

388 Bridge Street
Brooklyn, New York

NYSDEC BCP Site No. C224134

ANNUAL PERIODIC REVIEW REPORT AND ENGINEERING CERTIFICATION



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FEBRUARY 2023

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EXECUTIVE SUMMARY

This Periodic Review Report (PRR) documents the activities subject to the Site Management Plan (SMP) for 388 Bridge Street (Site) for the reporting period (January 3, 2022 to January 3, 2023). The Site (BCP No. C224134) was remediated under the Brownfield Cleanup Program (BCP) administered by the New York State Department of Environmental Conservation (NYSDEC). The engineering and institutional controls (EC/IC) are maintained in accordance with the NYSDEC-approved SMP.

The purpose of this PRR and Annual Certification is to document on-going Site management activities associated with the permanent ECs and ICs in place at the Site, and to certify that these controls are being maintained in accordance with the SMP.

The Site management activities conducted in 2022 include the following:

- Routine system inspections of the on-Site Soil Vapor Extraction (SVE) system;
- Vapor Carbon disposal from the SVE system;
- Routine system checks of the sub-slab depressurization system (SSDS), a component of the vapor mitigation system implemented at the Site;
- Routine system checks of the off-Site ECs including the SSDS and basement pressurization system (BPS), components of the vapor mitigation systems implemented at 80 Willoughby Street (Former Saint Joseph's High School [SJHS]);
- Annual groundwater sampling and monitoring;
- Visual inspection of the basement floor and perimeter for signs of vapor intrusion;
- Visual inspection of the concrete slab to determine the absence of cracks and fissures.

The implementation of remedial action, Site management activities, and continuous media monitoring were performed by Fleming Lee Shue Environmental Engineering and Geology D.P.C. (FLS). It was determined that ECs and ICs remain effective and continue to be protective of public health and environment. The SVE data collected during monitoring demonstrated that the concentration of tetrachloroethylene (PCE) in the soil vapor has reduced significantly since system

start-up in 2013. Groundwater samples have been collected on a semi-annual basis, starting in March 2016. In July 2019, NYSDEC approved a request to reduce the groundwater monitoring schedule from semi-annual to annual. During the most recent groundwater monitoring event conducted in March 2022 (report dated May 19, 2022), PCE was the only chlorinated volatile organic compound (VOC) exceeding NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values (TOGS). The PCE concentrations have remained largely the same compared to the 2021 sampling event and remain well below pre-treatment maximum concentrations.

Compliance with the EC/IC Plan is further discussed in Section 3. Compliance with the media monitoring plan is discussed in Section 4 and compliance with the Operation and Maintenance of the ECs is discussed in Section 5. Conclusions with recommendations are provided in Section 6.

1.0 SITE OVERVIEW

1.1 Site Description

The Site is located in Downtown Brooklyn, Kings County, New York and is identified as Block 152 and Lots 1001-1006 (formerly Lots 37 and 118) on the current New York City Tax Map. The Site is an approximately 0.46-acre area bounded by the former SJHS (as of September 2020 utilized as the Brooklyn Prospect Downtown Elementary Charter School) and a portion of a 5-story commercial building (Lots 33 and 31, respectively) to the north, a fabric discount store (Lot 6) and ASA Institute of Business (Lot 18) to the south, Bridge Street to the east, and Lawrence Street to the west. The Site Location and Site Plan are included as Figures 1 and 2, respectively. The boundaries of the Site are more fully described in Appendix A - Metes and Bounds. Responsible parties are listed in Table 1.

1.2 Site Development Status

The development on the Site includes the 53-story residential building with retail spaces on the ground floors and parking from the sub cellar to the 3rd floor of the building. The development footprint is a lot line-to-lot line building as shown in Figure 2.

1.3 Nature and Extent of Contamination

Remedial investigations completed at the Site between May 2008 and July 2008 found several underground storage tanks (USTs). NYSDEC spill number #0801499 was opened and then subsequently closed on August 18, 2009 after removal of these USTs. Additional remedial investigations on the Site detected soils indicative of urban fill with elevated levels of semi-volatile organic compounds and metals. Also, elevated levels of chlorinated VOCs were detected in groundwater and soil vapor samples. Off-Site remedial investigations were completed to determine potential off-Site impacts from the historic dry-cleaning tenant which operated on the Site until 1982. The offsite investigations found elevated levels of chlorinated VOCs from the Site at the former SJHS only.

Of note, a diagnostic testing conducted by FLS in 2015 confirmed that the remaining PCE contamination in soil vapor beneath the building was primarily present in the area of SVE well 2. The SVE system was modified in 2016 to more effectively target the area where soil vapor contamination remains.

1.4 Site Remediation

The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index # A2-0623-07-09, which was executed on August 10, 2009. The BCA was amended on July 13, 2010, to correct the Site size, add a survey map, and add R, K & G Associates, LLC as a Remedial Party.

The Site was remediated in accordance with the NYSDEC-approved Remedial Action Work Plan dated April 2012, which enumerated the following remedial activities:

1. Excavation of soil/fill for development purposes. The soil excavated during intrusive Site work was screened for indications of contamination (by visual means, odor, and monitoring with a photoionization detector). All remaining soil met Track 2 Restricted Use Soil Cleanup Objectives (RUSCOs);
2. Off-Site disposal of all material removed from the Site in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal;
3. Collection and analysis of end-point samples to evaluate attainment of Track 2 RUSCOs;
4. Installation of a SVE system to remove soil vapor above New York State Department of Health (NYSDOH) air guideline values (AGV), as listed in the NYSDOH *Final Guidance for Evaluating Vapor Intrusion in the State of New York, October 2006*;
5. Installation of an active SSDS as a preventative measure from residual contamination at the Site;
6. Construction and maintenance of an engineered composite cover consisting of a vapor barrier and a concrete pressure slab to prevent human exposure to residual contaminated soil/fill remaining under the Site;
7. Monitoring natural attenuation of groundwater;

8. Installation of an active SSDS, BPS, and sealing of the elevator pit at 80 Willoughby, which borders the Site to the north, to address off-Site soil vapor contamination; and
9. Development of an SMP for long term management of residual contamination as required by the Environmental Easement, including plans for: (1) ECs /ICs, (2) monitoring, (3) operation and maintenance and (4) reporting.

2.0 REMEDY EVALUATION

The annual inspection of the on-Site ECs, which includes the SSDS, composite cover system, and SVE system, demonstrated that the ECs continue to perform as designed and continue to be protective of human health and the environment.

The groundwater sampling results are included in Table 2 and shows that PCE concentrations continue to decline overall compared to pre-remediation concentrations. The SVE monitoring results are included in Table 3 and demonstrate a large reduction in the concentrations of chlorinated VOCs in soil vapor since system start-up. These data are discussed further in Section 4.

The off-Site ECs are comprised of the SSDS and basement pressurization system (BPS). On October 21, 2021, NYSDEC approved a request by Tenen Environmental to discontinue the operation of the active SSDS at 80 Willoughby Street on the condition that the BPS be decommissioned. A copy of the approval and correspondence are provided in Appendix E. Prior to the annual inspection of the off-Site ECs, the BPS had been decommissioned in preparation for approved alterations to the SSDS. At the time of this report, the SSDS at 80 Willoughby continues to run as an active system. However, modifications to alter the system to passive are planned for the next reporting period. The annual inspection of the remaining off-Site ECs demonstrated that they continue to perform as designed and continue to be protective of human health and the environment. The EC details and inspection results are discussed in Section 5.

3.0 INSTITUTIONAL AND ENGINEERING CONTROLS COMPLIANCE

3.1 Institutional Controls

The ICs are non-physical controls, such as Site use restrictions, implemented in order to protect human health and the environment. The SMP requires annual certification of the ICs for the Site to ensure that they continue to be implemented in order to prevent exposure to residual contamination. The ICs for the Site include the SMP, Soils/Materials Management Plan, groundwater use, use restrictions, provisions for deed restrictions and environmental easements, EC/IC plans, and the Operation, Maintenance and Monitoring plan.

3.2 Engineering Controls

The ECs are physical controls employed to contain, stabilize, and monitor residual contamination. Since residual contaminated soil, groundwater, and soil vapor exists beneath the Site, the ECs will continue to remain, protecting human health and the environment. The on-Site ECs required by the SMP consist of a SSDS, a SVE system, and a composite cover system. The SSDS will not be operational until the SVE system is fully decommissioned. The active SVE system extracts soil vapors from a limited area where the bulk of the PCE mass remains. The SVE system installed in 2013 was modified in 2016 with the approval of NYSDEC and NYSDOH. Groundwater is monitored at the other areas where soil vapor extractions ceased. Off-Site ECs required by the SMP and implemented at the former SJHS consist of an active SSDS, BPS, and a composite cover system. On October 21, 2021, NYSDEC approved a request by Tenen Environmental to discontinue the operation of the active SSDS and BPS at 80 Willoughby Street (Appendix E). While the BPS is no longer operation, at the time of this report the SSDS at 80 Willoughby continues to run as an active system, with plans to modify the system to a passive system in 2023.

The SMP requires an annual inspection and certification of the ECs to ensure that they continue to perform as designed and continue to be protective of human health and the environment.

3.3 Certification of Engineering and Institutional Controls

The owner is responsible for overseeing, documenting, and certifying that the Site management activities were performed in accordance with the applicable SMP. The annual certifications were

performed by FLS on behalf of 384 Bridge Street, LLC. The completed EC/IC Certification Form is provided as Appendix B.

4.0 MONITORING PLAN COMPLIANCE

4.1 Groundwater Monitoring

The majority of the existing groundwater monitoring wells were demolished during building construction. As outlined in the SMP, semi-annual groundwater monitoring is conducted to confirm natural attenuation of chlorinated VOCs in groundwater. Following the modification of the SVE system in January 2016, five of the six SVE wells were converted to groundwater monitoring wells. Of these five, two wells (SVE-MW-3 and SVE-MW-6) were subsequently abandoned as they did not extend into the groundwater table. In an email dated July 18, 2019, NYSDEC granted approval for a reduction in the groundwater monitoring schedule from semi-annual to annual, due to the relatively low and declining concentrations of site-related chlorinated VOCs. The SVE and groundwater monitoring well locations are shown on Figure 3.

In 2022, the annual groundwater monitoring event was completed on March 22, 2022. A report summarizing the groundwater monitoring event was prepared by FLS and submitted to NYSDEC on May 19, 2022. The next annual sampling event is to be conducted in March 2023.

4.2 Groundwater Monitoring Results

During the March 2022 groundwater sampling event samples were collected and analyzed for VOCs and geochemical parameters including nitrate, nitrite, sulfate, ferrous iron, total organic carbon, and dissolved organic carbon. As discussed in the May 2022 groundwater monitoring report, PCE was the only contaminant of concern detected at concentrations above the TOGS 5 µg/L standard in SVE-MW-4 (28.8 µg/L) and SVE-MW-5 (21.4 µg/L). The concentration of PCE in SVE-MW-1 (4.4 µg/L) was below the TOGS standard. PCE concentrations remain largely the same compared to the last sampling event and remain well below pre-treatment concentrations. Additionally, concentrations of chloroform remained below the TOGS standard of 7.0 µg/L in all wells during this reporting period.

4.3 Soil Vapor Monitoring

The soil vapor monitoring was completed in accordance with the SMP. The objectives of the soil vapor monitoring in conjunction with the SVE system on the Site are to 1) track system

performance and 2) monitor for carbon breakthrough. Quarterly sampling of soil vapor was conducted at the system prior to the carbon treatment (influent), after the first carbon treatment unit (midstream), and after the second carbon treatment unit (outlet). Samples were collected with 1.4-liter summa canisters provided by SGS Accutest Laboratories using 2-hour flow regulators and were analyzed for VOCs by EPA Method TO-15.

4.4 Soil Vapor Monitoring Results

The quarterly soil vapor monitoring analytical results shown in Table 3 were reviewed, and compared to the NYSDOH AGVs for PCE and TCE. The analytical results show that concentrations of PCE and TCE above the AGVs remain in the soil vapor beneath the building.

The results and findings of the soil vapor sampling of the SVE system, are summarized below:

- The highest historical concentrations of PCE ($39,700 \mu\text{g}/\text{m}^3$) and TCE ($120 \mu\text{g}/\text{m}^3$) detected at the 2013 SVE system inlet were recorded on July 3, 2013, one week after the system was turned on.
- Thirty-three (33) sampling events, including twenty-eight (28) quarterly events, have been completed since the modification of the 2016 SVE system.
- In the most recent sampling event, the SVE inlet readings of PCE and TCE were $4,130 \mu\text{g}/\text{m}^3$ and $8.6 \mu\text{g}/\text{m}^3$, respectively. When compared to the highest concentrations detected (sample collected July 3, 2013), concentrations of PCE and TCE have been reduced approximately 89.59% and 92.83%, respectively.
- New carbon was installed in the lead and lag carbon vessels on June 21, 2022 following evidence of carbon saturation in the May 2022 sampling event. Spent carbon was disposed of at an approved facility under EPA ID No. NYD080631369. Waste disposal manifests are included as Appendix F.
- To date, a total of eighty-eight (88) soil vapor sampling (monthly/quarterly/quality control) events have been completed since initial system installation in 2013. As of the date of the last SVE sampling event, December 1, 2022, a total of 126.51 kg of PCE and 0.43 kg of TCE have been removed and treated from the Site since the system startup in 2013. Graphs

showing the cumulative mass removal for PCE and TCE from initial system startup to the 2016 system modification are presented in Figure 4 and 5, respectively.

- As of the date of the last SVE sampling event, December 1, 2022, the modified SVE system has removed a total of 38.64 kg of PCE and 0.13 kg of TCE since 2016 (Figure 6 and 7).

5.0 OPERATION AND MAINTENANCE PLAN COMPLIANCE

5.1 Site Inspections

The inspections of the ECs were conducted by FLS on a quarterly basis. FLS inspected the on-Site SVE system, the on-Site and off-Site SSDSs, the off-site BPS, and the on-Site composite cover. The quarterly inspection forms, which tabulate both SVE system readings and on and off-Site vacuum readings are included as Appendix C. Site and SVE system photographs are included in Appendix D.

The inspections consisted of the following elements:

- Inspection of the on-Site SVE system, including temperature and pressure readings at the system's components;
- Pressure readings were collected at the SVE extraction wells using digital manometer;
- Inspections of the on-Site and off-Site SSDSs including differential pressure readings using digital manometer at each of the monitoring points;
- Inspection of the BPS at the off-Site property (former SJHS);
- Inspections of the on-Site composite cover system, including the conditions of the foundation slab and sidewalls; and

5.2 Inspection Results

The ECs for the Site were inspected and continue to perform as designed, protecting human health and the environment. There are no areas where the composite cover or vapor mitigation systems appear impaired, compromised or otherwise damaged.

The roof of the 80 Willoughby Site (former SJHS) was modified to incorporate a rooftop playground space. In order to make room for the playground space and ensure SSDS effluent emitted from a safe distance, the SSDS was modified. The blower and effluent stack were rerouted to the location shown on Figure 8, as approved by NYSDEC in an June 6, 2022 email (Appendix E). Additionally, the former kitchen hoods, which acted as the BPS in the former SJHS basement, were decommissioned and removed (Photo 13).

During the inspection of the 80 Willoughby property, FLS observed that the relocated effluent stack appeared to emit below the roofline of the adjacent roof access space (Photo 14). In early 2023, FLS plans to convert the existing system from active to passive per the October 21, 2021 NYSDEC approval (Appendix E). During this conversion, FLS will relocate the stack towards the edge of the existing parapet (Figure 9) and adjust the stack height to emit approximately 2-feet above the adjacent roofline.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Compliance with the SMP

Based on the evaluation of the inspections and monitoring data, FLS concludes the following:

- The ECs and ICs were in place and remained effective at the Site in 2022.
- Per the NYSDEC approval dated October 21, 2021, the BPS was decommissioned during the reporting period. The remaining ECs and ICs were in place and remained effective at the former SJHS in 2022.
- The operation and maintenance activities were conducted properly.
- The quarterly soil vapor sampling of the SVE system was properly implemented. There has been a significant reduction in concentrations of PCE and TCE since SVE system start-up in 2013.
- The annual groundwater sampling was properly implemented and the PCE concentrations are above the TOGS Standard of 5 µg/L.

Based on the evaluation of the inspections and monitoring data, FLS recommends the following:

- The on-site ECs and ICs will continue in operation and monitoring in 2023.
- The soil vapor sampling of the on-site SVE system will continue to monitor system performance and breakthrough of carbon;
- Groundwater monitoring will continue to be conducted on an annual basis. These results will evaluate the natural attenuation occurring in the subsurface.
- The BPS at the former SJHS is no longer operational. In, 2023 FLS plans to convert the existing SSDS at the offsite 80 Willoughby site (former SJHS) from active to passive per the October 21, 2021 NYSDEC approval. At this time the effluent stack will be relocated to the edge of the building and the height adjusted to emit above the existing roofline of the adjacent roof access (Figure 9). Following completion of these modifications, the SMP will be modified to reflect these changes and the termination of the BPS and submitted to NYSDEC for approval.

6.2 Future PRR Submittals

In accordance with the approved SMP, PRRs will be submitted on an annual basis. The next PRR is due no later than February 4, 2023.

Tables

Table 1
388 Bridge Street
Responsible Parties

NYSDEC Site #	Development Work	Responsible Party
BCP Site C224134		
	On-Site Building (New Development Building) Off-Site Buiding (80 Willoughby Street)	384 Bridge Street, LLC 384 Bridge Street, LLC



Table 3 - SVE Sampling Results June 2013 - December 2021
388 Bridge Street Brooklyn, New York

Compound/ Date	System installation date	Sampling Frequency Sample ID NYSDOH Guidance ¹	PCE Tetrachloroethylene			TCE Trichloroethylene		
			SVE-INLET	SVE-MIDSTREAM	SVE-OUTLET	SVE-INLET	SVE-MIDSTREAM	SVE- OUTLET
			30	30	30	2	2	2
6/28/2013	2013	Monthly	29400	1650	124	51	4.3	0.42
7/3/2013	2013	Monthly	39700	1690	22	120	5.9	1.5
7/10/2013	2013	Monthly	29800	80.7	73.9	73.1	0.42	0.42
7/17/2013	2013	Monthly	8750	486	40	37	4.8	0.42
7/24/2013**	2013	Non-routine	12	433	45	0.42	2.2	0.42
7/31/2013	2013	Monthly	6850	163	31	19	0.42	0.42
8/7/2013	2013	Monthly	4710	264	39	17	1.3	0.42
8/14/2013	2013	Monthly	6750	475	39	30	1.7	0.42
8/28/2013	2013	Monthly	5580	364	26	22	1.3	0.42
9/11/2013	2013	Monthly	4650	321	NS	16	1.2	NS
9/25/2013	2013	Monthly	5440	291	NS	21	1.1	NS
10/9/2013	2013	Monthly	3040	232	30	14	0.42	0.42
10/23/2013	2013	Monthly	4950	356	NS	18	1.2	NS
11/6/2013	2013	Monthly	4400	311	NS	17	1.1	NS
11/20/2013	2013	Monthly	5280	174	70.5	17	0.64	0.22
12/4/2013	2013	Monthly	4140	334	45	14	0.97	0.1
12/18/2013	2013	Monthly	5160	516	78.7	20	2.4	0.39
1/2/2014	2013	Monthly	2840	248	18	10	1.6	0.32
1/15/2014	2013	Monthly	7050	1470	62	20	5.3	0.42
1/29/2014	2013	Monthly	8540	263	NS	19	2.2	NS
2/12/2014	2013	Monthly	8000	664	31	23	4.5	0.42
2/27/2014	2013	Monthly	9900	14	83.4	26	1.9	0.81
3/12/2014	2013	Monthly	4240	1170	140	11	6.4	0.81
3/26/2014	2013	Monthly	1630	156	50	7	0.51	0.81
4/23/2014	2013	Monthly	3230	317	48	11	1.4	1
5/20/2014	2013	Monthly	2530	269	39	7	0.91	0.1
6/18/2014	2013	Monthly	1510	41	27	6.4	0.48	0.7
7/23/2014	2013	Monthly	5230	466	22	17	3.6	0.35
8/27/2014	2013	Monthly	3860	579	35	13	4	0.44
9/24/2014	2013	Monthly	2960	529	26	28	7.5	0.75

Table 3 - SVE Sampling Results June 2013 - December 2021
388 Bridge Street Brooklyn, New York

Compound/ Date	System installation date	Sampling Frequency Sample ID NYSDOH Guidance ¹	PCE Tetrachloroethylene			TCE Trichloroethylene		
			SVE-INLET	SVE-MIDSTREAM	SVE-OUTLET	SVE-INLET	SVE-MIDSTREAM	SVE- OUTLET
			30	30	30	2	2	2
10/15/2014	2013	Non-routine	1380	NS	NS	7	NS	NS
10/16/2014	2013	Non-routine	2430	NS	NS	9.1	NS	NS
10/17/2014	2013	Non-routine	14400	NS	NS	28	NS	NS
10/20/2014	2013	Non-routine	1020	NS	NS	4.8	NS	NS
10/21/2014	2013	Non-routine	1250	NS	NS	4.4	NS	NS
10/22/2014	2013	Non-routine	324	NS	NS	1.6	NS	NS
10/29/2014	2013	Monthly	3040	385	18	10	6.4	0.75
11/26/2014	2013	Monthly	3560	524	22	17	9.7	1.1
12/15/2014	2013	Non-routine	315	NS	NS	0.81	NS	NS
12/16/2014	2013	Non-routine	202	NS	NS	1.4	NS	NS
12/17/2014	2013	Non-routine	7730	NS	NS	13	NS	NS
12/18/2014	2013	Non-routine	207	NS	NS	1.6	NS	NS
12/19/2014	2013	Non-routine	142	NS	NS	0.59	NS	NS
12/22/2014	2013	Non-routine	65	NS	NS	0.4	NS	NS
12/30/2014	2013	Monthly	7660	589	1.3	13	8.1	0.16
1/29/2015	2013	Monthly	5450	990	38	13	8.1	0.91
2/26/2015	2013	Monthly	6760	1170	35	14	9.1	1
3/27/2015	2013	Monthly	3490	1990	58	13	17	1.3
4/29/2015	2013	Monthly	5110	834	60	11	9.1	2
5/27/2015	2013	Monthly	4060	800	54	9.7	11	1.6
6/23/2015	2013	Monthly	4300	530	44	9.7	8.6	1.2
7/30/2015	2013	Monthly	5830	1180	54	12	13	1.4
8/26/2015	2013	Monthly	3490	599	8.8	12	12	1.1
9/23/2015	2013	Monthly	6250	1060	28	16	16	1.1
10/28/2015	2013	Monthly	4130	759	36	20	12	1.1

Table 3 - SVE Sampling Results June 2013 - December 2021
388 Bridge Street Brooklyn, New York

Compound/ Date	System installation date	Sampling Frequency Sample ID NYSDOH Guidance ¹	PCE Tetrachloroethylene			TCE Trichloroethylene		
			SVE-INLET	SVE-MIDSTREAM	SVE-OUTLET	SVE-INLET	SVE-MIDSTREAM	SVE- OUTLET
			30	30	30	2	2	2
Installation of new system completed in the 1 Q 2016								
*1/26/2016	2013	Non-routine	0.31	0.31	NS	0.2	0.2	NS
3/30/2016	2016	Non-routine	487	16	NS	8.6	10	NS
3/31/2016	2016	Quarterly	NS	NS	8.1	NS	NS	15
8/5/2016	2016	Quarterly	3410	80	0.81	28	0.52	0.2
9/20/2016	2016	Quarterly	10800	399	5.4	31	4.9	2
12/9/2016	2016	Quarterly	275	334	6.8	2.9	6.4	2.6
3/17/2017	2016	Quarterly	773	13	10	7.5	1.3	4.9
6/13/17	2016	Quarterly	99.7	712	189	2.9	13	12
9/26/2017	2016	Quarterly	10600	6580	5780	25	24	40
12/21/17	2016	Quarterly	4.7	33	21	6.4	4.1	5.3
3/14/18	2016	Quarterly	44.1	1.9	1.6	0.65	7.1	3.8
6/26/18	2016	Quarterly	16.8	26.9	0.31	0.8	1.5	ND (0.047)
9/12/18	2016	Quarterly	8.3	20.2	0.58	0.51	1.2	1.2
12/18/18	2016	Quarterly	1	727	5.7	0.91	3.2	1.6
1/11/19	2016	QC	-	4400	-	-	20	-
5/7/19	2016	Quarterly	976	556	450	4.7	3.6	17
6/7/19	2016	Quarterly	3.4	24	62	0.81 J	4.9	2.8
9/5/19	2016	Quarterly	34	442	4.2	1.8	2.7	ND
12/20/19	2016	Quarterly	1.4	3.6	4.3	ND	ND	ND
3/19/20	2016	Quarterly	1.4	5.3	ND	ND	1	ND
6/8/20	2016	Quarterly	2220	5110	632	6.4	9.1	4.3
7/22/20	2016	QC	5	1.5	0.49	1.5	2.9	1.4
9/30/20	2016	Quarterly	1630	286	ND	7.5	3	ND
12/9/20	2016	Quarterly	1700	150	ND	4.8	2.5	ND
3/30/21	2016	Quarterly	2020	773	1.6	5.1	5.9	ND
6/24/21	2016	Quarterly	2030	1650	4.1	5.9	6.4	2
9/23/21	2016	Quarterly	6920	1930	2620	11	9.1	13
10/12/21	2016	QC	1730	125	17	6.4	7	3.8
12/9/21	2016	Quarterly	1610	111	ND	11	1.8	ND
3/22/22	2016	Quarterly	1460	1060	ND	4.7	5.9	ND
5/24/2022	2016	Quarterly	9800	10000	1000	7.4	9.8	8.3
9/21/2022	2016	Quarterly	41	40	ND	1.7	ND	ND
12/1/2022	2017	Quarterly	4130	256	6.8	8.6	2.3	1.5

Notes:

All concentrations measured in ug/m3

Exceedences to NYSDOH Guidance values highlighted in yellow

* A new and downsized system was installed in 2016 with prior approval of NYSDEC

** SVE Inlet data from 7/24/13 appears to be invalid based on results. It is suspected to have been a bad summa cannister. Data collected at this event is not to be used in future analyses. Sampling event was marked as Non-Routine

¹ : NYSDOH Guidance for Evaluating Soil Vapor Intrusion. Revised PCE and TCE values as per 2013 & 2014 DOH Guidance/ FactSheet

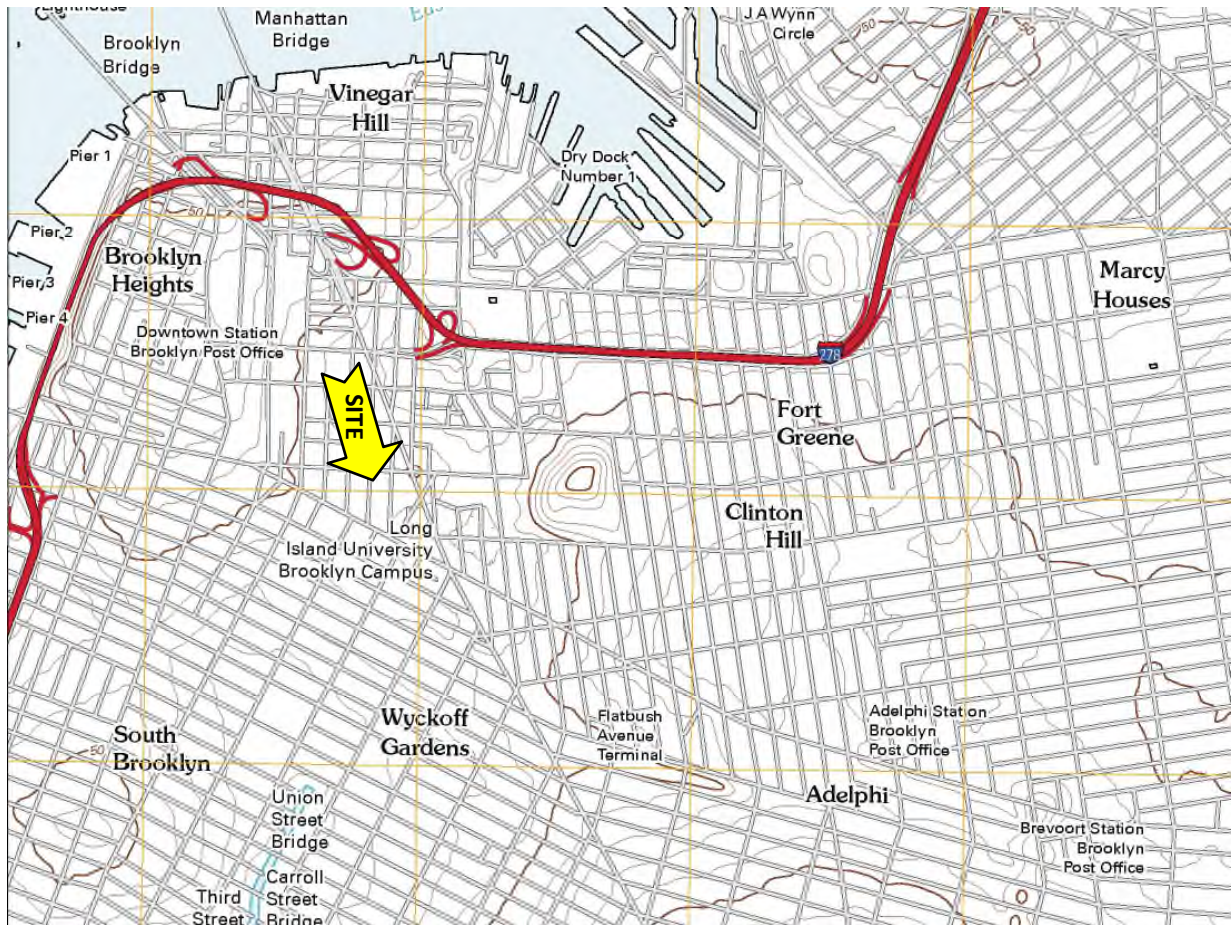
SVE-INLET: Sample collected at the port prior to the carbon treatment

SVE-MIDSTREAM: Sample collected after 1st carbon treatment but before 2nd carbon treatment

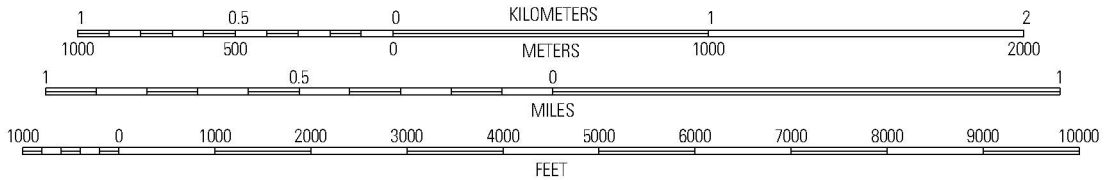
SVE-OUTLET: Sample collected after 2nd carbon treatment

Criteria for Termination of SVE Sytem: If the contaminant concentrations in soil vapor become asymptotic to a lower level over an extended period of time, FLS will conclude the SVE system has reached the limit of its effectiveness and request discontinuing operation. The SVE system will remain in place and operational until permission to discontinue use is granted in writing by the NYSDEC.

Figures



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET

Site: *Brooklyn Quadrangle, New York 7.5 Minute series USGS Topographic Map (79287)*
Obtained from United States Geological Survey topography compiled 2010



Environmental Management & Consulting
 158 West 29th Street, New York, NY 10001

Figure 1 – Site Location

January 2019

388 Bridge Street
 Brooklyn, New York



Environmental Management & Consulting

158 West 29th Street, 9th Fl.
New York, NY 10001

384 Bridge Street
Brooklyn, NY
BCP Site #C224134

Figure 2

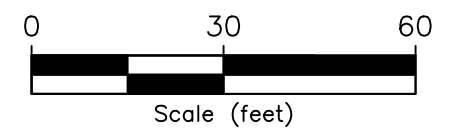
Site Plan

January 2019

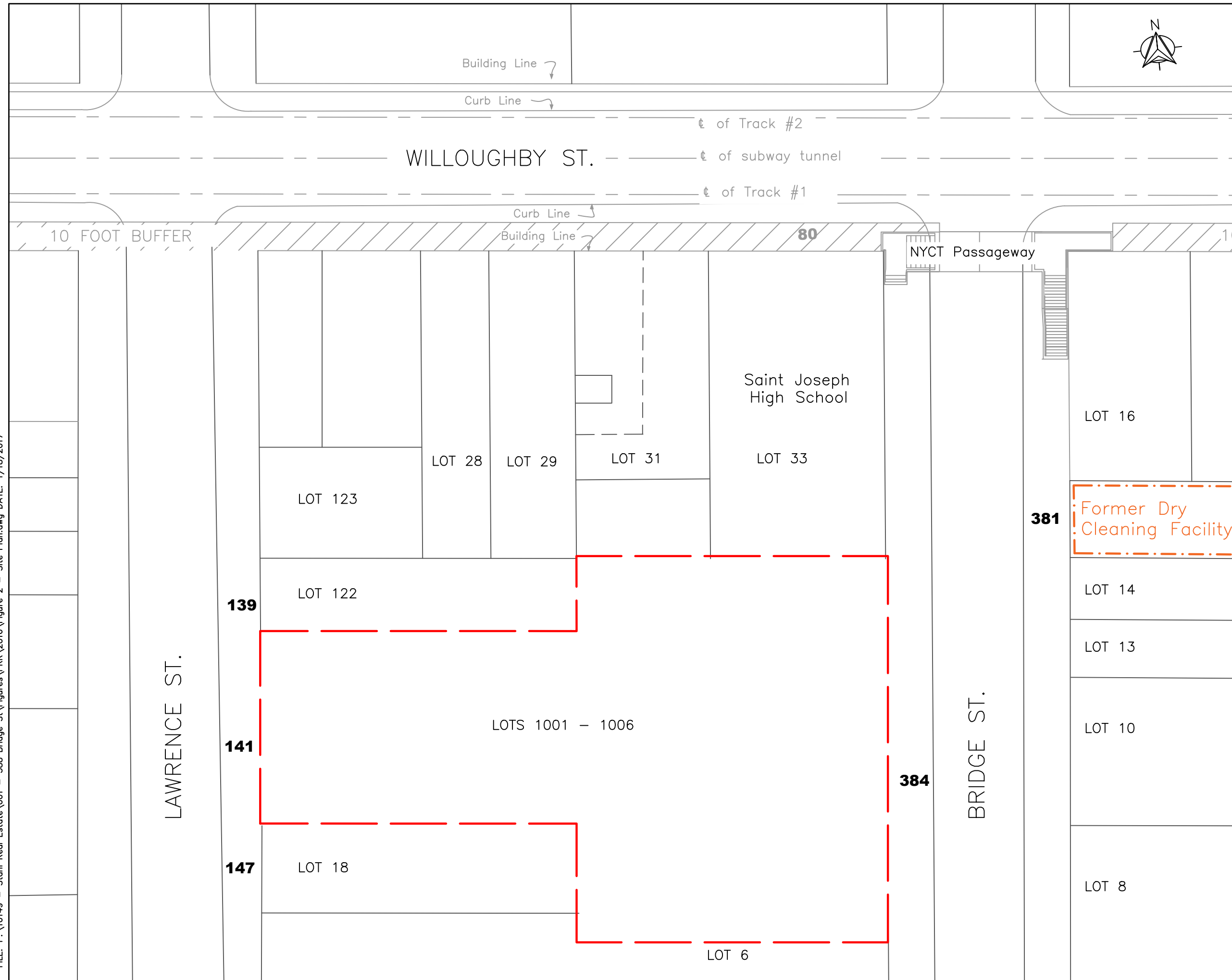
Project Number
10149-001

LEGEND

- 384** Site Address
- Site Boundary/
Development Footprint



FILE: P:\10149 - Stahl Real Estate\001 - 388 Bridge St\Figures\PRR\2016\Figure 2 - Site Plan.dwg DATE: 1/18/2017



Saint Joseph High School



Environmental Management & Consulting

158 West 29th Street, 9th Fl.
New York, NY 10001

388 Bridge Street
Brooklyn, NY
BCP Site # C224134





Figure 3

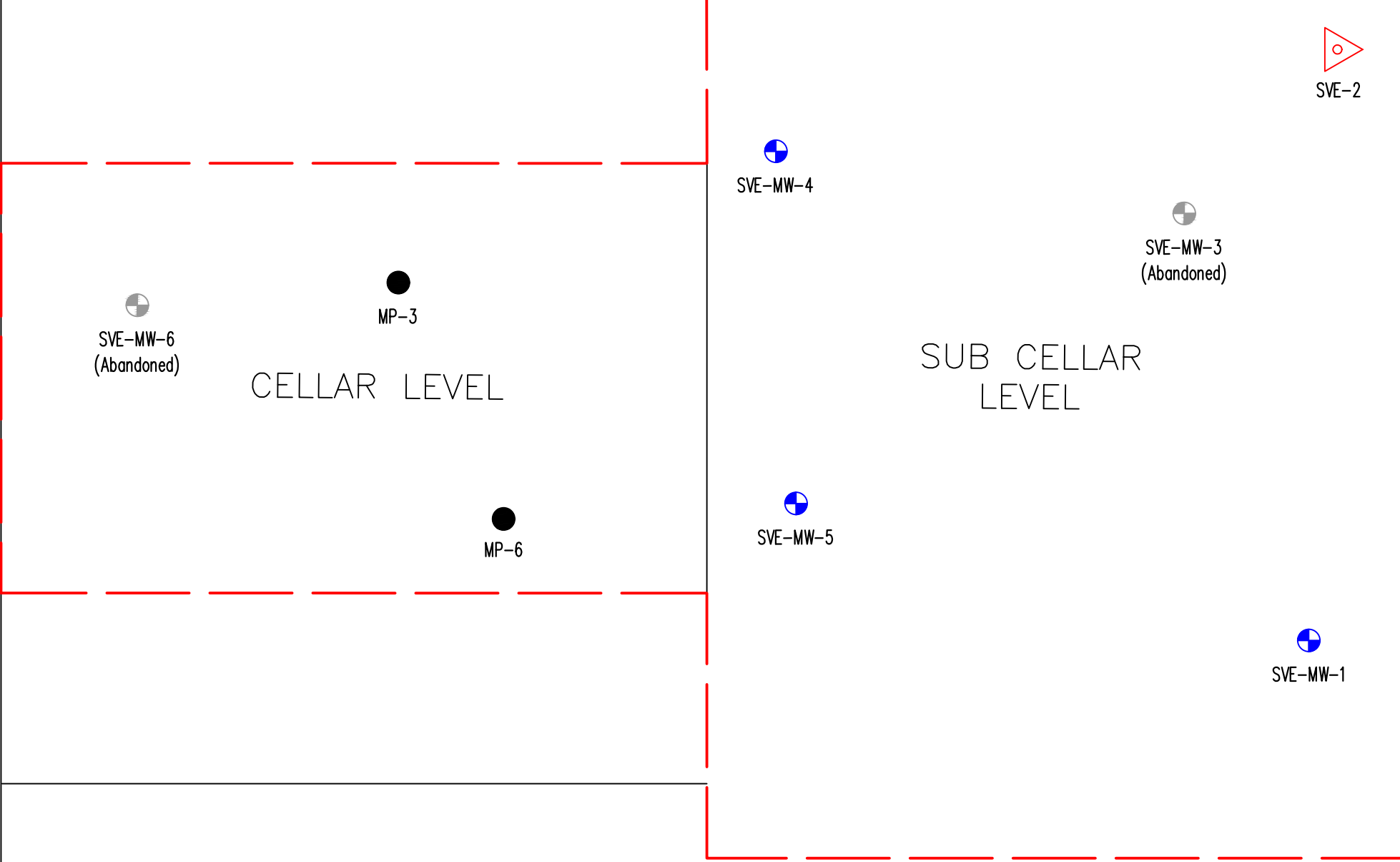
**SVE and
Groundwater
Monitoring Well
Locations**

January 2019

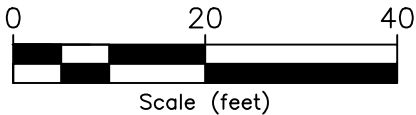
**Project Number
10149-001**

LEGEND

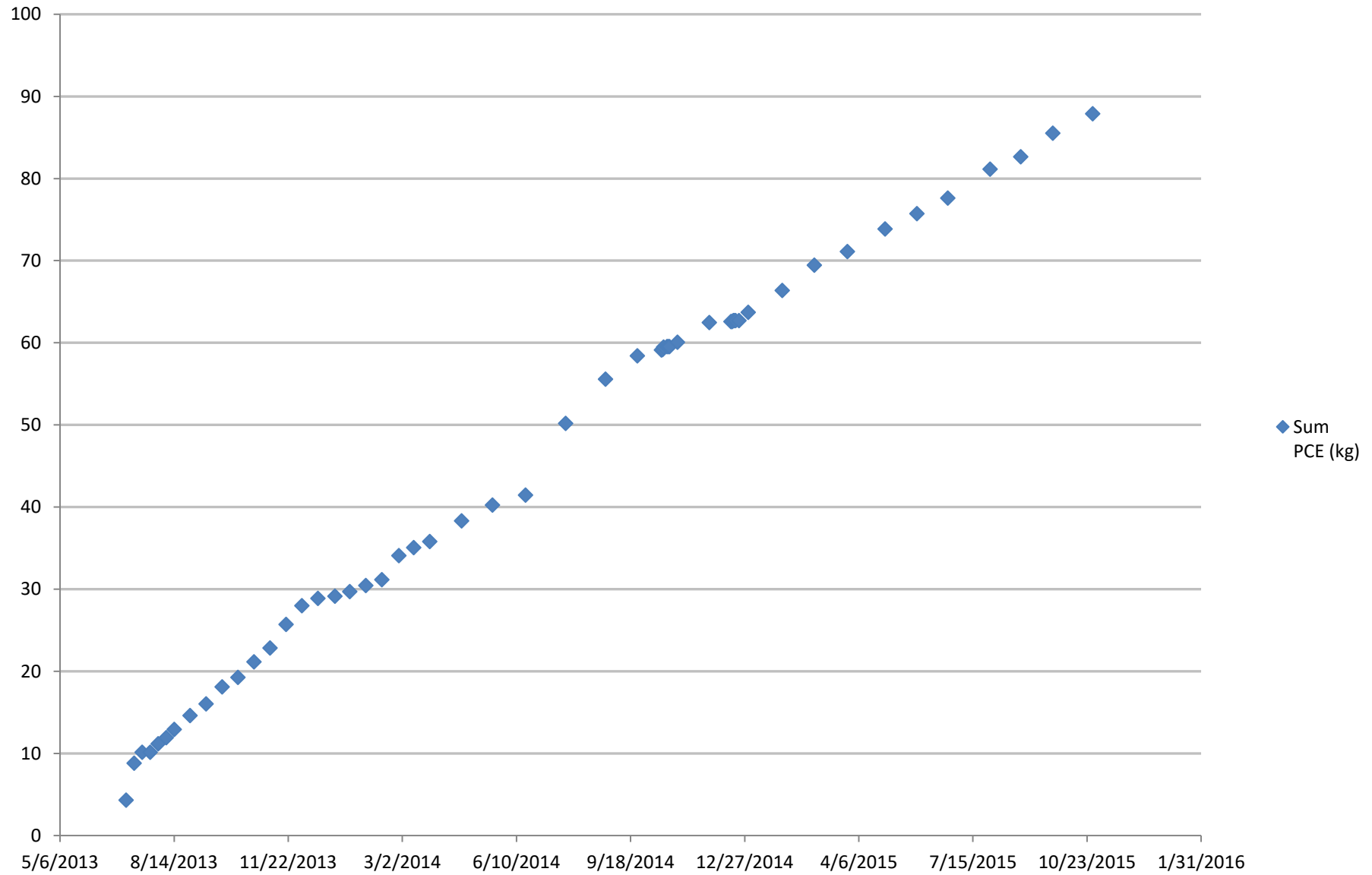
-  Site Boundary
-  Active SVE Well
-  Groundwater Monitoring Well
-  Vacuum Monitoring Point



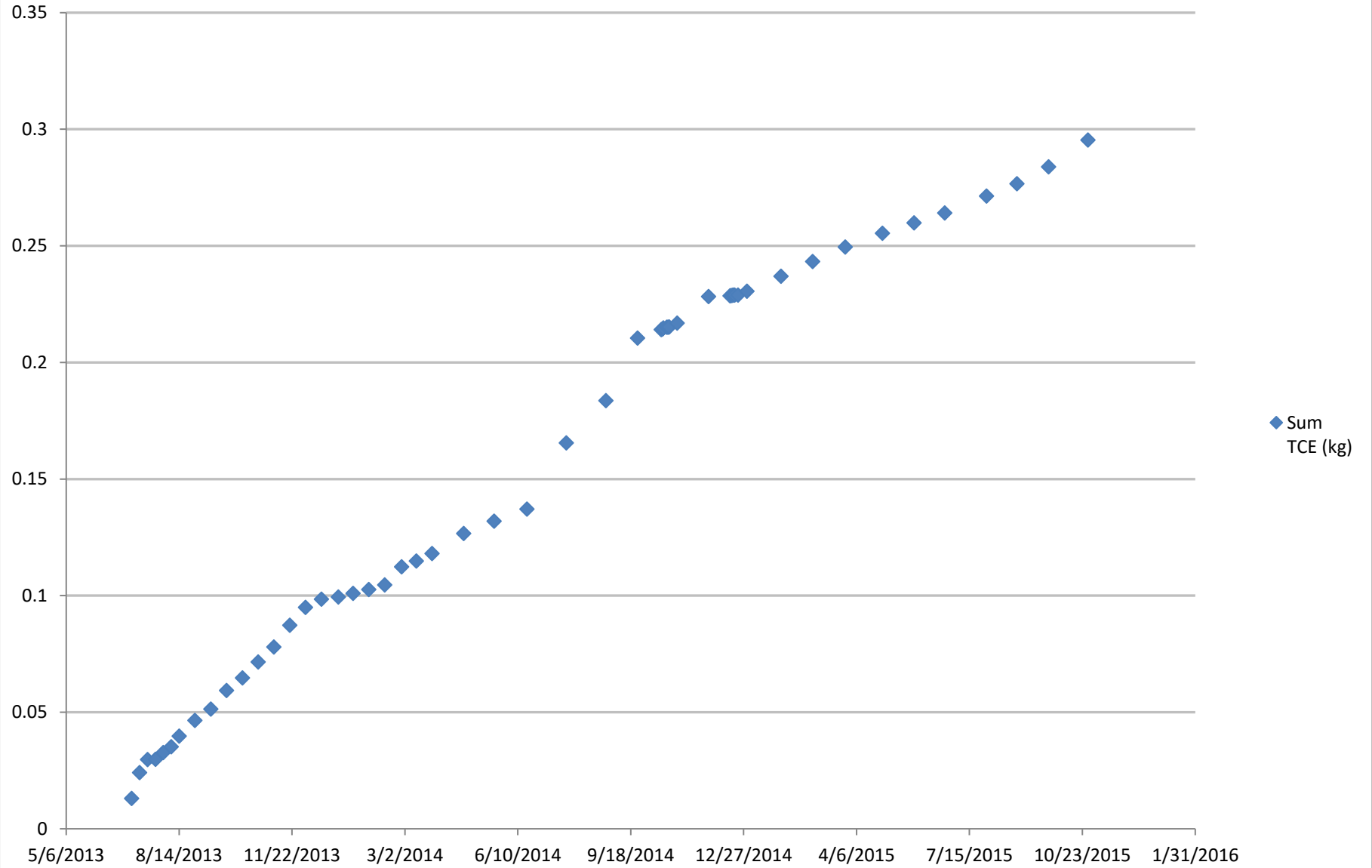
Bridge St.



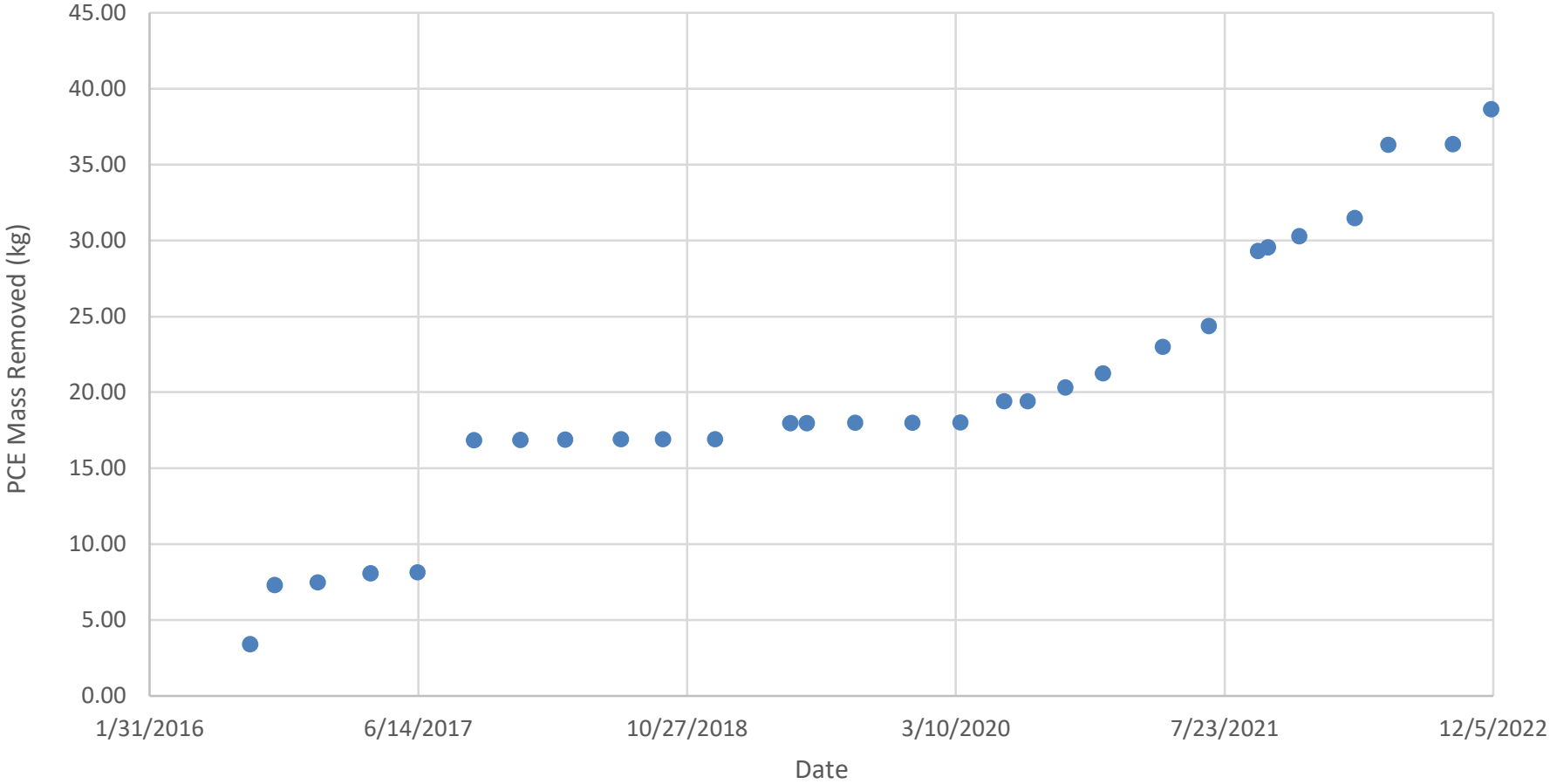
**Figure 4. 2013 SVE System
Contaminant Mass Removal - PCE**



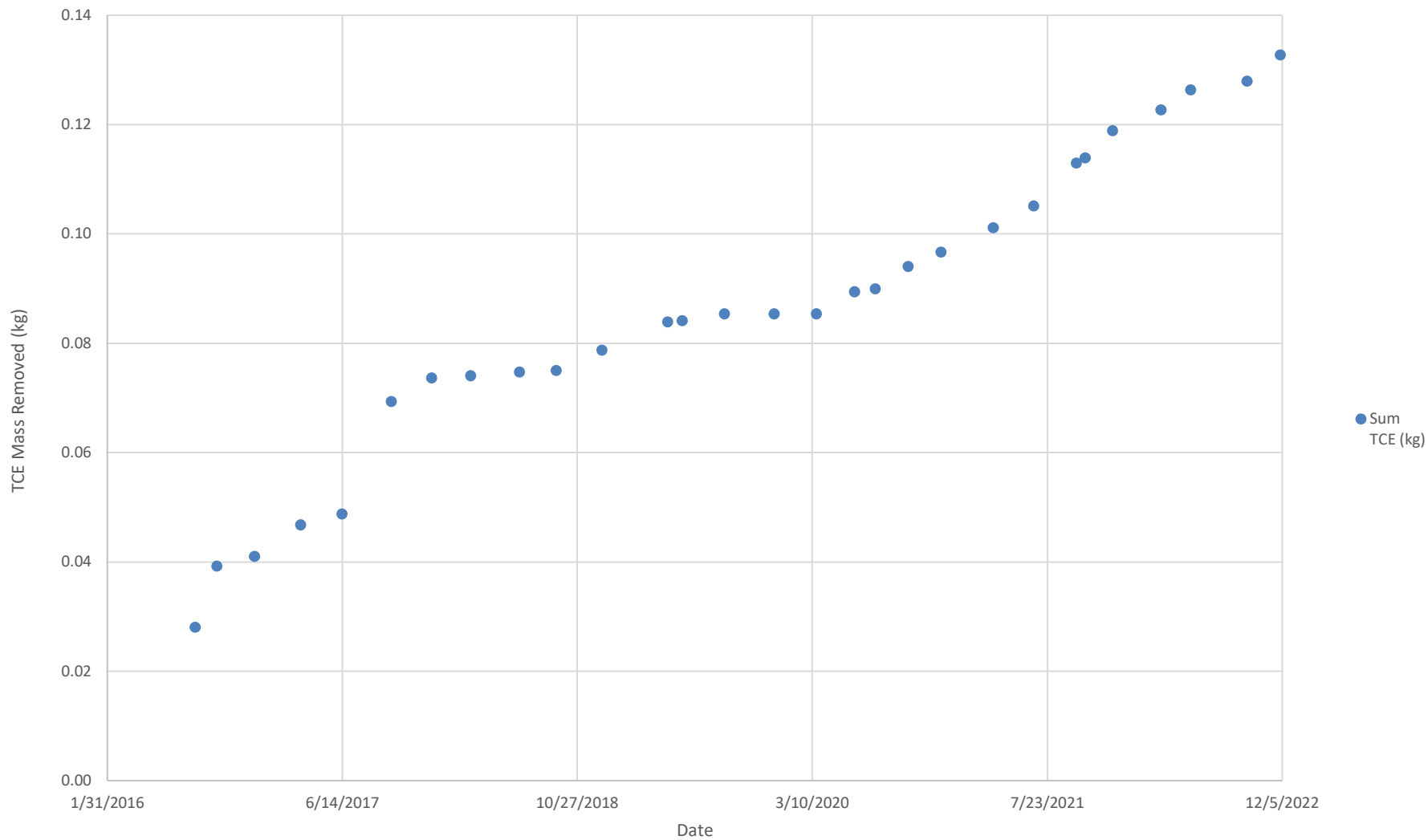
**Figure 5. 2013 SVE System
Contaminant Mass Removal - TCE**

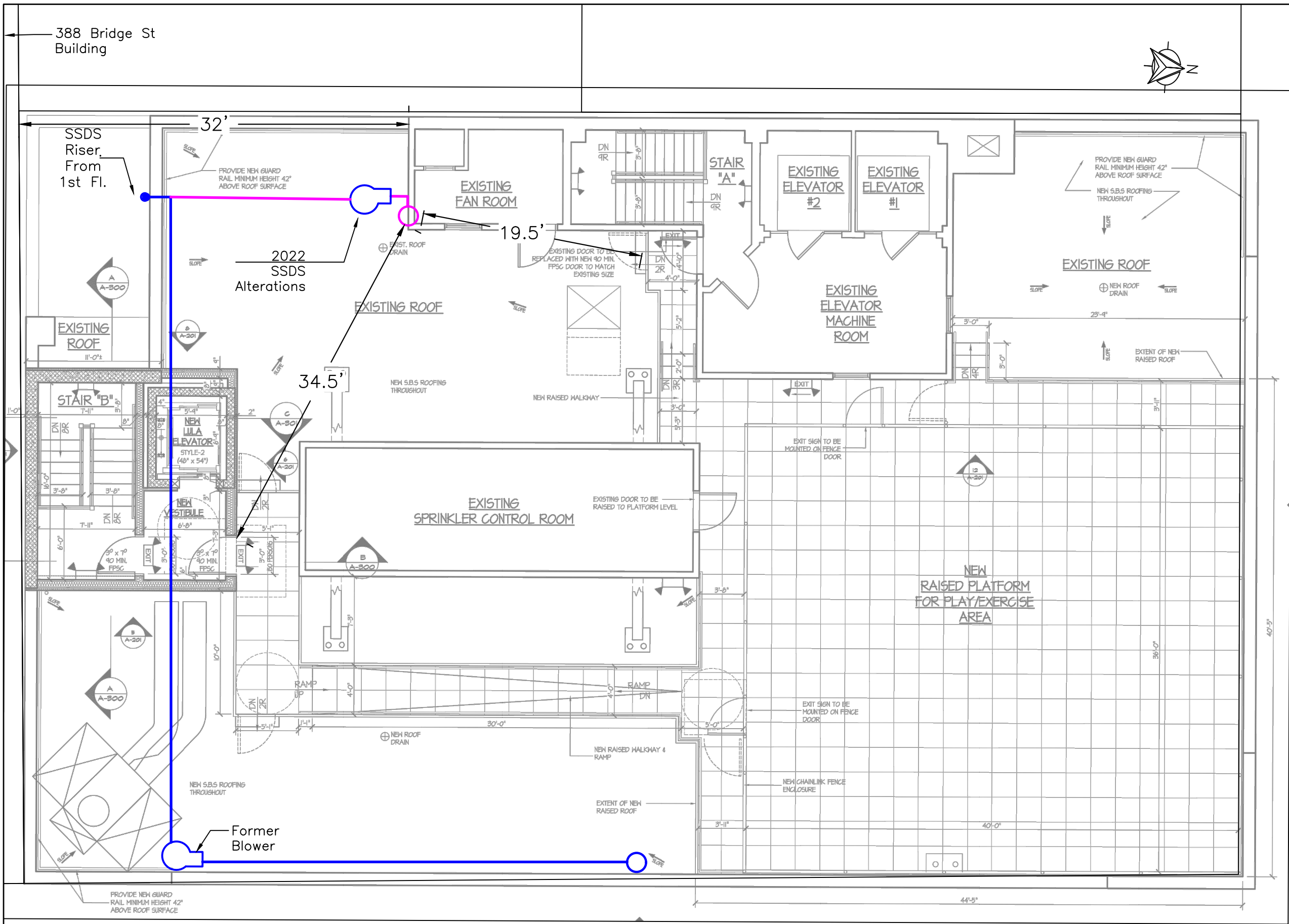


**Figure 6. 2016 SVE System
Contaminant Mass Removal - PCE**



**Figure 7. 2016 SVE System
Contaminant Mass Removal - TCE**





158 West 29th Street, 9th Fl.
New York, NY 10001

80 Willoughby Street
Brooklyn, NY

Figure 8

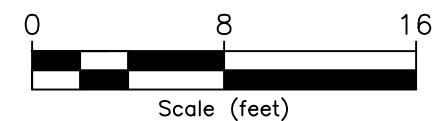
2022 SSDS Alterations

December 2022

Project Number
10149-002

LEGEND

- Former SSDS Layout
- 2022 SSDS Alterations
- Former Vent Stack Location
- 2022 Vent Stack Location
- ⊕ Blower



388 Bridge St Building



158 West 29th Street, 9th Fl.
New York, NY 10001

80 Willoughby Street
Brooklyn, NY

Figure 9

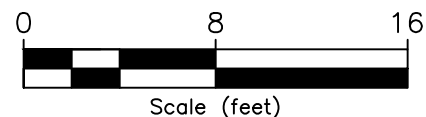
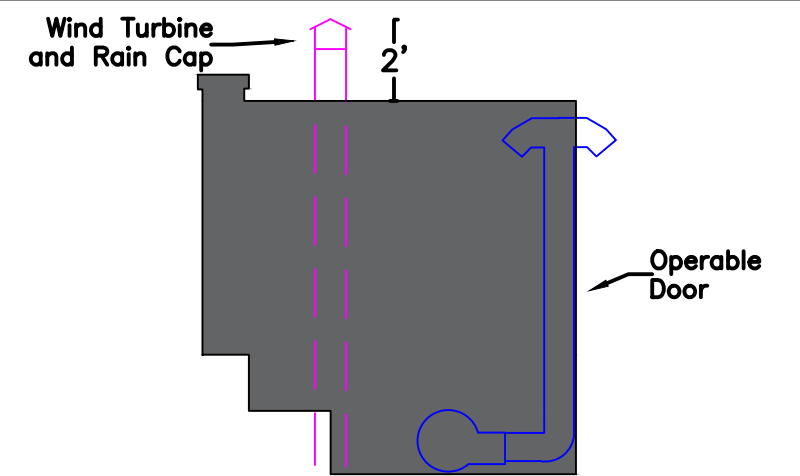
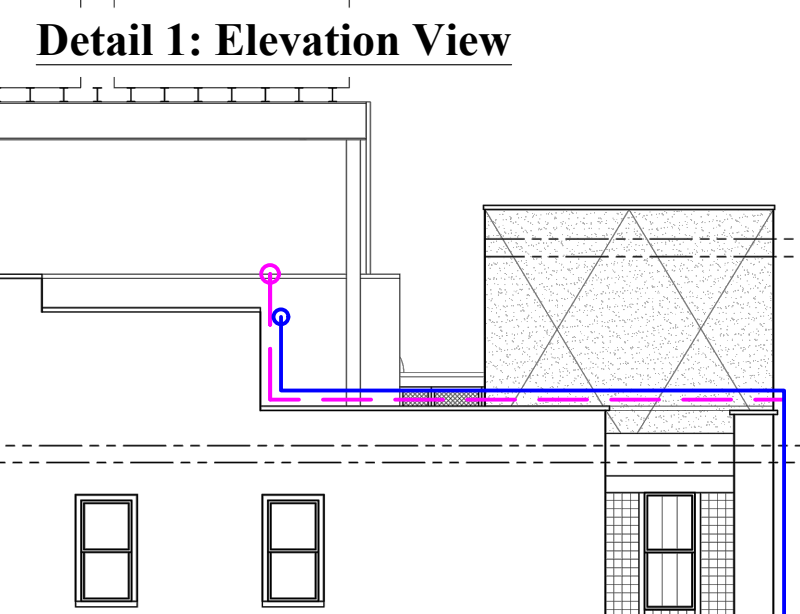
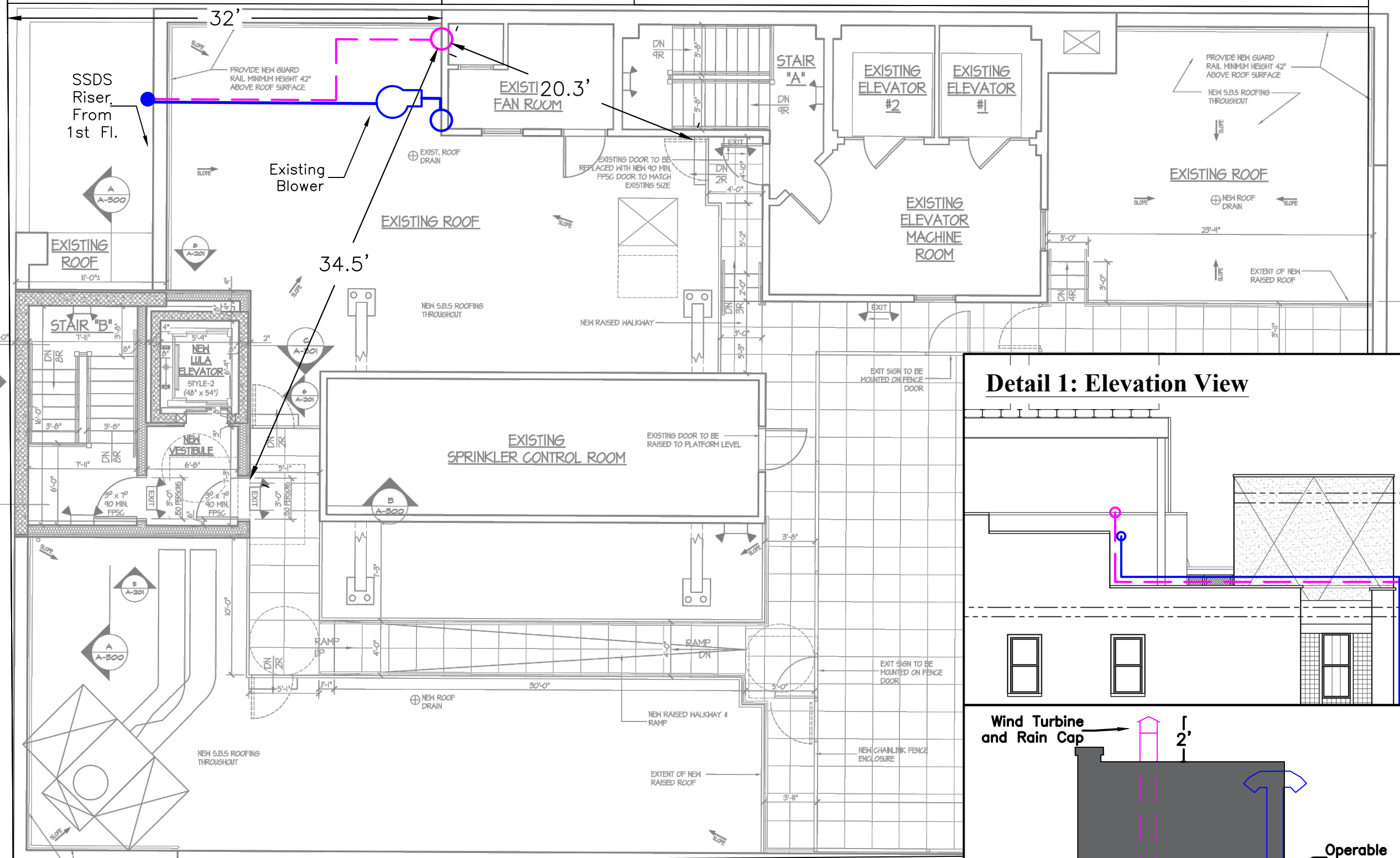
SSDS Roof Layout and Proposed Alterations

January 2023

Project Number
10149-002

LEGEND

- Existing SSDS
- Proposed SSDS Alterations
- Vent Stack
- Proposed Vent Stack
- Blower



FILE: P:\10149 - Stahl Real Estate\001 - 388 Bridge St\Figures\SUHS\SSDS Alterations 2023\Figure 1 - SSDS Layout.dwg DATE: 1/19/2023

Appendix A

Metes and Bounds

SCHEDULE "A"
ENVIRONMENTAL EASEMENT
PROPERTY DESCRIPTION

The Condominium (in the Building located at and known as The Bridge Street Condominium and by Street Number 384-394 Bridge Street, New York), designated and described as Units Parking, Commercial 1, Commercial 2, Lower 80/20, Upper 80/20 and Divisible (hereinafter called the "Unit") in the Declaration (hereinafter called "Declaration") made by the Sponsor under the Condominium Act of The State of New York (Article 9-B of the Real Property Law of the State of New York), dated March 21, 2012 and recorded June 14, 2012 in the Office of the Register, the City of New York, County of New York, in CRFN 2012000231607 establishing a plan for Condominium ownership of said Building and the land upon which the same is erected (hereinafter sometimes collectively called the "Property") and also designated and described as Tax Lot Nos. 1001-1006 Block 152, Borough of Brooklyn, on the Tax Map of the Real Property Assessment Department of the City of New York and on the Floor Plans of said Building certified by Professional Engineer, on and filed as Condominium Plan No. 3222 on June 14, 2012 in the aforesaid Register's Office.

Together with an undivided 100 percent interest in the common elements of the property described in the Declaration.

The land upon which the Building containing the Unit is erected as follows:

Legal Description of Environmental Easement Area (former Lots 37 & 118 Block 152 Joined as one)

“Being the same piece or parcel of Land conveyed to R, K, & G Associates from 1929 Realty, Inc., by deed dated June 15, 1977 recorded in Reel 926 Page 725 and also the same parcel of land conveyed to 384 Bridge Street LLC from 141 Lawrence Street LLC, by deed dated December 19, 2011 recorded as CRFN: 2012000020329 in the Office of City Register of the City of New York.”

ALL that certain plot, piece or parcel of land, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at a point on the Westerly side of Bridge Street distant 100 feet southerly from the corner formed by the intersection of the Westerly side of Bridge Street and the Southerly side of Willoughby Street;

RUNNING THENCE Westerly parallel with Willoughby Street 107 feet 6 inches;

THENCE Southerly parallel with Bridge Street 25.0 feet;

THENCE Westerly parallel with Willoughby Street 107 feet 6 inches to the Easterly side of Lawrence Street;

THENCE Southerly along the easterly side of Lawrence Street 62 feet;

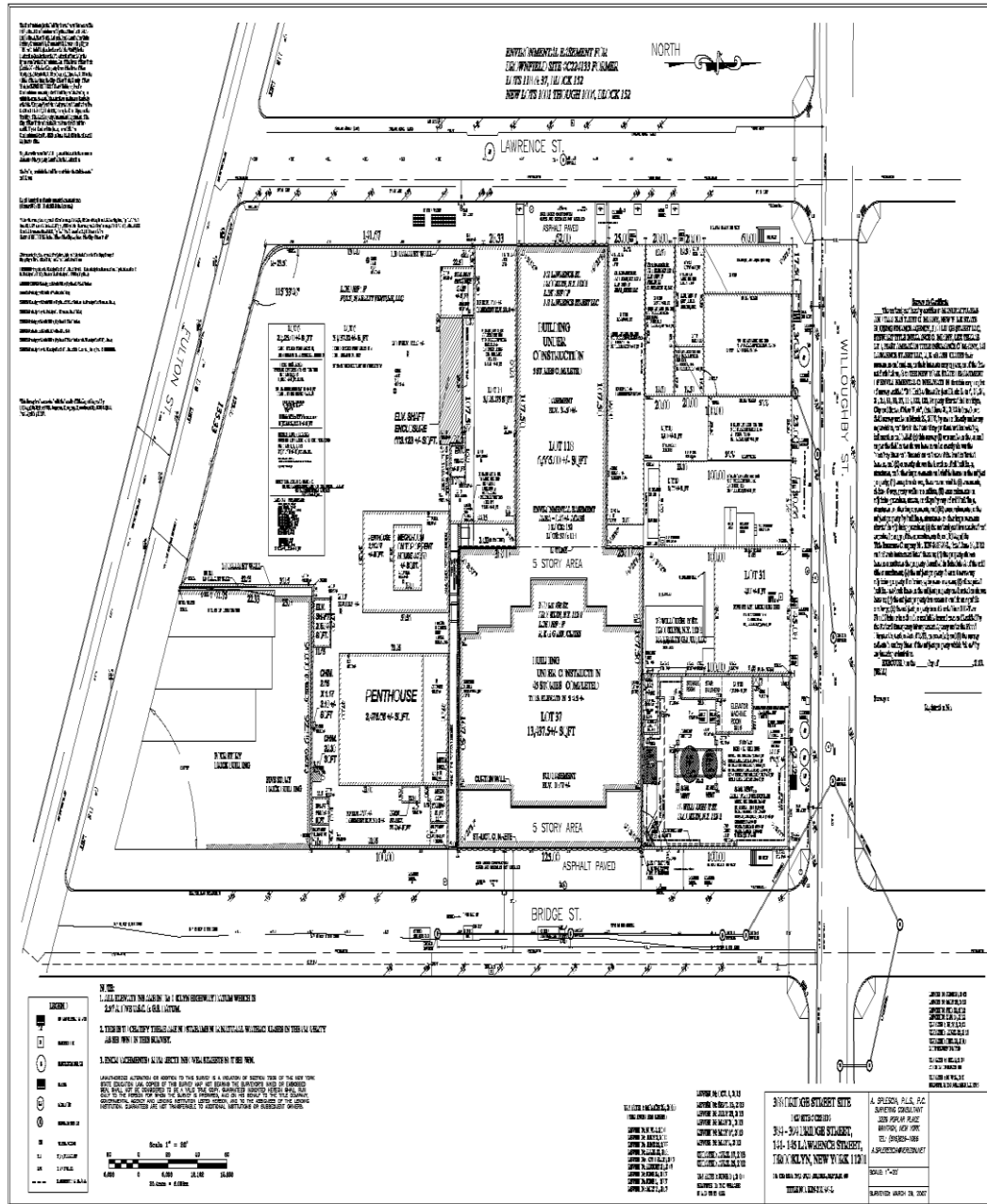
THENCE Easterly parallel with Willoughby Street 107 feet 6 inches;

THENCE Southerly parallel with Bridge Street 38.0 feet;

THENCE Easterly parallel with Willoughby Street 107 feet 6 inches to the Westerly side of Bridge Street;

THENCE Northerly along the Westerly side of Bridge Street 125.0 feet to the point or place of BEGINNING.

SURVEY



Appendix B

Engineering Controls/Institutional Controls Certifications



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.	C224134		
Site Name 388 Bridge Street			
Site Address: 384-394 Bridge Street and 141-145 Lawrence Street		Zip Code: 11201	
City/Town: Brooklyn			
County: Kings			
Site Acreage: 0.460			
Reporting Period: January 03, 2022 to January 03, 2023			
		YES	NO
1.	Is the information above correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

		Box 2	
		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Residential, Restricted-Residential, Commercial, and Industrial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Are all ICs in place and functioning as designed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	

Box 2A

YES NO

8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid?
(The Qualitative Exposure Assessment must be certified every five years)

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C224134

Box 3

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
1-152-1001	384 Bridge Street, LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan
- land use restriction - groundwater use restriction - soil management plan		
1-152-1002	384 Bridge Street, LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan
- land use restriction - groundwater use restriction - soil management plan		
1-152-1003	384 Bridge Street, LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan
- land use restriction - groundwater use restriction - soil management plan		
1-152-1004	384 Bridge Street, LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan
- land use restriction - groundwater use restriction - soil management plan		
1-152-1005	384 Bridge Street, LLC	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan
- land use restriction - groundwater use restriction		

- soil management plan

1-152-1006

384 Bridge Street LLC

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Monitoring Plan
Site Management Plan
O&M Plan
IC/EC Plan

- land use restriction

- groundwater use restriction

- soil management plan

Box 4

Description of Engineering Controls

Parcel

Engineering Control

1-152-1001

Vapor Mitigation
Air Sparging/Soil Vapor Extraction

- composite cover system
- sub-slab depressurization system
- soil vapor extraction system
- monitored natural attenuation of groundwater
- adjacent off-site vapor mitigation system

1-152-1002

Vapor Mitigation
Air Sparging/Soil Vapor Extraction

- composite cover system
- sub-slab depressurization system
- soil vapor extraction system
- monitored natural attenuation of groundwater
- adjacent off-site vapor mitigation system

1-152-1003

Vapor Mitigation

- composite cover system
- sub-slab depressurization system
- soil vapor extraction system
- monitored natural attenuation of groundwater
- adjacent off-site vapor mitigation system

1-152-1004

Vapor Mitigation

- composite cover system
- sub-slab depressurization system
- soil vapor extraction system
- monitored natural attenuation of groundwater
- adjacent off-site vapor mitigation system

1-152-1005

Vapor Mitigation

- composite cover system
- sub-slab depressurization system
- soil vapor extraction system
- monitored natural attenuation of groundwater
- adjacent off-site vapor mitigation system

1-152-1006

Vapor Mitigation

- composite cover system
- sub-slab depressurization system
- soil vapor extraction system
- monitored natural attenuation of groundwater
- adjacent off-site vapor mitigation system

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 Engineering Control 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 complete.

YES NO

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

(a) The 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

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. C224134**

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 ARNOLD F. FLEMING at 158 WEST 29TH ST, 9th fl, NEW YORK, NY 10001,
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.



2/2/2023

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

Date

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 ARNOLD F. FLEMING at 158 WEST 29th ST, 9th fl, NEW YORK, N.Y. 10001,
print name print business address

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

Arnold F. Fleming



2/2/2023

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

Stamp (Required for PE)

Date

Appendix C

Quarterly Inspection Sheets

**388 Bridge Street
SVE OMM and Pressure Readings**

Date 3/22/2022 Op. Freq. (Hz) 50 Amb. Air Temp. (°F) 43

Process Area	Indicator ID	Parameter	Unit	Reading/ Status	Time
System Inlet	SP 100	Pressure (man.)	inwc	-14.13	
		Air speed	fpm		
		Flow	cfm		
		Temp.	°F		
Post- Moist. Separator / Pre- Blower	VI 101	Vacuum	inwc	-33	
	VI 102	Pressure	inwc	-14.93	
Pre- Blower / Before Heat Exchanger	F-102	Dilution Valve	---	75% closed	
	PI 101	Pressure	inwc	19.06	
After heat exchanger / Pre- Carbon Treatment	TI 101	Temp.	°F	98	
	PI 103	Pressure	inwc	4.937	
Between Carbon Units	TI 102	Temp.	°F	86	
	PI 104	Pressure	inwc	3.4	
Post- Carbon Treatment	PI 105	Pressure	inwc	1.2	

Monitoring Point	Pressure (in. wc.)	Location	Comments
SVE Well #1	---	Sub-cellar garage	Converted to monitoring well
SVE Well #2	-5.380	Sub-cellar garage	
SVE Well #3	---	Sub-cellar garage	Abandoned
SVE Well #4	---	Sub-cellar garage	Converted to monitoring well
SVE Well #5	---	Sub-cellar garage	Converted to monitoring well
SVE Well #6	---	Cellar workshop	Abandoned
SSDS MP #1	---	Not installed	
SSDS MP #2	---	Not installed	
SSDS MP #3	0.114	Cellar hallway	
SSDS MP #4	---	Not installed	
SSDS MP #5	---	Not installed	
SSDS MP #6	-0.040	Cellar garage	

Monitoring Point	Pressure (in. wc.)	Port Location	Comments
R1	---	Behind Boiler Room	inaccessible (painted over)
R2	---	Boiler Room	inaccessible (painted over)
R3	-0.004	Boiler Room	
R4	-0.162	Boiler Room	
R5	---	Workshop	inaccessible (painted over)
R6	---	Back Storage Room	inaccessible (path blocked)
R7	---	Storage Room hallway	port blocked with debris
R8	-0.137	Storage Room entrance	
R9	---	Woodshop classrom	inaccessible
R10	---	East Storage room	inaccessible (path blocked)
R11	-0.149	East Storage room	
R12	0.000	Stairwell	no vacuum detected
R13	-0.886	Kitchen storage	

Sample ID	Flow Controller No.	Canister No.	Initial Time	Final Time	Initial Vacuum	Final Vacuum
SVE INLET	FC572	A406	9:00	10:50	30.0	4.0
SVE MIDSTREAM	FC1017	A527	9:00	10:57	29.5	3.0
SVE OUTLET	FC651	A403	9:00	11:00	30.0	5.0

Notes

School at 80 Willoughby Street under construction. Many MPs were inaccessible but system is running properly.

**388 Bridge Street
SVE OMM and Pressure Readings**

Date 5/24/2022 Op. Freq. (Hz) 50 Amb. Air Temp. (°F) 66

Process Area	Indicator ID	Parameter	Unit	Reading/ Status	Time
System Inlet	SP 100	Pressure (man.)	inwc	-13.65	
		Air speed	fpm		
		Flow	cfm		
		Temp.	°F		
Post- Moist. Separator / Pre- Blower	VI 101	Vacuum	inwc	-32.2	
	VI 102	Pressure	inwc	-14.29	
Pre- Blower / Before Heat Exchanger	F-102	Dilution Valve	---	75% closed	
	PI 101	Pressure	inwc	18.71	
After heat exchanger / Pre- Carbon Treatment	TI 101	Temp.	°F	113	
	PI 103	Pressure	inwc	4.91	
Between Carbon Units	TI 102	Temp.	°F	101	
	PI 104	Pressure	inwc	3.6	
Post- Carbon Treatment	PI 105	Pressure	inwc	1.5	

Monitoring Point	Pressure (in. wc.)	Location	Comments
SVE Well #1	---	Sub-cellar garage	Converted to monitoring well
SVE Well #2	-5.124	Sub-cellar garage	
SVE Well #3	---	Sub-cellar garage	
SVE Well #4	---	Sub-cellar garage	
SVE Well #5	---	Sub-cellar garage	
SVE Well #6	---	Cellar workshop	
SSDS MP #1	---	Not installed	Abandoned
SSDS MP #2	---	Not installed	
SSDS MP #3	0.059	Cellar hallway	
SSDS MP #4	---	Not installed	
SSDS MP #5	---	Not installed	
SSDS MP #6	-0.040	Cellar garage	

Monitoring Point	Pressure (in. wc.)	Port Location	Comments
R1	---	Behind Boiler Room	inaccessible (painted over)
R2	---	Boiler Room	inaccessible (painted over)
R3	-0.011	Boiler Room	
R4	-0.161	Boiler Room	
R5	---	Workshop	inaccessible (painted over)
R6	-0.026	Back Storage Room	
R7	---	Storage Room hallway	port blocked with debris
R8	-0.145	Storage Room entrance	
R9	---	Woodshop classrom	inaccessible
R10	-0.265	East Storage room	
R11	-0.075	East Storage room	
R12	-0.003	Stairwell	
R13	-0.904	Kitchen storage	

Sample ID	Flow Controller No.	Canister No.	Initial Time	Final Time	Initial Vacuum	Final Vacuum
SVE INLET	7417	41840	9:18	11:17	30.0	5.0
SVE MIDSTREAM	5624	36995	9:18	11:20	30.0	7.0
SVE OUTLET	Y-15	28303	9:18	11:08	29.0	5.0

Notes

School at 80 Willoughby Street under construction. Many MPs were inaccessible but system is running properly.

**388 Bridge Street
SVE OMM and Pressure Readings**

Date 9/21/2022 Op. Freq. (Hz) 50 Amb. Air Temp. (°F) 74

Process Area	Indicator ID	Parameter	Unit	Reading/ Status	Time
System Inlet	SP 100	Pressure (man.)	inwc	-15.01	
		Air speed	fpm		
		Flow	cfm		
		Temp.	°F		
Post- Moist. Separator / Pre- Blower	VI 101	Vacuum	inwc	-13	
	VI 102	Pressure	inwc	-32	
Pre- Blower / Before Heat Exchanger	F-102	Dilution Valve	---	75% closed	
	PI 101	Pressure	inwc	18	
After heat exchanger / Pre- Carbon Treatment	TI 101	Temp.	°F	116	
	PI 103	Pressure	inwc	6	
Between Carbon Units	TI 102	Temp.	°F	104	
	PI 104	Pressure	inwc	5.5	
Post- Carbon Treatment	PI 105	Pressure	inwc	3.0	

Monitoring Point	Pressure (in. wc.)	Location	Comments
SVE Well #1	---	Sub-cellar garage	Converted to monitoring well
SVE Well #2	-4.153	Sub-cellar garage	
SVE Well #3	---	Sub-cellar garage	Abandoned
SVE Well #4	---	Sub-cellar garage	Converted to monitoring well
SVE Well #5	---	Sub-cellar garage	Converted to monitoring well
SVE Well #6	---	Cellar workshop	Abandoned
SSDS MP #1	---	Not installed	
SSDS MP #2	---	Not installed	
SSDS MP #3	-0.0031	Cellar hallway	
SSDS MP #4	---	Not installed	
SSDS MP #5	---	Not installed	
SSDS MP #6	-0.043	Cellar garage	

Monitoring Point	Pressure (in. wc.)	Port Location	Comments
R1	---	Behind Boiler Room	inaccessible (painted over)
R2	---	Boiler Room	inaccessible (painted over)
R3	-0.012	Boiler Room	
R4	-0.123	Boiler Room	
R5	---	Workshop	inaccessible (painted over)
R6	-0.023	Back Storage Room	
R7	---	Storage Room hallway	port blocked with debris
R8	-0.247	Storage Room entrance	
R9	---	Woodshop classrom	inaccessible
R10		East Storage room	inaccessible
R11		East Storage room	inaccessible
R12	-0.002	Stairwell	
R13	-0.845	Kitchen storage	

Sample ID	Flow Controller No.	Canister No.	Initial Time	Final Time	Initial Vacuum	Final Vacuum
SVE INLET	MC232	A1890	10:06	12:40	28.0	5.0
SVE MIDSTREAM	FC1038	A1930	10:07	12:42	30.0	5.0
SVE OUTLET	FC923	A1440	10:10	12:45	30.0	6.0

Notes

System fan and exhaust at 80 Willoughby moved to new location on roof due to on-going construction of the new playground on the roof

**388 Bridge Street
SVE OMM and Pressure Readings**

Date 12/1/2022 Op. Freq. (Hz) 50 Amb. Air Temp. (°F) 38

Process Area	Indicator ID	Parameter	Unit	Reading/ Status	Time
System Inlet	SP 100	Pressure (man.)	inwc	-14.63	
		Air speed	fpm		
		Flow	cfm		
		Temp.	°F		
Post- Moist. Separator / Pre- Blower	VI 101	Vacuum	inwc	-15	
	VI 102	Pressure	inwc	-33	
Pre- Blower / Before Heat Exchanger	F-102	Dilution Valve	---	75% closed	
	PI 101	Pressure	inwc	18	
After heat exchanger / Pre- Carbon Treatment	TI 101	Temp.	°F	96	
	PI 103	Pressure	inwc	6	
Between Carbon Units	TI 102	Temp.	°F	80	
	PI 104	Pressure	inwc	4.0	
Post- Carbon Treatment	PI 105	Pressure	inwc	3.0	

Monitoring Point	Pressure (in. wc.)	Location	Comments
SVE Well #1	---	Sub-cellar garage	Converted to monitoring well
SVE Well #2	-4.429	Sub-cellar garage	
SVE Well #3	---	Sub-cellar garage	Abandoned
SVE Well #4	---	Sub-cellar garage	Converted to monitoring well
SVE Well #5	---	Sub-cellar garage	Converted to monitoring well
SVE Well #6	---	Cellar workshop	Abandoned
SSDS MP #1	---	Not installed	
SSDS MP #2	---	Not installed	
SSDS MP #3	0.12	Cellar hallway	
SSDS MP #4	---	Not installed	
SSDS MP #5	---	Not installed	
SSDS MP #6	-0.034	Cellar garage	

Monitoring Point	Pressure (in. wc.)	Port Location	Comments
R1	---	Behind Boiler Room	inaccessible (painted over)
R2	---	Boiler Room	inaccessible (painted over)
R3	---	Boiler Room	
R4	---	Boiler Room	
R5	---	Workshop	inaccessible (painted over)
R6	---	Back Storage Room	
R7	---	Storage Room hallway	port blocked with debris
R8	---	Storage Room entrance	
R9	---	Woodshop classrom	inaccessible
R10	---	East Storage room	inaccessible
R11	---	East Storage room	inaccessible
R12	---	Stairwell	
R13	---	Kitchen storage	

Sample ID	Flow Controller No.	Canister No.	Initial Time	Final Time	Initial Vacuum	Final Vacuum
SVE INLET	FC661	A1512	9:11	10:33	30.0	3.5
SVE MIDSTREAM	MC199	A1461	9:13	10:44	29.5	4.0
SVE OUTLET	MC036	A1429	9:13	11:03	29.0	5.0

Notes

System offline at 80 Willoughby. Shut down for ~6-7 days as electrical work is being conducted on roof.

Appendix D

Site Photographs

Appendix D - Photograph Log
388 Bridge Street

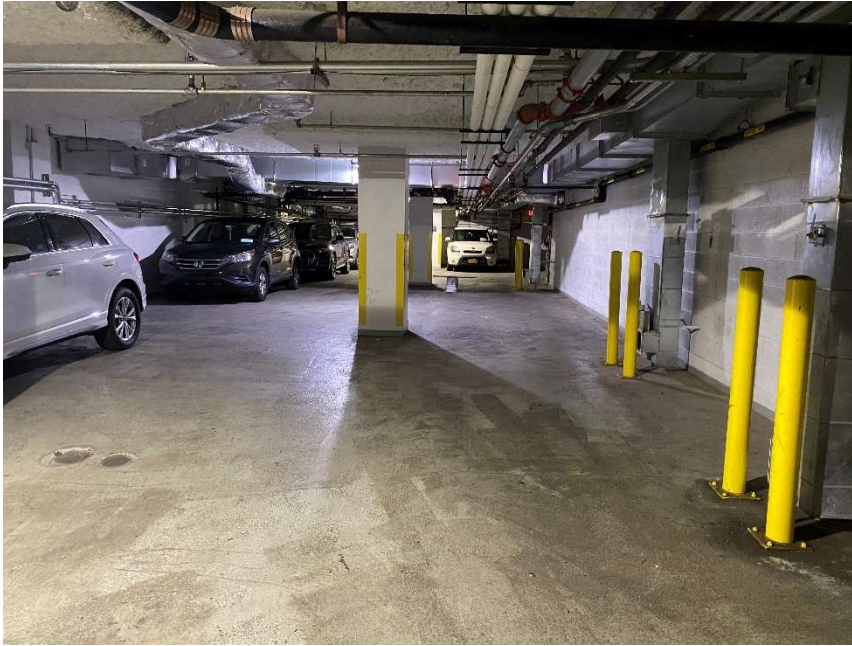


Photo 1: Cellar slab

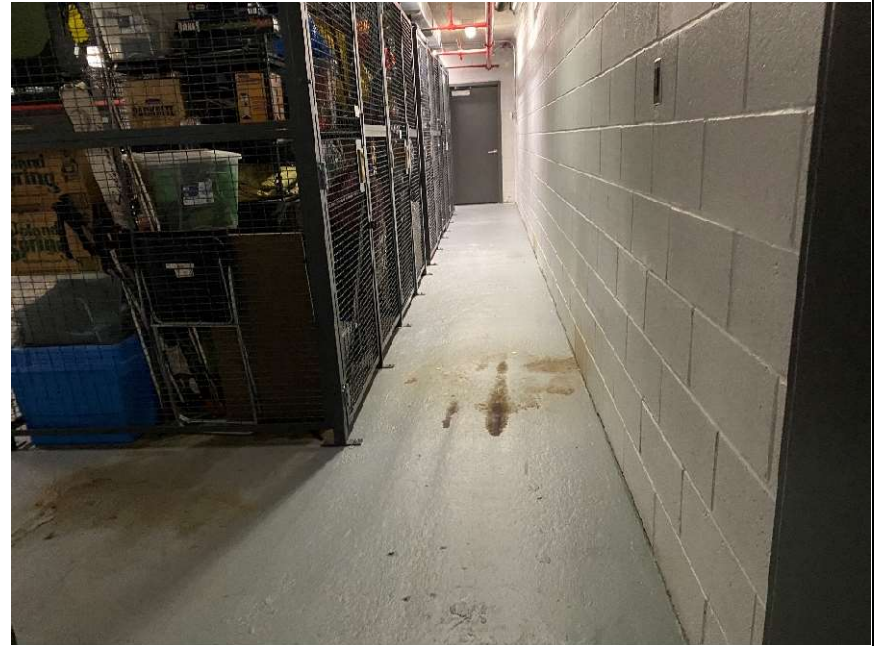


Photo 2: Cellar storage area slab

Appendix D - Photograph Log
388 Bridge Street



Photo 3: Sub-cellar slab



Photo 4: Sub-cellar slab

Appendix D - Photograph Log
388 Bridge Street

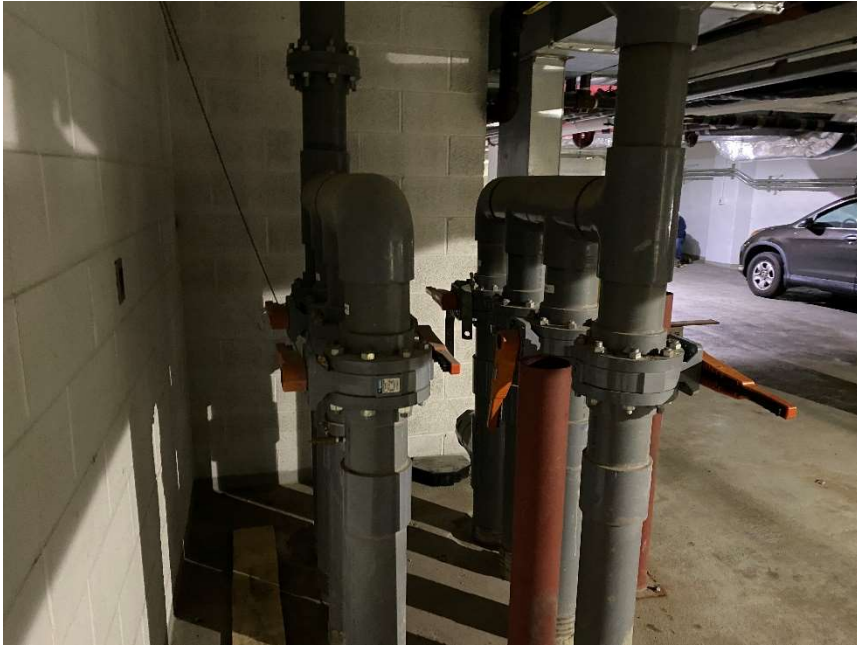


Photo 5: SVE manifold



Photo 6: SVE system

Appendix D - Photograph Log
388 Bridge Street

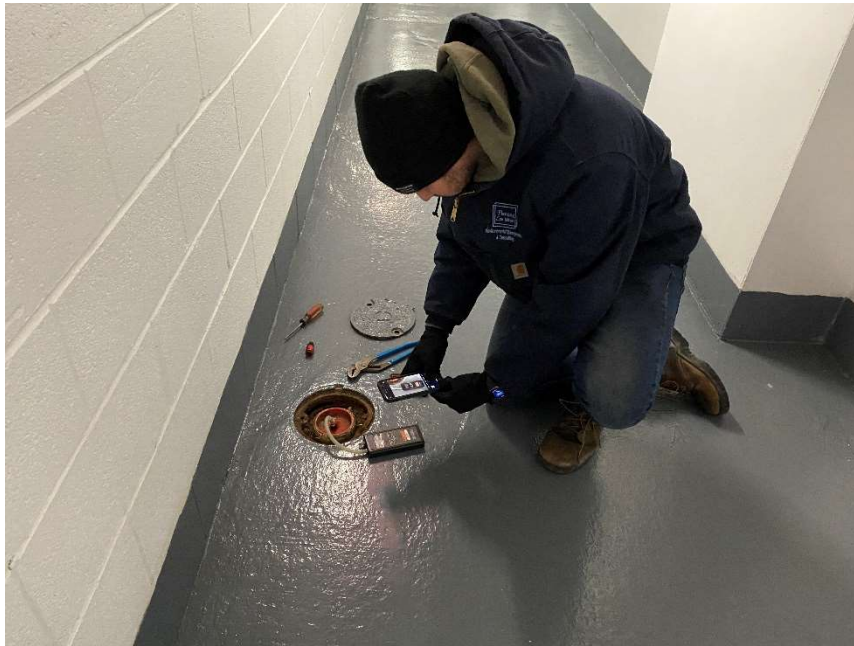


Photo 7: Collecting readings from SVE monitoring points.

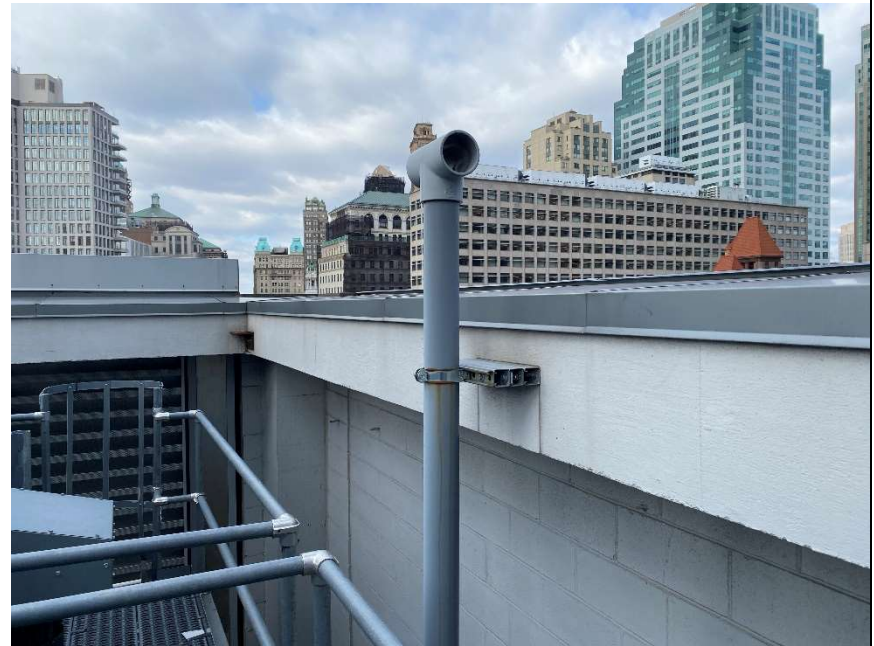


Photo 8: SVE exhaust

Appendix D - Photograph Log
388 Bridge Street



Photo 9: 80 Willoughby telemetry box

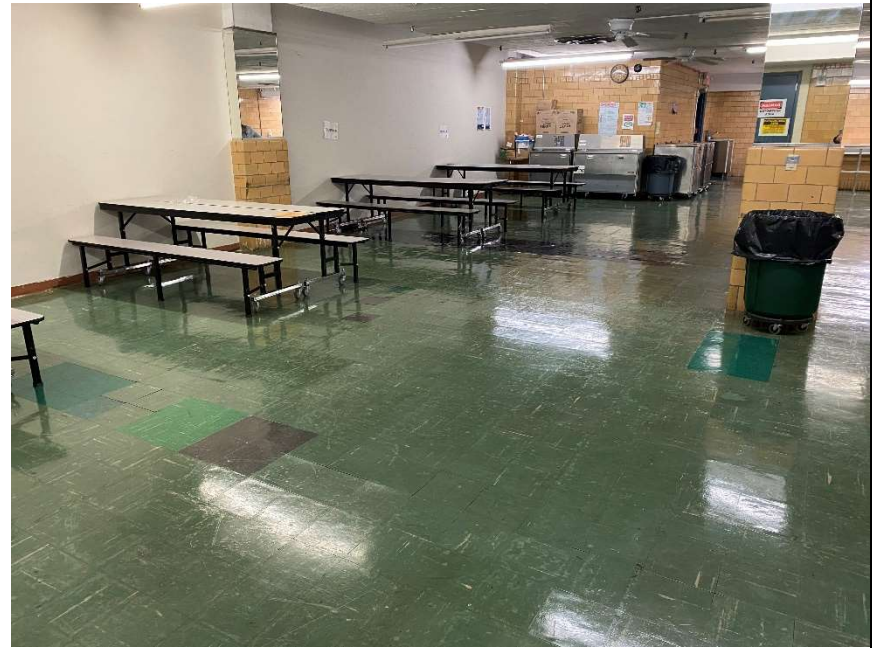


Photo 10: 80 Willoughby basement slab in cafeteria area

Appendix D - Photograph Log
388 Bridge Street



Photo 11: 80 Willoughby basement slab boiler room

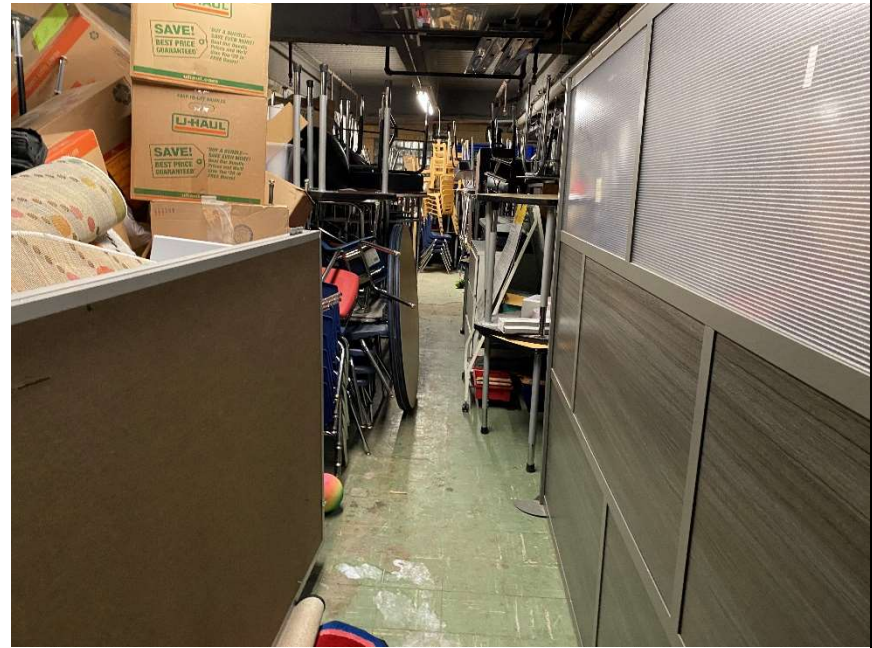


Photo 12: 80 Willoughby basement slab in work shop area

Appendix D - Photograph Log
388 Bridge Street



Photo 13: Former kitchen hood (BPS) location at 80 Willoughby.



Photo 14: Modified blower and exhaust stack location.

Appendix E

NYSDEC Approvals

Jordan Arey

Subject: RE: 80 Willoughby Street, Brooklyn f.k.a. St. Joseph High School

From: MacCabe, Michael (DEC) <michael.maccabe@dec.ny.gov>
Sent: Monday, June 06, 2022 2:43 PM
To: Joel Kane <joel@flemingleeshue.com>
Subject: 80 Willoughby Street, Brooklyn f.k.a. St. Joseph High School

Joel,

See the attached report and my letter with the run-on sentence approving discontinuation of the SSDS.

I recommend contacting Matt Carroll (mcarroll@tenen-env.com) to determine the status of the system because I have not received confirmation that operation of the SSDS has been permanently discontinued. I thought that Matt was representing the new owners.

It sounds like the system is still in place. Which is probably a good idea. Matt had said that the exhaust fans in the basement cafeteria would no longer be operated. If the exhaust fans are to be used, reactivation of the SSDS may be necessary.

A new discharge point placed a sufficient distance from windows, air intakes and playing kids is acceptable

Thank you,

Michael D. MacCabe, P.E.
Senior Environmental Engineer
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233-7016
518-402-9687 | michael.maccabe@dec.ny.gov
www.dec.ny.gov



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau B

625 Broadway, 12th Floor, Albany, NY 12233-7016

P: (518) 402-9767 | F: (518) 402-9773

www.dec.ny.gov

October 21, 2021

Matthew Carroll, PE
Tenen Environmental
121 West 27th Street, Suite 702
New York, NY 10001

80 Willoughby Street, Brooklyn
FKA St. Joseph High School
Adjacent to 388 Bridge Street (C224134)
SSDS assessment

Dear Mr. Carroll:

Based on the data presented in the April 16, 2021 Soil Vapor Investigation letter report, an assessment of the need for continued operation of the sub-slab depressurization system (SSDS), operation of the SSDS may be discontinued.

Thank You,

Michael MacCabe

Michael MacCabe, P.E.
Senior Environmental Engineer



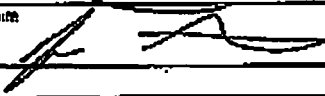
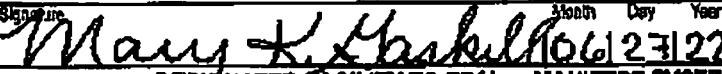
Appendix F

Waste Disposal Manifests

MKE

3

Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number NYD98107993Z	2. Page 1 of 1	3. Emergency Response Phone	4. Manifest Tracking Number 020560210 JJK			
5. Generator's Name and Mailing Address 384 Bridge St. LLC 388 Bridge St. Brooklyn NY 11021		Generator's Site Address (if different than mailing address) 388 Bridge St. Brooklyn NY 11021						
Generator's Phone: 718-613-2988		6. Transporter 1 Company Name Brookside Environmental, Inc.			U.S. EPA ID Number NYR000081661			
7. Transporter 2 Company Name Veeva ES Technical Solutions, LLC		U.S. EPA ID Number NY0080631369			U.S. EPA ID Number NJD980538593			
8. Designated Facility Name and Site Address Veeva ES Technical Solutions, LLC 1 Edan Lane Flenders NJ 07836		Facility's Phone: 973 347-1908						
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol	13. Waste Codes		
		No.	Type			NONE	B	FOO
	1 NA3077, Hazardous waste, solid, n.o.s. 9. P011(tetrachloroethane) (FOO)	X 3	DM	600	P	FOO		
	2							
	3							
	4							
14. Special Handling Instructions and Additional Information 11) spent vapor phase carbon WIPs 210788 ERG 171 3 X 55 gal. DM								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Officer's Printed/Typed Name X Joel Kane O.A. Behav of 384 Bridge St.				Signature 		Month 6	Day 21	Year 22
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Part of entry/exit: _____ Date leaving U.S.: _____								
17. Transporter Acknowledgment of Receipt of Materials								
Transporter 1 Printed/Typed Name Michael Librizzi				Signature 		Month 6	Day 21	Year 22
Transporter 2 Printed/Typed Name Joshua Stewart				Signature 		Month 6	Day 24	Year 22
18. Discrepancy								
18a. Discrepancy Indication Spots <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection								
18b. Alternate Facility (or Generator) U.S. EPA ID Number								
Facility's Phone:								
18c. Signature of Alternate Facility (or Generator)						Month Day Year		
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1. H141		2.		3.		4.		
20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a								
Printed/Typed Name Mary K. Gaskill				Signature 		Month 6	Day 27	Year 22

GENERATOR

INTL. TRANSPORTER

DESIGNATED FACILITY