ANNUAL SITE MANAGEMENT REPORT
FROM FEBRUARY 2021 TO FEBRUARY 2022
METROPOLITAN AVENUE CAMPUS (Q686)
92-34 METROPOLITAN AVENUE
FOREST HILLS, NY
VCP AGREEMENT # V-00500-2

PREPARED FOR:

New York City Department of Education
Office of Environmental Health and Safety
44-36 Vernon Blvd.
Long Island City, New York 11101

PREPARED BY:

104 East 25th Street, 10th Floor
New York, New York 10010-2917

Date of Issue: March 28, 2022

ATC Project No. Z214YI2361

CERTIFICATION PAGE

For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

(a) the institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by DER;

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

(c) nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for this control;

(d) access to the site will continue to be provided to DER to evaluate the remedy, including access to evaluate the continued maintenance of this control; and

(e) *if a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for their intended purpose under the document*

Gilbert Gedeon, P.E.

03/28/2022
Date

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PROJECT DIRECTORY

CLIENT:	New York City Department of Education Office of Environmental Health and Safety 44-36 Vernon Blvd. Long Island City, New York 11101 (718) 361-3808
PROJECT LOCATION:	Metropolitan Avenue Campus (Q686) 92-34 Metropolitan Avenue Forest Hills, New York (718) 275-2593
PROJECT TECHNICAL SUPPORT	New York State Department of Environmental Conservation One Hunters Point Plaza 47-40 21st Street Long Island City, New York 11101 (718) 482-4065 New York City School Construction Authority 30-30 Thomson Avenue Long Island City, New York 11101 (718) 472-8000 TRC Engineers, Inc. 1430 Broadway, 10th Floor New York, NY 10018 (212) 221-7822
DESCRIPTION OF WORK:	Review site management plan; walk-through visual inspection; review Vapor Barrier, Sub-slab Depressurization System and Cover System Logbook; review prior reports.
ATC REPRESENTATIVES:	Gilbert Gedeon, P.E. Denise Cosenza, Inspector

EXECUTIVE SUMMARY

This Annual Site Management Report (SMR) for Metropolitan Avenue Campus (Q686), located at 92-34 Metropolitan Avenue, Forest Hills, NY covers the period from February 2021 to February 2022. This SMR addresses the requirements of the Site Management Plan (SMP) dated April 2010. The SMR also documents the most recent annual site refresher training and annual site inspection conducted on October 14, 2021 pursuant to the New York State Department of Environmental Conservation (NYSDEC) approved SMP by ATC Group Services, LLC (ATC).

The site inspection included an evaluation of engineering controls identified in the SMP, dated April 2010, which includes the vapor barrier, sub-slab depressurization system (SSDS) and cover system established at the site. ATC noted that the Building Management System (BMS) was operational. In addition, ATC reviewed the custodial inspection monthly inspection forms which were prepared for the months of February 2021 to February 2022. The Routine and Preventive Maintenance forms were also completed for the months of June 2021 and December 2021

ATC did not observe any significant visible cracks throughout bare concrete basement floors and walls. Furthermore, ATC did not observe any significant cracks on the roadway, sidewalk, artificial turf and playground,. Lastly, ATC did not observe any loose pavers around the building observed. However, the cracks on the tennis court have become more apparent. ATC recommended repairing (patching/sealing) these cracks as soon as possible.

During the annual inspection, ATC observed that the SSDS fan was operational. However, the blower outlet pressure gauge was not working properly.

Based on the results of the annual site inspection and document review, ATC concludes that the ECs and ICs remain unchanged, are effective, and protect public health and the environment. However, at the time of the annual inspection ATC advised the custodial staff to:

1. Repair the blower outlet pressure gauge; and
2. Repair the cracks in the tennis courts.

1.0 INTRODUCTION

On behalf of the New York City Department of Education Office of Environmental Health and Safety (NYCDOE/EHS), ATC is pleased to provide this SMR to NYSDEC for Q686 located at 92-34 Metropolitan Avenue in Forest Hills, NY 11375. The school opened in September 2010 and is currently attended by approximately 1,065 students. This report was completed in accordance with the SMP approved by the NYSDEC.

The scope of work for this service included:

1. Review of the school custodian's monthly inspection logs indicating his routine walk-through to identify any observed changes to the ECs and ICs;
2. SSDS blower unit inspection;
3. Basement inspection and exterior inspection for concrete cracks;
4. Review of SMP and the Operations and Maintenance Plan (O&M Plan); and
5. Photographic documentation of observations.

This report was developed to document: (a) any changes to the ECs and ICs, and (b) compliance of the maintenance and monitoring program with the requirements of the SMP. The annual site inspection was conducted by Mr. Gilbert Gedeon, PE. ATC met with and was accompanied by Mr. Eric Jackson, the school's Fireman.

2.0 ENGINEERING CONTROLS

The Metropolitan Avenue Campus contains engineering controls that include a Gas Vapor Barrier, installed below the basement floor slab and along the exterior of subsurface basement walls, and an SSDS constructed beneath the concrete floor slab of the school to prevent vapor intrusion. In addition, a Composite Surface Cover System consisting of asphalt, concrete, pavers, synthetic turf, rubber play surface and environmentally clean soil cover was constructed to act as a barrier to direct contact with subsurface soils. A maintenance and monitoring program was developed to ensure that the ECs remain effective for the life of the building.

2.1 Vapor Barrier

The 60-mil fluid applied gas vapor barrier was installed beneath the school as a preventative measure to prevent soil vapors from entering the school building in the future. The vapor barrier is applied underneath the basement floor slab and the exterior of the subsurface portions of the building's walls.

2.2 Sub-Slab Depressurization System

An SSDS was also installed beneath the new school as an added safeguard to prevent soil gas vapors from entering the school building in the future. The primary components of the SSDS are slotted schedule 80 PVC piping located beneath the basement floor slab and extending to one (1) blower unit in the southern portion of the property.

2.3 Composite Cover System

A composite cover system was also installed on the school property to prevent school occupants from exposure to the underlying soils. This composite cover system is comprised of asphalt covered roads, concrete covered sidewalks, a resilient track surface, artificial turf, rubber surfacing, environmentally clean fill landscaped areas, and concrete building slabs.

3.0 INSTITUTIONAL CONTROLS

The ICs at the Site state that the owner of the Property shall:

- Comply with the Declarations of Covenants and Restrictions (DCR) and comply with all elements of the SMP;
- Operate and maintain all ECs as per the SMP;
- Inspect, maintain, and certify the integrity of the cover system consisting of asphalt covered roads, concrete covered sidewalks, a resilient track surface, artificial turf, rubber surfacing, two feet of environmentally clean fill at landscaped areas and a concrete building floor slab as required by the SMP;
- Operate, inspect, maintain, and certify the soil vapor mitigation system consisting of a vapor barrier and an active SSDS under all enclosed building structures as required in the SMP;
- Inspect and certify all ECs at a frequency as defined in the SMP;
- Report data and information relevant to Site Management for the Property at the frequency and as defined in the SMP;
- Protect and replace groundwater monitoring wells as necessary to ensure the devices function in the manner specified in the SMP. [1]
- Refrain from discontinuing the ECs without an amendment or the extinguishment of the DCR;
- Prohibit farming and vegetable gardens on the Property;
- Prohibit the use of groundwater underlying the Property unless treatment is used rendering it safe for its intended purpose;
- Prohibit all future activities on the Property that will disturb underlying native soils unless conducted as defined in the soil management provisions of the SMP;
- Use the Property as a school campus or other commercial use provided all long-term ECs and ICs included in the SMP are employed;
- Prohibit the Property from being used for purposes other than a school without an amendment or the extinguishment of the DCR approved in writing by the NYSDEC; and
- Agree to submit to NYSDEC a written statement that certifies that: (1) controls employed at the 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 Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or at an alternate period of time that NYSDEC may allow. This annual statement must be certified by an expert that the NYSDEC finds acceptable.

[1] NYSDEC approved the decommissioning of the groundwater monitoring wells on 5/1/13. The three (3) monitoring wells were decommissioned in accordance with NYSDEC Commissioner Policy 43 (CP-43).

4.0 SITE INSPECTIONS AND SSDS REPAIRS

4.1 Document Review

4.1.1 Review of Custodian's Inspection Logs

ATC reviewed the daily inspection logs and monthly inspection forms with the custodial staff from February 2021 through February 2022. ATC also was provided with the semi-annual inspection forms for the months of June 2021 and December 2021. Several monthly forms indicate some minor to moderate cracking and deterioration on the tennis court. During the October 14, 2021 Annual Inspection, ATC observed that the existing cracks on the tennis courts have deteriorated further over the past year and advised the custodial staff to seal or patch these cracks to prevent further deterioration.

The Custodian's Monthly or Severe Inspection Forms completed by the custodial staff are included in Attachment 1. The Routine and Preventive Maintenance Checklists are included in Attachment 2. The training acknowledgement letters are included in Attachment 3.

4.2 ATC's Visual Observations

On October 14, 2021, ATC conducted visual observations and photographic documentation while accompanied by Mr. Eric Jackson. Site photographs are included in Attachment 4 and the Annual Inspection Form is included in Attachment 5. During the inspection, ATC noted the following:

- The BMS was functioned;
- The SSDS fan was operational; and
- A spare fan unit is available at the school.

4.2.1 SSDS Inspection

1. The SSDS fan was operational.
2. The SSDS indicator lights were operational;
3. The outlet pressure gauge was observed to be malfunctioned;
4. Rust or other debris in the vicinity of the post, sleeve and discharge cap at the SSDS stack vent were not observed; and
5. Rust or other debris in the vicinity of the inline filter was not observed.

4.2.2 Basement Inspection

ATC inspected the accessible areas of the basement floors and walls. ATC did not observe any visible concrete cracks penetrating into the basement floor during the annual inspection.

ATC's observation of the basement concrete floors was limited due to architectural finishes such as ceramic floor tiles, vinyl floor tiles, wood flooring and miscellaneous equipment and furniture.

4.2.3 Exterior Inspection

ATC inspected the composite cover system around the perimeter of the property including the paved and unpaved areas. ATC did not observe any significant visible cracks on the roadway, sidewalk, artificial turf and playground. Furthermore, loose pavers were also not observed throughout the school exterior.

However, during the October 14, 2021 inspection, ATC observed that the existing cracks on the tennis courts have deteriorated further over the past year and advised the custodial staff to seal or patch these cracks to prevent further deterioration.

No structures have been constructed on the unpaved areas. ATC also inspected the artificial turf and observed no apparent holes, significant cracks or deterioration. All exterior cover systems were intact. There were no signs of soil washing or erosion in the landscaped areas adjacent to the northwest and southwest entrances of the school buildings

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on visual observations, ATC concludes the following:

1. The BMS was functional;
2. The SSDS fan was operational;
3. The blower outlet pressure gauge was observed to be malfunctioned;
4. Minor to moderate cracking was observed on the tennis court;
5. The ICs and ECs are in place and remain effective;
6. The O&M Plan is being implemented;
7. No changes have occurred that would reduce the ability of the controls to protect public health and the environment; and
8. Access is available to the Site by NYSDEC and New York State Department of Health to evaluate continued maintenance of such controls.

Based on document review and visual observations, ATC recommends the following:

1. Replace the blower outlet pressure gauge;
2. Repair (seal or patch) the cracks around the tennis court;
3. Continue to conduct monthly inspections and document the findings in the Monthly and Severe Condition Inspection Forms;
4. Continue to conduct semi-annual inspections and document in the Routine and Preventative Maintenance Checklists; and
5. Continue documenting all operation and maintenance activities on ECs.

6.0 STANDARDS OF CARE

ATC's work was performed in a professional manner with the best interest of our client in mind. Our objective was to perform our work with care, exercising the customary skills and competence of consulting professionals in the relevant disciplines. The conclusions presented in this report are professional opinions based upon visual observations and site documents review. The conclusions expressed in this report reflect only the limited inspections of specific locations. The opinions and recommendations presented herein apply to site conditions existing at the time of our observations. ATC cannot act as insurers, and no expressed or implied representation or warrant is included or intended in our report except that our work was performed, within the limits prescribed by our clients, with the customary thoroughness and competence of our profession at the time and place the services were rendered.

It is our pleasure to provide our consultative services to the NYCDOE. If you have any questions about this report, please call (212) 353-8280.

Sincerely,
ATC GROUP SERVICES, LLC

Gilbert Gedeon, P.E.
Principal Engineer

cc: Y. Efstathiou
cc: D. Cosenza

Attachment 1
Institutional and Engineering Controls Certification Form

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518)402-9543 | F: (518)402-9547
www.dec.ny.gov

1/18/2022

Bernard Orlan
Director
NYC DOE - Division of School Facilities
44-36 Vernon Blvd.
Lic, NY 11101
borlan@schools.nyc.gov

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Metropolitan Avenue Site
Site No.: V00500
Site Address: 87-01 69th Avenue & 92-34 Metropolitan Avenue
Forest Hills, NY 11375

Dear Bernard Orlan:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site-specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **March 20, 2022**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, must be submitted in electronic format to the Department of Environmental Conservation. The required format for documents is an Adobe PDF file with optical character recognition and no password protection. Data must be submitted as an electronic data deliverable (EDD) according to the instructions on the following webpage:

https://www.dec.ny.gov/chemical/62440.html

Documents may be submitted to the project manager either through electronic mail or by using the Department's file transfer service at the following webpage:

https://fts.dec.state.ny.us/fts/

The Department will not approve the PRR unless all documents and data generated in support of the PRR have been submitted using the required formats and protocols.

You may contact Christopher Allan, the Project Manager, at 718-482-4065 or christopher.allan@dec.ny.gov with any questions or concerns about the site. Please notify the project manager before conducting inspections or field work. You may also write to the project manager at the following address:

New York State Department of Environmental Conservation
One Hunters Point Plaza
47-40 21st Street
Long Island City, NY 11101

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures

ec: w/ enclosures
Christopher Allan, Project Manager
Jane O'Connell, Hazardous Waste Remediation Supervisor, Region 2

Cardno ATC - Denise Cosenza - denise.cosenza@atcgs.com
ATC GROUP SERVICES, LLC - Gilbert Gedeon - gilbert.gedeon@atcgs.com

The following parcel owner did not receive an ec:
City Of New York, Sca - Parcel Owner

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7**):**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the 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. V00500

Site Name Metropolitan Avenue Site

Site Address: 87-01 69th Avenue & 92-34 Metropolitan Avenue Zip Code: 11375
City/Town: Forest Hills
County: Queens
Site Acreage: 7.880

Reporting Period: February 18, 2021 to February 18, 2022

	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?		X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	
7. Are all ICs 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. V00500 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
3886-800	City of New York, SCA	Ground Water Use Restriction Soil Management Plan Landuse Restriction Building Use Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

2.2 ENGINEERING CONTROL COMPONENTS

2.2.1 Engineering Control Systems

2.2.1.1 Composite Cover System

The composite cover system is a required engineering control of the SMP. Installation of a composite cover system at the Site will prevent exposure to subsurface native soils.

The composite cover system will be comprised of asphalt-covered roads, concrete-covered sidewalks, two feet of environmentally clean fill at landscaped areas, and a concrete building floor slab. In addition, recreational areas will be constructed which will consist of a resilient track surface, synthetic turf, and rubber surfacing. Figure 11 shows the location of each of the principal cover types to be built at the Site. Details of the principal cover types are provided in Figure 11A. A Soil Management Plan is included in Appendix F of the SMP, and outlines the procedures required in the event the composite cover system is disturbed. The Soil Management Plan is also discussed in 23
detail in Section 2.3.2 of the SMP. Issues related to maintenance of this cover are provided in the Monitoring Plan included in Section 4 of the SMP.

2.2.1.2 Vapor Barrier

A 60 mil vapor barrier will be installed beneath the school building as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The fluid applied vapor barrier will consist of Liquid Boot® or an approved NYCSCA equivalent which will be installed above the gravel layer containing the SSDS. Specifications and drawings regarding the installation of the vapor barrier are included in Appendix G of this SMP.

2.2.1.3 Sub Slab Depressurization System (SSDS)

A SSDS will also be installed beneath the school as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The SSDS will be installed beneath the vapor barrier and will be operated in an active mode until such time as it can be demonstrated to the satisfaction of the NYSDOH, that the system can be converted to the passive mode. Specifications and drawings regarding the installation of the SSDS are included as Appendix H of this SMP.

Procedures for operating and maintaining the SSDS system are documented in the Operation and Maintenance Plan (Section 4 of this SMP). Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of this SMP). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the Site, has occurred.

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

2.2.2.1 Vapor Barrier

The vapor barrier is a permanent control which will be installed beneath the school building as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The vapor barrier will be placed above the gravel layer containing the SSDS. There is no monitoring or maintenance associated with the vapor barrier.

2.2.2.2 Sub Slab Depressurization System (SSDS)

An active SSDS system will also be installed beneath the school building as an added precaution to prevent any residual soil gas vapors from entering the school

building in the future. The SSDS will be installed beneath the vapor barrier and will be operated in an active mode until such time as it can be demonstrated to the satisfaction of the NYSDEC and the NYSDOH, that the system can be converted to the passive mode. The active SSDS will not be discontinued without written approval by NYSDEC and NYSDOH. A proposal to discontinue the active SSDS may be submitted by the property owner based on confirmatory data that justifies such request. Systems will remain in place and operational until permission to discontinue use is granted in writing by NYSDEC and NYSDOH.

2.2.2.3 Composite Cover System

The composite cover system is also a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

2.2.2.4 Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by NYSDOH and NYSDEC, until residual groundwater concentrations are found to be below NYSDEC standards or to verify continued asymptotic conditions over an extended period. Monitoring will continue until permission to discontinue is granted in writing by NYSDEC and NYSDOH. Monitoring activities are outlined in the Monitoring Plan of the SMP.

2.3 INSTITUTIONAL CONTROLS COMPONENTS

2.3.1 Institutional Controls

A series of Institutional Controls are required under the SMP to: (1) implement, maintain and monitor Engineering Control systems and (2) prevent future exposure to residual contamination by controlling disturbances of the subsurface contamination. Adherence to these Institutional Controls on the Site (Controlled Property) is required under the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

. Compliance with the Environmental Easement by the Grantor and the Grantor's successors and assigns with all elements of this SMP;

. All Engineering Controls must be operated and maintained as specified in this SMP;

. A composite cover system consisting of asphalt covered roads, concrete covered sidewalks, a resilient track surface, synthetic turf, rubber surfacing, two feet of environmentally clean fill at landscaped areas, and a concrete building floor slab must be inspected, certified and maintained as required in this SMP;

. A soil vapor mitigation system consisting of a vapor barrier and an active SSDS under all enclosed building structures must be inspected, certified, operated and maintained as required in this SMP;

. All Engineering Controls on the Site must be inspected and certified at a frequency and in a manner defined in the SMP;

. Data and information pertinent to Site Management for the Site must be reported at the frequency and in a manner defined in this SMP;

. Groundwater and soil vapor monitoring must be performed as defined in this SMP;

. Groundwater monitor wells and soil vapor monitoring points must be protected and replaced as necessary to ensure the devices function in the manner specified in this SMP, and;

. Engineering Controls may not be discontinued without an amendment or the extinguishment of this Environmental Easement.

The Site has a series of Institutional Controls in the form of Site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Site are:

. Vegetable gardens and farming on the Site are prohibited;

. The use of the groundwater underlying the Site is prohibited without treatment rendering it safe for intended purpose;

. All future activities on the Site that will disturb underlying soils are prohibited unless they are conducted in accordance with the soil management provisions in this SMP;

. The Site may only be used for a school campus provided that the long-term Engineering and Institutional Controls included in this SMP are employed;

. The Site may not be used for purposes other than a school without an

amendment or the extinguishment of this Environmental Easement approved in writing by the NYSDEC, and;
. Grantor agrees to submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site 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 Site 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. This annual statement must be certified by an expert that the NYSDEC finds acceptable.

3886-830 City of New York, SCA

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

2.2 ENGINEERING CONTROL COMPONENTS

2.2.1 Engineering Control Systems

2.2.1.1 Composite Cover System

The composite cover system is a required engineering control of the SMP. Installation of a composite cover system at the Site will prevent exposure to subsurface native soils.

The composite cover system will be comprised of asphalt-covered roads, concrete-covered sidewalks, two feet of environmentally clean fill at landscaped areas, and a concrete building floor slab. In addition, recreational areas will be constructed which will consist of a resilient track surface, synthetic turf, and rubber surfacing. Figure 11 shows the location of each of the principal cover types to be built at the Site. Details of the principal cover types are provided in Figure 11A. A Soil Management Plan is included in Appendix F of the SMP, and outlines the procedures required in the event the composite cover system is disturbed. The Soil Management Plan is also discussed in 23
detail in Section 2.3.2 of the SMP. Issues related to maintenance of this cover are provided in the Monitoring Plan included in Section 4 of the SMP.

2.2.1.2 Vapor Barrier

A 60 mil vapor barrier will be installed beneath the school building as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The fluid applied vapor barrier will consist of Liquid Boot® or an approved NYCSCA equivalent which will be installed above the gravel layer containing the SSDS. Specifications and drawings regarding the installation of the vapor barrier are included in Appendix G of this SMP.

2.2.1.3 Sub Slab Depressurization System (SSDS)

A SSDS will also be installed beneath the school as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The SSDS will be installed beneath the vapor barrier and will be operated in an active mode until such time as it can be demonstrated to the satisfaction of the NYSDOH, that the system can be converted to the passive mode. Specifications and drawings regarding the installation of the SSDS are included as Appendix H of this SMP.

Procedures for operating and maintaining the SSDS system are documented in the Operation and Maintenance Plan (Section 4 of this SMP). Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of this SMP). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the Site, has occurred.

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

2.2.2.1 Vapor Barrier

The vapor barrier is a permanent control which will be installed beneath the

school building as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The vapor barrier will be placed above the gravel layer containing the SSDS. There is no monitoring or maintenance associated with the vapor barrier.

2.2.2.2 Sub Slab Depressurization System (SSDS)

An active SSDS system will also be installed beneath the school building as an added precaution to prevent any residual soil gas vapors from entering the school

building in the future. The SSDS will be installed beneath the vapor barrier and will be operated in an active mode until such time as it can be demonstrated to the satisfaction of the NYSDEC and the NYSDOH, that the system can be converted to the passive mode. The active SSDS will not be discontinued without written approval by NYSDEC and NYSDOH. A proposal to discontinue the active SSDS may be submitted by the property owner based on confirmatory data that justifies such request. Systems will remain in place and operational until permission to discontinue use is granted in writing by NYSDEC and NYSDOH.

2.2.2.3 Composite Cover System

The composite cover system is also a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

2.2.2.4 Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by NYSDOH and NYSDEC, until residual groundwater concentrations are found to be below NYSDEC standards or to verify continued asymptotic conditions over an extended period. Monitoring will continue until permission to discontinue is granted in writing by NYSDEC and NYSDOH. Monitoring activities are outlined in the Monitoring Plan of the SMP.

2.3 INSTITUTIONAL CONTROLS COMPONENTS

2.3.1 Institutional Controls

A series of Institutional Controls are required under the SMP to: (1) implement, maintain and monitor Engineering Control systems and (2) prevent future exposure to residual contamination by controlling disturbances of the subsurface contamination. Adherence to these Institutional Controls on the Site (Controlled Property) is required under the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

. Compliance with the Environmental Easement by the Grantor and the Grantor's successors and assigns with all elements of this SMP;

. All Engineering Controls must be operated and maintained as specified in this SMP;

. A composite cover system consisting of asphalt covered roads, concrete covered sidewalks, a resilient track surface, synthetic turf, rubber surfacing, two feet of environmentally clean fill at landscaped areas, and a concrete building floor slab must be inspected, certified and maintained as required in this SMP;

. A soil vapor mitigation system consisting of a vapor barrier and an active SSDS under all enclosed building structures must be inspected, certified, operated and maintained as required in this SMP;

. All Engineering Controls on the Site must be inspected and certified at a frequency and in a manner defined in the SMP;

. Data and information pertinent to Site Management for the Site must be reported at the frequency and in a manner defined in this SMP;

. Groundwater and soil vapor monitoring must be performed as defined in this SMP;

. Groundwater monitor wells and soil vapor monitoring points must be protected and replaced as necessary to ensure the devices function in the manner specified in this SMP, and;

. Engineering Controls may not be discontinued without an amendment or the extinguishment of this Environmental Easement.

The Site has a series of Institutional Controls in the form of Site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Site are:

. Vegetable gardens and farming on the Site are prohibited;

. The use of the groundwater underlying the Site is prohibited without treatment rendering it safe for intended purpose;

. All future activities on the Site that will disturb underlying soils are prohibited unless they are conducted in accordance with the soil management provisions in this SMP;
. The Site may only be used for a school campus provided that the long-term Engineering and Institutional Controls included in this SMP are employed;
26
. The Site may not be used for purposes other than a school without an amendment or the extinguishment of this Environmental Easement approved in writing by the NYSDEC, and;
. Grantor agrees to submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site 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 Site 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. This annual statement must be certified by an expert that the NYSDEC finds acceptable.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
3886-800	Vapor Mitigation Cover System Subsurface Barriers
3886-830	Vapor Mitigation Cover System Subsurface Barriers

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 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 compete.

YES	NO
X	

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
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. V00500

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 Bernard Orlan (print name) at 44-36 Vernon Blvd LIC 11101 (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

3/24/22
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 Gilbert Gedeon (print name) at ATC Group Services, 104 E. 25th Street, New York, NY 10010 (print business address),

am certifying as a Professional Engineer for the New York City Department of Education (Owner or Remedial Party)

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date
		3/28/22

Attachment 2
Custodian Monthly or Severe Condition Inspection Forms

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jacksow

Inspection Date/Time: 2-20-21

Purpose: (circle one) Monthly Inspection Severe Condition Inspection

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	1. Inspect the SSDS Blower Enclosure.	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	No	
C. EXTERIOR INSPECTION	1. Walk and inspect the entire exterior property.	No	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	

D. ACTIONS TAKEN

light pole by Main Entrance is sinking in. Also behind loading Dock Paver by the Ave Main to the Auditorium are very loose

Inspector's Signature: [signature]

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 3-20-21

Purpose: (circle one) Monthly Inspection Severe Condition Inspection

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	1. Inspect the SSDS Blower Enclosure.	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	No	
C. EXTERIOR INSPECTION	1. Walk and inspect the entire exterior property.	No	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	

D. ACTIONS TAKEN

Light pole by Main Entrance is sinking in. Also behind loading Dock Pavers by the Blue Main to the Auditorium are very loose

Inspector's Signature:

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jacks

Inspection Date/Time: 4-17-21

Purpose: (circle one) Monthly Inspection Severe Condition Inspection

Section	Item	Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	1. Inspect the SSDS Blower Enclosure.	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	No	
C. EXTERIOR INSPECTION	1. Walk and inspect the entire exterior property.	No	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	

D. ACTIONS TAKEN

light pole by Main Entrance is sinking in Also behind loading Dock, Paver by the Active Mean to the led terrace are very loose.

Inspector's Signature:

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jodoin

Inspection Date/Time: 4.22-21

Purpose: (circle one) Monthly Inspection Severe Condition Inspection

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	1. Inspect the SSDS Blower Enclosure.	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	No	
C. EXTERIOR INSPECTION	1. Walk and inspect the entire exterior property.	No	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	

D. ACTIONS TAKEN

Light pole by Main Entrance is sinking in Also behind the loading Dock, Power by the Blue Main to the Auditorium are very loose

Inspector's Signature:

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jacks.

Inspection Date/Time: 6-19-21

Purpose: (circle one) Monthly Inspection Severe Condition Inspection

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor	Y	
	* Any visible cracks in the basement floor?	NO	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	1. Inspect the SSDS Blower Enclosure.	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	No	
C. EXTERIOR INSPECTION	1. Walk and inspect the entire exterior property.	No	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	
D. ACTIONS TAKEN	Contractors are working on Concrete around the Campus Pave by the Blue main door the activities are very loose		
	Inspector's Signature:		

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Isla

Inspection Date/Time: 7-24-21

Purpose: (circle one) Monthly Inspection Severe Condition Inspection

Section	Item	Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	1. Inspect the SSDS Blower Enclosure.	No	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	No	
	* Does the Building Management System (BMS) indicate any SSDS failure?	No	
C. EXTERIOR INSPECTION	1. Walk and inspect the entire exterior property.	No	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	

D. ACTIONS TAKEN

Paver by the Blue Man to the Auditorium are very lose

Inspector's Signature:

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Erik Jackson

Inspection Date/Time: 8-21-22

Purpose: (circle one) Monthly Inspection Severe Condition Inspection

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	1. Inspect the SSDS Blower Enclosure.	No	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	N/	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	No	
C. EXTERIOR INSPECTION	1. Walk and inspect the entire exterior property.	No	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	

D. ACTIONS TAKEN

Pavers by the blue door to the additions are very loose

Inspector's Signature:

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Saltos

Inspection Date/Time: 9-18-21

Purpose: (circle one) Monthly Inspection Severe Condition Inspection

Section	Item	Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	1. Walk the entire basement floor	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	N	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	1. Inspect the SSDS Blower Enclosure.	No	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	Y	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	No	
C. EXTERIOR INSPECTION	1. Walk and inspect the entire exterior property.	No	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	

D. ACTIONS TAKEN

Pave by the Blue Man to the [illegible] tower are clear

Inspector's Signature:

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jacksa

Inspection Date/Time: 1/20-21

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	N	
	* Any visible cracks in the basement wall?	N	
	* Any other visible openings (unintended) in either the floor or walls?	N	
	* Draw approximate location of floor cracks/openings on site map.	N	
	* Any construction activities in basement affecting basement floor/ walls?		
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	N	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	N	
	* Is the rain cap missing on the Vent Stack?	N	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	Y	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	N	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	N	
	* Are there any significant cracks or deterioration of the paved areas?	N	
	* Has there been any removal of any pavement?	N	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	N	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	N	
	* Have any structures been constructed on the unpaved areas?	N	
	* Are there any signs of intrusive activities?	N	

D. ACTIONS TAKEN

Pavers by the Blue side to the Auditorium are very loose

Inspector's Signature: [signature]

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jacksen

Inspection Date/Time: 12-4-21

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	N	
	* Any visible cracks in the basement wall?	N	
	* Any other visible openings (unintended) in either the floor or walls?	N	
	* Draw approximate location of floor cracks/openings on site map.	N	
	* Any construction activities in basement affecting basement floor/ walls?		
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	N	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	N	
	* Is the rain cap missing on the Vent Stack?	N	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	Y	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	N	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	N	
	* Are there any significant cracks or deterioration of the paved areas?	N	
	* Has there been any removal of any pavement?	N	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	N	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	N	
	* Have any structures been constructed on the unpaved areas?	N	
	* Are there any signs of intrusive activities?	N	

D. ACTIONS TAKEN

Pavers by the Blue side to the Auditorium are very loose

Inspector's Signature: [signature]

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 1-15-22

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	N	
	* Any visible cracks in the basement wall?	N	
	* Any other visible openings (unintended) in either the floor or walls?	N	
	* Draw approximate location of floor cracks/openings on site map.	N	
	* Any construction activities in basement affecting basement floor/ walls?		
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	N	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	N	
	* Is the rain cap missing on the Vent Stack?	N	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	Y	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	N	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	N	
	* Are there any significant cracks or deterioration of the paved areas?	N	
	* Has there been any removal of any pavement?	N	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	N	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	N	
	* Have any structures been constructed on the unpaved areas?	N	
	* Are there any signs of intrusive activities?	N	

D. ACTIONS TAKEN

Pavers by the Blue side to the Auditorium are very loose

Inspector's Signature: Eric Jackson

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Sadosca

Inspection Date/Time: 2-20-22

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	N	
	* Any visible cracks in the basement wall?	N	
	* Any other visible openings (unintended) in either the floor or walls?	N	
	* Draw approximate location of floor cracks/openings on site map.	N	
	* Any construction activities in basement affecting basement floor/ walls?		
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	N	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	N	
	* Is the rain cap missing on the Vent Stack?	N	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	Y	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	N	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	N	
	* Are there any significant cracks or deterioration of the paved areas?	N	
	* Has there been any removal of any pavement?	N	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	N	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	N	
	* Have any structures been constructed on the unpaved areas?	N	
	* Are there any signs of intrusive activities?	N	

D. ACTIONS TAKEN

Pavers by the Blue side to the Auditorium are very loose

Inspector's Signature: [signature]

Attachment 3
Routine and Preventive Maintenance Forms

Routine and Preventative Maintenance Checklist

SSDS Fan

Inspector's Name: Eric Jackson

Inspection Date/Time: 6-20-21

Purpose: (circle one) Semiannual Inspection Fan Malfunction (describe)

SSDS Fan Maintenance Checklist

Preform the steps below for every SSDS fan during a biannual inspection, or for any SSDS fan experiencing issues	Completed Y/N	List Any Issues or Unusual Behavior
1. Disconnect, lock out, and tag fan electrical power source		
2. Check all SSDS fan bearings	NA	
3. Inspect SSDS fan drive belt for tightness and wear. Adjust/replace if required	NA	
4. Clean/blow down centrifugal fan wheel, inlet, fan, and motor housing		
5. Grease fan shaft bearing pillow blocks	NA	
6. Inspect fan inlet and outlet ductwork flex joints		
7. Inspect fan stack guy wires	NA	
8. Inspect fan mounting and vibration isolators	NA	

*Notify the DOE EHS of any fan unit/component failure. In the event that a fan component fails, the component will be replaced by DOE EHS. DOE EHS will make appropriate arrangements in advance with suppliers to provide SSDS replacement parts within 12 hours notice. In the event that a fan unit fails, the fan unit will be replaced by DOE EHS. A spare fan will be available on-site for immediate replacement in case of fan failure.

Inspector's Signature: [signature]

Routine and Preventative Maintenance Checklist

SSDS Fan

Inspector's Name: Eric Jackson

Inspection Date/Time: 12-18-21

Purpose: (circle one) Semiannual Inspection Fan Malfunction (describe)

SSDS Fan Maintenance Checklist

Preform the steps below for every SSDS fan during a biannual inspection, or for any SSDS fan experiencing issues	Completed Y/N	List Any Issues or Unusual Behavior
1. Disconnect, lock out, and tag fan electrical power source		
2. Check all SSDS fan bearings	NA	
3. Inspect SSDS fan drive belt for tightness and wear. Adjust/replace if required	NA	
4. Clean/blow down centrifugal fan wheel, inlet, fan, and motor housing		
5. Grease fan shaft bearing pillow blocks	NA	
6. Inspect fan inlet and outlet ductwork flex joints		
7. Inspect fan stack guy wires	NA	
8. Inspect fan mounting and vibration isolators	NA	

*Notify the DOE EHS of any fan unit/component failure. In the event that a fan component fails, the component will be replaced by DOE EHS. DOE EHS will make appropriate arrangements in advance with suppliers to provide SSDS replacement parts within 12 hours notice. In the event that a fan unit fails, the fan unit will be replaced by DOE EHS. A spare fan will be available on-site for immediate replacement in case of fan failure.

Inspector's Signature: [signature]

Attachment 4
Training Acknowledgement

ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

104 East 25th St, 8th Floor
New York, NY 10010-2917
www.atcgroupservices.com
212-353-8280
Fax 212-353-8306

Annual Training Acknowledgement
Engineering Controls Operation and Maintenance

Location: R686

Custodian/Fireman: William Gerhardt

I, William Gerhardt, received annual refresher training on Engineering Controls Operation and Maintenance by ATC Group Services, LLC (ATC) on 10/14/21. As part of the annual refresher training I conducted a walkthrough with ATC during which all elements covered by the Operation and Maintenance Plan were explained to me including the completion of the daily logs and monthly inspection form.

Signed by: (WG)
Custodian/Fireman

Date: 10/14/21

Recommendations:

1) Change blower outlet pressure gauge for SSDS unit.
2) Repair/seal cracks throughout tennis courts

Call Gil on 917-417-0224 as soon as the above repairs are completed.

Attachment 5
Photographic Documentation

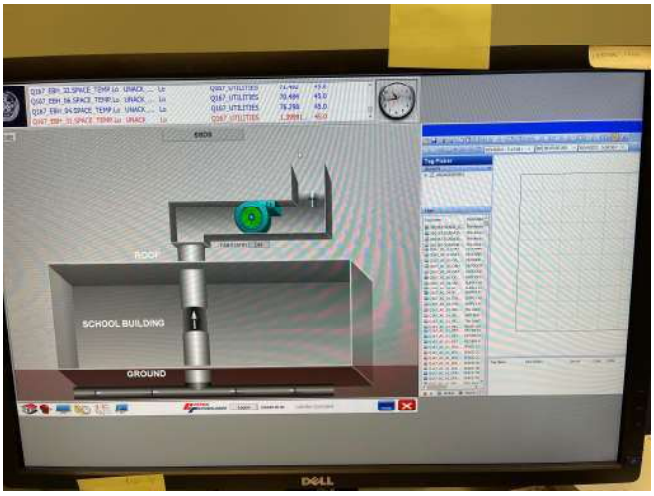

Photo 1: View of the malfunctioned BMS.

Photo 2: View of the spare SSDS motor unit.

Photo 3: View of the SSDS fan unit.

Photo 4: View of the SSDS vacuum gage.

Photo 5: View of malfunctioned blower outlet pressure gauge.

Photo 68: View of typical bare concrete floor in Basement.

Photo 7: View of typical artificial turf on the playground.

Photo 8: View of typical artificial turf around the tennis courts.

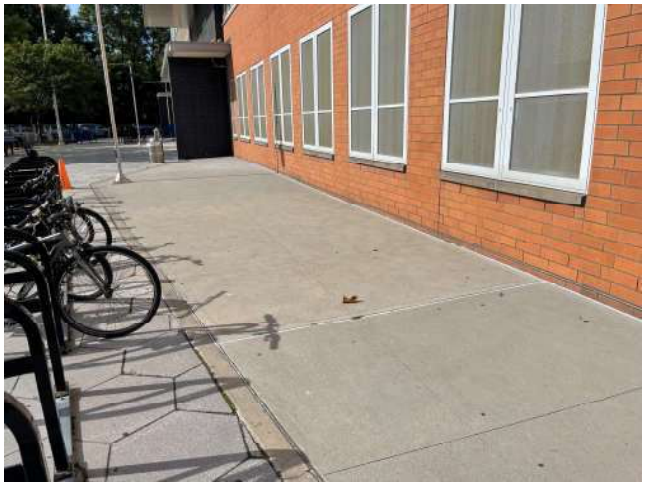

Photo 9: View of typical exterior pavement.

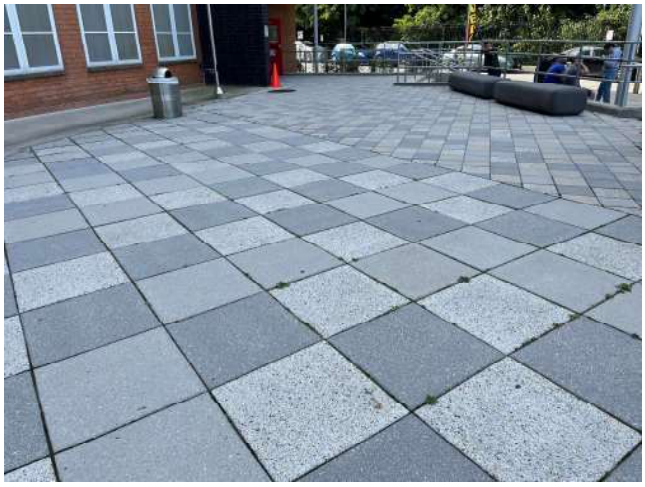

Photo 10: View of typical exterior pavers.

Photo 11: View of typical moderate crack on the tennis court.

Photo 12: View of typical vegetative cover.

Attachment 6
Annual Inspection Form

Annual Inspection Form/Checklist

Metropolitan Avenue Site
87-01 69th Avenue and 92-34 Metropolitan Avenue, Forest Hills, New York 11375

Inspector's Name: C. Gordon
Company Name: AKG
Inspector's Position:
Inspection Date: 10/14/21
Inspection Time:

Weather Conditions: Sunny
Air Temperature (°F): 75°F

A. SSDS SYSTEM INSPECTION

1. Walk the entire roof surface of system enclosure shed and inspect interior of shed.

1.1 Any rust or other debris in the vicinity of the post, sleeve and discharge cap at the SSDS stack vent?
Yes (Explain below in Comments Section) ✓ No

1.2 Any rust or other debris in the vicinity of the inline filter/bird screen?
Yes (Explain below in Comments Section) ✓ No

1.3 Are the SSDS blower unit functioning properly and spare blower unit available?
✓ Yes (Explain below in Comments Section) No

1.4 Is the inline filter differential pressure gauge functioning properly?
✓ Yes No (Explain below in Comments Section)

1.5 Is the blower inlet vacuum indicator functioning properly?
✓ Yes No (Explain below in Comments Section) yes

1.6 Are the blower outlet pressure gauge and temperature gauge functioning properly?
✓ Yes No (Explain below in Comments Section)

1.7 Is the discharge flow element functioning properly?
✓ Yes No (Explain below in Comments Section)

1.8 Is the dilution air intake functioning properly?
✓ Yes No (Explain below in Comments Section)

1.9 Are the indicator lights on the BMS panel functioning properly?
✓ Yes No (Explain below in Comments Section)

* Comments: Blower outlet pressure gauge needs replacement

No

B. BASEMENT INSPECTION

2. Walk the entire basement floor

2.1 Any visible cracks in the basement floor? Yes (See 2.4, 2.5, 2.6) ✓ No
2.2 Any visible cracks in the basement wall? Yes (See 2.4, 2.5, 2.6) ✓ No
2.3 Any other visible openings (unintended) in either the floor or walls? Yes (See 2.4, 2.5, 2.6) ✓ No
2.4 Draw approximate location of floor and/or wall cracks/openings on site map.
2.5 Note the length of the crack/opening.
2.6 Note the width of the crack/opening.
* Comments:

C. EXTERIOR INSPECTION

3. Walk and inspect the entire perimeter of the property. ✓ Yes ____ No (Explain below in Comment Section)

4. Walk and inspect all of the paved areas of the property.
4.1 Are there significant cracks or deterioration of the paved areas? ____ Yes (Explain in Comment Section) ✓ No
4.2 Removal of any pavement? ____ Yes (Explain in Comment Section) ✓ No
4.3 Soil washing or erosion (gullies, soil washed out onto the pavement) ____ Yes (Explain in Comment Section) ✓ No

5. Walk and inspect all of the unpaved areas of the property.
5.1 Vehicular use on the unpaved areas (tire tracks, rutting, etc.)? ____ Yes (Explain in Comment Section) ✓ No
5.2 Any structures been constructed on the unpaved areas? ✓ Yes (Explain in Comment Section ____ No
5.3 Are signs of intrusive activities ? ____ Yes (Explain in Comment Section) ✓ No
* Comments: Tennis Court Cracking

D. SEVERE CONDITION INSPECTION

6. Walk and inspect the entire perimeter of the property.

7. Walk and inspect all of the paved areas of the property.

8. Walk and inspect all of the unpaved areas of the property.

8.1 Note type of severe condition (i.e., severe erosion or flooding). ____ Yes (Explain in Comment Section) ____ No
8.2 Note impacts from severe condition. ____ Yes (Explain in Comment Section) ____ No
* Comments:

N/A

Inspector's Signature: [signature]

Attachment 7
Work Order

TIMM102 - INSTRUCTIONS/WORK STANDARDS - [PRODUCTION]

File Edit Navigate Options View Help

Enter task instructions. Use More Detail to step through task planning.

Ref Nbr/Sub: WO 00827831 22 Status: PLAN 10/12/2021

Description: 75/28Q686/ SSDS PROJECTS

Assmnt Ques:

* Work Standard:

Description	Updated By	Date	Time
SSDS PROJECT INSPECTION @ Q686.	BORLAN	10/12/2021	09:28

*	Fac	Work Std	Description	OLE	Prt

Sign In - Ne... Inbox - FPal... ASBESTOS ... FW: New SS... RE: New SS... TIMM102 - ... TIMM102 - ...

10:42 AM
10/12/2021