must be operated and maintained as specified in the SMP.
- All ECs on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.

- Groundwater and other environmental or public health monitoring must be performed as defined in the SMP.
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP.
- ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

This Site has a series of ICs in the form of Site Restrictions that are as follows:

- The property may only be used for restricted residential use (and less restricted uses defined in 6 NYCR Part 375) provided that the long-term ICs and ECs included in the SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP.
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use.
- Vegetable gardens and farming on the property are prohibited with the exception of raised beds or rooftop gardens.
- The Site owner or remedial party will submit to NYSDEC a written statement annually that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

3. SMP Requirements and Compliance Monitoring

Since remaining contaminated soil exists beneath the Site, ICs and ECs are required to protect human health and the environment. This section details the elements of the SMP including the inspection, monitoring, and reporting requirements, IC/ECs, whether the IC/EC requirements were met, and regulatory notification and certification requirements. The various subsections below also include an evaluation of the remedy performance, effectiveness, and protectiveness.

3.1 IC/EC Plan Compliance Report

Since remaining contamination exists beneath the Site, ICs and ECs are required to protect human health and the environment and are described in detail in Section 2.4.

For each IC or EC identified for the Site, I certify that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the ICs and ECs required by the remedial program was performed under my direction;
- The ICs and/or ECs employed at this Site are unchanged from the date the control was put in place, or last approved by the NYSDEC;
- Nothing has occurred that would impair the ability of the controls to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with the SMP for these controls;
- Access to the Site will continue to be provided to the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of these controls;
- Use of the Site is compliant with the environmental easement;
- The EC systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program and generally accepted engineering practices;
- The information presented in this report is accurate and complete; and
- I certify that all information and statements in this certification form are true. I understand a false statement made herein is punishable as a Class “A” misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Noelle M. Clarke, P.E., of Roux Environmental Engineering and Geology, D.P.C., am certifying as Owner’s Designated Site Representative for the Site.

An IC/EC Certification Form for the controls that are currently in place is included as Appendix B.

3.1.1 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the BCA, 6NYCRR Part 375, and/or Environmental Conservation Law.
- 15-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundation, structures, or EC that reduces or has the potential to reduce the effectiveness of an EC and likewise any action to be taken to mitigate the damage or defect.

- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the Site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the BCA, and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing.

On October 22, 2019, Roux notified NYSDEC that Blower 2, the eastern SSDS, was not functioning. Roux was informed on October 21, 2019 by the building superintendent (C&C Apartment Managers, LLC) that Blower 2 was not operating as of Friday, October 18. Roux attempted to troubleshoot the issue with the superintendent in the field but efforts were unsuccessful. Immediately following the failed troubleshooting, the SSDS blower manufacturer (Gasho, Inc.) was contacted to repair the issue. The earliest available technician appointment was scheduled and on Thursday, October 24, 2019 electrical repairs were successfully made to the control panel and the system was turned back on. Roux followed up with the superintendent on October 25, 2019 and confirmed that the system was operating continuously within normal parameters.

3.2 Inspections

All inspections will be conducted at the frequency specified in the schedules provided in following Monitoring Plan and Operation and Maintenance (O&M) Plan Reporting sections of this PRR. At a minimum, monthly SSDS O&M inspections are required and one comprehensive Site-wide inspection will be conducted annually within each respective reporting period. Details of requirements and completed inspections are provided in the following sections. Inspections of remedial components will also be conducted when a breakdown of any treatment system component has occurred or whenever a severe condition has taken place, such as power interruption or fire that may affect the ECs. The inspections will determine and document the following:

- IC/ECs are in place, are performing properly, and remain effective;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If Site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system.

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted within five (5) days of the event to verify the effectiveness of the IC/ECs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

3.3 Monitoring Plan Compliance Report

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the Site Cover System, and all affected Site media identified below. Components of the Monitoring Plan are:

- Sampling and analysis of all appropriate media (e.g., groundwater);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil;
- Assessing achievement of the remedial performance criteria;
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

Monitoring of the performance of the remedy and overall reduction in contamination onsite will be conducted for the periods specified for each matrix listed in table below. The frequency thereafter will be determined in consultation with NYSDEC and based on reports submitted showing contaminant trends.

Monitoring Program	Frequency	Matrix	Analysis
Site Cover System and Site-Wide Inspection	Annually; First inspection no more than 15 months after the issuance of the COC.	Soil	Visual inspection of all cover system components.
Groundwater*	Quarterly for a minimum of Four Quarters following issuance of COC	Groundwater	VOCs (USEPA Method 8260) for NYSDEC Target Compound List compounds
SSDS Detailed Operation Inspection	Monthly	Soil Vapor	Visual Inspection for Vacuum, Temperature, and Condensate, and Field Screening (PID) of effluent
SSDS System Status	Alarm light located in the superintendent's office - to be monitored by superintendent (superintendent to be onsite 3-5 days per week)	Soil Vapor	Visual inspection of alarm light to determine operation status

*Groundwater monitoring was terminated with the approval of the NYSDEC as of November 4, 2016.

A record of the findings of each monitoring/inspection event and maintenance activity performed as described above, where applicable, will be documented on the Site Inspection Checklist and SSDS O&M Log described in further detail below. If at any time during the reporting period the Volunteer identifies a failure of one or more of the ECs or non-compliance with one or more of the ICs, the remedial party must notify NYSDEC and implement corrective measures, in accordance with a Corrective Measures Work Plan (CMWP) submitted to and approved by NYSDEC and provide a periodic certification of the IC/ECs.

3.3.1 Site Cover System

Exposure to remaining contamination at the Site is prevented by a non-mechanical engineered Site cover system that consists of:

- Building foundations (concrete slab/ footings/ basement walls);
- Waterproofing membrane/ vapor barrier;

- Mud slab;
- Gravel or RCA sub-base; and
- Cement-bentonite slurry (at Hot Spots 1 and 2 only).

The location and details of the Site cover system are shown on the plate located in Appendix A. Monitoring of the Site cover system will occur on an annual basis as long as the Environmental Easement is in effect to ensure the system's integrity. Monitoring will consist of visual inspection, which will evaluate the structural integrity of the concrete floor slab, support columns into the floors, and the wall joints.

On January 15, 2019, Roux performed a Site-wide inspection, including an evaluation of the Site cover system. The completed Site Inspection Checklist is provided in Appendix C. This inspection determined that all Site cover system elements described herein were observed to be performing as designed during the reporting period of the PRR and are protective of human health and the environment. Photographs taken during the Site-wide inspection are provided in the Photo Log included in Appendix D.

3.4 Operation and Maintenance Plan Compliance Report

The O&M Plan provided in the SMP:

- Includes the steps necessary to allow individuals unfamiliar with the Site to operate and maintain the SSDS;
- Includes an O&M contingency plan;
- Will be updated periodically to reflect changes in Site conditions or the manner in which the SSDS is operated and maintained;
- Includes a SSDS Startup Report as part of the initial SSDS startup to verify that each system is operating properly; and
- Includes monitoring requirements.

One of the mechanical systems associated with the development is an active mechanical ventilation system in the first floor and basement garage areas, which will act as an approved substitute for an SSDS in these areas and which was installed as a component of the building.

The other mechanical component of the remedy is the SSDS. Exposure to intrusion of contaminated soil vapor within the Site building is prevented by an active SSDS, which applies negative pressure under below-grade portions of the Site, collects potentially contaminated vapor, and subsequently discharges the vapor to the atmosphere above the roof the site building. The SSDS was installed within the western and eastern "voids" where soil was left in place for structural support of the adjacent buildings along portions of the north wall. Two SSDS's were installed; the western system (SSDS-1) withdraws soil vapor from the western "void" space and the eastern system (SSDS-2) withdraws soil vapor from the eastern "void" space. As-built drawings of SSDS-1 and SSDS-2 are included in the PRR as Plates V001.00 and V002.00, respectively. Complete details of the NYSDEC-approved "Sub-Slab Depressurization System Design" are presented in the SMP.

3.5 SSDS System Operation Monitoring

The routine maintenance activities include visual inspections, operating data collection and general maintenance. Visual inspection is the routine part of the SSDS operator's activities. The system operator will note any conditions which present a potential hazard or could cause future system shutdown. All equipment maintenance and inspections will be performed in accordance with manufacturer's instructions

specified in the SMP. Specific routine maintenance tasks are outlined below and were recorded monthly on the SSDS O&M Log:

- Inspect control panel and warning lights/alarms;
- Inspect blower piping to confirm operation of appropriate valves (i.e., dilution valve);
- Inspect vacuum/pressure gauges for proper operation;
- Check and clean air filter on each moisture knockout tank; and
- Check for the presence of and remove water in each knockout tank.

The required monthly SSDS O&M logs that were completed during the operation of the SSDS during the reporting period are provided in chronological order in Appendix E. O&M activities described herein determined that the O&M Plan was carried out as designed during the reporting period of the PRR and it is protective of human health and the environment.

4. Overall PRR Conclusions and Recommendations

The ICs and ECs are performing as designed, are effective, and are compliant with specifications described in the SMP. No changes to the monitoring plan are recommended at this time.

FIGURE

1. Site Location Map

QUADRANGLE LOCATION

SOURCE:
USGS; 1995, BROOKLYN, NY
7.5 Minute Topographic Quadrangle

N

0 1000'

Title:

SITE LOCATION MAP

149 KENT AVENUE
BROOKLYN, NEW YORK

Prepared for:

KENT & WYTHE OWNERS LLC

ROUX

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: D.T.B.	Date: 20JUL15
Prepared by: G.M.	Scale: AS SHOWN
Project Mgr.: J.D.	Project No.: 2158.0001Y000
File: 2158.0001Y197R.01.CDR	

FIGURE 1

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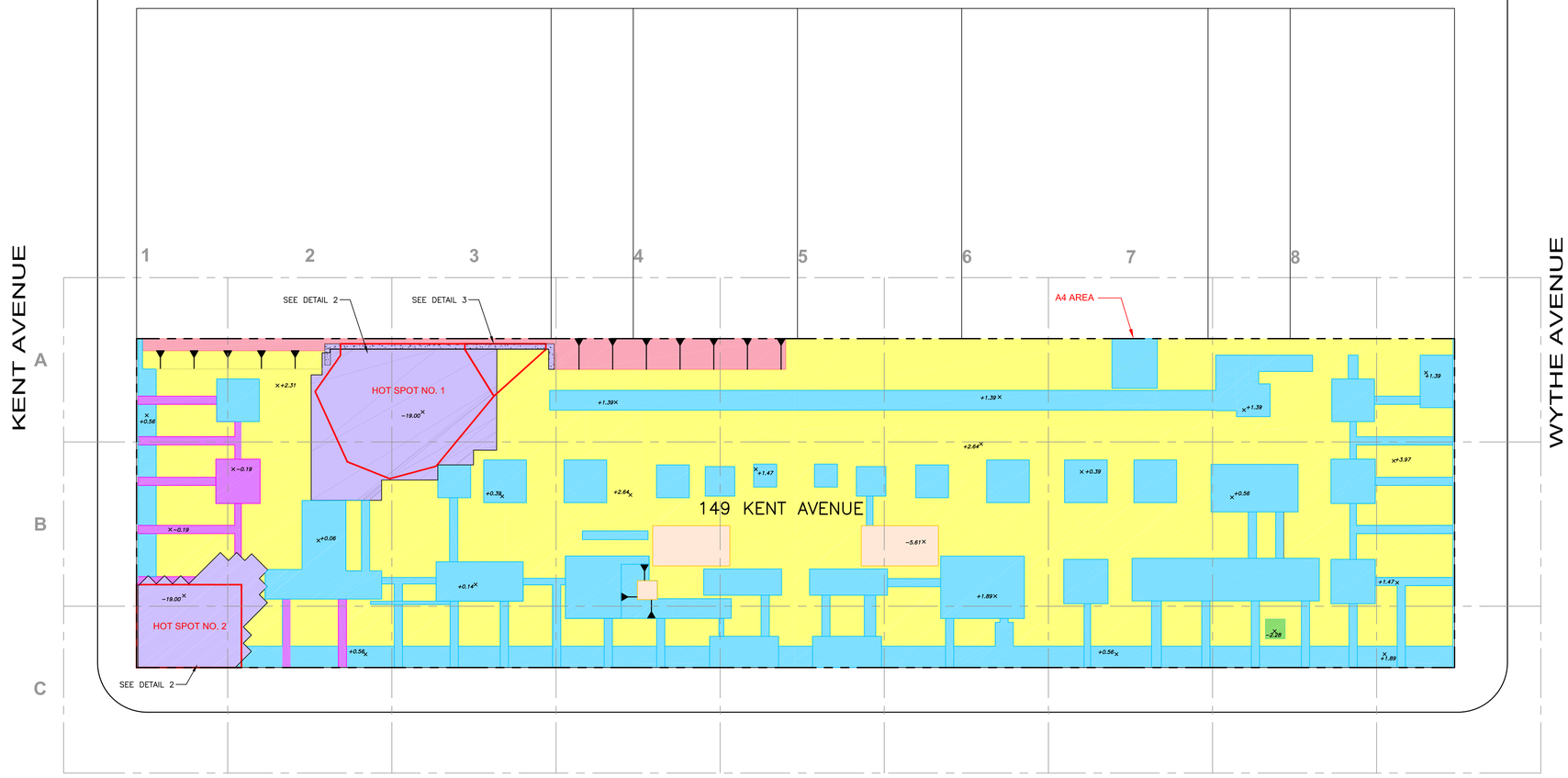
APPENDICES

A. Site Cover System
B. IC/EC Certification Form
C. Site Inspection Checklist
D. Photograph Log
E. Monthly SSDS O&M Logs

APPENDIX A

Site Cover System

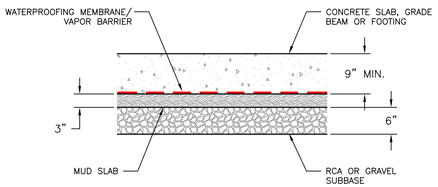


LEGEND

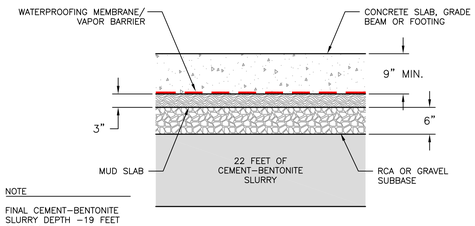
- LIMITS OF EXCAVATION +6 TO +4 FEET ELEVATION
- LIMITS OF EXCAVATION +4 TO +2 FEET ELEVATION
- LIMITS OF EXCAVATION +2 TO 0 FEET ELEVATION
- LIMITS OF EXCAVATION 0 TO −2 FEET ELEVATION
- LIMITS OF EXCAVATION −2 TO −4 FEET ELEVATION
- LIMITS OF EXCAVATION −4 TO −6 FEET ELEVATION
- LIMITS OF EXCAVATION TO −19 FEET ELEVATION
- LIMITS OF HOT SPOT EXCAVATION AND BACKFILL REQUIRED FOR REMEDIATION PURPOSES (SEE PLATE 8)
- DENOTES DOWNWARD SLOPE IN DIRECTION OF ARROW
- 0.14× SPOT ELEVATION OF TOP OF REMAINING CONTAMINATION IN FEET
- SECANT PILE WALL
- RCA RECYCLED CONCRETE AGGREGATE

NOTES

1. ALL ELEVATIONS ARE REFERENCED TO THE BROOKLYN BOROUGH TOPOGRAPHICAL/HIGHWAY DATUM.
2. THE FORMER FLOOR SLAB WAS LOCATED AT +16 FEET ELEVATION.
3. ALPHA–NUMERIC GRID LINES ARE SPACED EVERY 50 FEET.
4. THE ACTUAL LIMITS OF EXCAVATION IN HOT SPOTS 1 AND 2 EXTEND BEYOND THE LIMITS REQUIRED FOR REMEDIATION TO ACCOMMODATE THE CONSTRUCTION OF THE BUILDING FOUNDATION.
5. BASEMAP PREPARED BASED ON SURVEY DATA COLLECTED BY ANGLE OF ATTACK LAND SURVEYORS, LLC ON JUNE 1, 2013.
6. UNLESS OTHERWISE NOTED, SEE AS–BUILT DETAIL NO. 1 FOR DETAILS REGARDING THE SITE COVER SYSTEM.

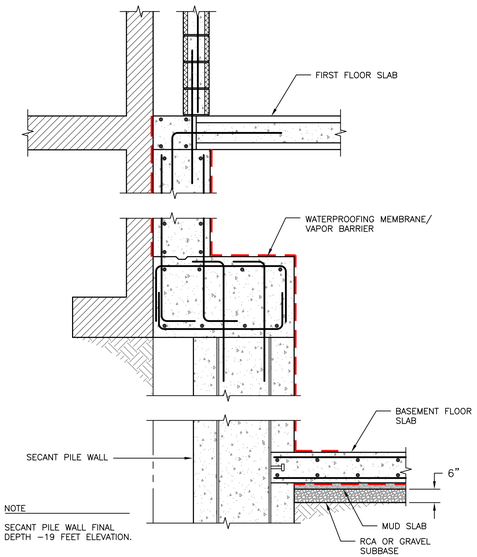


1 SITE COVER SYSTEM: GENERAL AS–BUILT DETAIL
SCALE: NOT TO SCALE



NOTE
FINAL CEMENT–BENTONITE SLURRY DEPTH −19 FEET ELEVATION.

2 SITE COVER SYSTEM: AS–BUILT DETAIL FOR HOT SPOTS 1 AND 2 DETAIL
SCALE: NOT TO SCALE



NOTE
SECANT PILE WALL FINAL DEPTH −19 FEET ELEVATION.

3 SITE COVER SYSTEM: AS–BUILT DETAIL FOR SECANT WALL AREA
SCALE: NOT TO SCALE

20' 0 20'

Title:
ELEVATION OF TOP OF REMAINING CONTAMINATION AND SITE COVER SYSTEM AS-BUILT DETAILS

149 KENT AVENUE, BROOKLYN, NEW YORK

Prepared For:
KENT & WYTHE OWNERS LLC

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: D.T.B.	Date: 15JUL15	PLATE
Prepared by: G.M.	Scale: AS SHOWN	4
Project Mgr: D.T.B.	Project: 2158.0001Y004	
File: 2158.0001Y197R.08.DWG		

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APPENDIX B

IC/EC Certification Form

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. C224159

Site Name 149 Kent Avenue

Site Address: 149 Kent Avenue Zip Code: 11211
City/Town: Brooklyn
County: Kings
Site Acreage: 0.920

Reporting Period: January 19, 2019 to January 19, 2020

	YES	NO
1. Is the information above correct?	X	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☐

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	X	☐
7. Are all ICs/ECs in place and functioning as designed?	X	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. C224159 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
3-2333-1001 and 1002	Kent & Wythe Owners LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

(1) The site may be used for restricted residential, commercial or industrial use only;
(2) Compliance with the Site Management Plan (SMP);
(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;
(4) The use of groundwater underlying the site is prohibited without necessary treatment;
(5) Groundwater and other monitoring must be performed as defined in the SMP;
(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;
(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP; and
(8) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy must be performed as defined in the SMP.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
3-2333-1001 and 1002	Groundwater Treatment System Vapor Mitigation Cover System Subsurface Barriers

1) Site cover system to allow for restricted residential use of the site consisting of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use.
(2) An active sub-slab depressurization system (SSDS) in areas of the building not underlain by a ventilated parking garage.
(3) Permeable Reactive Barrier Treatment Wall consisting of a series of injections of zero-valent iron (ZVI).
(4)Groundwater monitoring.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative | Date

IC CERTIFICATIONS
SITE NO. C224159

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Adam Hellegers at 2 Park Ave, New York NY
print name print business address

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

2/7/20
Date

IC/EC CERTIFICATIONS

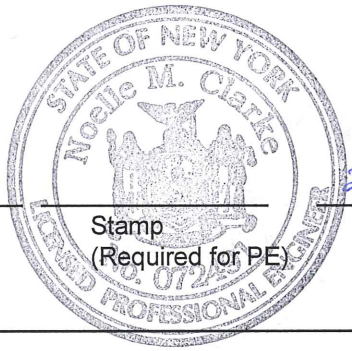
Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Noelle Clarke at 209 Shafter St, Islandia, NY
print name print business address

am certifying as a Professional Engineer for the Owner
(Owner or Remedial Party)



Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

2/17/20
Date

APPENDIX C

Site Inspection Checklist

Site Inspection Checklist, 149 Kent Avenue, Brooklyn, NY

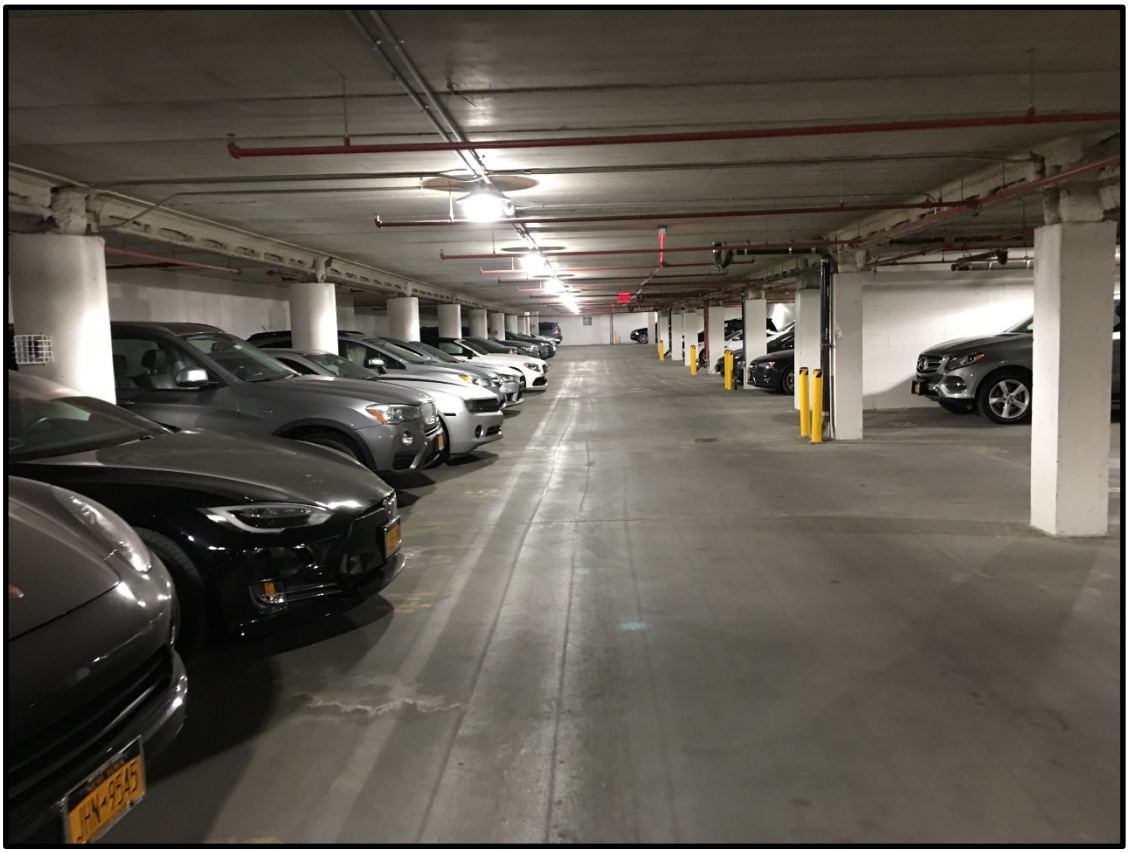
Date: 01/02/2020

Completed By: ALFREDO F. / LEO P.

Description	Status: Ok	Status: Action Req.	Status: N/A	Actions Taken / Comments
Site Cover System				
1 Inspect site cover system for cracks and leaks.	✓			
Sub-Slab Depressurization System Blower No. 1				
A. Aboveground Piping on Roof				
1 Inspect aboveground piping for cracks, leaks and support issues.	✓			
2 Inspect vacuum/pressure gauges and flowmeters for proper operation.	✓			
B. Electrical				
1 Check that the electrical control panel is closed/secured.	✓			
C. Blower Enclosure				
1 Inspect condition of exhaust fan, thermostat and louver.	✓			
D. Gallon Knock-out Tank				
1 Check condition of vacuum filter.	✓			
2 Check dilution valve for noises or leaks.	✓			
4 Check for presence of water in knockout tank.	✓			
E. Vapor Phase Carbon Units (If Installed)				
1 Inspect and check pressure gauges.			NA	
2 Check for any leaks on piping, fittings, etc.			NA	
Sub-Slab Depressurization System Blower No. 2				
A. Aboveground Piping on Roof				
1 Inspect aboveground piping for cracks, leaks and support issues.	✓			
2 Inspect vacuum/pressure gauges and flowmeters for proper operation.	✓			
B. Electrical				
1 Check that the electrical control panel is closed/secured.	✓			
C. Blower Enclosure				
1 Inspect condition of exhaust fan, thermostat and louver.	✓			
D. Gallon Knock-out Tank				
1 Check condition of vacuum filter.	✓			
2 Check dilution valve for noises or leaks.	✓			
4 Check for presence of water in knockout tank.	✓			DRAINED 1/2 GAL
E. Vapor Phase Carbon Units (If Installed)				
1 Inspect and check pressure gauges.			NA	
2 Check for any leaks on piping, fittings, etc.			NA	
Institutional Controls				
1 Confirm that the site usage is in compliance with the institutional controls.	✓			
Site Records				
1 Inspect site records and confirm that they are up to date (e.g., Site Inspection Checklists and Sub-Slab Depressurization System Operations Logs, sampling logs, etc.)	✓			

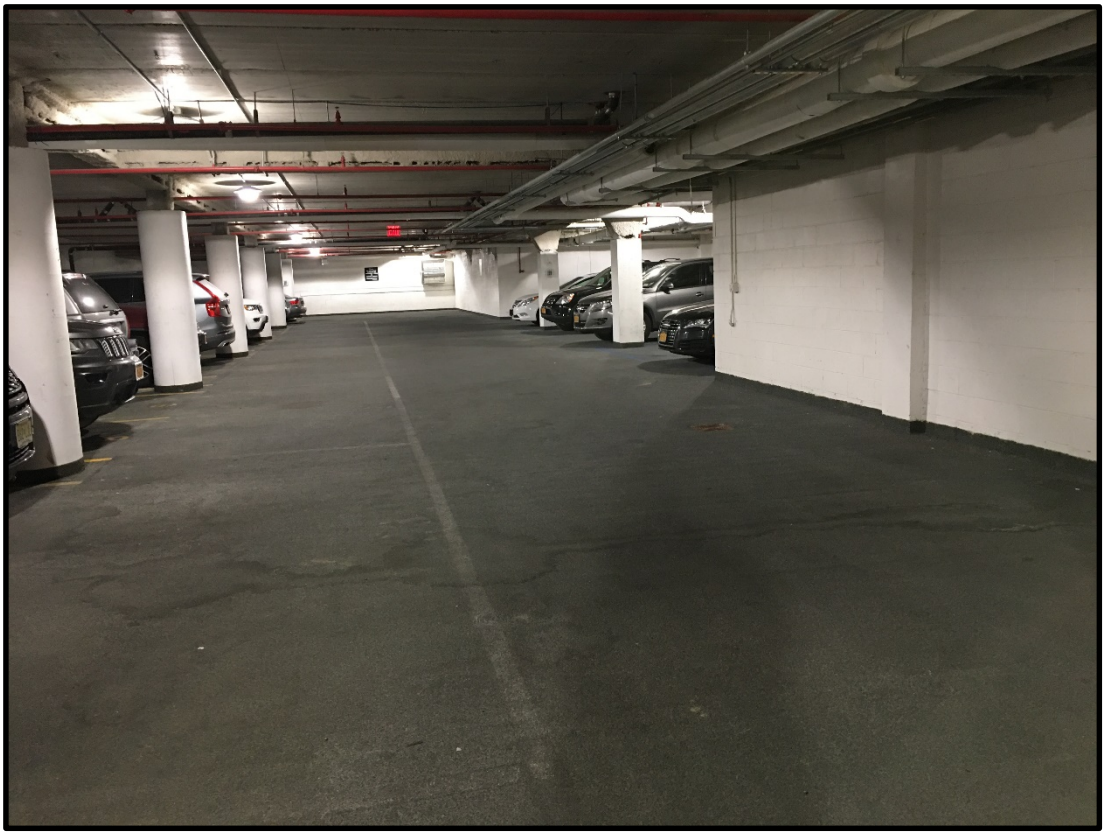
APPENDIX D

Photograph Log

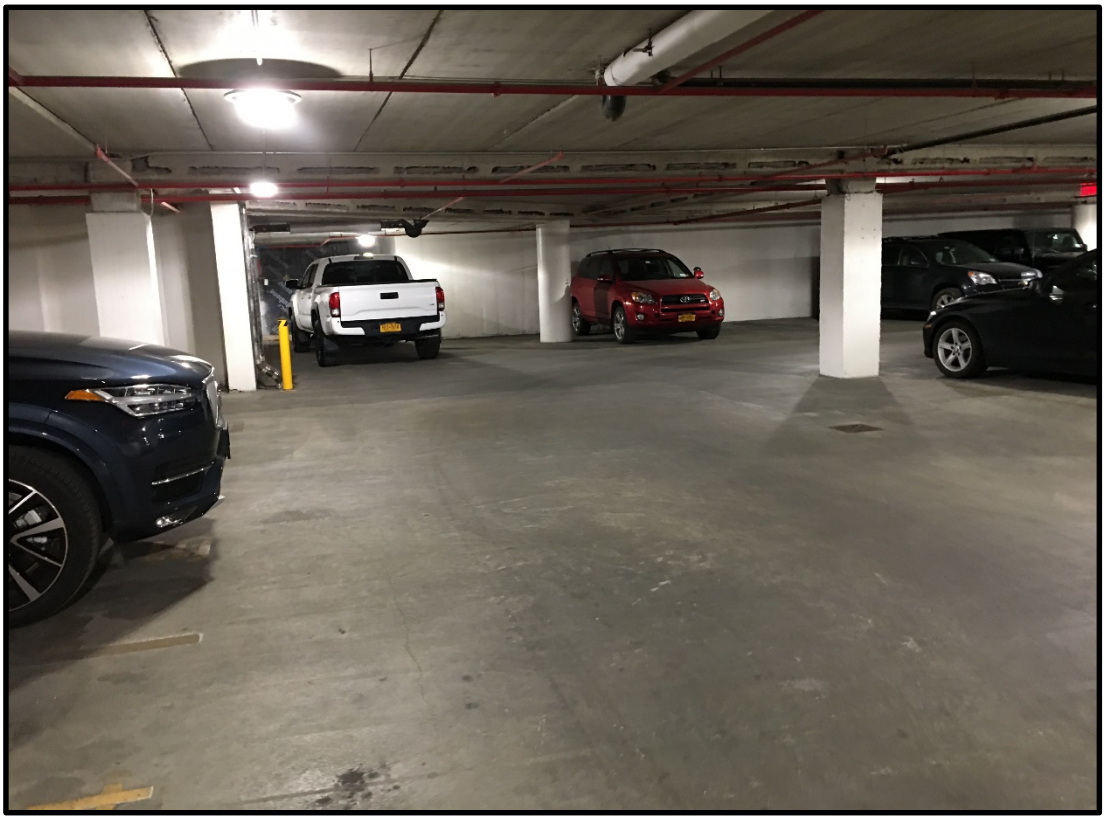


Photograph 1: View of eastern half of the cellar parking garage.

Photograph 2: Northeast wall of cellar parking garage.

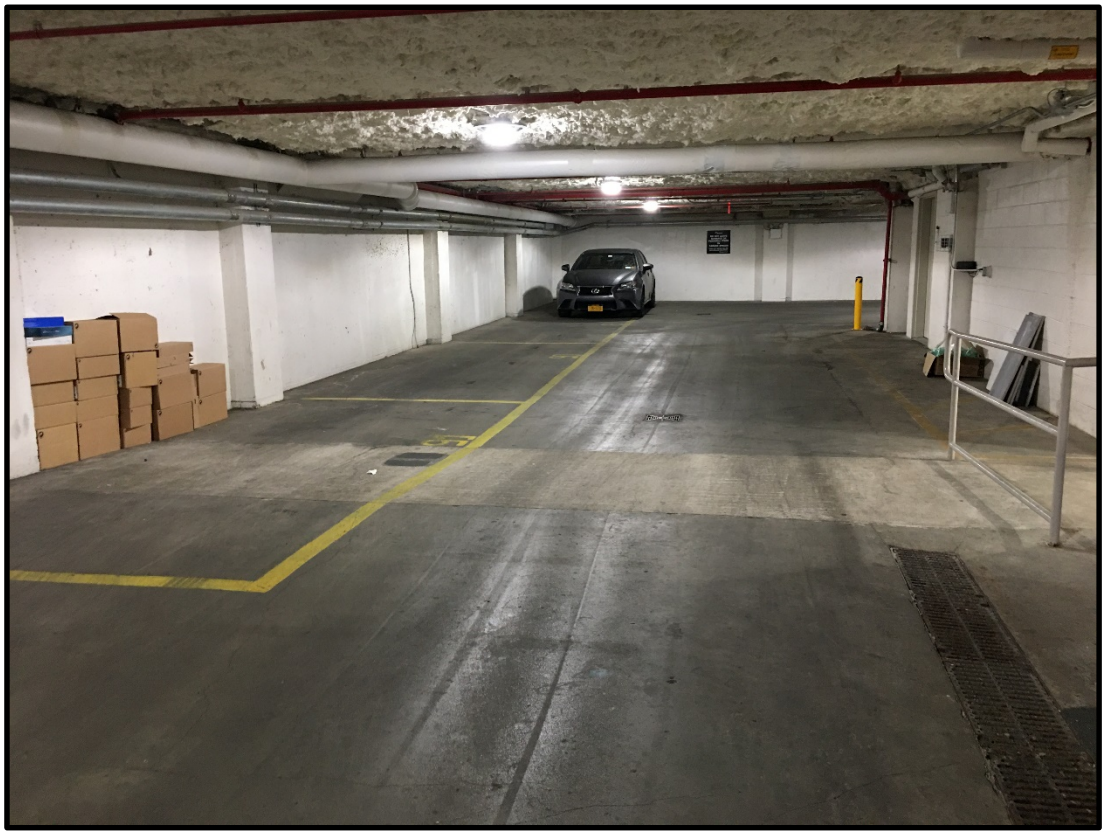


Photograph 3: Eastern extent of the cellar parking garage. All site cover components were intact.



Photograph 4: View of north wall near central parking garage ramp; previously applied Grace Bituthene is in view and intact.

Photograph 5: Photo of south wall near midway point of cellar.

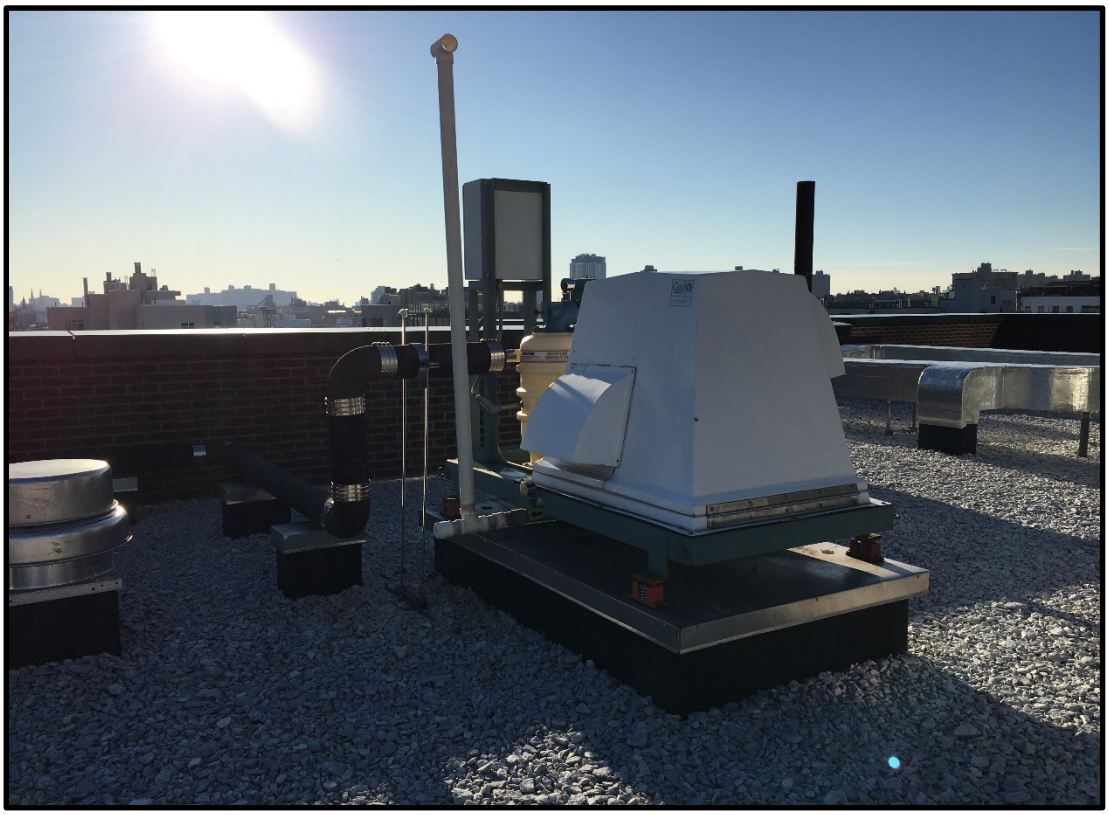


Photograph 6: View of southwest corner of parking garage during site cover system inspection.

Photograph 7: Photo of MP-1 (west SSDS) within lock box within private stairwell leading from first floor to the cellar.

Photograph 8: Photo View of SSDS Blower 1 (west) control panel upon arrival.

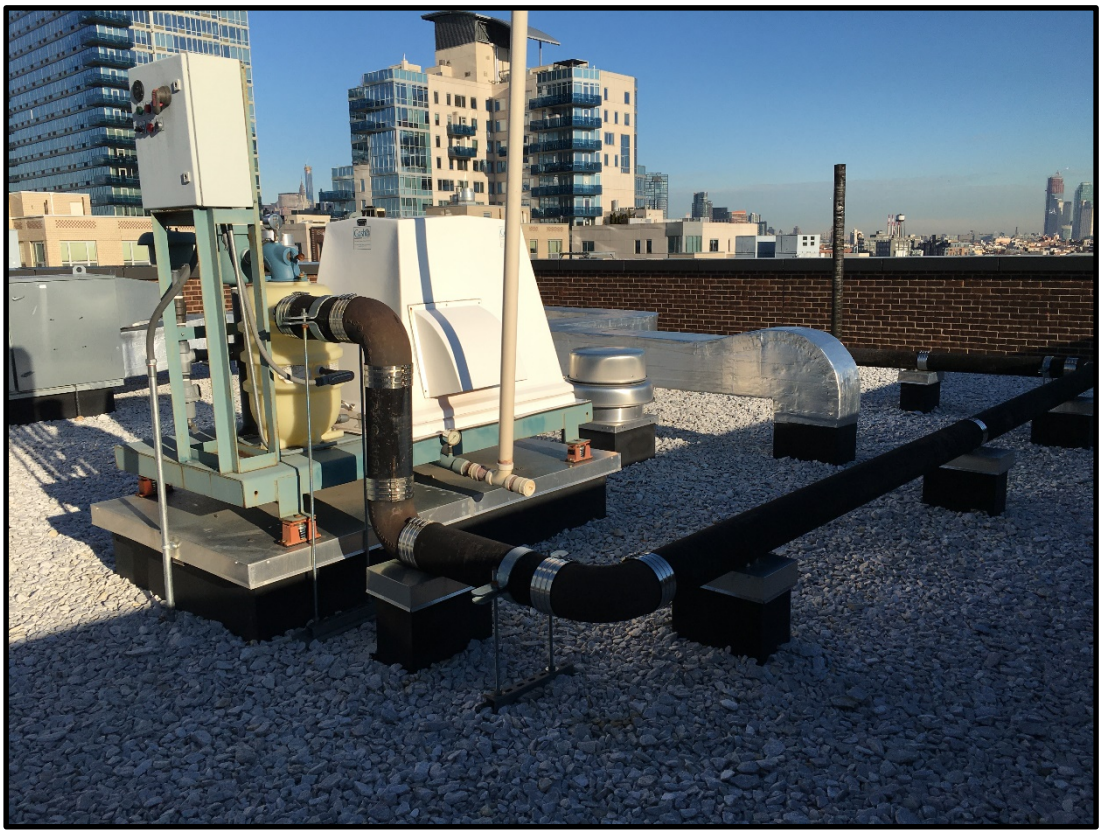
Photograph 9: SSDS Blower 1 (west) configuration, looking north.



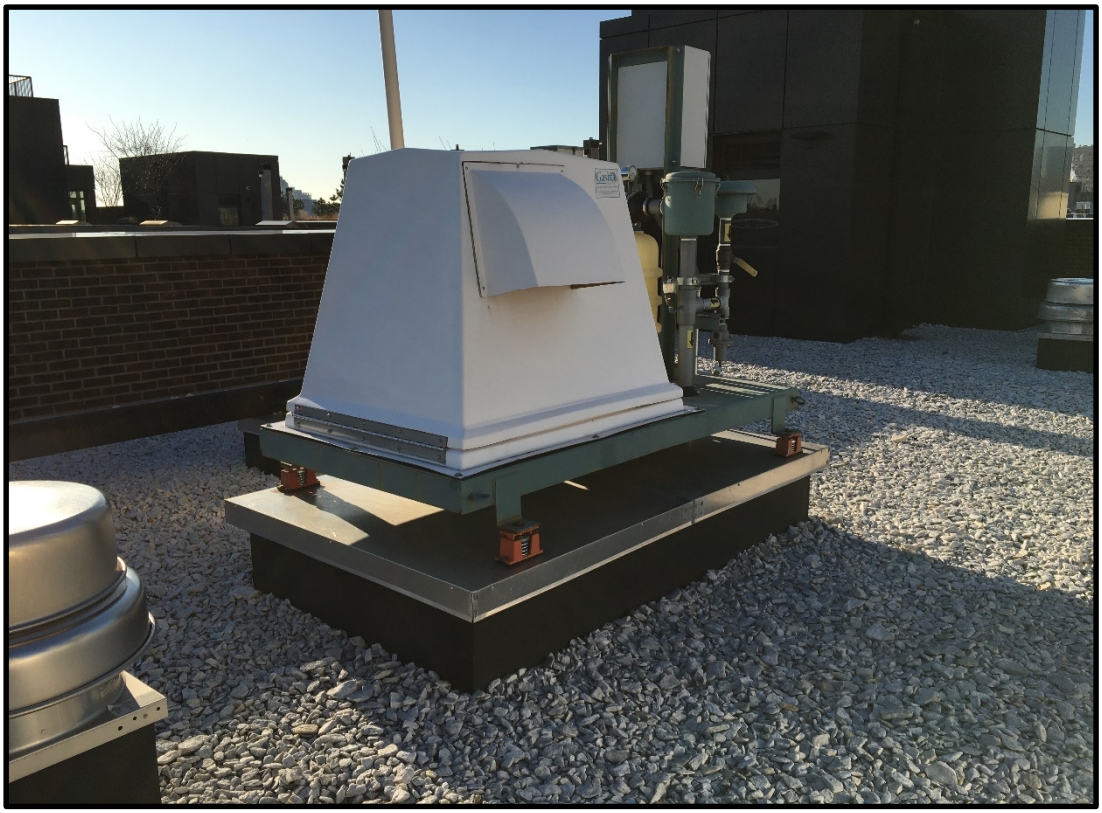
Photograph 10: SSDS Blower 1 and associated run of piping (left).

Photograph 11: View of MP-2 (east SSDS) after field pressure test.

Photograph 12: Photo of SSDS Blower 2 (east) control panel upon arrival.



Photograph 13: Photo of the SSDS Blower 2 (east) configuration and associated piping leading to vertical riser.



Photograph 14: Photo SSDS Blower 2 (east), looking south.

APPENDIX E

Monthly SSDS O&M Logs

Sub-Slab Depressurization System Operations and Maintenance Log, 149 Kent Avenue, Brooklyn, NY

Source of Reading	Units	Values	Comments
Blower No. 1			
Blower Run Time	Hours	27080	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-1	Inches of Water	12.090	
Knock-Out Tank Vacuum	Inches of Water	16	
Blower No. 1Inlet Vacuum	Inches of Water	20	
Blower No. 1 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	0	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	NA	
Blower No. 2			
Blower Run Time	Hours	26314	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-2	Inches of Water	0.223	
Knock-Out Tank Vacuum	Inches of Water	4	
Blower No. 2 Inlet Vacuum	Inches of Water	6	
Blower No. 2 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	0	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	NA	

Is the System operating within the acceptable conditions? YES

If no, was the condition corrected and how? NA

Were any maintenance activities performed? DRAINED 1/2 GAL FROM K.O. IN BLOWER 2

If yes, please record maintenance activities performed. NO WATER IN K.O. AT BLOWER 1

Form Completed By: ALFREDO F. / Leo Petr.

Signature:

Date & Time: 01/02/2020

Blower 2 (East) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)		✓	
If there is an alarm condition, was it fixed and the system restarted?		✓	
Is the blower enclosure in good condition?	✓		
Are the valves (at blower and aboveground piping) in good condition?	✓		
Is the vacuum filter in good condition?	✓		
Does the knock-out tank need to be drained? (Record amount drained)	✓		1 gallon for FEBRUARY
Are aboveground piping free of cracks, leaks, and support issues?	✓		
Are vacuum/pressure gauges at blower operating properly?	✓		
Are interior piping free of cracks, leaks, and support issues?	✓		
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 2 - East			
Blower Run Time	Hours	19442	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-2	Inches of Water	.247	
Knock-Out Tank Vacuum	Inches of Water	4	
Blower No. 2 Inlet Vacuum	Inches of Water	8	
Blower No. 2 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	2.	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Ike Pyatt

Signature: IP

Date & Time: 2/27/19 10:15AM

Blower 1 (West) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)		✓	
If there is an alarm condition, was it fixed and the system restarted?		✓	
Is the blower enclosure in good condition?	✓		
Are the valves (at blower and aboveground piping) in good condition?	✓		
Is the vacuum filter in good condition?	✓		
Does the knock-out tank need to be drained? (Record amount drained)		✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓		
Are vacuum/pressure gauges at blower operating properly?	✓		
Are interior piping free of cracks, leaks, and support issues?	✓		
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 1 - West			
Blower Run Time	Hours	19711	
Vacuum at Aboveground Piping (at roof line)	Inches of Water		
MP-1	Inches of Water	44.20	
Knock-Out Tank Vacuum	Inches of Water	17.	
Blower No. 1 Inlet Vacuum	Inches of Water	20	
Blower No. 1 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	0	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Leo PIZZI

Signature: LP.

Date & Time: 2/27/19 9:48AM

Blower 2 (East) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)		✓	
If there is an alarm condition, was it fixed and the system restarted?		✓	
Is the blower enclosure in good condition?	✓		
Are the valves (at blower and aboveground piping) in good condition?	✓		
Is the vacuum filter in good condition?	✓		
Does the knock-out tank need to be drained? (Record amount drained)		✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓		
Are vacuum/pressure gauges at blower operating properly?	✓		
Are interior piping free of cracks, leaks, and support issues?	✓		
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 2 - East			
Blower Run Time	Hours	19777.	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-2	Inches of Water	.288	
Knock-Out Tank Vacuum	Inches of Water	4	
Blower No. 2 Inlet Vacuum	Inches of Water	8	
Blower No. 2 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	.5	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Leo Petri

Signature: LP.

Date & Time: 3/13/19 @10AM

Blower 1 (West) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 1 - West			
Blower Run Time	Hours	20047	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-1	Inches of Water	14.98	
Knock-Out Tank Vacuum	Inches of Water	18	
Blower No. 1 Inlet Vacuum	Inches of Water	26	
Blower No. 1 Discharge Pressure	Inches of Water	3	
Blower Effluent PID Reading	PPMV	1	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Leo Petri

Signature: LP

Date & Time: 3/13/19 @10AM

Blower 2 (East) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	OVERHEAT / HIT RESTART / All good.
Are any warning lights on? (Please list those that are on)	✓	—	A 4/15
If there is an alarm condition, was it fixed and the system restarted?	✓	—	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 2 - East			
Blower Run Time	Hours	20583	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-2	Inches of Water	28.9	
Knock-Out Tank Vacuum	Inches of Water	6.	
Blower No. 2 Inlet Vacuum	Inches of Water	8	
Blower No. 2 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	2.	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: [signature]

Signature: [signature]

Date & Time: 4/16/19

Blower 1 (West) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)		✓	
If there is an alarm condition, was it fixed and the system restarted?		✓	
Is the blower enclosure in good condition?	✓		
Are the valves (at blower and aboveground piping) in good condition?	✓		
Is the vacuum filter in good condition?	✓		
Does the knock-out tank need to be drained? (Record amount drained)		✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓		
Are vacuum/pressure gauges at blower operating properly?	✓		
Are interior piping free of cracks, leaks, and support issues?	✓		
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 1 - West			
Blower Run Time	Hours	20868	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-1	Inches of Water	13.05	
Knock-Out Tank Vacuum	Inches of Water	20	
Blower No. 1 Inlet Vacuum	Inches of Water	18.	
Blower No. 1 Discharge Pressure	Inches of Water	8	
Blower Effluent PID Reading	PPMV	0	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Nas Pjetri Signature: KP Date & Time: 4/16/19

Blower 2 (East) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓		
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 2 - East			
Blower Run Time	Hours	21428	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-2	Inches of Water	.281	
Knock-Out Tank Vacuum	Inches of Water	4 —	
Blower No. 2 Inlet Vacuum	Inches of Water	6 —	
Blower No. 2 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	.4	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Ken Pfeiffer Signature: KP Date & Time: 5/22 3:40PM

Blower 1 (West) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)		✓	
If there is an alarm condition, was it fixed and the system restarted?		✓	
Is the blower enclosure in good condition?	✓		
Are the valves (at blower and aboveground piping) in good condition?	✓		
Is the vacuum filter in good condition?	✓		
Does the knock-out tank need to be drained? (Record amount drained)		✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓		
Are vacuum/pressure gauges at blower operating properly?	✓		
Are interior piping free of cracks, leaks, and support issues?	✓		
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 1 - West			
Blower Run Time	Hours	21687	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-1	Inches of Water	11.21	
Knock-Out Tank Vacuum	Inches of Water	18.—	
Blower No. 1 Inlet Vacuum	Inches of Water	20.—	
Blower No. 1 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	.9	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV		

Form Completed By: Leo PETER.I

Signature: RP

Date & Time: 5/22 3:30PM

2017 MONTHLY

YEARLY

Blower 2 (East) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 2 - East		✓	
Blower Run Time	Hours	22,192	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-2	Inches of Water	320	
Knock-Out Tank Vacuum	Inches of Water	4	
Blower No. 2 Inlet Vacuum	Inches of Water	4.	
Blower No. 2 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	-0-	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Leo Peters Signature: LP Date & Time: 6/27/19 9:09AM

2017 MONTHLY

YEARLY

Blower 1 (West) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?		✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)		✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 1 - West			
Blower Run Time	Hours	22496	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	—	
MP-1	Inches of Water	11.7	
Knock-Out Tank Vacuum	Inches of Water	20.	
Blower No. 1 Inlet Vacuum	Inches of Water	19	
Blower No. 1 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	-0-	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Ken Pfeiffer

Signature: KP

Date & Time: 6/27/19 9:AM

Blower 2 (East) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 2 - East			
Blower Run Time	Hours	22601	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-2	Inches of Water	3.12	
Knock-Out Tank Vacuum	Inches of Water	4.	
Blower No. 2 Inlet Vacuum	Inches of Water	2.	
Blower No. 2 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	0	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: [signature]

Signature: [signature]

Date & Time: 7/12/19 11:57AM

Blower 1 (West) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)		✓	
If there is an alarm condition, was it fixed and the system restarted?		✓	
Is the blower enclosure in good condition?	✓		
Are the valves (at blower and aboveground piping) in good condition?	✓		
Is the vacuum filter in good condition?	✓		
Does the knock-out tank need to be drained? (Record amount drained)		✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓		
Are vacuum/pressure gauges at blower operating properly?	✓		
Are interior piping free of cracks, leaks, and support issues?	✓		

List maintenance activities that were performed or other comments about the system:

Source of Reading	Units	Values	Comments
Blower No. 1 - West			
Blower Run Time	Hours	22905	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-1	Inches of Water	11.4	
Knock-Out Tank Vacuum	Inches of Water	16.	
Blower No. 1 Inlet Vacuum	Inches of Water	20	
Blower No. 1 Discharge Pressure	Inches of Water	8	
Blower Effluent PID Reading	PPMV	0	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	=	

Form Completed By: Leo.

Signature: [signature]

Date & Time: 7/12/19 11:53AM

Blower 2 (East) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 2 - East			
Blower Run Time	Hours	23418	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-2	Inches of Water	2.29	
Knock-Out Tank Vacuum	Inches of Water	.2	
Blower No. 2 Inlet Vacuum	Inches of Water	.8	
Blower No. 2 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	0.1	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Leo.

Signature: LP

Date & Time: 8/15/19 10:45

Blower 1 (West) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 1 – West			
Blower Run Time	Hours	≈ 23722	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-1	Inches of Water	15.25	
Knock-Out Tank Vacuum	Inches of Water	20	
Blower No. 1 Inlet Vacuum	Inches of Water	20	
Blower No. 1 Discharge Pressure	Inches of Water	8	
Blower Effluent PID Reading	PPMV	0.8	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV		

Form Completed By: [signature]

Signature: [signature]

Date & Time: 8/15/19 10:30 AM

Blower 2 (East) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	
Are any warning lights on? (Please list those that are on)	✓	—	High fluid level on 9/2, 9/6, 9/9
If there is an alarm condition, was it fixed and the system restarted?	✓	—	Pump turned off, water drained, and Reset
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	✓	—	Half gallon combined on noted dates
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓		
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 2 - East			
Blower Run Time	Hours	23992	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-2	Inches of Water	.309	
Knock-Out Tank Vacuum	Inches of Water	.2	
Blower No. 2 Inlet Vacuum	Inches of Water	.6	
Blower No. 2 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	.0	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Erasto Vélez

Signature: [signature]

Date & Time: 9/17/19

Blower 1 (West) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 1 - West			
Blower Run Time	Hours	24517.4	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-1	Inches of Water	15.05	
Knock-Out Tank Vacuum	Inches of Water	20.	
Blower No. 1 Inlet Vacuum	Inches of Water	20.	
Blower No. 1 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	.2	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Erasto Velez

Signature: Erasto Velez

Date & Time: 9/17/19

Blower 2 (East) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)	✓		High Fluid level on 9/19, 9/21, 10/16, 10/17
If there is an alarm condition, was it fixed and the system restarted?	✓		Pump turned off, water drained + reset
Is the blower enclosure in good condition?	✓		
Are the valves (at blower and aboveground piping) in good condition?	✓		
Is the vacuum filter in good condition?	✓		
Does the knock-out tank need to be drained? (Record amount drained)	✓		3/4 Gallon. Most came from date 10/16
Are aboveground piping free of cracks, leaks, and support issues?	✓		
Are vacuum/pressure gauges at blower operating properly?	✓		
Are interior piping free of cracks, leaks, and support issues?	✓		
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 2 - East			
Blower Run Time	Hours	24630.1	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-2	Inches of Water	.275	
Knock-Out Tank Vacuum	Inches of Water	2-	
Blower No. 2 Inlet Vacuum	Inches of Water	10-	
Blower No. 2 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	.2	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Erasto Vélez

Signature: [signature]

Date & Time: 10/17/19 11:50

Blower 1 (West) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 1 - West			
Blower Run Time	Hours	25235.4	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-1	Inches of Water	16.82	
Knock-Out Tank Vacuum	Inches of Water	20-	
Blower No. 1 Inlet Vacuum	Inches of Water	26-	
Blower No. 1 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV	1.2	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV		

Form Completed By: Erasto Velez

Signature: Erasto Velez

Date & Time: 10/17/19 11:47

Blower 2 (East) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	✓	—	WATER DRAIN 1gallon +/-
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	✓	—	DRAINED 1gallon
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 2 - East			
Blower Run Time	Hours	25139	
Vacuum at Aboveground Piping (at roof line)	Inches of Water		
MP-2	Inches of Water	.223	
Knock-Out Tank Vacuum	Inches of Water	4-	
Blower No. 2 Inlet Vacuum	Inches of Water	6-	
Blower No. 2 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV		
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Leo Petrillo

Signature: L.P.

Date & Time: 11/14/19 9AM.

Blower 1 (West) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 1 - West			
Blower Run Time	Hours	25904	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-1	Inches of Water	.20+	
Knock-Out Tank Vacuum	Inches of Water	18	
Blower No. 1 Inlet Vacuum	Inches of Water	20	
Blower No. 1 Discharge Pressure	Inches of Water	0	
Blower Effluent PID Reading	PPMV		
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	—	

Form Completed By: Leo Petrio

Signature: LP

Date & Time: 11/14/19 9AM

Blower 2 (East) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓		
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 2 - East			
Blower Run Time	Hours	25911	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-2	Inches of Water	310.	
Knock-Out Tank Vacuum	Inches of Water	4.	
Blower No. 2 Inlet Vacuum	Inches of Water	4.	
Blower No. 2 Discharge Pressure	Inches of Water	8	
Blower Effluent PID Reading	PPMV	0	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV	/	

Form Completed By: [signature]

Signature: [signature]

Date & Time: 12/17/19 @ 9am

Blower 1 (West) Sub-Slab Depressurization System Operations and Maintenance Log
149 Kent Avenue, Brooklyn, NY

INSPECTION ITEM DESCRIPTION	Yes	No	Comments/ Actions Taken (list actions taken if "No" is checked)
Is the system operating normally?	✓	—	
Are any warning lights on? (Please list those that are on)	—	✓	
If there is an alarm condition, was it fixed and the system restarted?	—	✓	
Is the blower enclosure in good condition?	✓	—	
Are the valves (at blower and aboveground piping) in good condition?	✓	—	
Is the vacuum filter in good condition?	✓	—	
Does the knock-out tank need to be drained? (Record amount drained)	—	✓	
Are aboveground piping free of cracks, leaks, and support issues?	✓	—	
Are vacuum/pressure gauges at blower operating properly?	✓	—	
Are interior piping free of cracks, leaks, and support issues?	✓	—	
List maintenance activities that were performed or other comments about the system:			

Source of Reading	Units	Values	Comments
Blower No. 1 - West			
Blower Run Time	Hours	2575	
Vacuum at Aboveground Piping (at roof line)	Inches of Water	0	
MP-1	Inches of Water	20.76	
Knock-Out Tank Vacuum	Inches of Water	18	
Blower No. 1 Inlet Vacuum	Inches of Water	18	
Blower No. 1 Discharge Pressure	Inches of Water	—	
Blower Effluent PID Reading	PPMV	0 ppm	
VPGAC Unit Effluent PID Reading (If Applicable)	PPMV		

Form Completed By: Leo P Jetri

Signature: LPJ

Date & Time: 12/17/19

Site Inspection Checklist, 149 Kent Avenue, Brooklyn, NY

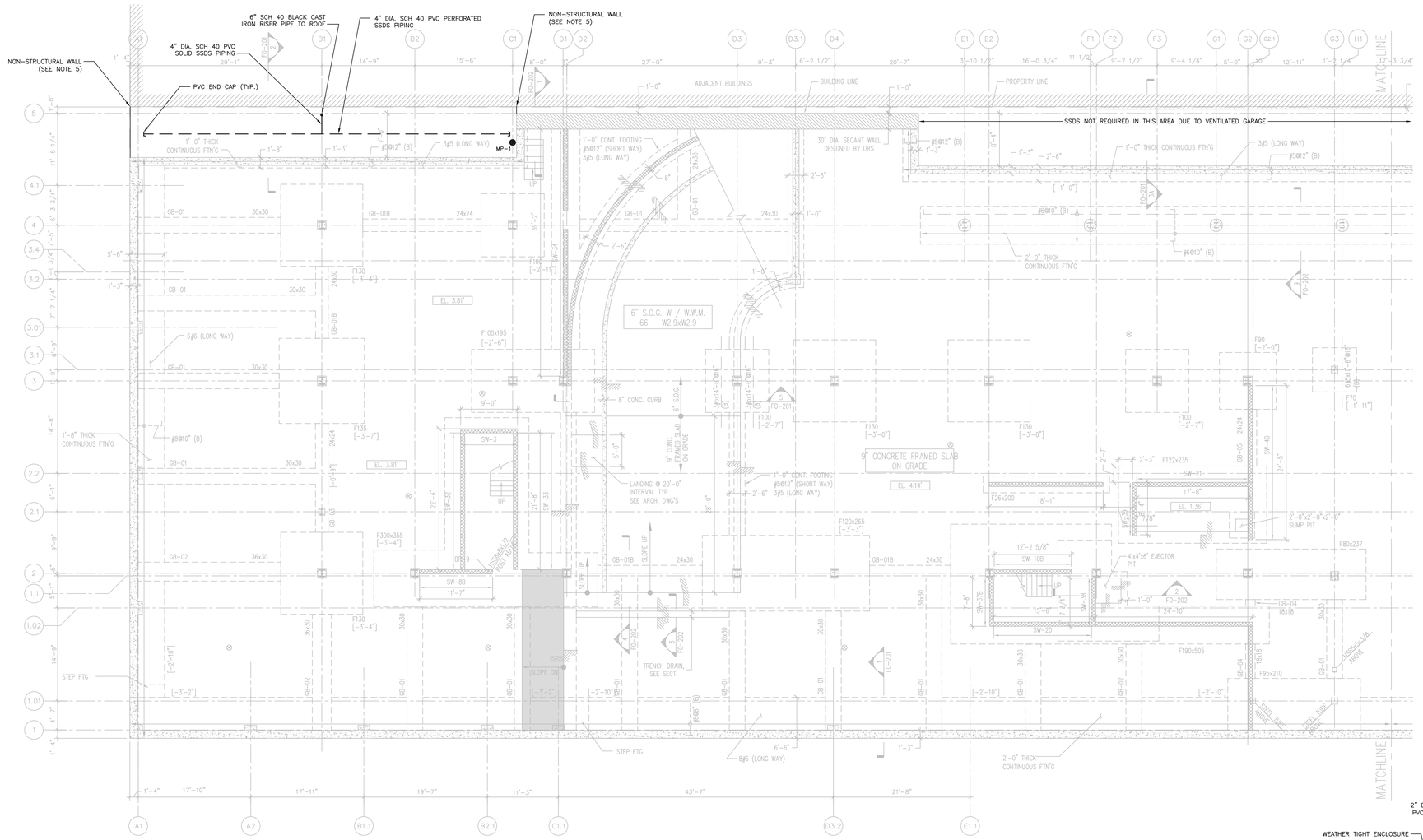
Date: 01/02/2020

Completed By: ALFREDO F. / LEO P.

Description	Status: Ok	Status: Action Req.	Status: N/A	Actions Taken / Comments
Site Cover System				
1 Inspect site cover system for cracks and leaks.	✓			
Sub-Slab Depressurization System Blower No. 1				
A. Aboveground Piping on Roof				
1 Inspect aboveground piping for cracks, leaks and support issues.	✓			
2 Inspect vacuum/pressure gauges and flowmeters for proper operation.	✓			
B. Electrical				
1 Check that the electrical control panel is closed/secured.	✓			
C. Blower Enclosure				
1 Inspect condition of exhaust fan, thermostat and louver.	✓			
D. Gallon Knock-out Tank				
1 Check condition of vacuum filter.	✓			
2 Check dilution valve for noises or leaks.	✓			
4 Check for presence of water in knockout tank.	✓			
E. Vapor Phase Carbon Units (If Installed)				
1 Inspect and check pressure gauges.			NA	
2 Check for any leaks on piping, fittings, etc.			NA	
Sub-Slab Depressurization System Blower No. 2				
A. Aboveground Piping on Roof				
1 Inspect aboveground piping for cracks, leaks and support issues.	✓			
2 Inspect vacuum/pressure gauges and flowmeters for proper operation.	✓			
B. Electrical				
1 Check that the electrical control panel is closed/secured.	✓			
C. Blower Enclosure				
1 Inspect condition of exhaust fan, thermostat and louver.	✓			
D. Gallon Knock-out Tank				
1 Check condition of vacuum filter.	✓			
2 Check dilution valve for noises or leaks.	✓			
4 Check for presence of water in knockout tank.	✓			DRAINED 1/2 GAL
E. Vapor Phase Carbon Units (If Installed)				
1 Inspect and check pressure gauges.			NA	
2 Check for any leaks on piping, fittings, etc.			NA	
Institutional Controls				
1 Confirm that the site usage is in compliance with the institutional controls.	✓			
Site Records				
1 Inspect site records and confirm that they are up to date (e.g., Site Inspection Checklists and Sub-Slab Depressurization System Operations Logs, sampling logs, etc.)	✓			

PLATES

1. V001.00. SSDS-1 As-Built
2. V001.00. SSDS-2 As-Built



SUB-SLAB DEPRESSURIZATION SYSTEM PLAN – WEST

SCALE: 1/8" = 1'

LEGEND

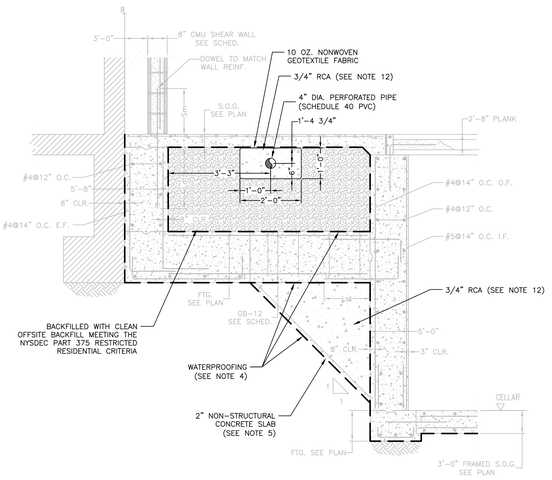
MP-1 ●	SOIL VAPOR MONITORING POINT

DEFINITIONS

SSDS	–	SUB-SLAB DEPRESSURIZATION SYSTEM
FT	–	FEET
HZ	–	HERTZ
TYP.	–	TYPICAL
NYSDEC	–	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIA.	–	DIAMETER
PVC	–	POLYVINYL CHLORIDE
SCH	–	SCHEDULE
BLDG	–	BUILDING
RCA	–	RECYCLED CONCRETE AGGREGATE

GENERAL NOTES

1. FOUNDATION AND CELLAR PLAN FROM GACE CONSULTING ENGINEERS, P.C., DRAWING NO. FD-101.00, ISSUE DATE JANUARY 31, 2014 (75% CD SET)
2. SSDS ONLY REQUIRED ALONG THE "NORTH" WALL OF THE PROPERTY WHERE SOIL REMAINS IN PLACE ABOVE THE WATER TABLE AND VENTILATED GARAGE IS NOT PRESENT.



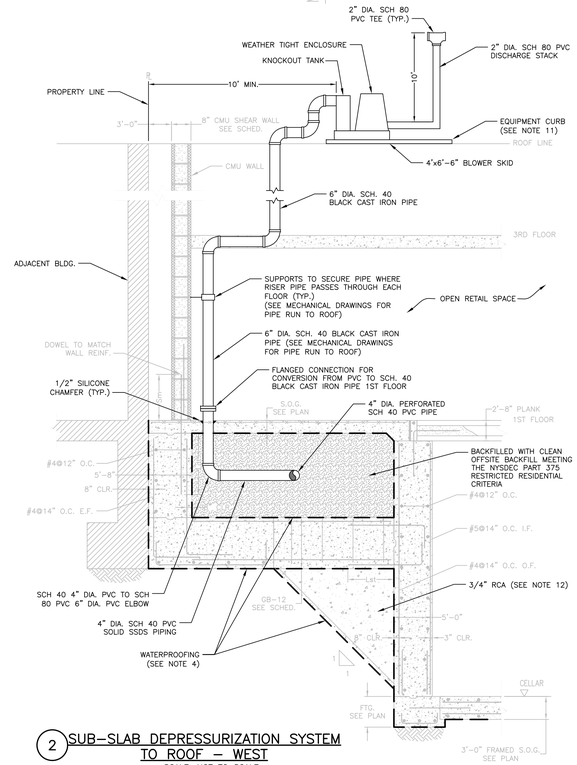
1 SUB-SLAB DEPRESSURIZATION SYSTEM PIPE DETAIL – WEST

SCALE: NOT TO SCALE

(BASED ON DETAIL 2 ON FD-201; GACE CONSULTING ENGINEERS, P.C.)

DESIGN NOTES

1. THE SURFACES LINED WITH GEOTEXTILE ARE FREE OF ALL ROCKS, STONES, SHARP OBJECTS OR CONSTRUCTION DEBRIS OF ANY KIND.
2. GEOTEXTILE NONWOVEN FABRIC INSTALLED DIRECTLY BELOW MUDSLAB. MATERIAL OVERLAPS ARE A MINIMUM OF 12". THE OVERLAPPED SEAMS ARE SEALED WITH TAPE.
3. ALL PENETRATIONS THROUGH THE SLAB ON GRADE (SOG) SEALED USING A SILICONE BASED WATERPROOF SEALANT OR EQUIVALENT.
4. WATERPROOFING SYSTEM COMPRISED OF GRACE PRODUCTS. FOR DETAILS REGARDING WATERPROOFING SYSTEM, REFER TO ARCHITECTURAL DRAWINGS.
5. NON-STRUCTURAL WALLS AND CONCRETE SLABS ARE CONSTRUCTED WHERE SHOWN ON THIS DRAWING TO ENCLOSE THE "VOID" SPACE WHERE THE SDSS IS LOCATED. GRACE PRODUCTS ARE USED TO WATERPROOF THE NON-STRUCTURAL WALLS AND CONCRETE SLABS.
6. ELECTRICAL CONDUIT IS SIZED FOR 115 VOLT, SINGLE PHASE, 30 AMPS 60 HZ, FOR BLOWER MOTOR.
7. THE BLOWER DISCHARGE IS LOCATED A MINIMUM OF 10 FEET FROM HVAC AIR INLETS, AND PROPERTY LINE.
8. THE BLOWER SHALL BE A 2HP, AMETEK ROTRON MODEL EN505AX58ML.
9. THE BLOWER IS COVERED WITH A WEATHER TIGHT ENCLOSURE (FRP MOLDED SHELTER) DWYER ENCLOSURE D-100HDS.
10. THE BLOWER SKID INCLUDES A WEATHER TIGHT ENCLOSURE, 7 GALLON AMETEK ROTRON MODEL MS200P(S) KNOCKOUT TANK (WITH HIGH LEVEL ALARM), VACUUM RELIEF VALVE, GAUGES, AND INTERCONNECTING PIPING/FITTINGS (INCLUDING A MANUAL DILUTION VALVE).
11. THE BLOWER SKID IS INSTALLED ON EQUIPMENT CURB (REFER TO ARCHITECTURAL DRAWINGS FOR CURB DETAIL).
12. 3/4" RCA CAME FROM AN ACTIVE REGISTERED CONSTRUCTION AND DEMOLITION FACILITY AND CONTAINS LESS THAN 10% BY WEIGHT MATERIAL PASSING THROUGH A SIZE NO. 80 SIEVE.



2 SUB-SLAB DEPRESSURIZATION SYSTEM TO ROOF – WEST

SCALE: NOT TO SCALE

(BASED ON DETAIL 2 ON FD-201; GACE CONSULTING ENGINEERS, P.C.)

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149 Kent Ave Development
Brooklyn, NY 11249
BLOCK: 2333 LOT: 1

PROJECT #B2227.00

DEVELOPER

Kent & Wythe Owners LLC

STRUCTURAL ENGINEER

GACE Consulting Engineers P.C.

MECHANICAL ENGINEER

Rodkin Cardinale Consulting Engineers P.C.

OWNER

Kent & Wythe Owners LLC

NYSDEC SUBMITTAL - JULY 2014

SCALE

AS NOTED

PROJECT

149 Kent Ave Development
Brooklyn, NY 11249

DRAWING

SUB-SLAB DEPRESSURIZATION SYSTEM WEST **AS-BUILT**

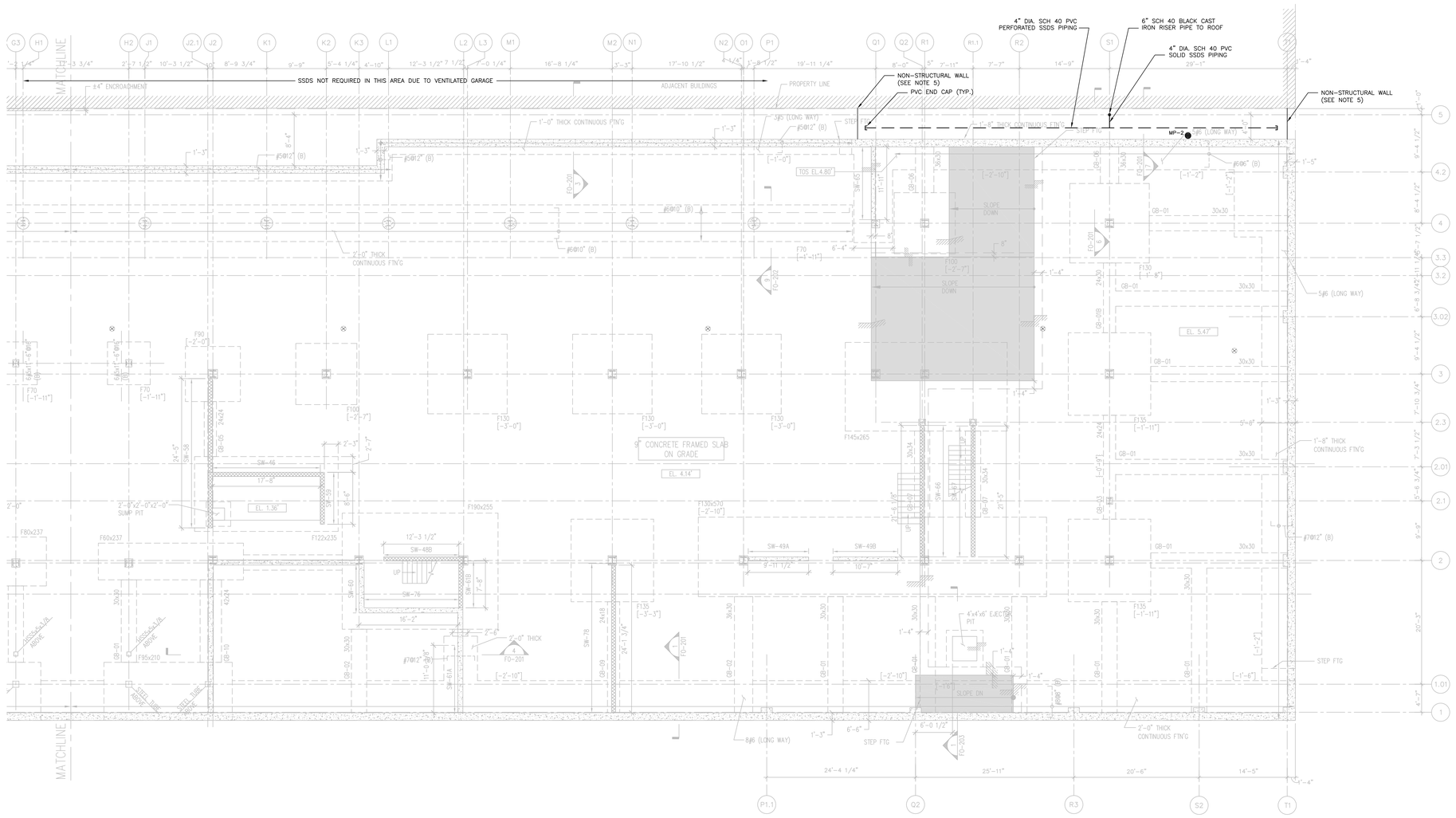
SEAL AND SIGNATURE

STATE OF NEW YORK · ANDRE M. CARDINALE · No. 072461 · REGISTERED PROFESSIONAL ENGINEER · 2/17/11

DATE: 13FEB17
PROJECT NO: 2158.0001Y000
DRAWING BY: B.H.C.
CHK BY: L.C.
DWG NO:

V-001.00

CAD FILE NO: _____ 1 OF 2



SUB-SLAB DEPRESSURIZATION SYSTEM PLAN – EAST

SCALE: 1/8" = 1'

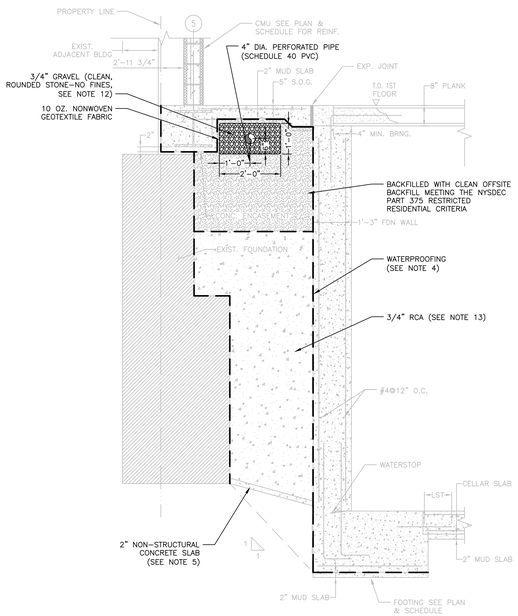
LEGEND

MP-2 ● SOIL VAPOR MONITORING POINT

SSDS	–	SUB-SLAB DEPRESSURIZATION SYSTEM
FT	–	FEET
HZ	–	HERTZ
TYP.	–	TYPICAL
NYSDEC	–	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIA.	–	DIAMETER
PVC	–	POLYVINYL CHLORIDE
SCH	–	SCHEDULE
BLDG	–	BUILDING
RCA	–	RECYCLED CONCRETE AGGREGATE

GENERAL NOTES

1. FOUNDATION AND CELLAR PLAN FROM GACE CONSULTING ENGINEERS, P.C., DRAWING NO. F0-102.00, ISSUE DATE JANUARY 31, 2013 (75% CD SET)
2. SSDS ONLY REQUIRED ALONG THE "NORTH" WALL OF THE PROPERTY WHERE SOIL REMAINS IN PLACE ABOVE THE WATER TABLE AND VENTILATED GARAGE IS NOT PRESENT.

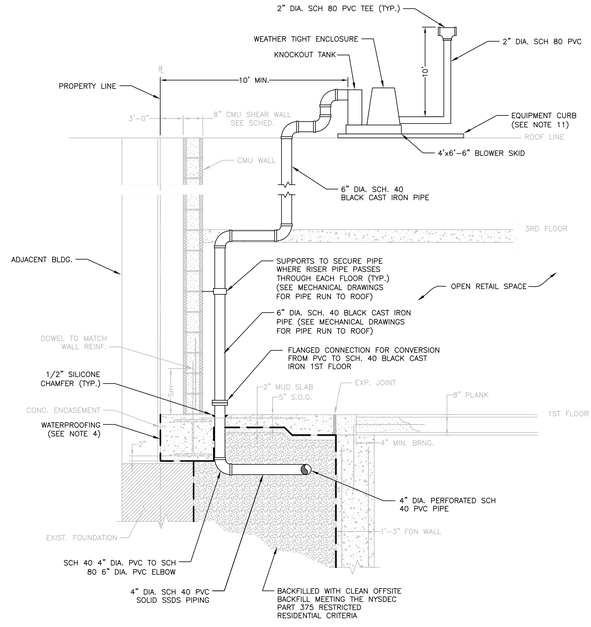


1 SUB-SLAB DEPRESSURIZATION SYSTEM PIPE DETAIL – EAST

SCALE: NOT TO SCALE

DESIGN NOTES

1. THE SURFACES LINED WITH GEOTEXTILE ARE FREE OF ALL ROCKS, STONES, SHARP OBJECTS OR CONSTRUCTION DEBRIS OF ANY KIND.
2. GEOTEXTILE NONWOVEN FABRIC INSTALLED DIRECTLY BELOW MUDSLAB. MATERIAL OVERLAPS ARE A MINIMUM OF 12". THE OVERLAPPED SEAMS ARE SEALED WITH TAPE.
3. ALL PENETRATIONS THROUGH THE SLAB ON GRADE (SOG) SEALED USING A SILICONE BASED WATERPROOF SEALANT OR EQUIVALENT.
4. WATERPROOFING SYSTEM COMPRISED OF GRACE PRODUCTS. FOR DETAILS REGARDING WATERPROOFING SYSTEM, REFER TO ARCHITECTURAL DRAWINGS.
5. NON-STRUCTURAL WALLS AND CONCRETE SLABS ARE CONSTRUCTED WHERE SHOWN ON THIS DRAWING TO ENCLOSE THE "VOID" SPACE WHERE THE SDSS IS LOCATED. GRACE PRODUCTS ARE USED TO WATERPROOF THE NON-STRUCTURAL WALLS AND CONCRETE SLABS.
6. ELECTRICAL CONDUIT IS SIZED FOR 115 VOLT, SINGLE PHASE, 30 AMPS 60 HZ, FOR BLOWER MOTOR.
7. THE BLOWER DISCHARGE IS LOCATED A MINIMUM OF 10 FEET FROM HVAC AIR INLETS, AND PROPERTY LINE.
8. THE BLOWER SHALL BE A 2HP, AMETEK ROTRON MODEL EN505AX58ML.
9. THE BLOWER IS COVERED WITH A WEATHER TIGHT ENCLOSURE (FRP MOLDED SHELTER) DWYER ENCLOSURE D-100HDS.
10. THE BLOWER SKID INCLUDES A WEATHER TIGHT ENCLOSURE, 7 GALLON AMETEK ROTRON MODEL MS200P(S) KNOCKOUT TANK (WITH HIGH LEVEL ALARM), VACUUM RELIEF VALVE, GAUGES, AND INTERCONNECTING PIPING/FITTINGS (INCLUDING A MANUAL DILUTION VALVE).
11. THE BLOWER SKID IS INSTALLED ON EQUIPMENT CURB (REFER TO ARCHITECTURAL DRAWINGS FOR CURB DETAIL).
12. 3/4" GRAVEL CAME FROM A NYSDEC PERMITTED MINE OR QUARRY AND CONTAINS LESS THAN 10% BY WEIGHT MATERIAL PASSING THROUGH A SIZE NO. 80 SIEVE.
13. 3/4" RCA CAME FROM AN ACTIVE REGISTERED CONSTRUCTION AND DEMOLITION FACILITY AND CONTAINS LESS THAN 10% BY WEIGHT MATERIAL PASSING THROUGH A SIZE NO. 80 SIEVE.



2 SUB-SLAB DEPRESSURIZATION SYSTEM TO ROOF – EAST

SCALE: NOT TO SCALE

(BASED ON DETAIL 7 ON F0-201; GACE CONSULTING ENGINEERS, P.C.)

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NYSDEC SUBMITTAL - JULY 2014

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DRAWING
SUB-SLAB DEPRESSURIZATION SYSTEM EAST
AS-BUILT

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